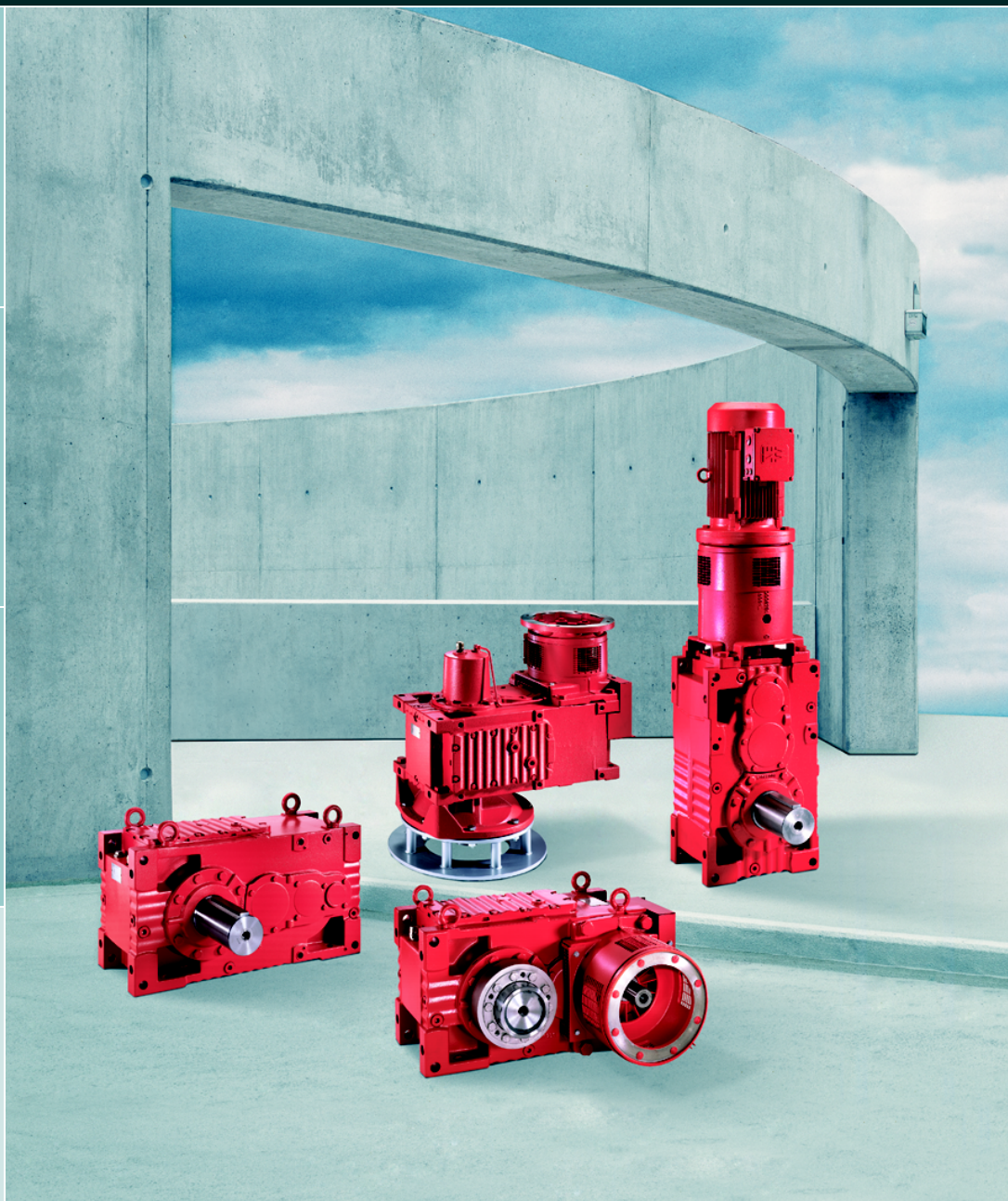
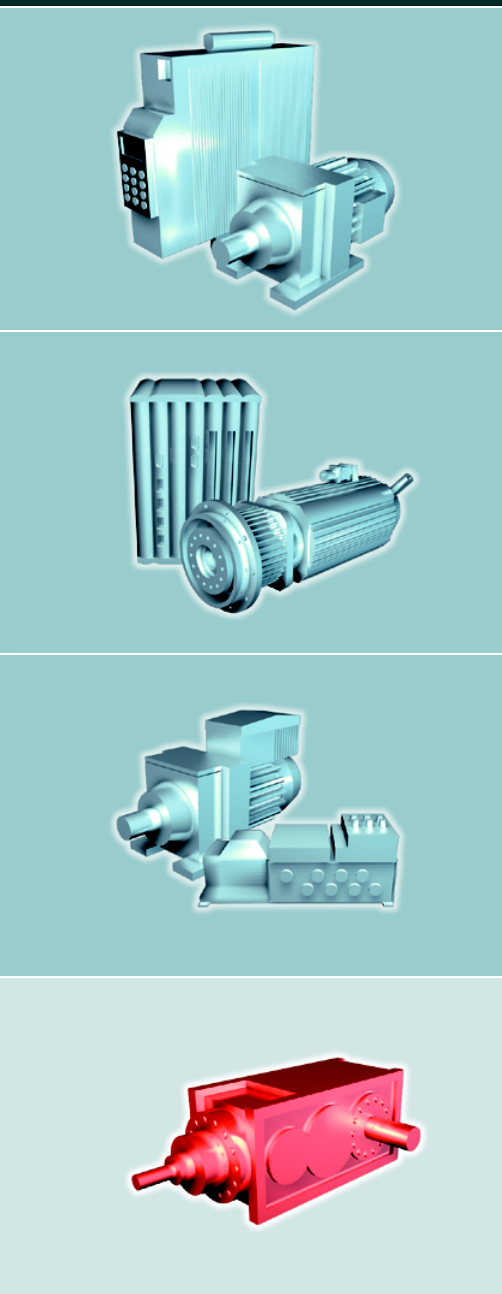




SEW
EURODRIVE



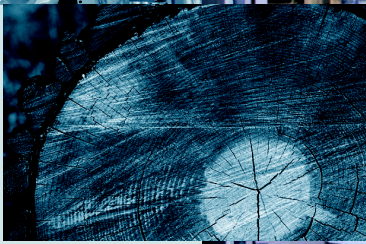
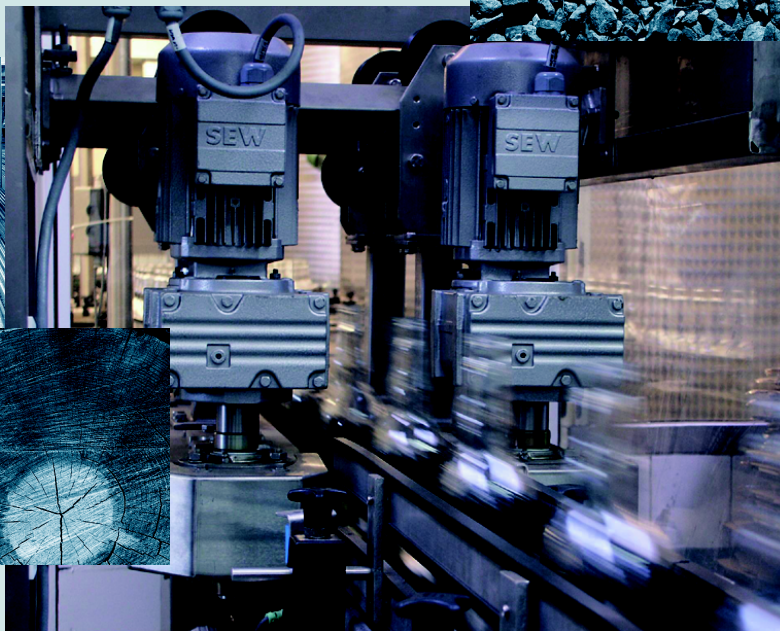
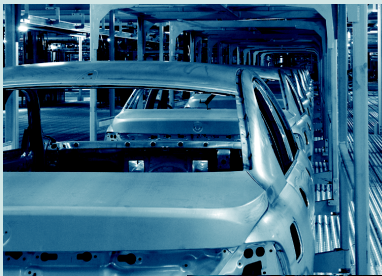
Reductores industriales de la serie MC...

D3.B00










Edición 04/2005

11238003 / ES

Catálogo





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1 Grupo de Empresas SEW-EURODRIVE

Introducción

SEW-EURODRIVE es una empresa líder en el mercado global de la ingeniería para accionamientos eléctricos. Su presencia global, su extensa gama de productos y su amplio espectro de servicios hacen de SEW-EURODRIVE el socio ideal para la industria de la construcción de maquinarias y plantas cuando se trata de proporcionar sistemas de accionamiento para aplicaciones exigentes.

SEW-EURODRIVE cuenta con muchos años de experiencia en la ingeniería de accionamientos, que sabe aplicar en el desarrollo, producción y venta de todos sus accionamientos con componentes provenientes de la ingeniería mecánica y eléctrica y de la electrónica.

La sede central de la empresa se encuentra en Bruchsal, Alemania. Los componentes para el sistema de accionamiento modular de SEW-EURODRIVE se fabrican con máximos niveles de calidad en las plantas de producción ubicadas en Alemania, Francia, Finlandia, Estados Unidos, Brasil y China. Los sistemas de accionamiento individuales son ensamblados, con un nivel de calidad siempre elevado y con tiempos de entrega muy cortos, a partir de los componentes en existencias en nuestras plantas de montaje, localizadas en más de 30 países industrializados de todo el mundo. Los servicios de venta, asesoría, atención al cliente y piezas de repuesto de SEW-EURODRIVE están disponibles en más de 50 países de todo el mundo.

La gama de productos

- Motorreductores, reductores y motores
 - Reductores helicoidales / motorreductores
 - Reductores helicoidales de ejes paralelos / motorreductores
 - Reductores cónicos / motorreductores
 - Reductores sin fin / motorreductores
 - Motorreductores Spiroplan® de ejes perpendiculares
 - Motorreductores planetarios
 - Reductores industriales
 - Reductores de holgura reducida / motorreductores
 - Motores freno
 - Accionamientos para aerovías
 - Motorreductores con motor par
 - Motorreductores con motor multipolar

- Accionamientos controlados electrónicamente
 - Convertidores de frecuencia MOVITRAC®
 - Variadores vectoriales MOVIDRIVE®
 - Servocontroladores MOVIDYN®
 - Opciones de tecnologías y comunicaciones para los variadores
 - Motores asincrónicos CA y motorreductores CA
 - Motores CC, motores de freno y motorreductores
 - Motores lineales asincrónicos y sincrónicos

- Componentes para la instalación descentralizada
 - Motorreductores MOVIMOT® con convertidor de frecuencia integrado
 - Motorreductores MOVI-SWITCH® con disyuntor integrado y función de protección
 - Distribuidores de campo, interfaces de bus de campo



- Reductores industriales
 - Serie MC: reductores helicoidales y cónicos (hasta 65 KNm)
 - Serie M: reductores helicoidales y cónicos (hasta 180 KNm)
 - Serie CN: reductores helicoidales y cónicos (hasta 600 KNm)
 - Serie P: reductores planetarios (hasta 450 KNm)
 - Serie Q: reductores planetarios (hasta 1200 KNm)

- Reductores con variador mecánico
 - Motorreductores con variador mecánico de correa trapezoidal ancha VARIBLOC®
 - Motorreductores con variador mecánico de disco de fricción VARIMOT®

- Servicios
 - Asesoría técnica
 - Software de aplicación
 - Seminarios y cursos de formación
 - Documentación técnica extensa
 - Servicio al cliente en el mundo entero

Contenido del catálogo

Este catálogo describe los reductores helicoidales y cónicos de la serie MC.. de SEW-EURODRIVE. El catálogo contiene notas relativas a la planificación del proyecto, posiciones de montaje, datos técnicos, tablas de selección y planos de cotas. Consulte cada catálogo individual para obtener más información sobre los reductores y los motores CA.

Otros catálogos

- Motorreductores
- Reductores planetarios de holgura reducida
- Motorreductores MOVIMOT®
- Servomotorreductores
- Motorreductores con motores multipolares
- Motorreductores con variador mecánico
- Accionamientos para aerovías
- Accionamientos a prueba de explosión
- Motorreductores con motores par
- Reductores industriales: Accionamientos para elevadores de cangilones de las Series MC.. y M..
- Reductores industriales: Serie M..
- Reductores industriales: Accionamientos mezcladores y agitadores de la Serie MC..



2 Descripción de los productos y descripción general de los tipos

2.1 Información general

Valores nominales de potencia, pares y velocidades de entrada	<p>Las potencias y los pares nominales que se mencionan en el catálogo dependen de la velocidad de entrada y son válidos para un factor de servicio de $F_S = 1,0$ y una carga constante y unidireccional. Si el sentido de giro cambia una vez por minuto bajo carga total, sólo es válido un 70% de estos valores.</p> <p>La descripción general muestra los valores nominales de potencia y par para velocidades de entrada de 1800 rpm, 1500 rpm, 1200 rpm y 1000 rpm. El par nominal también es válido para velocidades de entrada 3% inferiores a las velocidades síncronas. Para velocidades de entrada superiores a 1800 rpm, contacte con SEW-EURODRIVE.</p>
Capacidad térmica	Debe comprobarse la capacidad térmica de cada reductor. Los valores correspondientes aparecen en las tablas de selección.
Nivel de ruido	El nivel de ruido de todos los reductores MC es inferior a los valores permitidos que se definen en la directiva VDI 2159 para reductores.
Recubrimiento	Los reductores reciben una pintura "azul grisácea" para máquinas RAL 7031 de conforme a DIN 1843. Los recubrimientos especiales están disponibles bajo solicitud.
Protección de la superficie y contra la corrosión	Si se solicita, todos los reductores pueden suministrarse con protección especial de la superficie y contra la corrosión para aplicaciones en ambientes extramadamente húmedos y/o químicamente agresivos.
Pesos	Tenga en cuenta que todos los pesos que se muestran en el catálogo excluyen la carga de aceite para los reductores. Encontrará los valores recomendados para todas las cantidades de aceite según las posiciones de montaje y el diseño del reductor en los planos de cotas. El peso exacto del reductor aparece en el plano de cotas específico para cada pedido.
Bajas velocidades de salida	<p>Pueden alcanzarse velocidades de salida muy bajas (relaciones superiores a 112:1) combinando el reductor MC con un reductor o motorreductor SEW-EURODRIVE de tipo R..., F..., K... o S...</p> <p>Puede ser necesario limitar la potencia del motor para que coincida con el par máximo de salida permitido para la unidad MC.</p>
Accionamientos auxiliares	SEW-EURODRIVE puede suministrar reductores MC con un accionamiento auxiliar. Ésta es la configuración estándar para los reductores cónicos de 3 etapas (MC3R...). Consulte también el catálogo individual "Reductores Industriales: Accionamientos para elevadores de cangilones de las series MC... y M..." n° 11214511.
Suministro de aire para refrigeración	Para los reductores con ventiladores en el eje de entrada, es importante que haya suficiente espacio en la dirección axial y radial para un suministro suficiente de aire para refrigeración. Consulte también la sección "Ventilación".
Mercados internacionales	SEW-EURODRIVE es miembro de la AGMA (American Gear Manufacturers' Association - Asociación Americana de Fabricantes de Reductores), por lo que todos sus reductores cumplen con las especificaciones de la AGMA.



- Bancada** SEW-EURODRIVE suministra paquetes de accionamientos que ya han sido montados en una bancada de acero (de base oscilante o marco de base → capítulo 6.6) para reductores industriales MC con LSS horizontal (MC2PL., MC3PL., MC2RL., MC3RL.).
- Sistema de sellado** Los reductores industriales pueden suministrarse con diferentes disposiciones de sellado para HSS y LSS (→ capítulo 6.4)
- Retén (solución básica)
 - Doble retén con engrasador
 - Laberinto radial con engrasador
- Lubricación** Los tipos de lubricación "lubricación por barboteo" o "lubricación por baño" se utilizan para la serie MC dependiendo del diseño del reductor y la posición de montaje (→ capítulo 7). Puede utilizarse la opción de lubricación a presión para estos reductores.
- Adaptador de motores** Los adaptadores de motores están diseñados para el montaje de motores IEC o NEMA (→ capítulo 6.5).
- Accesorios modulares** Se dispone de varios accesorios para reductores industriales. Consulte los capítulos 6 y 7 para obtener una descripción de los mismos.
- Brida de montaje (→ capítulo 6.1):
Brida de montaje para LSS hueco o macizo.
 - Ventilador (→ capítulo 7.3):
El ventilador se utiliza cuando la capacidad térmica del reductor es insuficiente. El ventilador es bidireccional y puede instalarse in situ.
 - Disco de contracción:
Hay un disco de contracción disponible para reductores de eje hueco MC de todos los tamaños.
 - Adaptador de motores con ventilador:
Para el montaje de los motores IEC (B5) o NEMA-C con ventilador integrado.
 - Antirretorno (→ capítulo 6.3):
Reductor con antirretorno integrado para evitar la rotación inversa indeseada.
 - Dispositivo de enganche del motor (→ capítulo 6.7):
Plataforma de montaje de motor para entrada accionada por correa.
 - Accionamiento con correa trapezoidal (→ capítulo 6.7):
Entrada accionada por correa. Incluye el dispositivo de enganche del motor, las poleas, la correa trapezoidal y el protector de la correa.
 - Acoplamiento elástico del eje de alta velocidad (HSS):
Existen acoplamientos HSS preseleccionados disponibles para el montaje del motor de entrada. La selección del acoplamiento depende de la potencia del motor y del tamaño del reductor.



- Acoplamiento del reductor al eje de baja velocidad (LSS):
Acoplamiento preseleccionado del reductor al LSS basado en el par nominal del reductor y en el diámetro del eje de salida. Existen acoplamientos disponibles para aplicaciones verticales y horizontales.
- Protección de los acoplamientos HSS y LSS (→ capítulo 6.8):
Protección del acoplamiento para HSS y LSS. Conectada directamente al reductor.
- Brazo de par (→ capítulo 6.2):
Brazo de par para reductores montaje flotante. El brazo de par puede montarse para absorber la tensión o la compresión.
- Bomba mecánica (→ capítulo 7.5):
(Sólo disponible para reductores de tamaño 04 a 09) La bomba mecánica es la solución de preferencia cuando se requiere de lubricación por presión. Todas las tuberías se encuentran por fuera del reductor.
- Lubricación por presión con enfriador (→ capítulo 7.6, 7.8, 7.9):
Se utiliza un sistema de lubricación por presión con disipador cuando la capacidad térmica del reductor básico es insuficiente. Se utiliza un enfriador en ambientes operativos donde no pueda utilizarse un ventilador o éste sea insuficiente.
- Válvula de drenaje del aceite:
Se instala una válvula de bola sobre el tapón de drenaje para permitir la conexión fácil de un conducto de drenaje a la válvula cuando se cambia el aceite del reductor.
- Calentador de aceite (→ capítulo 7.11):
(Sólo disponible para reductores de tamaño 04 a 09) El sistema de calentamiento de aceite asegura que el aceite esté en un estado líquido adecuado cuando se ponga en marcha el reductor en ambientes fríos.
- Sistemas de sellado (→ capítulo 6.4):
Existen métodos opcionales de sellado de aceite para proteger el reductor de contaminantes agresivos en el entorno de funcionamiento.
- Sensor de temperatura PT100 (→ capítulo 7.14):
El sensor de temperatura PT100 puede utilizarse para medir la temperatura del baño de aceite en el reductor.
- Adaptador SPM (adaptador de impulsos de choques) (→ capítulo 7.15):
Los adaptadores están instalados en la carcasa del reductor para detectar las vibraciones en varios puntos del reductor.



Paquetes de accionamiento

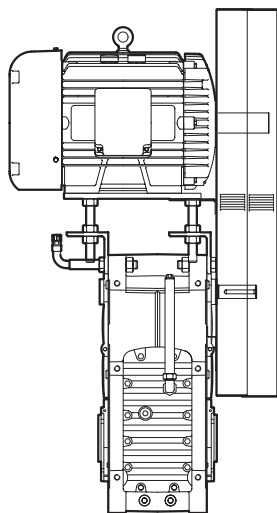
SEW-EURODRIVE puede suministrar paquetes de accionamiento preensamblados, formados por diferentes componentes tales como reductor, motor, acoplamiento de entrada y de salida, freno, etc.

A este respecto, consulte a SEW-EURODRIVE.

Ejemplos

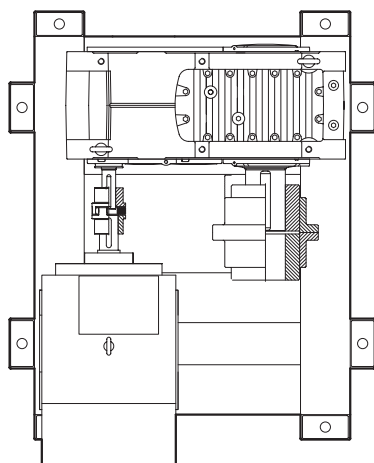
Paquetes completos de accionamiento por correa trapezoidal, incluyendo dispositivo de enganche del motor, motor CA, correas, poleas y protector.

2



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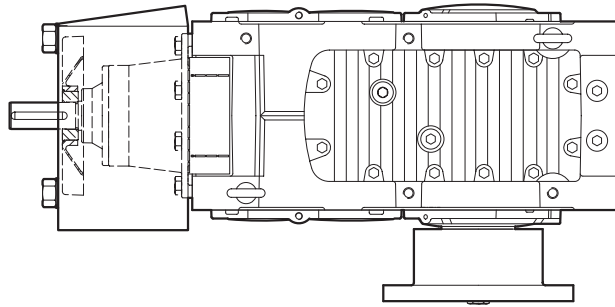
Placas y acoplamientos de la base



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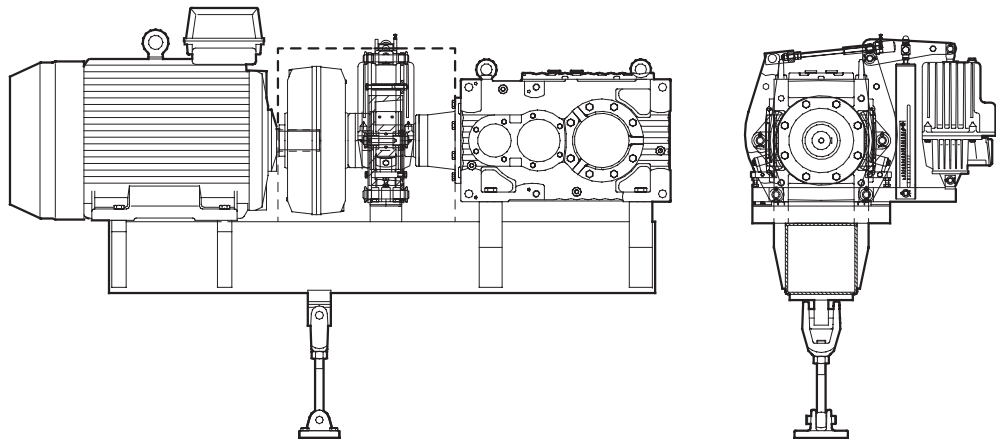


Moyús de acoplamiento a brida rígida como alternativa a los reductores montados en eje.



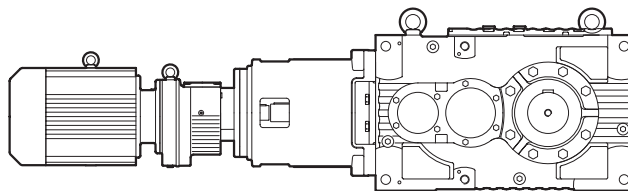
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Paquetes completos de accionamientos que incluyen **la bancada, el acoplamiento para fluido, freno y brazo de par**.



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Un **motorreductor SEW** montado en extremo de entrada del reductor MC... permite un rango amplio de relaciones y configuraciones de ejes.

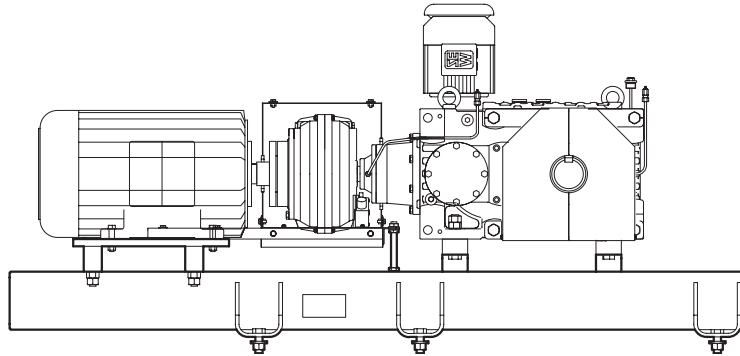


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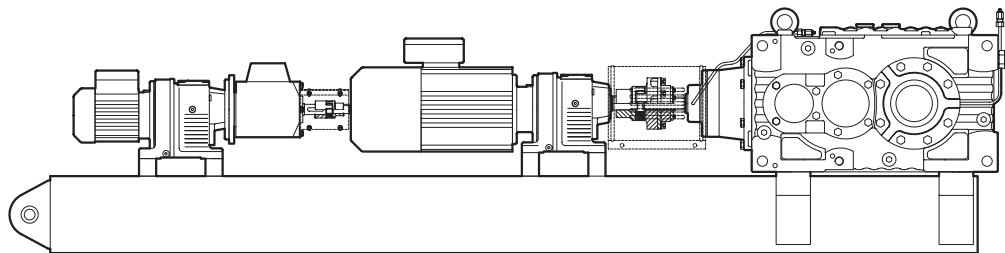
Paquetes completos de accionamientos para elevadores de cangilones, incluyendo bancada, acoplamiento hidráulico, acoplamiento elástico con pinza a LSS, accionamiento auxiliar para cangilones llenos o vacíos, antirretorno, limitador de par, acoplamiento y cubierta de protección del acoplamiento a LSS, de acuerdo a las normas de seguridad UVV.

2



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Accionamiento completo de traslado de raspadores de portones para amplios rangos de velocidades superiores a 1:3000, incluyendo bancada con brazo de par integrado con buje de goma, accionamiento principal para alta velocidad, accionamiento auxiliar para baja velocidad conectado por medio de un elemento de freno-acoplamiento y las cubiertas protectoras correspondientes.



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Como alternativa, SEW-EURODRIVE puede ofrecer también una solución probada para esta aplicación utilizando un solo reductor de accionamiento principal junto con un convertidor de frecuencia MOVIDRIVE® con posicionamiento y control de secuencia integrados por IPOS^{plus}®.



2.2 Versiones básicas de reductores

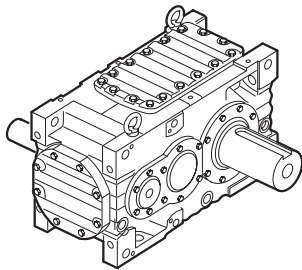
Las unidades MC.. están disponibles como

- reductores helicoidales de eje paralelo (MC.P..) y
- reductores cónicos perpendiculares (MC.R..)

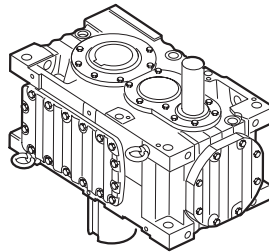
en 3 diseños de reductores

- LSS horizontal (MC..L...) con carcasa orientada "horizontalmente" y LSS horizontal
- LSS vertical (MC..V...) con eje de salida "vertical"
- Montado en posición hacia arriba (MC..E...) con carcasa "hacia arriba"

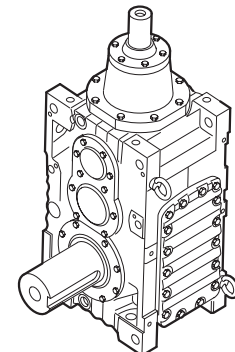
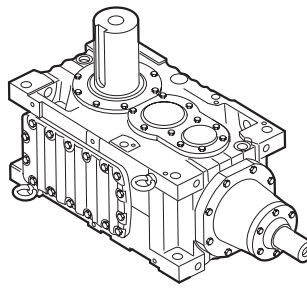
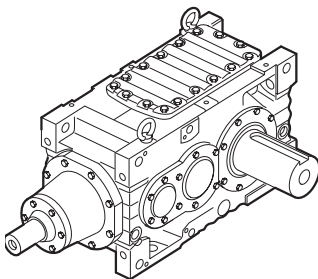
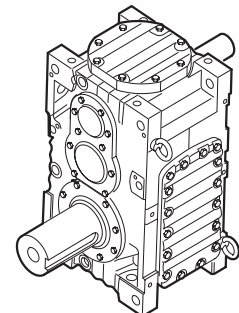
LSS horizontal (L)



LSS vertical (V)



Diseño en posición hacia arriba (E)



con las siguientes opciones de montaje:

- Montaje con patas (MC...F)
- Montaje con bridas (sin denominación)
- Montado en ejes con brazo de par (MC...T)

variantes básicas del eje de salida (LSS).

- Eje macizo con chaveta (MC...S)
- Eje hueco con chaveta (MC...H)
- Eje hueco para la conexión del disco de contracción (MC...H)

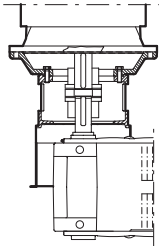
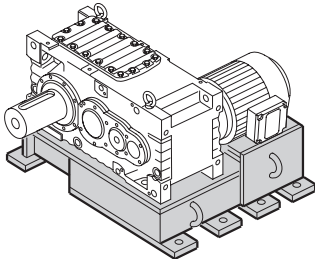
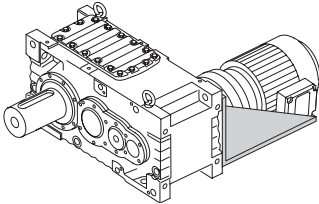
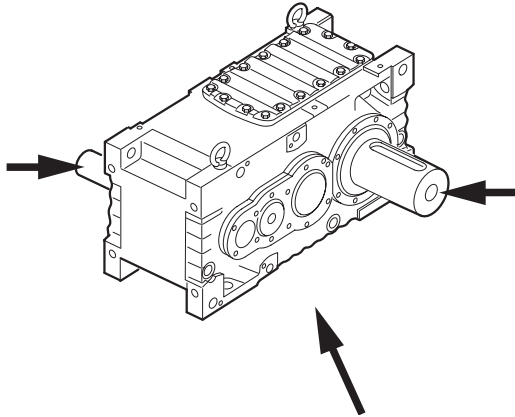
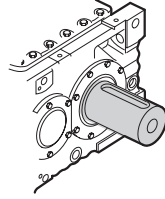
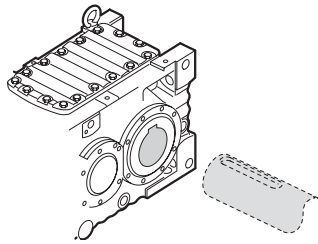
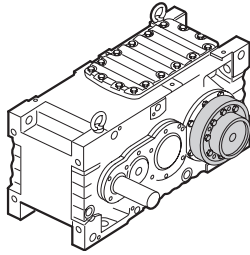
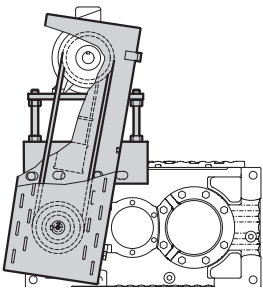
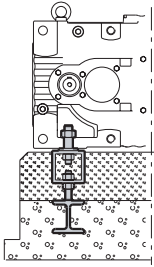
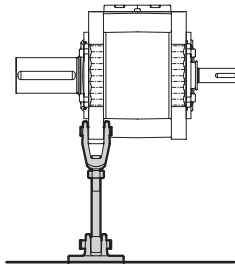
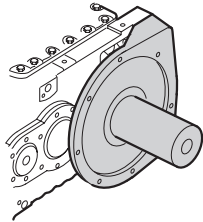
Otras variantes, como

- eje hueco con lengüeta, conforme a DIN 5480
 - eje macizo acortado sin chaveta para moyú de acoplamiento con brida montada mediante contracción
 - eje continuo
- están disponibles bajo solicitud.

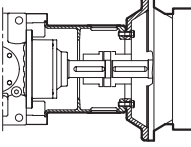
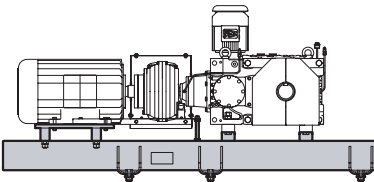
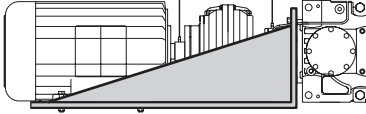
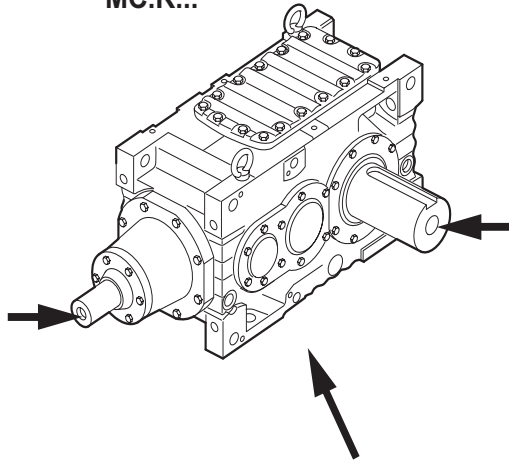
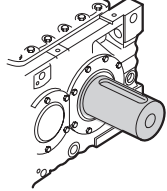
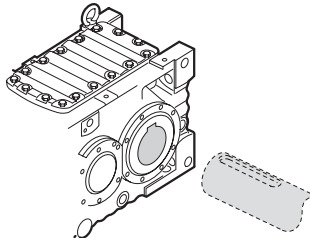
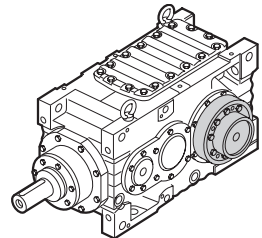
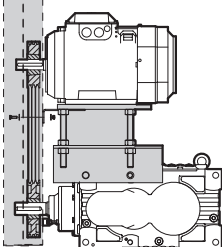
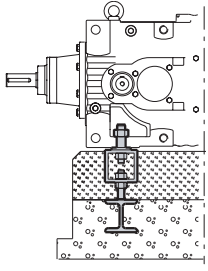
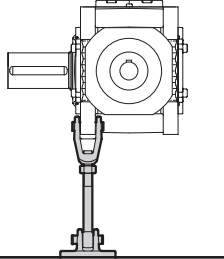
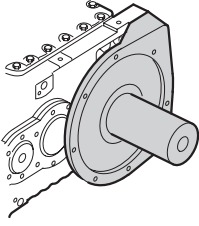


Las siguientes variantes básicas son posibles para la conexión del motor:

- Adaptador del motor con acoplamiento elástico
- Peana para motor
- Dispositivo de montaje del motor con accionamiento por correa trapezoidal
- Para la posición de montaje horizontal: construcción de acero (marco de base o base oscilante)

<p>Conexión del motor</p> <p>Adaptador del motor</p>  <p>Bancada</p>  <p>Peana para motor</p> 	<p>MC.P...</p> 	<p>Eje de salida</p> <p>Eje macizo con chaveta</p>  <p>Eje hueco con chaveta</p>  <p>Eje hueco para disco de contracción</p> 
<p>Dispositivo de montaje del motor</p>  <p>con accionamiento por correa trapezoidal</p>	<p>Opciones de montaje</p> <p>Montado con patas</p>  <p>Montado en eje con brazo de par</p>  <p>Montado en brida</p> 	

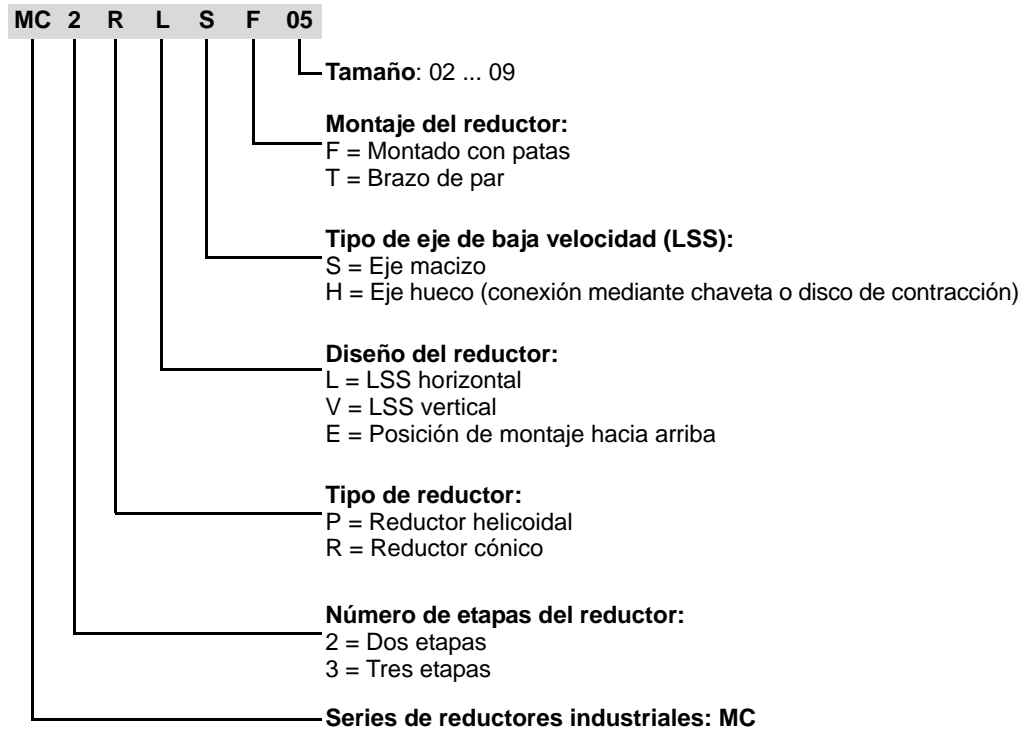


<p>Conexión del motor</p> <p>Adaptador del motor</p>  <p>Bancada</p>  <p>Peana para motor</p> 	<p>MC.R...</p> 	<p>Eje de salida</p> <p>Eje macizo con chaveta</p>  <p>Eje hueco con chaveta</p>  <p>Eje hueco para disco de contracción</p> 
<p>Dispositivo de montaje del motor con accionamiento por correa trapezoidal</p> 	<p>Opciones de montaje</p> <p>Montado con patas</p>  <p>Montado en eje con brazo de par</p>  <p>Montado en brida</p> 	



2.3 Denominación de modelos de reductores

Ejemplo de denominación de modelo



Ejemplo: Placa de características del reductor industrial de la serie MC., SEW-EURODRIVE

SEW-EURODRIVE		Bruchsal/Germany	
Typ	MC3RLHF07		
Nr. 1	01.3115835301.0001.02	Nr. 2	T34567
Pe kW	55	MN2 kNm	35.6
Fs	1.6	kg	780
i 1:	61.883 : 1	Year	2004
n r/min	1480/23.9		
Lubricant	CLP 220 Miner..Oil/ca. 33 liter4		
Number of greasing points:	4	Made by SEW	

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Tipo	= Denominación del modelo
N° 1	= Número de serie 1
N° 2	= Número de serie 2
P _e [kW]	= Potencia absorbida en el eje de entrada
F _S	= Factor de servicio
n [r/min]	= Velocidad de entrada/salida
kg [kg]	= Peso
i	= Relación exacta de reducción del reductor
Lubricante	= Grado y clase de viscosidad del aceite / volumen de aceite
M _{N2} [kNm]	= Par nominal del reductor
Año	= Año de fabricación
Número de puntos de engrase	= Número de puntos que requieren engrase



2.4 Protección de la superficie y contra la corrosión

Introducción

La protección contra la corrosión y de la superficie de los reductores incluye las tres características básicas siguientes:

1. Sistema de pintura
 - Sistema de pintura estándar K7 E160/2
 - Sistema de pintura de gran resistencia K7 E260/3 opcional

2. Protección del reductor contra la corrosión con
 - protección interior y
 - exterior

3. Empaquetado del reductor
 - Empaquetado estándar (paleta)
 - Caja de madera
 - Empaquetado apto para el transporte por mar

Sistema de pintura k7 E 160/2 estándar

La pintura se aplica conforme al SISTEMA TEKNOS EPOXY K7, que se basa en la pintura epóxica de alta cohesión TEKNOPLAST HS 150.

Sistema de dos capas K7 E 160/2	Grosor
• Imprimación epóxica	60 µm
• Teknoplast HS 150	100 µm
TOTAL	160 µm

Tonalidad de color: RAL 7031, azul grisáceo

Protectores y apantallamientos

Para los protectores y apantallamientos se utiliza pintura en polvo de base epóxica (EP)

Grosor de la capa 65 µm

Tonalidad de color: TM 1310 PK, señal de advertencia en color amarillo

Sistema de pintura de gran resistencia K7 E 260/3

La pintura se aplica conforme al SISTEMA TEKNOS EPOXY K7, que se basa en la pintura epóxica de alta cohesión TEKNOPLAST HS 150.

Sistema de tres capas, E 260/3	grosor
• Imprimación epóxica	60 µm
• Teknoplast HS 150	2x100 µm
TOTAL	260 µm

Tonalidad de color opcional

Es posible encargar otras tonalidades de color.



Uso del sistema de pintura

Contaminación ambiental	Ninguna	Bajo	Medio	Alto	Muy alto
Condiciones ambientales típicas		Edificios sin calefacción donde puede producirse condensación Atmósferas con poca contaminación, principalmente áreas rurales	Salas de producción con alto nivel de humedad y baja contaminación del aire. Atmósferas de ciudad e industriales, contaminación moderada con dióxido de azufre, áreas costeras con baja carga de sal	Áreas industriales y áreas costeras con carga de sal moderada Plantas químicas	Edificios o áreas con condensación casi permanente y alta contaminación Áreas industriales con niveles muy altos de humedad y atmósferas agresivas
Montaje	Interior	Interior	Interior o exterior	Interior o exterior	Interior o exterior
Humedad relativa	< 90 %	hasta el 95%	hasta el 100 %	hasta el 100 %	hasta el 100 %
Sistema de pintura recomendado	Sistema de pintura estándar K7 E160/2	Sistema de pintura estándar K7 E160/2	Sistema de pintura estándar K7 E160/2	Sistema de pintura altamente resistente K7 E260/3	Contacte SEW-EURODRIVE

Condiciones de almacenamiento y transporte

Los reductores industriales de la serie MC... se entregan sin llenar de aceite. Se requiere de diferentes sistemas de protección dependiendo del periodo de almacenamiento y las condiciones ambientales:

Periodo de almacenamiento: hasta ... meses	Condiciones de almacenamiento Protección contra la corrosión en el reductor				Condiciones de transporte Empaquetado del reductor	
	EXTERIOR, techado	INTERIOR, con calefacción (0...+20°C)	Área de almacenamiento cercana al mar en EXTERIOR, techado	Área de almacenamiento o cercana al mar en INTERIORES	Transporte por tierra	Transporte por mar
6	Protección estándar	Protección estándar	Contacte SEW-EURODRIVE	Protección a largo plazo	Embalaje estándar	Embalaje marino
12	Contacte SEW-EURODRIVE	Protección estándar	Contacte SEW-EURODRIVE	Protección de larga duración	Embalaje estándar	Embalaje marino
24	Protección de larga duración	Contacte SEW-EURODRIVE	Contacte SEW-EURODRIVE	Protección de larga duración	Embalaje estándar	Embalaje marino
36	Contacte SEW-EURODRIVE	Protección de larga duración	Contacte SEW-EURODRIVE	Protección de larga duración	Embalaje estándar	Embalaje marino



Descripción de los productos y descripción general de los tipos

Protección de la superficie y contra la corrosión

Protección estándar / interior

- Los reductores son sometidos a un rodaje realizado con aceite de protección. SEW-EURODRIVE vacía el aceite de protección antes de su envío. La capa de aceite de protección que queda en las piezas interiores sirve de protección básica.

Protección estándar / exterior

- Los retenes de aceite y las superficies de los retenes están protegidas por una grasa adecuada.
- Las superficies sin pintar (incluyendo las piezas de recambio) están cubiertas con un recubrimiento protector. Antes de que se monte cualquier otro equipo sobre dichas superficies, el recubrimiento protector debe eliminarse utilizando un disolvente.
- Las piezas de recambio pequeñas y las piezas sueltas tales como tornillos, tuercas, etc., se suministran en bolsas de plástico protegidas contra la corrosión (bolsas de protección anticorrosivas VCI)
- Los agujeros roscados y los agujeros ciegos están cubiertos por tapones de plástico.
- El tapón de salida de gases (posición → capítulo "Posiciones de Montaje") ya viene instalado.

Protección estándar / empaquetado

Se utiliza el empaquetado estándar: El reductor se entrega en una paleta sin cubierta



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- **Si se almacena el reductor durante más de 6 meses, se recomienda que se revise regularmente el recubrimiento protector de las áreas sin pintar así como la pintura. Las áreas que hayan perdido el recubrimiento protector o la pintura deben repintarse si es necesario.**
- **El LSS debe girarse al menos una vuelta de tal forma que se cambie la posición de los elementos de rotación en los retenes de LSS y HSS. Este procedimiento debe repetirse cada 6 meses hasta la puesta en marcha.**

Protección de larga duración / interior

El siguiente procedimiento se aplica además de la "protección estándar":

- Se pulveriza un disolvente VPI a través del agujero para el llenado de aceite.
- El tapón de salida de gases es reemplazado por un tapón ciego (antes de la puesta en marcha debe reemplazarse el tapón ciego por un tapón de salida de gases, el cual se incluye con el reductor de forma separada).
- **Nunca abra el reductor cerca de llamas, chispas, ni objetos calientes ya que podrían incendiarse los vapores del disolvente.**
- **Tome medidas preventivas a fin de proteger a las personas de los vapores del disolvente. Es absolutamente crucial que se eviten las llamas cuando se aplica el disolvente y cuando éste se evapora.**



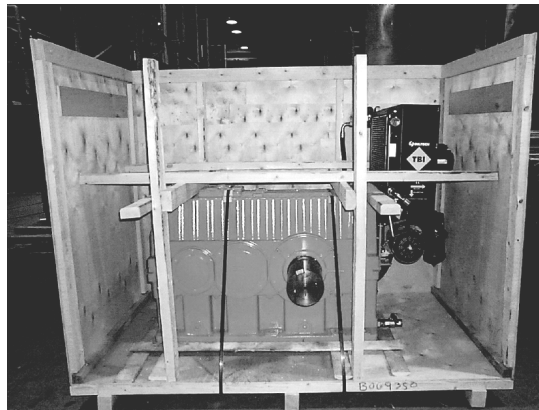


Protección de larga duración / exterior

- Los retenes de aceite y las superficies de los retenes están protegidas por medio de una grasa adecuada.
- Las superficies sin pintar (incluyendo las piezas de recambio) están cubiertas con un recubrimiento protector. Antes de que se monte cualquier otro equipo sobre dichas superficies, el recubrimiento protector debe eliminarse utilizando un disolvente.
- Las piezas de recambio pequeñas y las piezas sueltas tales como tornillos, tuercas, etc., se suministran en bolsas de plástico protegidas contra la corrosión (bolsas de protección anticorrosivas VCI).
- Los agujeros roscados y los agujeros ciegos están cubiertos por tapones de plástico
- El tapón de salida de gases (Posición → capítulo "Posiciones de Montaje") ya viene instalado.

Protección de larga duración / embalaje

- Se utiliza el embalaje apto para el transporte por mar: El reductor viene empaquetado en una caja de madera contrachapada, apta para el transporte por mar, con un marco de madera



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- Si se almacena el reductor durante más de 6 meses, se recomienda que se revise regularmente el recubrimiento protector de las áreas sin pintar así como la pintura. Las áreas que hayan perdido el recubrimiento protector o la pintura deben repintarse si es necesario.
- El LSS debe girarse al menos una vuelta de forma tal que se cambie la posición de los elementos de rotación en los retenes de LSS y HSS. Este procedimiento debe repetirse cada 6 meses hasta la puesta en marcha.
- La protección interior de larga duración con el disolvente VPI debe repetirse cada 24 / 36 meses (conforme a la tabla "Condiciones de almacenamiento y transporte") hasta la puesta en marcha.

Embalaje alternativo

Opcionalmente, el reductor puede suministrarse en una caja de madera con una protección estándar.

3 Posiciones de Montaje

Las siguientes características definen claramente la posición de montaje y el diseño correspondiente de las unidades MC:

- Superficie de montaje (F1...F6) → capítulo 3.1.
- Orientación de la carcasa (M1...M6) → capítulo 3.2.

Además, debe definirse la posición del eje (0...4) → capítulo 3.5.

Los diseños de reductor "LSS horizontal (L)", "LSS vertical (V)", "montaje en posición hacia arriba (E)" están asociados con la orientación de la carcasa.

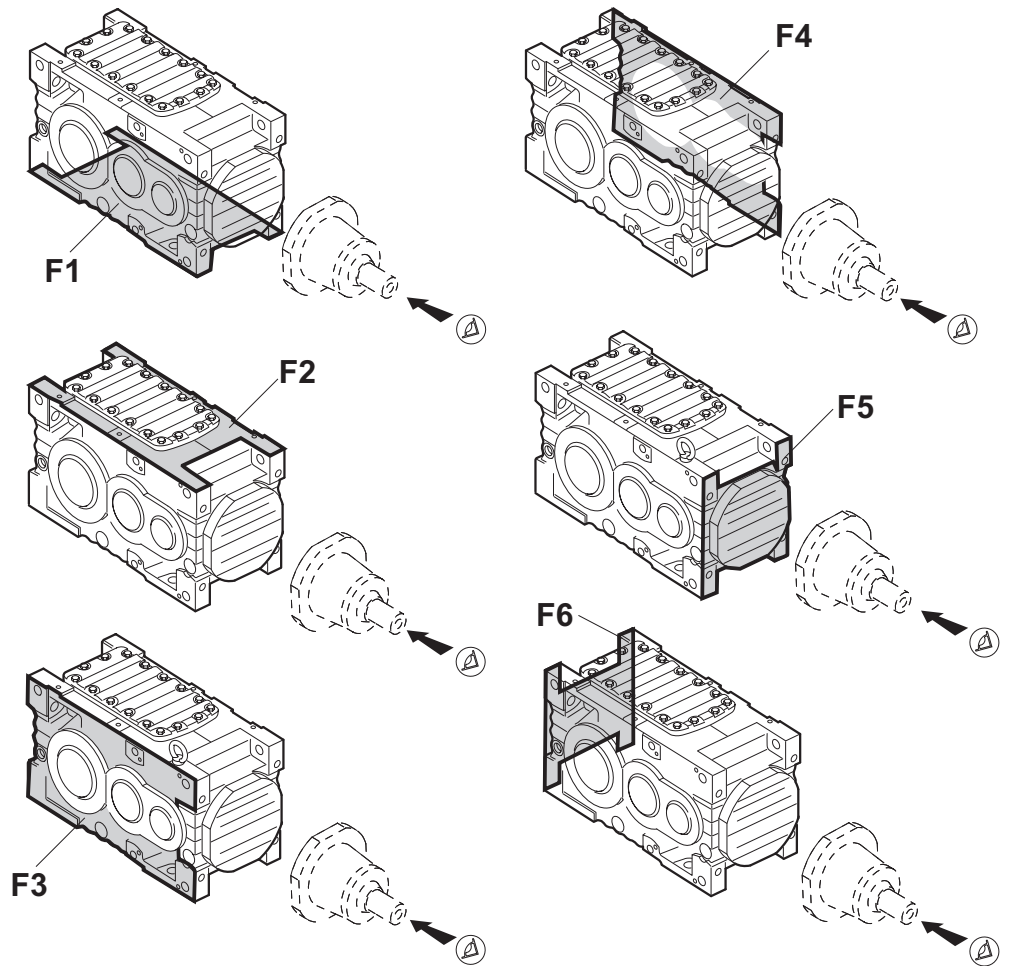
3.1 Superficie de montaje

Definición

La superficie de montaje se define como la superficie del reductor montado con patas o brida a la cual se acopla la máquina del cliente.

Definiciones

Se han definido seis superficies de montaje diferentes (denominaciones "F1" a "F6"):



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3.2 Orientación de la carcasa M1...M6

La orientación de la carcasa se define como la posición de la carcasa en el espacio y se define utilizando las denominaciones M1...M6.

Cada orientación de carcasa corresponde a un determinado

- diseño de reductor (L,V,E)
- superficie de montaje estándar (F1...F6)

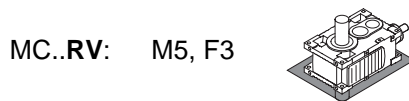
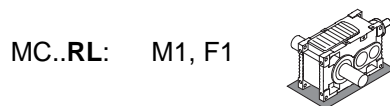
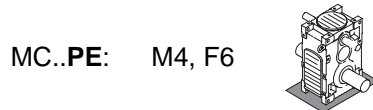
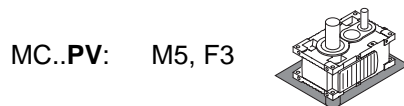
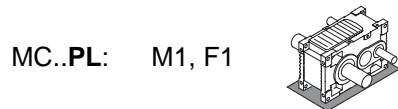


A menos que se especifique algo diferente, la **correlación estándar** entre

- el diseño del reductor,
- la orientación de la carcasa y
- la superficie de montaje

es como sigue (para reductores montados con patas):

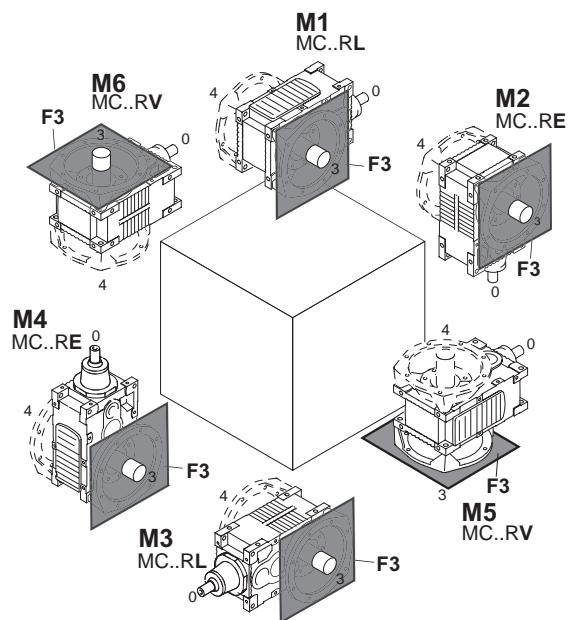
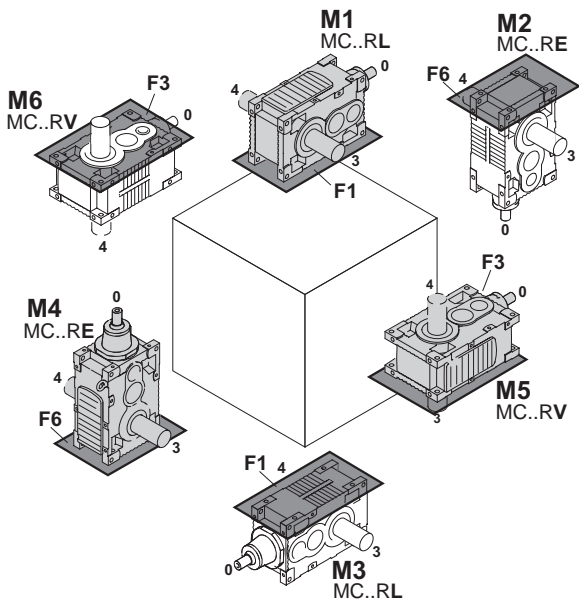
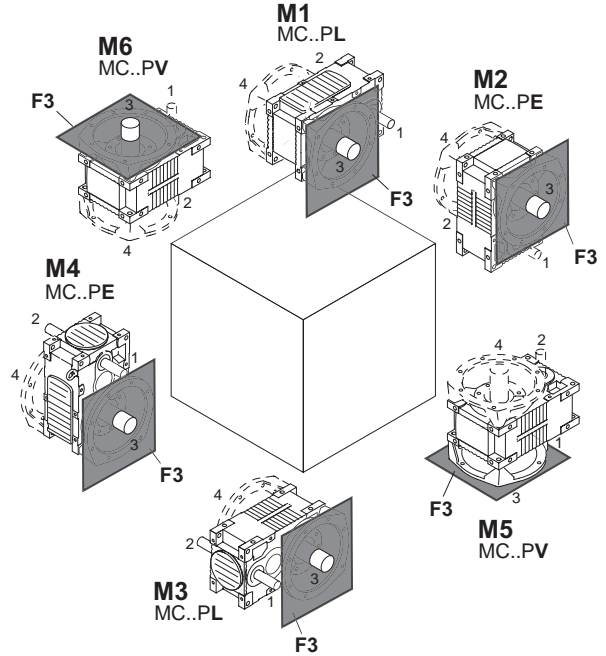
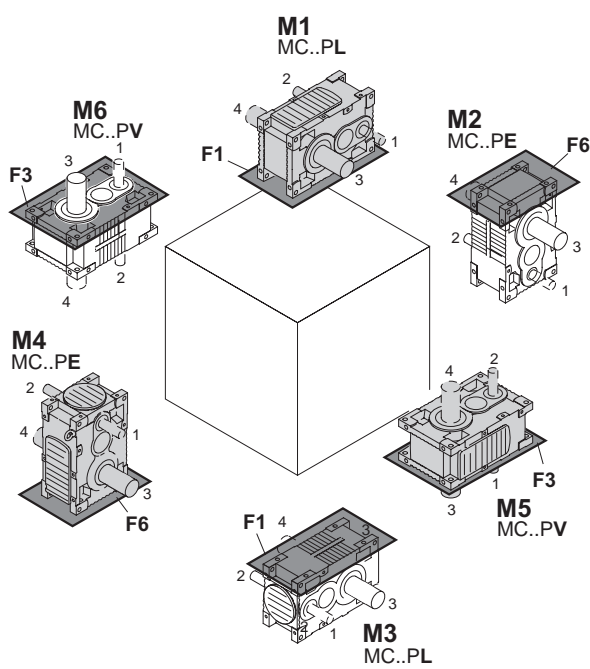
Correlación estándar entre el diseño del reductor y la orientación de la carcasa



Para los reductores con bridas de montaje en el LSS, la posición estándar de la brida depende de la posición del eje del LSS, a menos que se especifique algo diferente:

- Posición de eje 3 → brida de montaje F3 en LSS
- Posición de eje 4 → brida de montaje F4 en LSS

Orientación de la carcasa y superficie de montaje estándar



- Los modelos marcados en gris constituyen diseños estándar.
- Son posibles otras superficies de montaje junto con una determinada orientación de carcasa. Las tablas siguientes muestran una descripción general de los reductores montados con patas y en flotante.

**Variantes de
orientación de
carcasa y
superficies de
montaje**

Reductores
helicoidales
MC...P

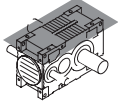
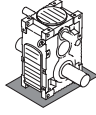
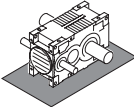
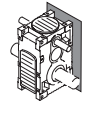
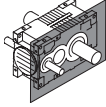
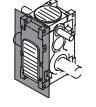
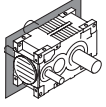
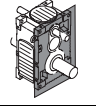
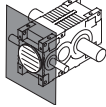
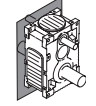
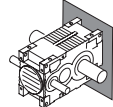
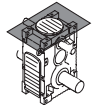
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Orientación de la carcasa	Superficie de montaje	Diseño del reductor		Orientación de la carcasa	Superficie de montaje	Diseño del reductor	
M1	F1	MC..PL		M2	F6	MC..PE	
M1	F2	MC..PL		M2	F1	MC..PE	
M1	F3	MC..PL		M2	F2	MC..PE	
M1	F4	MC..PL		M2	F3	MC..PE	
M1	F5	MC..PL		M2	F4	MC..PE	
M1	F6	MC..PL		M2	F5	MC..PE	



La denominación estándar para la orientación de la carcasa a la superficie de montaje está impresa en negrita.

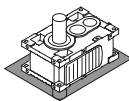
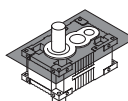
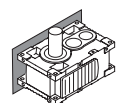
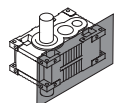
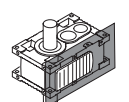
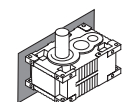
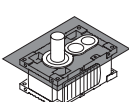
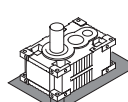
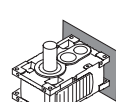
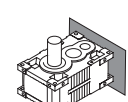
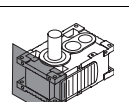
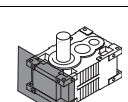
Los tiempos de entrega pueden ser más largos para variantes diferentes de la denominación estándar.

Orientación de la carcasa	Superficie de montaje	Diseño del reductor		Orientación de la carcasa	Superficie de montaje	Diseño del reductor	
M3	F1	MC..PL		M4	F6	MC..PE	
M3	F2	MC..PL		M4	F1	MC..PE	
M3	F3	MC..PL		M4	F2	MC..PE	
M3	F4	MC..PL		M4	F3	MC..PE	
M3	F5	MC..PL		M4	F4	MC..PE	
M3	F6	MC..PL		M4	F5	MC..PE	



La denominación estándar para la orientación de la carcasa a la superficie de montaje está impresa en negrita.

Los tiempos de entrega pueden ser más largos para variantes diferentes de la denominación estándar.

Orientación de la carcasa	Superficie de montaje	Diseño del reductor		Orientación de la carcasa	Superficie de montaje	Diseño del reductor	
M5	F3	MC..PV		M6	F3	MC..PV	
M5	F1	MC..PV		M6	F1	MC..PV	
M5	F2	MC..PV		M6	F2	MC..PV	
M5	F4	MC..PV		M6	F4	MC..PV	
M5	F5	MC..PV		M6	F5	MC..PV	
M5	F6	MC..PV		M6	F6	MC..PV	

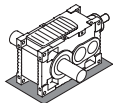
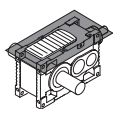
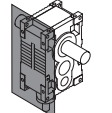
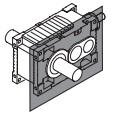
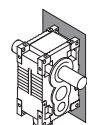
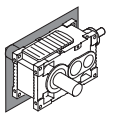
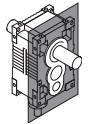
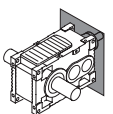
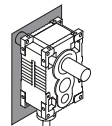
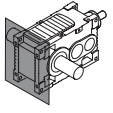
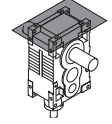


La denominación estándar para la orientación de la carcasa a la superficie de montaje está impresa en negrita.

Los tiempos de entrega pueden ser más largos para variantes diferentes de la denominación estándar.

**Variantes de
orientación de
carcasa y
superficies de
montaje**













Reductores
helicoidales
MC...R

Orientación de la carcasa	Superficie de montaje	Diseño del reductor		Orientación de la carcasa	Superficie de montaje	Diseño del reductor	
M1	F1	MC..RL		M2	F5	MC..RE	
M1	F2	MC..RL		M2	F1	MC..RE	
M1	F3	MC..RL		M2	F2	MC..RE	
M1	F4	MC..RL		M2	F3	MC..RE	
M1	F5	MC..RL		M2	F4	MC..RE	
M1	F6	MC..RL		M2	F6	MC..RE	



La denominación estándar para la orientación de la carcasa a la superficie de montaje está impresa en negrita.

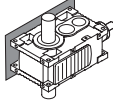
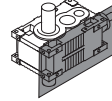
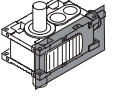
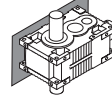
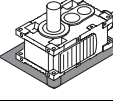
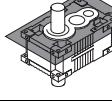
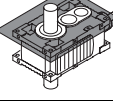
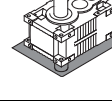
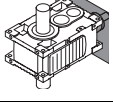
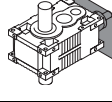
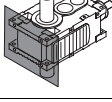
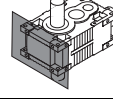
Los tiempos de entrega pueden ser más largos para variantes diferentes de la denominación estándar.

Orientación de la carcasa	Superficie de montaje	Diseño del reductor		Orientación de la carcasa	Superficie de montaje	Diseño del reductor	
M3	F6	MC..RL		M4	F4	MC..RE	
M3	F1	MC..RL		M4	F1	MC..RE	
M3	F2	MC..RL		M4	F2	MC..RE	
M3	F3	MC..RL		M4	F3	MC..RE	
M3	F4	MC..RL		M4	F5	MC..RE	
M3	F5	MC..RL		M4	F6	MC..RE	



La denominación estándar para la orientación de la carcasa a la superficie de montaje está impresa en negrita.

Los tiempos de entrega pueden ser más largos para variantes diferentes de la denominación estándar.

Orientación de la carcasa	Superficie de montaje	Diseño del reductor		Orientación de la carcasa	Superficie de montaje	Diseño del reductor	
M5	F1	MC..RV		M6	F1	MC..RV	
M5	F2	MC..RV		M6	F2	MC..RV	
M5	F3	MC..RV		M6	F3	MC..RV	
M5	F4	MC..RV		M6	F4	MC..RV	
M5	F5	MC..RV		M6	F5	MC..RV	
M5	F6	MC..RV		M6	F6	MC..RV	



La denominación estándar para la orientación de la carcasa a la superficie de montaje está impresa en negrita.

Los tiempos de entrega pueden ser más largos para variantes diferentes de la denominación estándar.

3.3 Posiciones de los ejes



Las posiciones de los ejes (0, 1, 2, 3, 4) y las direcciones de rotación que se muestran en las figuras siguientes se aplican a los ejes de salida (LSS) de los tipos **eje sólido y eje hueco**. Para otras posiciones de eje, contacte con SEW-EURODRIVE.

Las siguientes posiciones (0, 1, 2, 3, 4) son posibles:

Posiciones de los ejes MC.P.S..

3

Orientación de la carcasa		
M1	M5	M4
LSS horizontal (L)	Diseño del reductor LSS vertical (V)	Montado en posición hacia arriba (E)

Posiciones de los ejes MC.P.H..

Orientación de la carcasa		
M1	M5	M4
LSS horizontal (L)	Diseño del reductor LSS vertical (V)	Montado en posición hacia arriba (E)

Posiciones de los ejes MC.R.S..

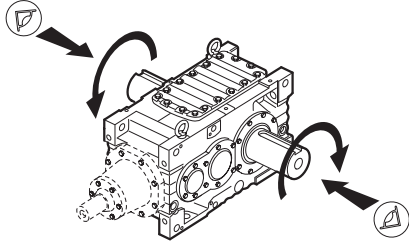
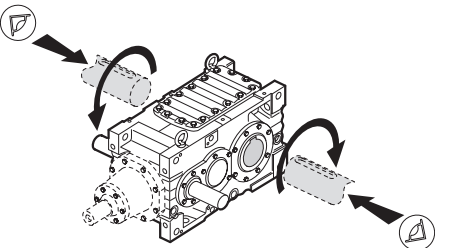
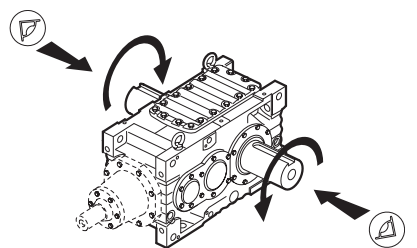
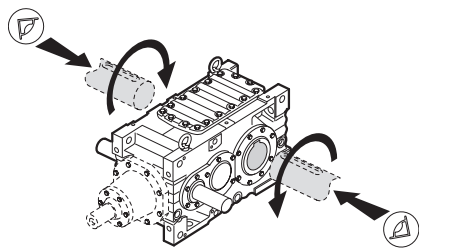
Orientación de la carcasa		
M1	M5	M4
LSS horizontal (L)	Diseño del reductor LSS vertical (V)	Montado en posición hacia arriba (E)

Posiciones de los ejes MC.R.H..

Orientación de la carcasa		
M1	M5	M4
LSS horizontal (L)	Diseño del reductor LSS vertical (V)	Montado en posición hacia arriba (E)

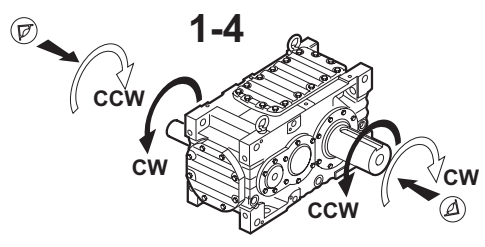
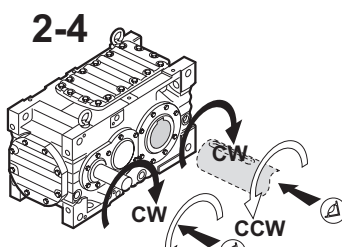
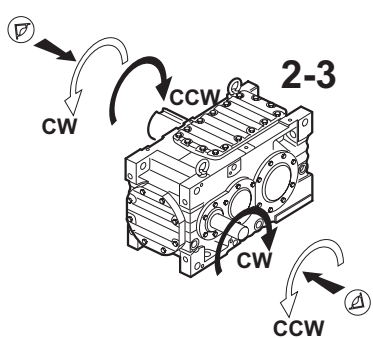
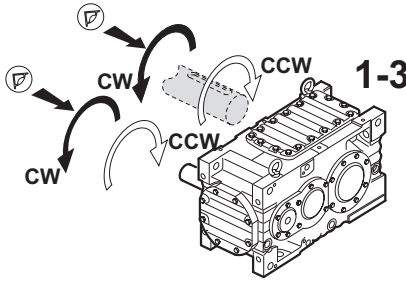
3.4 Sentido de giro

Sentidos de giro Los sentidos de giro de los ejes de salida (LSS) se definen de la manera siguiente:

Sentido de giro	Versión de reductor	
	MC.P.S.. MC.R.S..	MC.P.H.. MC.R.H..
A la derecha (CW)	 <p>52036AXX</p>	 <p>51383AXX</p>
A la izquierda (CCW)	 <p>52037AXX</p>	 <p>51386AXX</p>

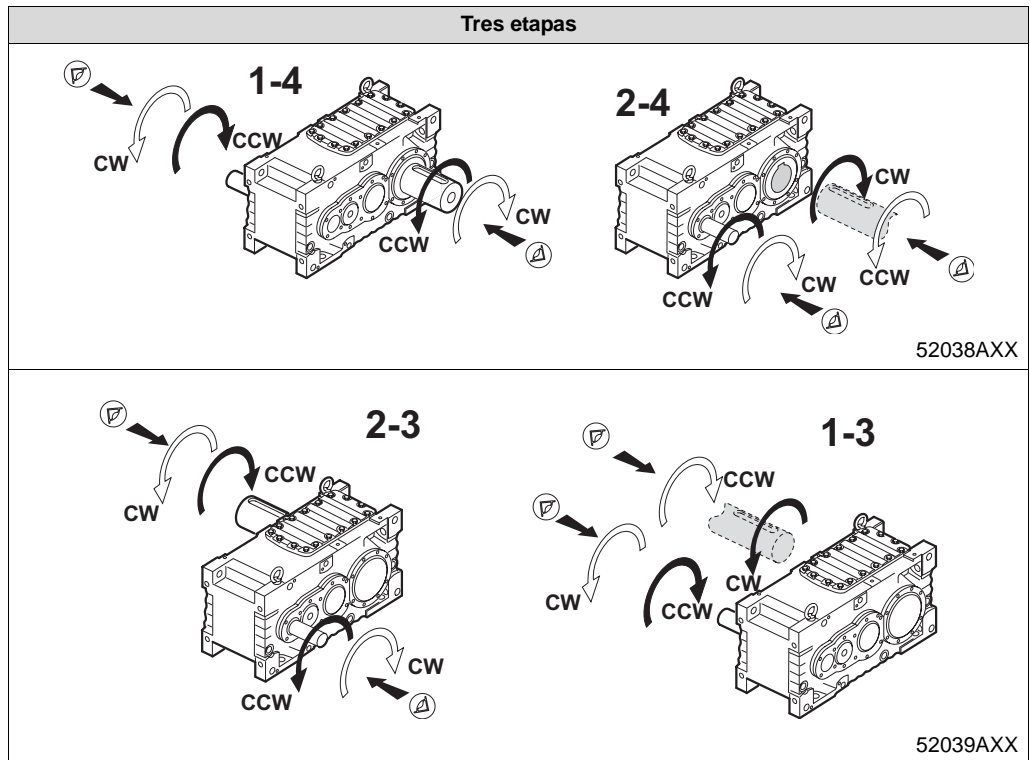
Posiciones de ejes y sentidos de giro correspondientes del MC2P..

Las figuras siguientes muestran las posiciones de ejes y los sentidos de giro para los reductores industriales de la serie MC2P..

Dos etapas	
 <p>1-4</p>	 <p>2-4</p>
 <p>2-3</p>	 <p>1-3</p>
	51391AXX
	51392AXX

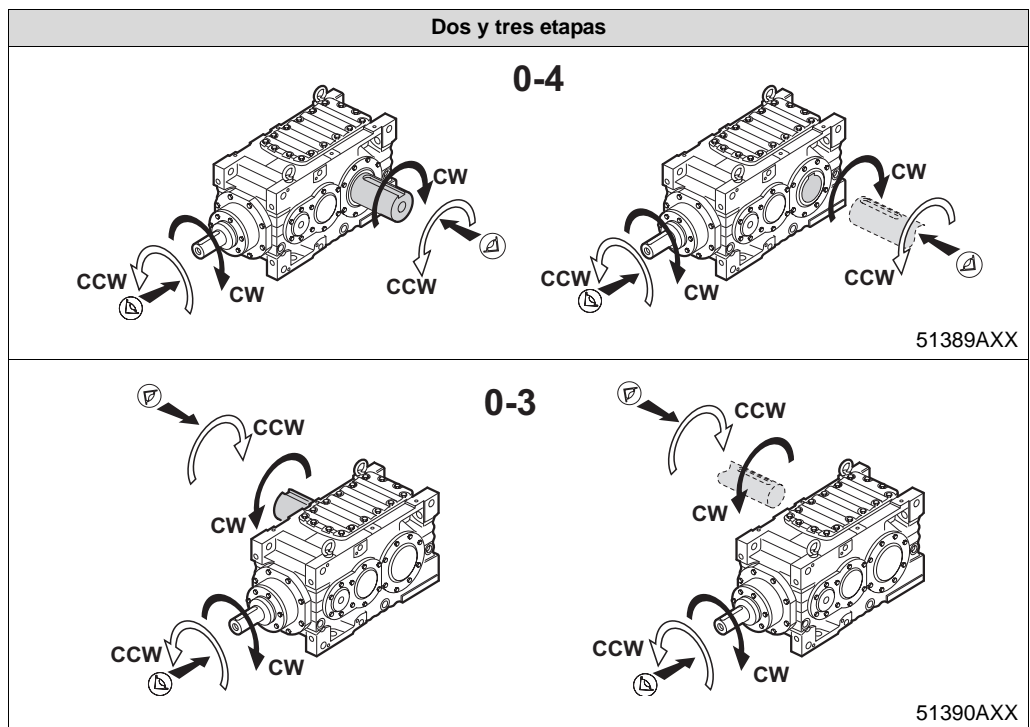
Posiciones de ejes y sentidos de giro correspondientes al MC2P..

Las figuras siguientes muestran las posiciones de ejes y los sentidos de giro para los reductores industriales de la serie MC3P..



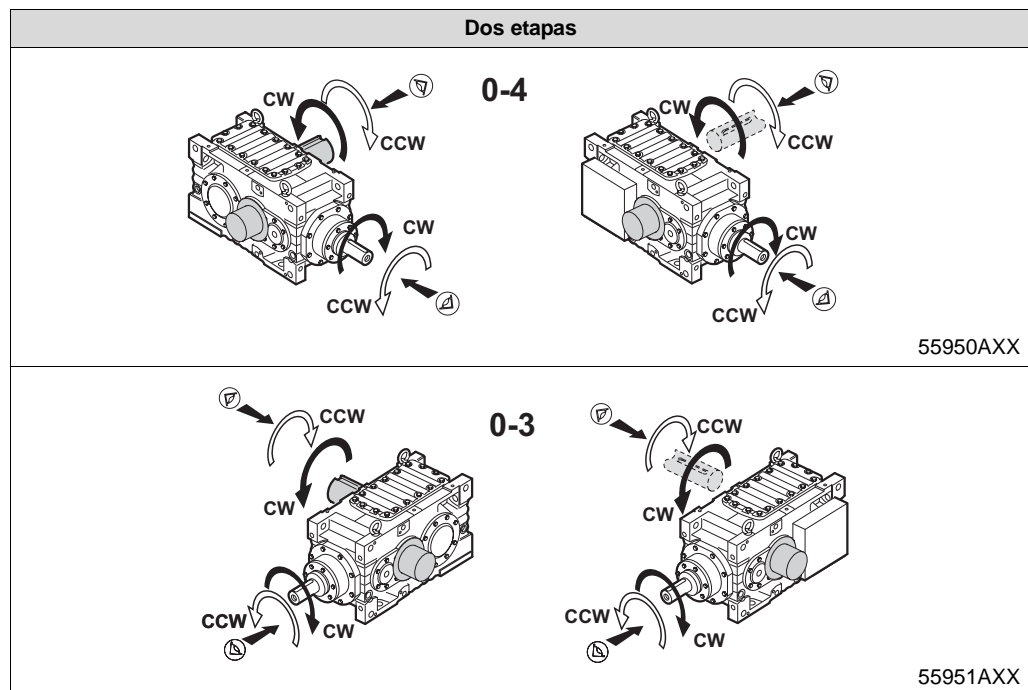
Posiciones de ejes y sentidos de giro correspondientes del MC.R.. sin antirretorno

Las siguientes figuras muestran las posiciones de ejes y los sentidos de giro correspondientes a los reductores industriales de la serie MC.R.. con dos y tres etapas sin antirretorno.



Posiciones de ejes y sentidos de giro correspondientes del MC2RS.. / MC2RH.. chaveta con antirretorno

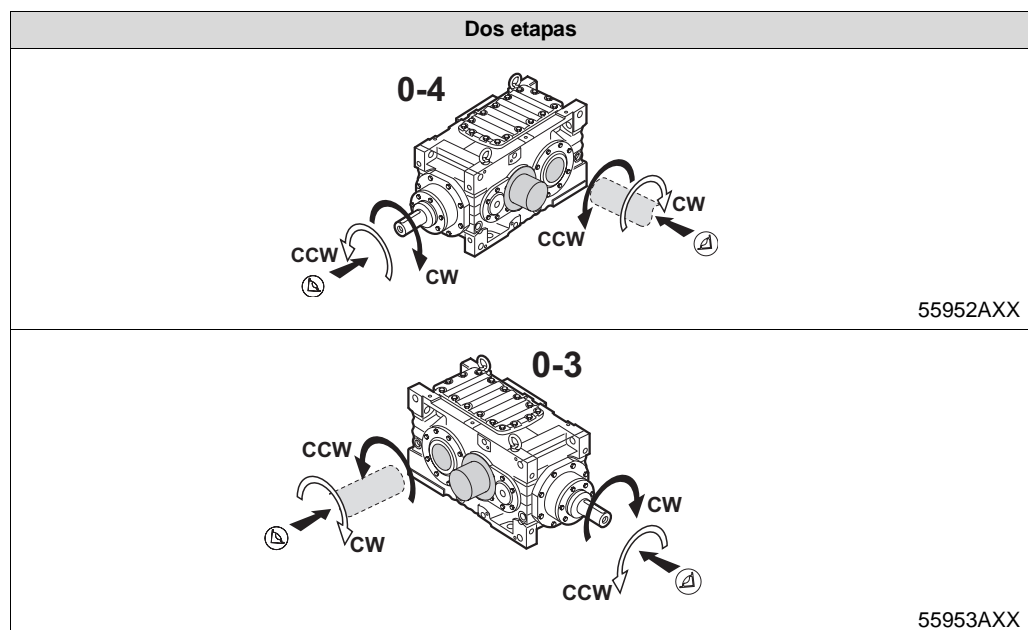
Las figuras siguientes muestran las posiciones de ejes y los sentidos de giro correspondientes a los reductores de dos etapas con antirretorno de los tipos MC.RS.. y MC.RH.. con chaveta.



Sólo es posible un sentido de giro, el cual debe ser definido en el pedido. El sentido de giro permitido se indica en la carcasa.

Posiciones de ejes y sentidos de giro correspondientes del MC2RH.. Discos de contracción /SD con antirretorno

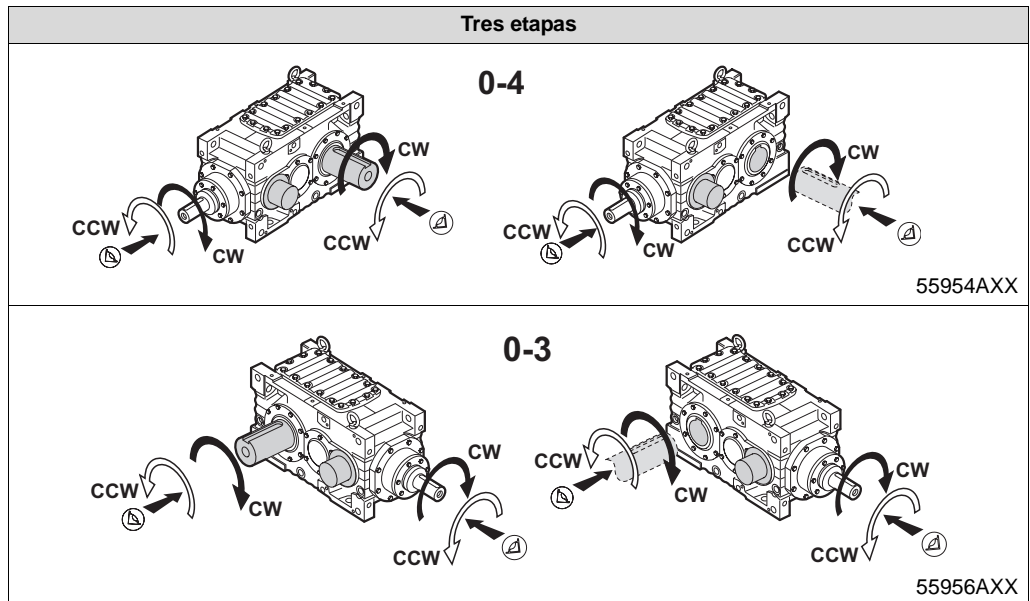
Las figuras siguientes muestran las posiciones de ejes y los sentidos de giro correspondientes a reductores de dos etapas con antirretorno del tipo MC.RS.. con disco de contracción.



Sólo es posible un sentido de giro, el cual debe ser definido en el pedido. El sentido de giro permitido se indica en la carcasa.

Las posiciones de ejes y los sentidos de giro correspondientes a los antirretornos de reductores industriales MC3R..en el extremo de la máquina accionada

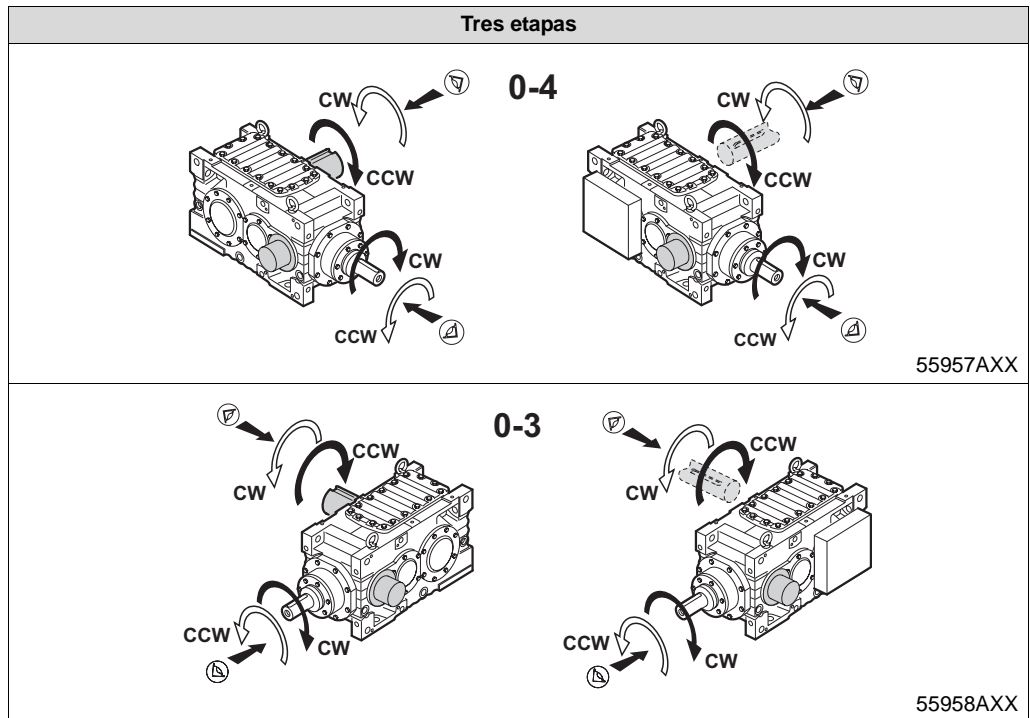
Las figuras siguientes muestran las posiciones de ejes y los sentidos de giro correspondientes a los modelos MC.RS.. y MC.RH con chaveta y antirretorno.



Sólo es posible un sentido de giro, el cual debe ser definido en el pedido. El sentido de giro permitido se indica en la carcasa.

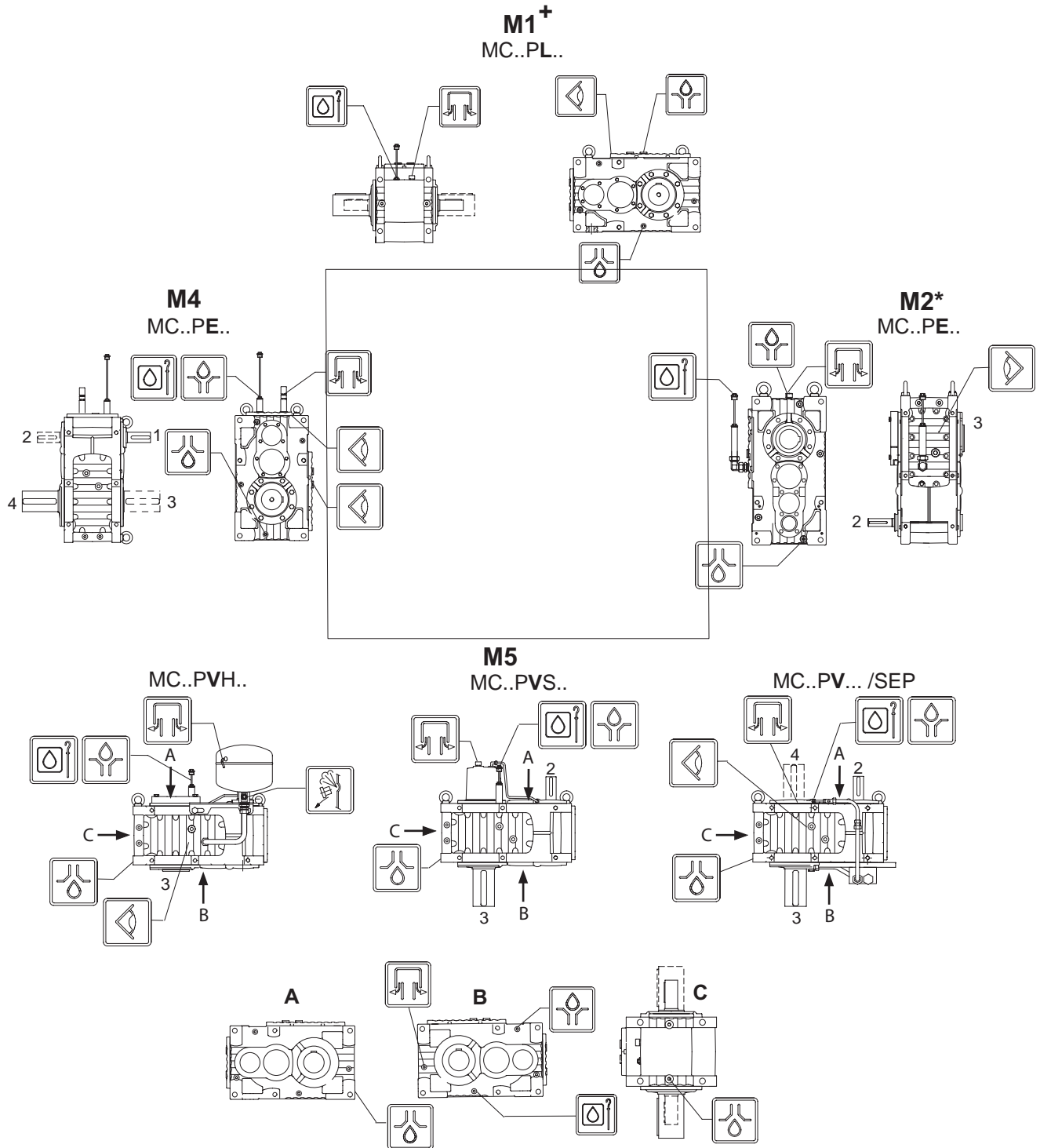
Posiciones de ejes y sentidos de giro correspondientes del MC3R.. Antirretorno en posición opuesta al extremo de la máquina accionada

Las figuras siguientes muestran las posiciones de ejes y los sentidos de giro correspondientes a los modelos MC.RS.. y MC.RH con chaveta y antirretorno.



Sólo es posible un sentido de giro, el cual debe ser definido en el pedido. El sentido de giro permitido se indica en la carcasa.

3.5 Posiciones de montaje de los reductores MC.P..

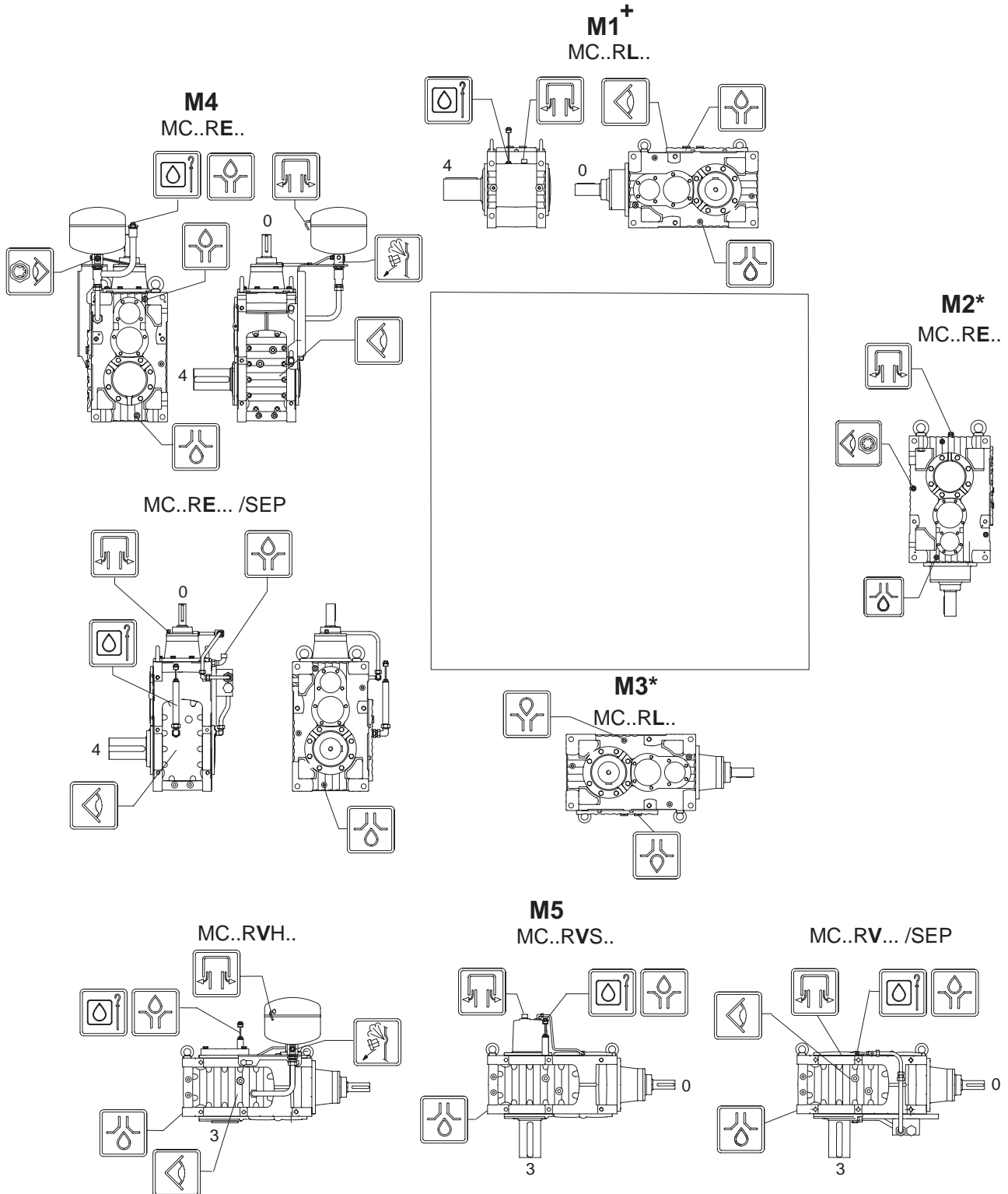


55477AXX

* = Posición de montaje no estándar / orientación de la carcasa. Las posiciones del calentador, de la varilla de nivel y del tapón de drenaje de aceite sirven sólo como ejemplo. Consulte el plano de cotas específico de cada pedido.

+ = En posición de montaje horizontal, el tapón de drenaje de aceite está siempre ubicado en el lado opuesto del eje de salida.

3.6 Posiciones de montaje de los reductores MC.R..



55480AXX

* = Posición de montaje no estándar / orientación de la carcasa. Las posiciones del calentador, de la varilla de nivel y del tapón de drenaje de aceite sirven sólo como ejemplo. Consulte el plano de cotas específico de cada pedido.

+ = En posición de montaje horizontal, el tapón de drenaje de aceite está siempre ubicado en el lado opuesto del eje de salida.



4 Planificación del Proyecto para los accionamientos

4.1 Documentación complementaria

Además de la información que se brinda en este catálogo, SEW-EURODRIVE ofrece una extensa documentación sobre toda el área temática correspondiente a la tecnología de accionamiento eléctrico. Esta documentación corresponde fundamentalmente a la serie "Ingeniería de Accionamiento - Implementación práctica". La documentación actual de SEW-EURODRIVE puede solicitarse por encargo, o descargarse del sitio Web de SEW-EURODRIVE (<http://www.sew-eurodrive.com>).

Ingeniería de accionamiento - Implementación Práctica

La publicación "Ingeniería de accionamiento - Implementación práctica - Disposiciones de accionamientos con motorreductores SEW-EURODRIVE" contiene información extensa sobre las características, peculiaridades distintivas y áreas de aplicación de los accionamientos SEW. Una extensa colección y denominación de las fórmulas más importantes para el cálculo del accionamiento y ejemplos detallados de las aplicaciones de uso más frecuente hacen de esta documentación una herramienta importante para el planificador de proyectos y un suplemento esencial al catálogo de productos SEW-EURODRIVE.



4.2 Datos para la selección del accionamiento

1.0 Máquina en LSS (normalmente la máquina accionada)

Leyenda: [...] = introducir valores
[X] = seleccionar mediante

1.1 Campo de aplicación/industria [...]

1.2 Aplicación [...]

1.3 Temperatura ambiente [°C] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

1.4 Altitud [m] [...]

1.5 Instalación [X]

- salas cubiertas muy pequeñas ($v_a \leq 1$ m/s)
- salas pequeñas ($v_a \geq 2$ m/s)
- salas y recintos grandes ($v_a \geq 3$ m/s)
- recintos abiertos con tejado
- al aire libre, desprotegida

1.6 Condiciones ambiente [X]

- normales
- sucias
- húmedas
- corrosivas
- secas

2.0 Condiciones de carga

2.1 Velocidad requerida n_2 [1/min] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

2.2 Potencia de entrada P_{K1} [kW] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

2.3 Par de salida M_{K2} [kNm] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

2.4 Frecuencia del pico de carga ($M_{K2 \text{ máx.}}$ or $P_{K1 \text{ máx.}}$) [...]

 por hora

2.5 Número de arranques por hora [...]

 arranques

2.6 Sentido de giro con carga (LSS) [X]

- horario (CW)
- antihorario (CCW)
- ambas direcciones
- reversible

2.7 Periodo/día de funcionamiento [X]

- ≤ 3 horas
- 3 ... 10 horas
- > 10 horas

2.8 Antirretorno necesario en el reductor [X]

- No
- Si

2.9 Ciclo de carga exacto aplicado [X]

- No
- Si

3.0 Máquina en HSS (normalmente la máquina de accionamiento)

3.1 Tipo: [X]

- Motor AC Motor AC/convertidor Motor DC
- Motor hidráulico Servomotor

3.2 Potencia del motor P_M [kW] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

3.3 Velocidad del motor n_M [1/min] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

3.4 Par del motor M_M [kNm] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

3.5 Velocidad de entrada n_1 [1/min] [...]

normal	mín.	máx.
<input type="text"/>	<input type="text"/>	<input type="text"/>

3.6 En caso de motor eléctrico: [X] [...]

- IEC
- NEMA

Tamaño del motor (código IEC- o NEMA):

3.7 Montaje del motor [X] [...]

- B3
- B5
- V1
- otros:

4.0 Requisitos del reductor

4.1 Tipo de reductor [X]

- Helicoidal "P"
- Cónico "R"

4.2 Diseño del reductor [X]

- Horizontal LSS "L"
- Vertical LSS "V"
- Montado hacia arriba "E"

4.3 Orientación de la carcasa* [X]

- M1 M4
- M2 M5
- M3 M6

4.4 Superficie de montaje* [X]

- F1 F4
- F2 F5
- F3 F6

*marcar únicamente en caso de no ser estándar

4.5 Posición del eje [X]

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2
<input type="checkbox"/> 3	<input type="checkbox"/> 4	



4.6 Requisitos de factor de servicio $F_{S\ min.}$ [X] [...]

- en Potencia del motor P_M /par del motor M_M
 Potencia operativa del reductor P_{K1} /
 Par de funcionamiento M_{K1}

4.7 Requisitos de vida útil para el rodamientos $L_{h\ min.}$ [...]

 horas

4.8 Montaje del reductor [X]

- Patas
 Brida
 Brazo de par

4.9 Conexión LSS al eje de la máquina de cliente [X] [...]

- Acoplamiento elástico (tipo pinza o clavija)
 Acoplamiento flexible (tipo reductor o disco de acero)
 Acoplamiento de brida rígida
 Acoplamiento cilíndrico
 Cadena
 Piñón

- Eje hueco - brazo de par
 Eje hueco - montado con patas
 Eje hueco - montado en brida

otros:

4.10 Diseño del reductor LSS [X] [...]

Diseño LSS (en caso de eje macizo)

- Eje macizo con chaveta
 Eje macizo sin chaveta
 Eje macizo nervado DIN 5480

otros:

Diseño LSS (en caso de eje hueco)

- Eje hueco con chaveta
 Eje hueco para la conexión del disco de contracción, disco de contracción incluido
 Eje hueco con acanalado DIN 5480

otros:

4.11 Conexión HSS al motor [X]

- Instalación del cliente (bancada con fundación)
 Adaptador de motor con acoplamiento elástico
 Bancada oscilante
 Dispositivo de ataque del motor con accionamiento por correa trapezoidal
 Consola motor (sugar scoop)
 otros, ver esquema

4.12 Soporte de cojinete LSS

- 2 rodamientos, el reductor sólo transmite par
 1 rodamiento en posición opuesta al reductor, el reductor actúa como cojinete
 1 rodamiento junto al reductor, el reductor actúa como cojinete

4.13 Carga en LSS [X] [...]

Carga axial F_{A2} [kN] normal mín. máx.

Carga radial F_{R2} [kN] normal mín. máx.

Distancia al tope del eje [mm] normal mín. máx.

Ángulo de aplicación de la carga radial [°]
 o giratorio

4.14 Carga en HSS [X] [...]

Carga axial F_{A1} [kN] normal mín. máx.

Carga radial F_{R1} [kN] normal mín. máx.

Distancia al tope del eje [mm] normal mín. máx.

Ángulo de aplicación de la carga radial [°]
 o giratorio

4.15 Suministro eléctrico [X] [...]

Red eléctrica U_{red} CA Trifásica CA Monofásica CC V HZ

Alimentación auxiliar U_{aux} CA Trifásica CA Monofásica CC V HZ

Clase de protección IP

Requisito a prueba de explosión Si No

4.16 Refrigeración adicional (si se requiere) [X]

	Permitida	No permitida
Ventilador	<input type="checkbox"/>	<input type="checkbox"/>
Refrigeración por aceite/aire	<input type="checkbox"/>	<input type="checkbox"/>
Refrigeración por aceite/agua	<input type="checkbox"/>	<input type="checkbox"/>

Agua de refrigeración disponible No Si



4.3 Procedimiento para la planificación de proyecto

El diagrama de flujo siguiente representa de forma esquemática el procedimiento para la planificación de proyecto de un reductor industrial.

→ Para los datos de selección del accionamiento consulte el capítulo 4.2

- Máquina en LSS y bajo condiciones ambientales
- Condiciones de carga
- Máquina en HSS
- Requisito del reductor
 - Tipo y diseño
 - Factor de servicio
 - Montaje y conexión a la máquina en LSS
 - Cargas en LSS y HSS



Selección del reductor

- Calcule el coeficiente de reducción: $i = \frac{n_1}{n_2}$
- Calcule la potencia de entrada: $P_{K1} = \frac{M_{K2} \times n_2}{9,550 \times \eta}$
- Especifique el tamaño del reductor y el coeficiente de reducción
 Para un sentido de giro con carga: $P_{N1} \geq P_{K1} \times F_S$
 Para dos sentidos de giro con carga (inversión): $P_{N1} \geq P_{K1} \times F_S \times 1.43$ o
 $P_{N1, rev} \geq P_{K1} \times F_S$ with $P_{N1, rev} = 0,7 P_{N1}$
- Calcule el pico de carga permitido: $P_{K1 zul} = \frac{2 \times P_{N1}}{F_F}$ o $M_{K2 zul} = \frac{2 \times M_{N2}}{F_F}$
- Revise el pico de carga: $P_{K1 max} \leq P_{K1 zul}$ or $M_{K2 max} \leq M_{K2 zul}$
- Calcule la capacidad térmica: $P_T = P_{TH} \times f_1 \times f_2 \times f_L \times f_T$
- Revise la capacidad térmica: $P_{K1} \leq P_T$
- Revise las cargas de eje radiales y axiales externas
 → para las condiciones mencionadas en el capítulo 5.4: $F_{R2} \leq F_{Ra}$ y $F_{R1} \leq F_{Re}$
 → para condiciones diferentes contacte con SEW-EURODRIVE



Seleccione la conexión al motor (si se requiere) → capítulo 6.5... 6.7



Seleccione sistemas de sellado alternativo (si se requiere) → capítulo 6.4



Seleccione los componentes disipadores de calor y de lubricación por presión (si se requiere) → capítulo 7



Seleccione las funciones de vigilancia e instrumentación (si se requiere) → capítulo 7



Revise si se satisfacen todos los requisitos definidos.



5 Planificación de Proyectos para Reductores

5.1 Rendimiento de los reductores

El rendimiento del reductor es determinado principalmente por la fricción de los engrases y los rodamientos. Tenga en cuenta que el rendimiento inicial de un reductor es siempre menor que su rendimiento a la velocidad en funcionamiento.

El rendimiento de los reductores MC.. helicoidales y cónicos varía dependiendo del número de etapas del reductor.

Basado en la potencia nominal, el rendimiento η es aproximadamente:

- MC2P: 0.97
- MC3P: 0.955
- MC2R: 0.97
- MC3R: 0.955

5.2 Factor de servicio F_S , factor de pico F_F

Factor de servicio F_S

El factor de servicio tiene en cuenta los impactos de la carga generados por el motor de accionamiento y la máquina accionada.

Los valores recomendados con respecto al

- campo de aplicación
- la máquina accionada
- el periodo operativo / día

se muestran en la siguiente tabla.

Estas tablas son válidas para **los motores eléctricos** utilizados como máquinas de accionamiento.

Para otros tipos de máquinas de accionamiento se aplican los siguientes valores de corrección:

- Motores de combustión con cuatro o más cilindros: F_S (tabla de selección) + 0,25
- Motores de combustión con uno o tres cilindros: F_S (tabla de selección) +0,5



Campo de aplicación/industria	Máquina accionada	Factor de servicio periodo operativo / día		
		< 3 h	3-10 h	> 10 h
Agitadores y mezcladores	Agitadores para líquidos	1.00	1.25	1.50
	Agitadores para líquidos (densidad variable)	1.20	1.50	1.65
	Agitadores para sólidos (material no uniforme)	1.40	1.60	1.70
	Agitadores para sólidos (material uniforme)	-	1.35	1.40
	Mezcladores de cemento	-	1.50	1.50
Transportadores por cable	Transportador de materiales por cable	-	1.40	1.50
	Teleféricos	1)	1)	1)
	Telesquís	1)	1)	1)
	Teleféricos de circulación continua	1)	1)	1)
	Funiculares	1)	1)	1)
Cintas transportadoras	Elevadores de cangilones	-	1.40	1.50
	Elevadores - otros tipos	-	1.50	1.80
	Cintas transportadoras ≤ 100 kW	1.15	1.25	1.40
	Cintas transportadoras > 100 kW	1.15	1.30	1.50
	Alimentadores de banda	-	1.25	1.50
	Alimentadores de tornillos	1.15	1.25	1.50
	Removedores, tamices	1.55	1.75	2.00
	Escaleras mecánicas	1.55	1.25	1.50
	Elevadores de pasajeros	1)	1)	1)
Compresores	Compresores alternativos	-	1.80	1.90
	Compresores centrífugos	-	1.40	1.50
	Compresores helicoidales	-	1.50	1.75
Grúas y equipos de elevación	Grúas y equipos de elevación	1)	2	2)
Energía	Convertidores de frecuencia	-	1.80	2.00
	Ruedas hidráulicas (baja velocidad)	-	-	1.70
	Turbinas hidráulicas	-	-	1)
Ventiladores	Intercambiadores de calor	1.50	1.50	1.50
	Torres de refrigeración en seco	-	-	2.00
	Torres de refrigeración húmeda	2.00	2.00	2.00
	Sopladores (axiales y radiales)	1.50	1.50	1.50
Industria alimentaria	Trituradoras y molinos	-	-	1.75
	Rebanadora de remolacha	-	1.25	1.50
	Tambores de secado	-	1.25	1.50
laminación	Bobinadoras	-	1.60	1.75
	Cortadoras	1.55	1.75	2.00
	Mesa transportadora, accionamientos individuales	1)	1)	1)
	Mesa transportadora, accionamientos en grupo	1)	1)	1)
	Mesa transportadora reversible	1)	1)	1)
	Máquinas de tracción de cable	1.35	1.50	1.75
	Aplanadoras	1)	1)	1)

1. Contacte a SEW-EURODRIVE
2. Contacte con SEW-EURODRIVE; dimensionamiento conforme con FEM1001



Campo de aplicación	Máquina accionada	Factor de servicio periodo de funcionamiento / día		
		< 3 h	3-10 h	> 10 h
Molinos y tambores	Secadoras y disipadoras de calor	-	1.50	1.60
	Hornos	-	-	2.00
	Molinos de bolas	-	-	2.00
	Molinos de carbón	-	1.50	1.75
Bombas	Bombas centrífugas	1.15	1.35	1.45
	Bomba de émbolos (un sólo émbolo)	1.35	1.50	1.80
	Bomba de émbolos (émbolos múltiples)	1.20	1.40	1.50
	Bombas espirales	-	1.25	1.50
	Bomba centrífuga (bomba de engranajes, de aletas)	-	-	1.25
Industria maderera	Industria maderera	1	1)	1)
Industria minera	Trituradoras	1.55	1.75	2.00
	Cribas y agitadores	1.55	1.75	2.00
	Accionamientos de giro	-	1.55	1.80
	Dragas	1)	1)	1)
Industria de la pulpa y del papel	Cilindros para descortezar y Descortezadoras	1.55	1.80	-
	Ruedas (recogida, accionamiento por cable, succión por cable)	-	1.80	2.00
	Cilindros secadores (rodamientos anti-fricción)	-	1.80	2.00
	Calandras (rodamientos anti-fricción)	-	1.80	2.00
	Filtros (presión de vacío)	-	1.80	2.00
	Batidoras y astilladoras	1.55	1.75	2.00
	Molino Jordan	-	1.50	1.75
	Prensas (corteza, fieltro, dimensión, succión)	-	-	1.75
	Bobinas	-	-	1.75
	Despulpadoras	1)	1)	1)
	Filtros de lavadoras	-	-	1.50
	Cilindros Yankee (secadoras)	1)	1)	1)
Industria de la goma y del plástico	Extrusoras (plástico)	-	1.40	1.60
	Extrusoras (goma)	-	1.50	1.80
	Molinos de goma (2 cilindros)	1.55	1.75	2.00
	Molinos de goma (3 cilindros)	-	1.50	1.75
	Molinos con calentamiento	1.35	1.50	1.75
	Calandras	-	1.65	1.65
	Trituradoras	1.55	1.75	2.00
	Molinos mezcladores	1)	1)	1)
	Laminadoras	1.55	1.75	2.00
	Refinadoras	1.55	1.75	2.00
	Tubadoras	1)	1)	1)
Tratamiento de aguas residuales	Ventilador centrífugo	-	1.80	2.00
	Espesadoras	1.15	1.25	1.50
	Filtros de vacío	1.15	1.30	1.50
	Colectores	1.15	1.25	1.50
	Bomba helicoidal	-	1.30	1.50
	Aireadores	-	-	2.00

1. Contacte a SEW-EURODRIVE



Factor de pico F_F El factor de pico F_F toma en consideración la frecuencia de los picos de carga.

El pico de carga permitido depende de la frecuencia por hora y se calcula conforme a la siguiente fórmula:

1. Basado en el par

$$M_{K2\ zul} = \frac{2 \times M_{N2}}{F_F}$$

$M_{K2\ zul}$ = pico de par permitido en la salida del reductor
 M_{N2} = par nominal del reductor
 F_F = factor de pico conforme a la siguiente tabla

2. Basado en la potencia

$$P_{K1\ zul} = \frac{2 \times P_{N1}}{F_F}$$

$P_{K1\ zul}$ = pico de potencia permitido en la entrada del reductor
 P_{N1} = potencia nominal del reductor
 F_F = factor de pico conforme a la siguiente tabla

	Frecuencia de picos de carga por hora					
	1...5	6...20	21...40	41...80	81...160	> 160
Factor de pico F_F	1.00	1.20	1.30	1.50	1.75	2.00



Los reductores sólo pueden sobrecargarse durante un corto periodo de tiempo. Los picos de carga individuales no deben durar más de diez segundos.

5.3 Capacidad térmica P_T

La capacidad térmica P_T de un reductor es la potencia que puede transmitir continuamente sin sobrepasar cierta temperatura de aceite. La capacidad térmica depende de los siguientes factores:

- Tipo de lubricante utilizado
- Temperatura ambiente
- Relación interna
- Métodos opcionales de ventilación forzada (p. ej. ventilador en HSS)
- Altitud de instalación del reductor (tabla →, factor de altitud f_1)
- Método de lubricación del reductor (tabla →, factor de lubricación f_L)



Para las siguientes condiciones ambientales, la capacidad térmica puede leerse directamente de las tablas de selección para

- temperaturas ambiente de 20°C o 40°C,
- para ventilación natural o para ventilación con ventilador (o dos ventiladores para los modelos MC2P)
- altitudes de < 1000 m ($f_1 = 1$)
- posiciones respectivas de montaje
- lubricación por barboteo (posición de montaje horizontal) o por baño (posiciones de montaje vertical y hacia arriba)

$$P_T = P_{TH} \times f_1 \times f_2 \times f_L \times f_T$$

P_{TH} = Capacidad térmica nominal del reductor. Los valores que se muestran en las tablas de selección de los capítulos 10 y 11 dependen de la temperatura ambiente y del método de refrigeración.

Para
 20°C: $P_{TH [20]}$
 40°C: $P_{TH [40]}$
 con un ventilador
 20°C: $P_{TH [20]}$
 40°C: $P_{TH [40]}$
 con dos ventiladores
 20°C: $P_{TH [20]}$
 40°C: $P_{TH [40]}$

f_1 = Factor de altitud

f_2 = Factor de opción de montaje
 1,07 = eje montado con brazo de par
 1,00 = el resto de opciones de montaje

f_L = Factor de lubricación
 1,0 = lubricación por barboteo y por baño
 1,1 = lubricación por presión

f_T = Factor de temperatura ambiente
 Las tablas de selección ya toman en consideración las diferentes temperaturas ambiente; el factor es, por tanto, sólo importante para temperaturas ambiente por encima de 40°C. Para temperaturas ambiente de 30°C, la capacidad térmica puede determinarse por interpolación

$$P_{TH [30]} = \frac{P_{TH [20]} + P_{TH [40]}}{2}$$

5

Factor de altitud

f_1

	Altitud H [metros por encima del nivel del mar]				
	0	1000	2000	3000	4000
f_1^1	1.00	0.95	0.91	0.87	0.83

1. Los valores intermedios deben interpolarse



Consulte a SEW-EURODRIVE en caso de condiciones diferentes.



Temperatura ambiente
factor f_T

Temperatura ambiente	20°C	30°C	40°C	50°C
f_T	1.0 ¹	1.0 ^{1), 2}	1.0 ¹⁾	Contacte a SEW-EURODRIVE

1. Las tablas de selección en el capítulo 5 ya toman en consideración las diferentes condiciones ambientales.
2. Es posible la interpolación entre PTH[20] y PTH[40] en los capítulos 10 y 11

5.4 Cargas de los ejes, radiales y axiales externas

Las cargas permitidas en los ejes del reductor dependen de

- factor de servicio del reductor
- vida útil requerida para los rodamientos
- dirección de la carga axial (contra o hacia fuera del reductor)
- ángulo de aplicación de la carga radial (en rotación o en una posición específica)
- posición de la carga radial en relación al tope del eje del reductor
- relación de la carga axial con la radial y viceversa

Los elementos limitantes en un reductor, en términos de carga sobre el LSS, dependen de

- la carga permitida para la carcasa del reductor
- la fuerza/tensión permitida en los pernos de conexión de la base del reductor o en la brida de montaje
- esfuerzo permitido en el eje del reductor
- vida útil mínima de los rodamientos

Basado en estos factores, las tablas de selección en los capítulo 10 y 11 muestran un valor de carga radial correspondiente a las condiciones siguientes:

- La carga radial se aplica en el centro del eje
 - HSS: F_{RE}
 - LSS: F_{RA}
- Este ángulo de aplicación de la carga radial se aplica en la posición más desfavorable
- ¡La carga axial aplicada es 0!
- El factor de servicio del reductor es $F_S = 1,5$ o superior
- La vida útil del rodamiento es igual o mayor que el valor mínimo según las normas SEW

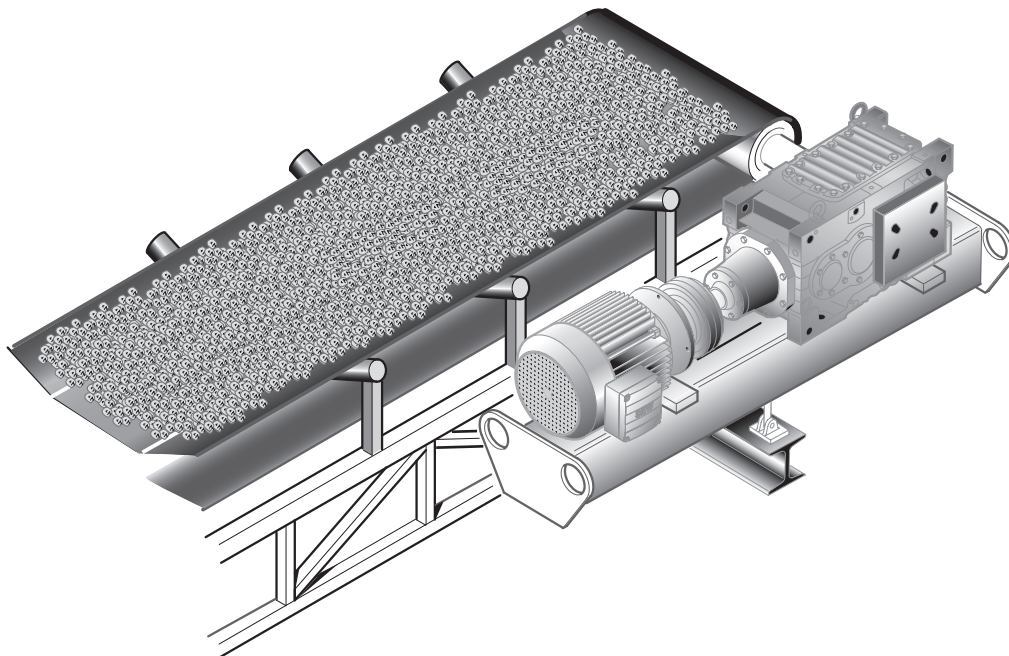


Contacte a SEW-EURODRIVE en caso de condiciones diferentes. En muchos casos pueden aplicarse cargas superiores.



5.5 Ejemplo de planificación de proyecto: Accionamiento de cinta transportadora

El material a granel ha de ser transportado de un punto a otro utilizando una cinta transportadora.



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Datos técnicos y condiciones de aplicación de los reductores para elevadores de cangilones

- Reductor montado con patas y eje hueco
- Velocidad de salida $n_2 = 35$ 1/min
- Par de salida $M_{K2} = 9000$ Nm
- Par de salida máximo $M_{K2 \max} = 16$ kNm
- Máxima potencia de entrada $P_{K1 \max} = 61,4$ kW
- Tiempo de funcionamiento: 16 horas por día
- El reductor se pone en marcha una vez por hora (frecuencia del par máximo de salida)
- El reductor ha de utilizarse en una recinto grande, en ambiente con mucho polvo y en un rango de temperatura ambiente de $\vartheta_{\text{amb}} = 0^\circ\text{C} \dots 40^\circ\text{C}$
- Altitud de instalación $H = 1000$ m
- Mín. factor de servicio $F_S = 1.4$

Datos técnicos de los motores CA

- Velocidad de entrada $n_1 = 1500$ 1/min
- Potencia del motor $P_m = 45$ kW



Planificación de Proyectos para Reductores

Ejemplo de planificación de proyecto: Accionamiento de cinta transportadora

Paso 1: Cálculo del índice de reducción

Calcule el índice de reducción del reductor, i , utilizando la siguiente fórmula:

$$i = \frac{n_1}{n_2} = \frac{1500 \text{ 1/min}}{35 \text{ 1/min}} = 42.86$$

i = índice
 n_1 = velocidad de entrada
 n_2 = velocidad de salida requerida

Este valor se utiliza para especificar el índice de reducción nominal $i_N = 45$ (→ capítulos 10 y 11).

Paso 2: Cálculo de la potencia operativa

La potencia de entrada P_{K1} del accionamiento se calcula de la manera siguiente, utilizando el par de salida M_{K2} o la potencia de salida P_{K2} así como la velocidad de salida n_2 y el rendimiento η :

$$P_{K1} = \frac{M_{K2} \times n_2}{9.550 \times \eta} = \frac{9 \text{ kNm} \times 35 \text{ 1/min}}{9.550 \times 0.955} = 34.54 \text{ kW}$$

P_{K1} = potencia de entrada
 M_{K2} = par de salida
 η = rendimiento (→ capítulo 5.1):

(donde $\eta = 0,955$ para reductores de tres etapas)

Paso 3: Especificación del tamaño del reductor y del índice de reducción.

La potencia nominal requerida del reductor P_{N1} se calcula utilizando la potencia de entrada P_{K1} y el factor de servicio $F_S = 1,4$, mediante la siguiente fórmula:

$$P_{N1} \geq P_{K1} \times F_S$$

$$P_{N1} = 34,54 \text{ kW} \times 1,4 = 48,35 \text{ kW}$$

Este valor se utiliza para seleccionar el tamaño del reductor MC3RLHF04 a partir de las tablas de selección (→ capítulo 11).

La selección del reductor proporciona los siguientes datos técnicos:

- Potencia nominal $P_{N1} = 55,8 \text{ kW}$
- Índice de reducción nominal $i_N = 45$ → índice de reducción exacto $i_{ex} = 44.302$
- Par nominal del reductor $M_{N2} = 15 \text{ kNm}$



Paso 4:
Cálculo del pico de carga permitido

El pico de potencia permitido $P_{K1\ zul}$ se calcula utilizando la potencia nominal P_{N1} y el factor de pico F_F (tabla →, factor F_F):

$$P_{K1\ zul} = \frac{2 \times P_{N1}}{F_F} = \frac{2 \times 48.35 \text{ kW}}{0.87} = 111.6 \text{ kW}$$

$P_{K1\ zul}$ = pico de potencia permitido en el reductor
 P_{N1} = potencia nominal
 F_F = factor de pico

El pico de par permitido $M_{K2\ zul}$ se calcula utilizando el par nominal M_{N2} del reductor determinado en el paso 3 y el factor de pico F_F (tabla →, factor F_F).

$$M_{K2\ zul} = \frac{2 \times M_{N2}}{F_F} = \frac{2 \times 15 \text{ kNm}}{0.87} = 30 \text{ kNm}$$

$M_{K2\ zul}$ = pico de par permitido en la salida del reductor
 M_{N2} = par nominal del reductor
 F_F = factor de pico

5

Paso 5:
Revisión del pico de carga

¡La potencia operativa máxima $P_{K1\ max}$ no debe exceder el pico de potencia permitido $P_{K1\ zul}$!

$$P_{K1\ max} \leq P_{K1\ zul}$$

$$61,4 \text{ kW} \leq 111,6 \text{ kW}$$

o

El par de salida máximo $M_{K2\ max}$ no debe exceder el pico de par permitido $M_{K2\ zul}$

$$M_{K2\ max} \leq M_{K2\ zul}$$

$$16 \text{ kNm} \leq 30 \text{ kNm}$$

Eso significa que puede utilizar el tamaño de reductor seleccionado.



Planificación de Proyectos para Reductores

Ejemplo de planificación de proyecto: Accionamiento de cinta transportadora

Paso 6: Cálculo de la carga térmica

$$P_T = P_{TH} \times f_1 \times f_2 \times f_L \times f_T = 29 \text{ kW} \times 1.0 \times 1.0 \times 1.0 = 29 \text{ kW}$$

- P_T = capacidad térmica nominal del reductor a 40°C.
- P_{TH} = capacidad térmica
- f_1 = factor de altitud
- f_2 = factor de opción de montaje
- f_L = factor de lubricación
- f_T = factor de temperatura ambiente



Son posibles cargas térmicas superiores cuando se utilizan lubricantes sintéticos y retenes de aceite especiales. Contacte a SEW-EURODRIVE en tales casos.

Comprobación de la carga térmica

La potencia de entrada P_{K1} no debe exceder la capacidad térmica P_Y ($P_{K1} \leq P_T$). Se requiere refrigeración adicional si $P_{K1} > P_Y$.

$$34,54 \text{ kW} > 29 \text{ kW}$$

→ La capacidad térmica no es suficiente a 40°C
con un ventilador:

$$P_T = P_{TH [40]} \times f_1 \times f_2 \times f_L \times f_T = 72 \text{ kW} \times 1.0 \times 1.0 = 72 \text{ kW}$$

- P_T = capacidad térmica nominal a 40°C con un ventilador
- P_{TH} = capacidad térmica
- f_1 = factor de altitud
- f_2 = factor de opción de montaje



5.6 Ejemplo de planificación de proyecto: Accionamiento mezclador



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Datos técnicos y condiciones de aplicación

Un líquido con densidad constante ha de ser agitado.

- Reductor helicoidal con ejes paralelos
- Posición de montaje vertical, eje de salida macizo
- Velocidad de salida requerida $n_2 = 51$ 1/min
- Potencia de salida del reductor $P_{K2} = 77$ kW
- Pico de par de entrada $M_{K1 \max} = 1,45$ kNm
- Tiempo de funcionamiento: 24 horas por día
- El reductor se pone en marcha dos veces al día (frecuencia de par máximo de entrada)
- El reductor funciona en exteriores bajo un techo protector. Rango de temperatura ambiente: $0^{\circ}\text{C} \dots 40^{\circ}\text{C}$, velocidad del viento aprox. 3 m/s, humedad normal
- Altitud de instalación $H = 500$ m
- Conectado al eje mezclador con acoplamiento flexible; el eje mezclador tiene soportes externos, sin cargas radiales ni axiales sobre el eje del reductor
- Reductor montado con patas



Datos técnicos del motor CA

- Potencia del motor $P_M = 90 \text{ kW}$
- Velocidad nominal: $n_M = 1485 \text{ 1/min}$
- Tamaño IEC 280 M, brida $\varnothing 550 \text{ mm}$, eje $\varnothing 75 \text{ mm} \times 140 \text{ mm}$

Paso 1: Cálculo del coeficiente de reducción

Calcule el coeficiente de reducción del reductor, i , utilizando la siguiente fórmula:

$$i = \frac{n_1}{n_2} = \frac{1485 \text{ 1/min}}{51 \text{ 1/min}} = 29.12$$

i = coeficiente
 n_1 = velocidad de entrada
 n_2 = velocidad de salida requerida

El valor se utiliza para especificar el coeficiente de reducción nominal $i_N = 28$ (→ capítulo 10).

Paso 2: Cálculo de la potencia operativa

La potencia de entrada P_{K1} del accionamiento se calcula de la manera siguiente, utilizando la potencia de salida P_{K2} o el par de salida M_{K2} así como la velocidad de salida n_2 y el rendimiento:

$$P_{K1} = \frac{P_{K2}}{\eta} = \frac{77 \text{ kW}}{0.955} = 80.6 \text{ kW}$$

P_{K1} = potencia operativa
 P_{K2} = potencia de salida del reductor
 η = rendimiento (→ capítulo 5,1):

Paso 3: Especificación del factor de servicio F_S

Si el cliente no especifica el factor de servicio, éste puede determinarse de acuerdo con la tabla del capítulo 5.2.

Campo de aplicación: Agitadores y mezcladores
 Máquina accionada: Agitadores para líquidos
 Periodo de funcionamiento diario: > 10 h

→ $F_S = 1,5$



Paso 4:
Especificación del tamaño del reductor y coeficiente de reducción exacto

La potencia nominal requerida del reductor P_{N1} se calcula utilizando la potencia operativa P_{K1} y el factor de servicio F_S , mediante la siguiente fórmula:

$$P_{N1} \geq P_{K1} \times F_S$$

$$P_{N1} \geq 80,6 \text{ kW} \times 1,5 = 120,9 \text{ kW}$$

Par nominal aproximado requerido del reductor M_{N2} :

$$M_{N2} = \frac{P_{N1}}{n_2} = \frac{120,9 \text{ kW}}{51 \text{ 1/min}} \times 9,55 = 22,6 \text{ kNm}$$

M_{N2} = par nominal aproximado requerido del reductor
 P_{N1} = potencia nominal requerida del reductor
 n_2 = velocidad de salida requerida

Preselección en la página de datos:

Clase de par 25 kNm - Tamaño 06 - Vertical - 1500 1/min

→ Capítulos 10 y 11

- Potencia nominal: 134 kW
- Coeficiente nominal $i_N = 28$ → Coeficiente exacto $i_{ex} = 29,61$
→ Velocidad de salida $n_2 = 1485 \text{ 1/min} / 29,61 = 50,1 \text{ 1/min}$
- Par nominal del reductor: $M_{N2} = 24,1 \text{ kNm}$
- Capacidad térmica a 40°C
 - 50 kW sin ventilador
 - 115 kW con ventilador

Paso 5:
Cálculo del pico de par permitido

El pico de par permitido $M_{K2 \text{ zul}}$ se calcula utilizando el par nominal M_{N2} del reductor determinado en el paso 4 y el factor F_F (tabla →, factor F_F)

$$M_{K2 \text{ zul}} = \frac{2 \times M_{N2}}{F_F} = \frac{2 \times 24,1 \text{ kNm}}{1} = 48,2 \text{ kNm}$$

$M_{K2 \text{ zul}}$ = pico de par permitido
 M_{N2} = par nominal del reductor
 n_2 = velocidad de salida requerida



Paso 6:
Comprobación del par máximo de salida

¡El par máx de salida $M_{K2 \max}$ no debe exceder el par de salida permitido $M_{K2 \text{ zul}}$!

$$M_{K2 \max} \leq M_{K2 \text{ zul}}$$

con

$$M_{K2 \max} = M_{K1 \max} \times i_{\text{ex}} \times \eta = 1,45 \text{ kNm} \times 29,61 \times 0,955 = 41 \text{ kNm}$$

$M_{K2 \max}$ = par de salida máximo
 $M_{K1 \max}$ = par de entrada máximo
 i_{ex} = velocidad de salida requerida
 η = rendimiento (→ capítulo 5,1):

$$\rightarrow 41,0 \text{ kNm} \leq 48,2 \text{ kNm}$$

Eso significa que puede utilizar el tamaño de reductor seleccionado

Paso 7:
Cálculo de la carga térmica

$$P_T = P_{TH} \times f_1 \times f_2 \times f_L \times f_T$$

P_T = capacidad térmica
 P_{TH} = capacidad térmica nominal
 f_1 = factor de altitud
 f_2 = factor de opción de montaje
 f_L = factor de lubricación
 f_T = factor de temperatura ambiente

Con P_{TH} de los capítulos 10 y 11:

$$f_1, f_2, f_L, f_T = 1.0$$

Sin ventilador a 40°C: $P_T = 50 \text{ kW}$

Con ventilador a 40°C: $P_T = 115 \text{ kW}$

Resultado:

Capacidad térmica sin ventilador: 50 kW a una temperatura ambiente de 40°C

Capacidad térmica con ventilador: 115 kW a una temperatura ambiente de 40°C

Paso 8:
Comprobación de la capacidad térmica

La potencia operativa P_{K1} no debe exceder la capacidad térmica del reductor.

$$P_{K1} \leq P_T$$

Sin ventilador: ¡80,6 kW > 50kW → capacidad térmica insuficiente!

Resultado:

Con ventilador: ¡80,6 kW < 115 kW → capacidad térmica suficiente, requiere ventilador!

Paso 9:
Selección de los accesorios del reductor

- Depósito de expansión de aceite, hecho de fundición, para la lubricación por baño
- Juntas radiales dobles en el LSS (estándar para modelos verticales)
- Adaptador para motor IEC 280
- Acoplamiento elástico de tipo ROTEX 65 sobre el eje de entrada; un moyú montado en el reductor, otro moyú con taladros y chaveta para la conexión al motor respectivo
- Ventilador en el adaptador del motor



6 Planificación de Proyectos para Accesorios Opcionales

6.1 Brida de Montaje en el eje de salida

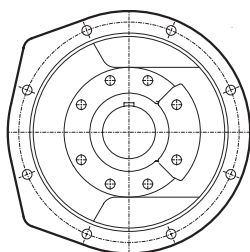
Uso

Los reductores pueden suministrarse con una brida de montaje en el LSS. La brida de montaje puede utilizarse básicamente para los tres tipos de reductores:

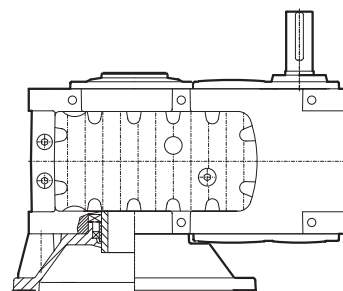
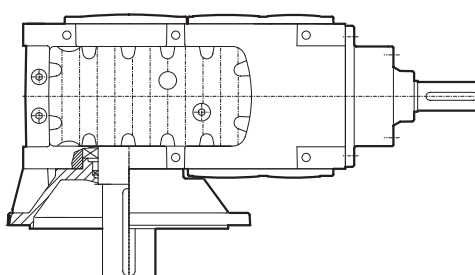
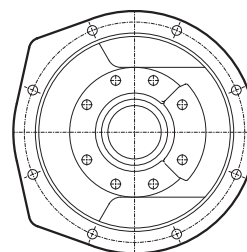
- LSS horizontal (MC. L..)
- LSS vertical (MC.V..)
- Posición de montaje hacia arriba (MC.E..)

Disposición

LSS de eje macizo



LSS de eje hueco



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Cotas de conexión

Las cotas de conexión se muestran como opción "/MF" del tipo de reductor respectivo en la sección "Plano de cotas MC...."



Con reductores montados con bridas, observe los límites de peso de los motores montados en el adaptador de motor (→ sección "Adaptador de motor").



Planificación de Proyectos para Accesorios Opcionales

Brida de Montaje en el eje de salida

Especificaciones de las contrabridas del cliente

La contrabrida debe tener las siguientes características:

- Rígida y resistente a la torsión, tomando en consideración
 - el peso del reductor
 - el peso del motor
 - par a transmitir
 - fuerzas adicionales desde la máquina del cliente sobre el reductor (por ej. fuerzas axiales desde y hacia el reductor causadas por un proceso de mezclado)
- Superficie lisa
- Horizontal
- Aislamiento de la vibración, lo que significa que no habrán de transmitirse vibraciones desde máquinas y elementos cercanos
- No deben generarse vibraciones en resonancia



La superficie de montaje de la brida y de la contrabrida deben estar completamente libres de grasa, aceite u otros contaminantes (tales como partículas textiles, polvo, etc.)

El LSS del reductor debe alinearse con la máxima precisión en relación a la contrabrida. La alineación afecta la vida útil del rodamiento, los ejes y el acoplamiento.

Deben utilizarse los siguientes pernos de clase 8.8:

MC...02..04 → M16

MC...05...07 → M20

MC...08...09 → M24



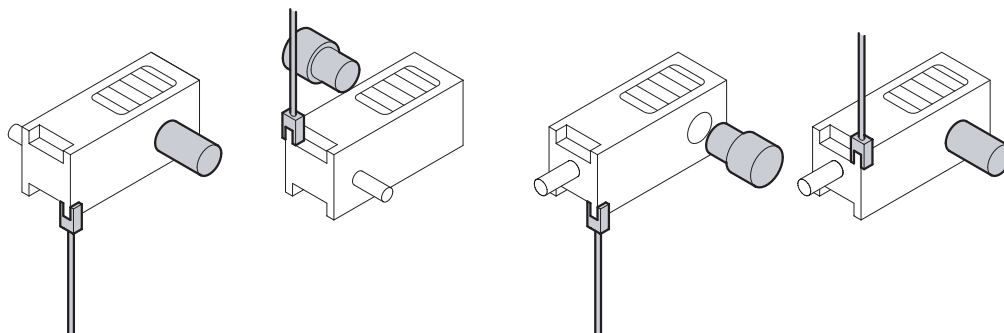
6.2 Brazo de par

Opciones de montaje

Hay una barra de reacción disponible como opción para instalarse directamente en el reductor o en la base oscilante.

Instalada directamente en el reductor.

Instale siempre el brazo de par en la superficie lateral de la máquina accionada.

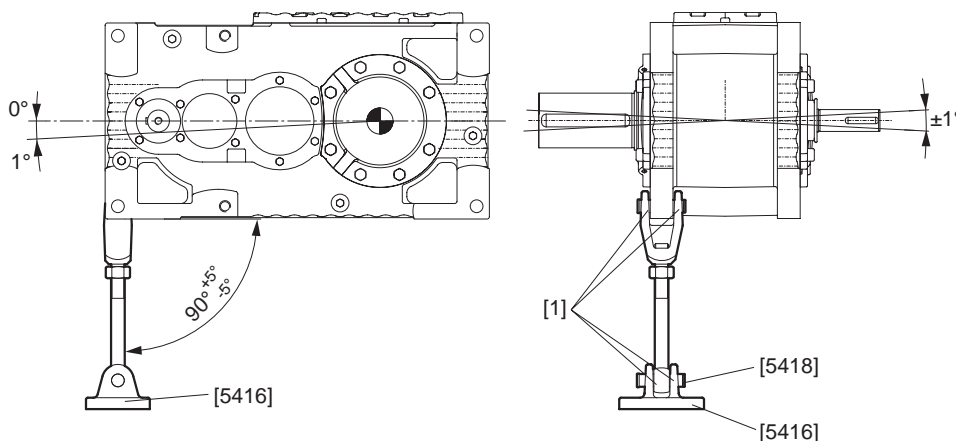


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El brazo de par puede instalarse directamente en el reductor para absorber la tensión de tracción y el esfuerzo por compresión. Puede producirse tensión o esfuerzo adicional en el reductor debido a

- excentricidad durante el funcionamiento
- dilatación de la máquina accionada debido al calor.

Para evitar esa tensión, el perno de anclaje [5418] está equipado con elementos de doble conexión que permiten suficiente juego lateral y radial [1].



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- [1] Juego suficiente
[5416] Disco de retención
[5418] Perno de anclaje



Es esencial que haya suficiente juego [1] entre el brazo de par y la base de retención [5416] así como entre el brazo de par y el reductor. De esta forma no es posible ejercer ninguna fuerza de flexión sobre el brazo de par y los rodamientos del eje de salida no son sometidos a tensión adicional.

La longitud del brazo de par puede seleccionarse dentro de cierto rango.



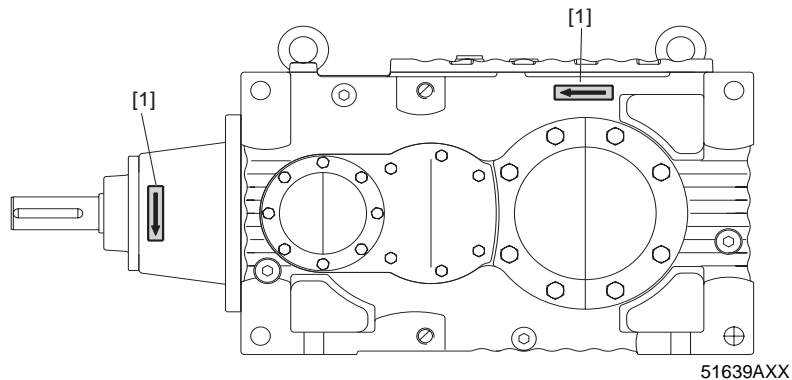
6.3 Antirretorno

Uso El objetivo del antirretorno es evitar la rotación inversa no deseada. Durante el funcionamiento, el antirretorno permite que la rotación tenga lugar sólo en un sentido específico.

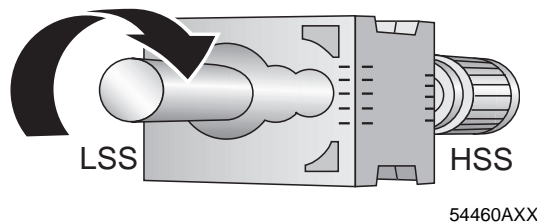
Descripción El antirretorno no necesita mantenimiento y funciona de forma centrífuga desplazando los fiadores. Una vez que se alcanza la velocidad de elevación, los fiadores se despegan de la superficie de contacto del anillo exterior. El antirretorno se lubrica con aceite.

Sentido de giro Los antirretornos se instalan en SEW-EURODRIVE conforme con la especificación. Es por tanto importante especificar el sentido de rotación para el eje de salida. También es importante que el cliente se asegure de que el motor eléctrico conectado gire en el sentido correcto. Si no es así, el pico de par del motor eléctrico puede influir negativamente sobre el antirretorno.

El sentido de giro permitido se indica en la carcasa.



Definición del sentido de giro



El sentido de giro se especifica visto desde el eje de baja velocidad.

- A la derecha (CW)
- A la izquierda (CCW)



Dimensionamiento El tamaño del antirretorno se define de tal forma que la solución estándar pueda utilizarse para cualquier aplicación.

Normas básicas para el dimensionamiento

- Velocidad de rotación del HSS del reductor: 0... 3000 rpm
- Par máximo permitido del antirretorno en relación al eje de salida: al menos 1,8 veces el par nominal del reductor.

Diseño

- MC2P: reductores helicoidales de 2 etapas. Antirretorno ubicado en el lateral de la carcasa del reductor
- MC3P: reductores helicoidales de 3 etapas. Antirretorno ubicado dentro de la carcasa del reductor.
- MC2R: reductores cónicos de 2 etapas. Antirretorno ubicado en el lateral de la carcasa del reductor.
- MC3R: reductores cónicos de 3 etapas. Antirretorno ubicado fuera de la carcasa del reductor.

Posiciones del eje	Posiciones del eje			
	23	13 ¹	24 ¹⁾	14
MC2P <ul style="list-style-type: none"> • Eje macizo • Eje hueco con chaveta • Eje hueco con disco de contracción 				
MC3P <ul style="list-style-type: none"> • Eje macizo • Eje hueco con chaveta • Eje hueco con disco de contracción 				

1. Las cargas externas máximas permitidas sobre el LSS son inferiores



Planificación de Proyectos para Accesorios Opcionales

Antirretorno

	Posiciones del eje			
	03	04	Combinaciones opcionales de antirretorno y posiciones de ejes	
			03 ¹	04 ¹⁾
MC2R • Eje macizo				
MC2R • Eje hueco con chaveta				
MC3R² • Eje macizo • Eje hueco con chaveta • Eje hueco con disco de contracción				
MC2R • Eje hueco con disco de contracción				
MC3R³ • Eje macizo • Eje hueco con chaveta • Eje hueco con disco de contracción				

1. Las cargas externas máximas permitidas sobre el LSS son inferiores
2. Posición del antirretorno: Máquina accionada
3. Posición del antirretorno: Opuesto a la máquina accionada



Revisar la interferencia del antorretorno con la máquina accionada.



6.4 Sistemas de sellado

MC.P. reductores helicoidales, disposiciones de juntas para HSS

	Retén (estándar)	Doble retén con engrasador	Junta de laberinto radial con engrasador
	<p>Retenes simples con cubierta de protección antipolvo</p> <ul style="list-style-type: none"> Entorno limpio 	<p>Doble retén con cubierta de protección antipolvo re-engrasable</p> <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas 	<p>Junta de laberinto radial con engrasador</p> <p>Entorno polvoriento con partículas abrasivas</p>
HSS horizontal			
HSS vertical ascendente			
HSS vertical descendente			



MC.P. reductores cónicos, disposiciones de juntas para HSS

	Retén (estándar)	Doble retén con engrasador	Junta de laberinto radial con engrasador
	Retenes simples con cubierta de protección antipolvo <ul style="list-style-type: none"> Entorno limpio 	Doble retén con cubierta de protección antipolvo re-engrasable <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas 	Junta de laberinto radial con engrasador <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas
HSS horizontal			
HSS vertical ascendente			
HSS vertical descendente			



MC.P., MC.R., disposiciones de juntas para LSS macizo

	Retén (estándar)	Doble retén con engrasador	Junta de laberinto radial con engrasador
	<p>Retenes simples con cubierta de protección antipolvo</p> <ul style="list-style-type: none"> Entorno limpio 	<p>Doble retén con cubierta de protección antipolvo re-engrasable</p> <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas 	<p>Junta de laberinto radial de engrase</p> <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas
HSS horizontal			
HSS vertical ascendente			
HSS vertical descendente			

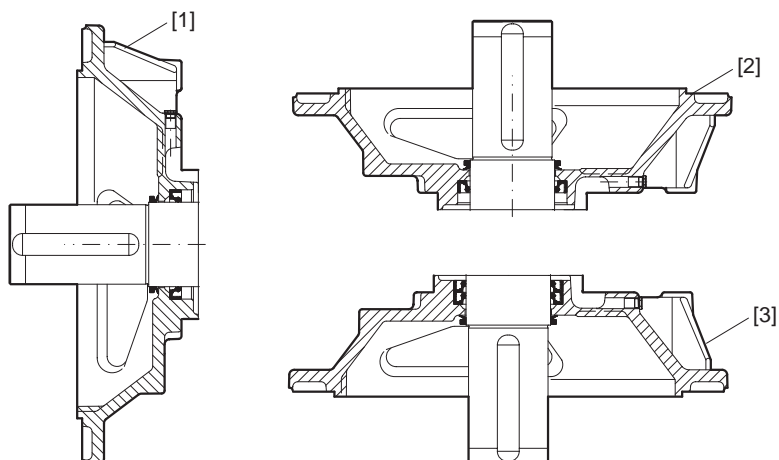


MC.P., MC.R., disposiciones de juntas para LSS hueco

	Retén (estándar)	Doble retén con engrasador	Junta de laberinto radial con engrasador
	<p>Retenes simples con cubierta de protección antipolvo</p> <ul style="list-style-type: none"> Entorno limpio 	<p>Doble retén con cubierta de protección antipolvo re-engrasable</p> <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas 	<p>Junta de laberinto radial de engrase</p> <ul style="list-style-type: none"> Entorno polvoriento con partículas abrasivas
HSS horizontal			
HSS vertical ascendente			
HSS vertical descendente			



**MC.P., MC.R..
con brida de
montaje ("MF"),
LSS macizo**

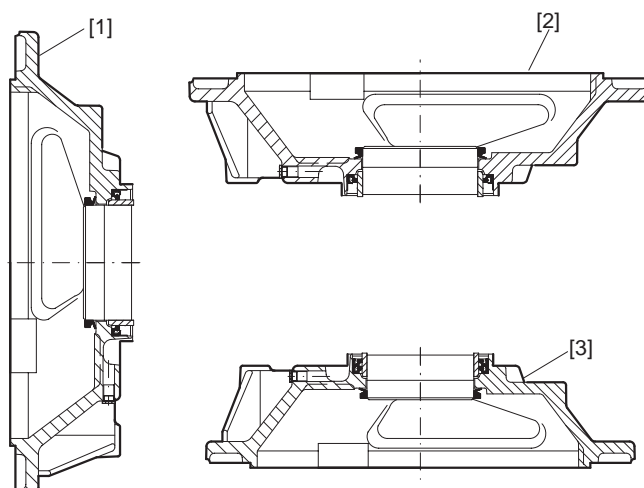


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Solución de obturación	Diseño del reductor	Posición del eje	Número de plano
Retén simple (NBR) con cubierta de protección antipolvo y anillo V (NBR)	LSS horizontal	Todos	1
	Posición de montaje hacia arriba	Todos	1
	LSS vertical	14, 24, 04	2
Doble retén (NBR) con cubierta de protección antipolvo y anillo V (NBR)	LSS vertical	13, 23, 03	3

6

**MC.P., MC.R..
con brida de
montaje ("MF"),
LSS hueco**



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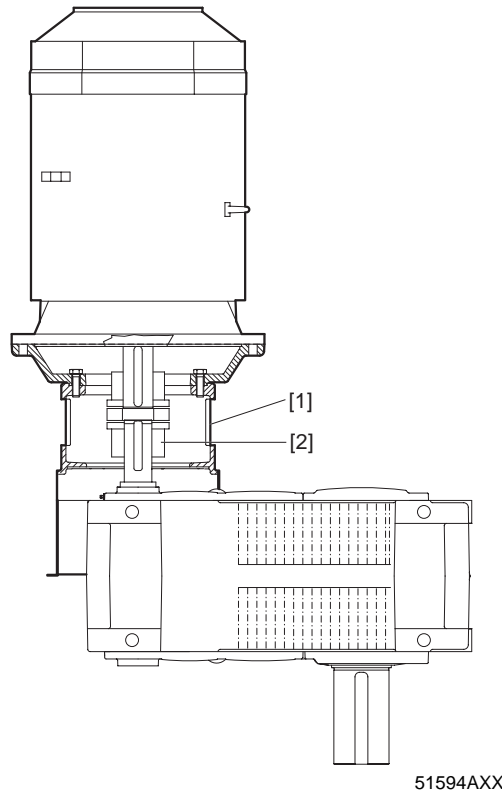
Solución de obturación	Posición de montaje	Posiciones del eje	Número de plano
Retén simple (NBR) con cubierta de protección antipolvo y anillo V (NBR)	LSS horizontal	Todos	1
	Montaje hacia arriba	Todos	1
	LSS vertical	14, 24, 04	2
Doble retén (NBR) con cubierta de protección antipolvo y anillo V (NBR)	LSS vertical	13, 23, 03	3



6.5 Adaptadores de motor

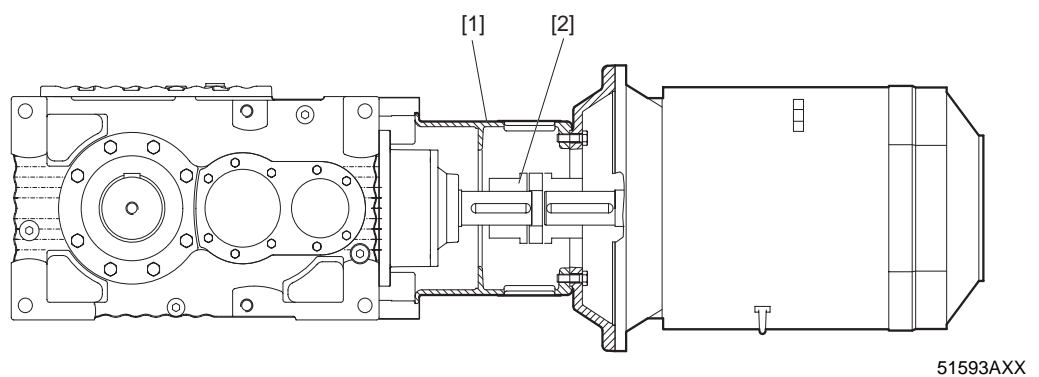
Se dispone de adaptadores de motor [1] para el montaje

- Tamaños de motor IEC de 132 a 315
- Tamaños de motor NEMA de 213 a 505



[1] Adaptador del motor

[2] Acoplamiento



[1] Adaptador del motor

[2] Acoplamiento



Las cotas de conexión se muestran en la sección "Planos de cotas para adaptadores de motor."





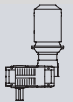
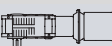
Cuando se seleccione un motor, **se debe tomar en cuenta el peso permitido del motor, el diseño del reductor y su tipo de montaje** conforme a las siguientes tablas:



Lo siguiente se aplica a todas las tablas:

G_M = Peso del motor

G_G = Peso del reductor

Tipo de montaje	Tipo / diseño del reductor	
	 MC.PL..	 MC.RL..
Montado con patas	$G_M \leq G_G$	$G_M \leq G_G$
Montado flotante	$G_M \leq 0.5G_G$	$G_M \leq G_G$
Montado en brida	$G_M \leq 0.5G_G$	$G_M \leq G_G$

Tipo de montaje	Tipo / diseño del reductor	
	 MC.PV..	 MC.RV..
Montado con patas	$G_M \leq 1.5G_G$	$G_M \leq G_G$
Montado flotante	$G_M \leq G_G$	$G_M \leq G_G$
Montado en brida	$G_M \leq G_G$	$G_M \leq 0.75G_G$

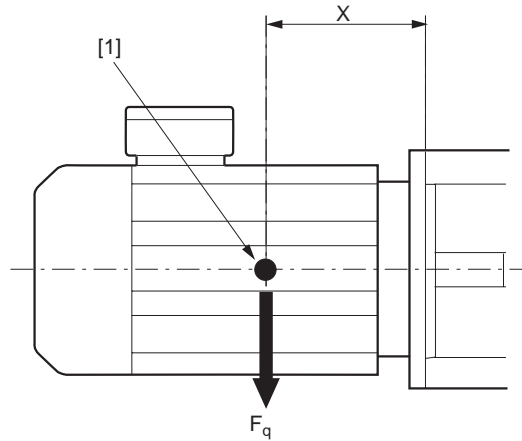
Tipo de montaje	Tipo / diseño del reductor	
	 MC.PE..	 MC.RE..
Montado con patas	$G_M \leq G_G$	$G_M \leq 1.5G_G$
Montado flotante	$G_M \leq G_G$	$G_M \leq G_G$
Montado en brida	$G_M \leq G_G$	$G_M \leq G_G$



La tabla se aplica sólo a las aplicaciones estacionarias. Consulte a SEW-EURODRIVE en referencia a las aplicaciones móviles (p. ej. accionamientos de traslación).



Estas tablas se aplican sólo a la siguiente correlación entre el tamaño/peso del motor F_q y la cota "x".



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[1] Centro de gravedad del motor

Tamaño de motor		F_q [N]	x [mm]
IEC	NEMA		
132S	213/215	579	189
132M	213/215	677	208
160M	254/286	1059	235
160L	254/286	1275	281
180M	254/286	1619	305
180L	254/286	1766	305
200L	324	2354	333
225S	365	2943	348
225M	365	3237	348
250M	405	4267	395
280S	444	5984	433
280M	445	6475	433
315S	505	8142	485
315M	505	8927	485
315L		11772	555

El peso máximo autorizado del motor conectado F_q debe reducirse de manera lineal si se incrementa la distancia x del centro de gravedad. $F_{q \max}$ no puede incrementarse si se reduce la distancia del centro de gravedad.



Contacte a SEW-EURODRIVE en los siguientes casos:

- Si usted desea adaptar un ventilador a los adaptadores de motor (no para motores de tamaño 132S y 132M).



6.6 Bancada de acero (oscilante o fija)

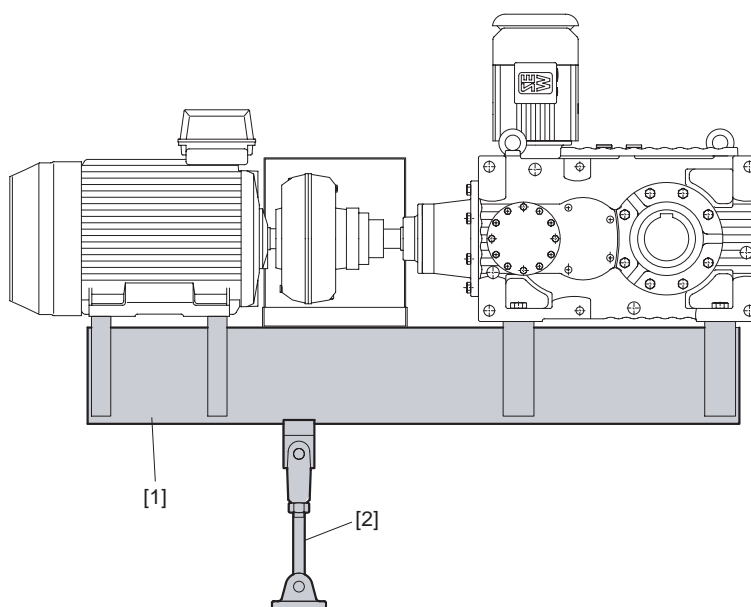
Para reductores industriales de la serie MC en posición de montaje horizontal (MC2PL..., MC3PL..., MC2RL..., MC3RL...), SEW-EURODRIVE proporciona paquetes de accionamiento premontados en una bancada de acero (bancada fija ú oscilante).

Bancada oscilante

La bancada oscilante es un marco de acero [1] que contiene reductores, acoplamientos (hidráulico) y motores (y freno si se requiere), tales como

- reductor de eje hueco o
- reductor de eje macizo con acoplamiento a brida en eje de salida

La bancada oscilante [1] se sostiene por la barra de reacción [2] (→ sección "Brazo de par").



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[1] Bancada oscilante

[2] Brazo de par



Es esencial que

- el sistema se dimensione de tal forma que el par del brazo de par pueda absorberse (→ sección "Base del reductor")
- la bancada oscilante no se deforme durante la instalación (peligro de deterioro del reductor y del acoplamiento)

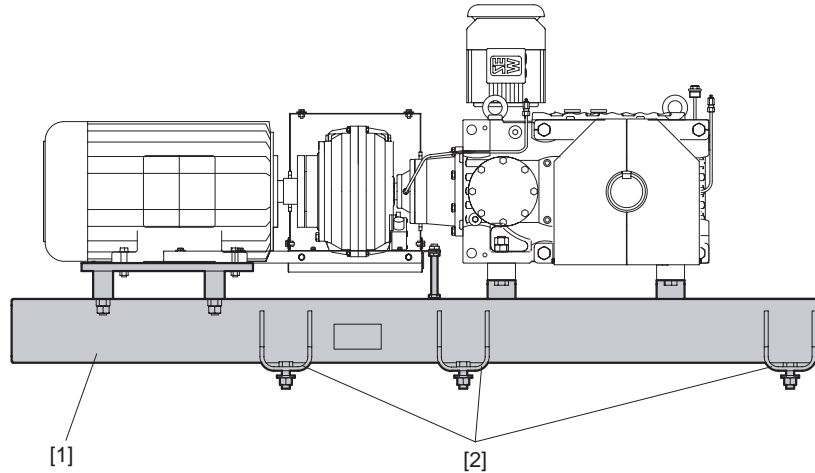


Planificación de Proyectos para Accesorios Opcionales

Bancada de acero (oscilante o fija)

Bancada fija

Una bancada fija es un marco de acero [1] que contiene al reductor, al acoplamiento (hidráulico) y al motor (y al freno si se requiere). El marco de acero se sostiene mediante varias patas [2]. Dicha bancada se utiliza habitualmente para reductores de eje macizo con acoplamiento elástico en el eje de salida.



54381AXX

- [1] Bancada
[2] Montaje con patas



Es esencial que

- la estructura de soporte del montaje con patas tenga las dimensiones adecuadas y sea rígida (→ sección "Base del reductor")
- el marco de base no se deforme debido a una alineación incorrecta (peligro de deterioro del reductor y del acoplamiento)



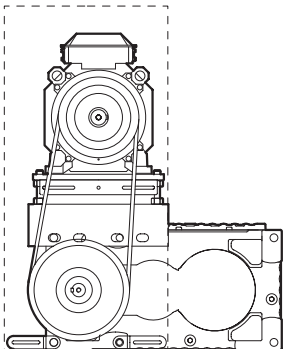
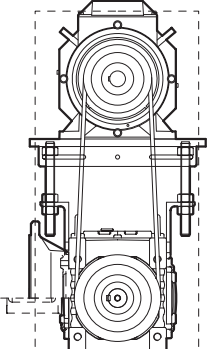
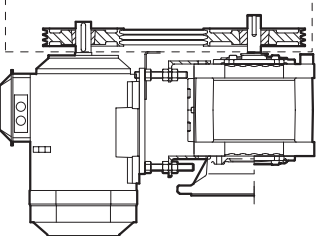
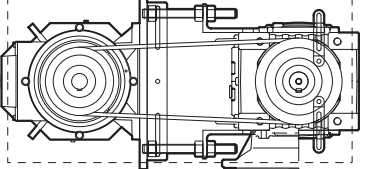
6.7 Plataforma para motor y accionamiento por correa trapezoidal

El accionamiento por correa trapezoidal se utiliza cuando se necesita ajustar el coeficiente general de reducción. El volumen de suministro estándar incluye la plataforma para el motor, las poleas, las correas trapezoidales y el protector de correa.



Respete el peso permitido para el motor y el reductor especificado en la siguiente tabla:

G_M = Peso del motor G_G = Peso del reductor

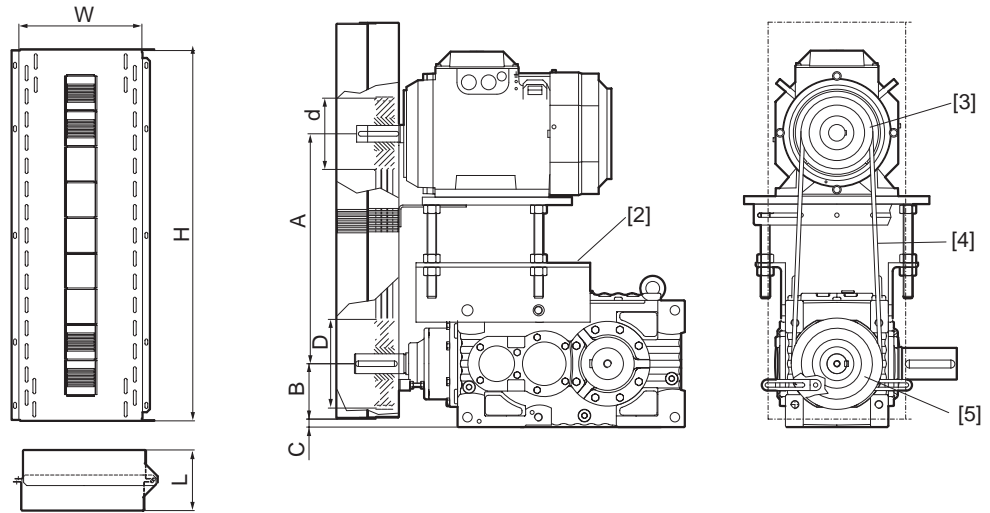
	MC2P/MC3P	MC2R/MC3R
<p>Montaje hacia arriba: Montado con patas $G_M \leq 0,4 \times G_G$ Montado flotante $G_M \leq 0,4 \times G_G$ Montado con bridas $G_M \leq 0,4 \times G_G$</p>	<p>Contacte a SEW-EURODRIVE</p>	<p>Contacte a SEW-EURODRIVE</p>
<p>Montaje del LSS horizontal: Montado con patas $G_M \leq 1,0 \times G_G$ Montado flotante $G_M \leq 1,0 \times G_G$ Montado con bridas $G_M \leq G_G$</p>	 <p>54046AXX</p>	 <p>54047AXX</p>
<p>Montaje del LSS vertical: Montado con patas $G_M \leq 0,4 \times G_G$ Montado flotante $G_M \leq 0,4 \times G_G$ Montado con bridas $G_M \leq G_G$</p>	 <p>54052AXX</p>	 <p>54053AXX</p>



Planificación de Proyectos para Accesorios Opcionales

Plataforma para motor y accionamiento por correa trapezoidal

El protector de la correa trapezoidal se proporciona con bisagras y ranuras para la revisión del estroboscopio



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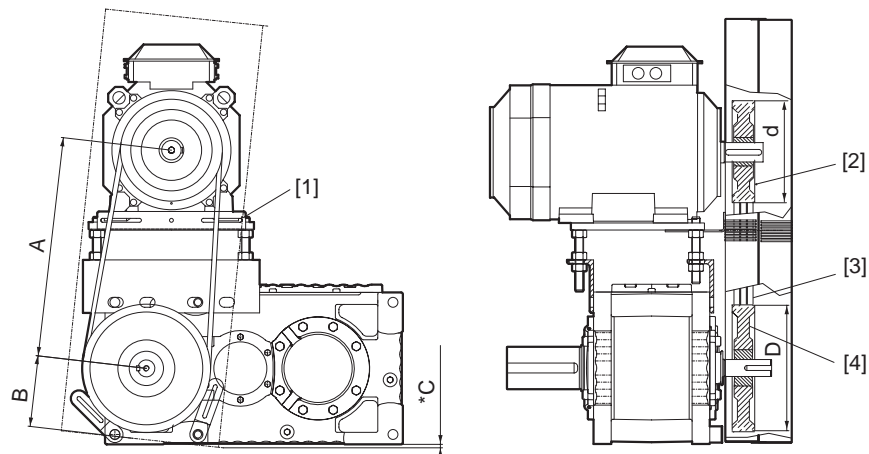
El volumen de suministro del accionamiento de correas incluye:

- Protector de correa [1]
- Bancada para motor [2]
- Polea con buje cónico [3]
- Correas trapezoidales [4]
- Polea con buje cónico [5]

	An	H [mm]	L
VBC1	300	1000	160
VBC2	400	1200	190
VBC3	500	1200	220
VBC4	500	1400	220
VBC5	600	1400	220
VBC6	650	1650	220



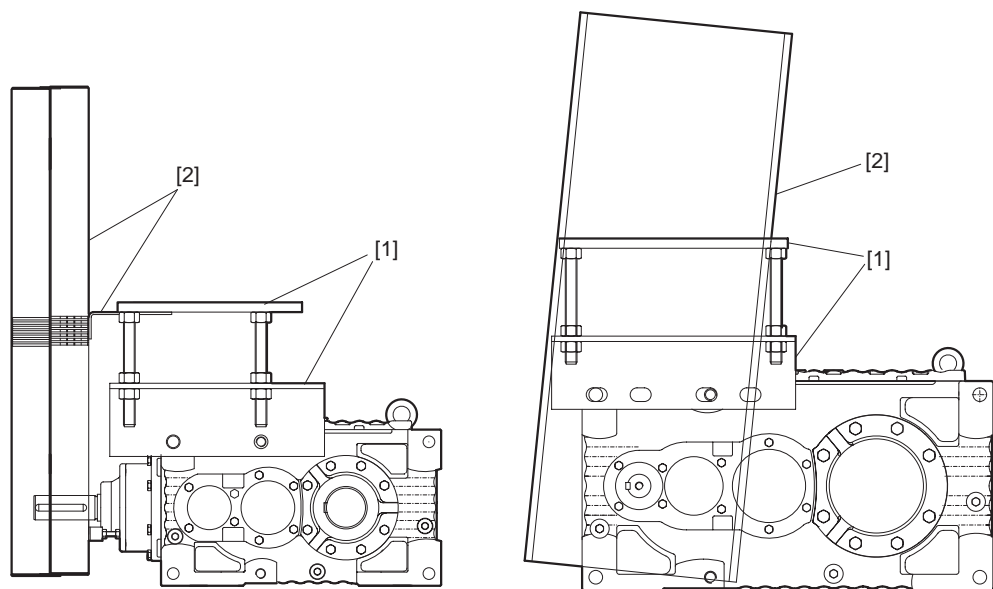
Si el flanco del protector de la correa trapezoidal se coloca debajo de la línea de la base del reductor, la cota *C es negativa.



54028AXX

- [1] Bancada para motor
- [2] Polea con buje cónico
- [3] Correa trapezoidal
- [4] Polea con buje cónico

El accionamiento por correa trapezoidal puede suministrarse también sin correas, sin poleas y sin motor. El suministro de la bancada para el motor sólo incluye dicho dispositivo [1], el protector de correa [2] puede incluirse de manera opcional.



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- [1] Bancada para el motor
- [2] Protector de correa y placas de sujeción

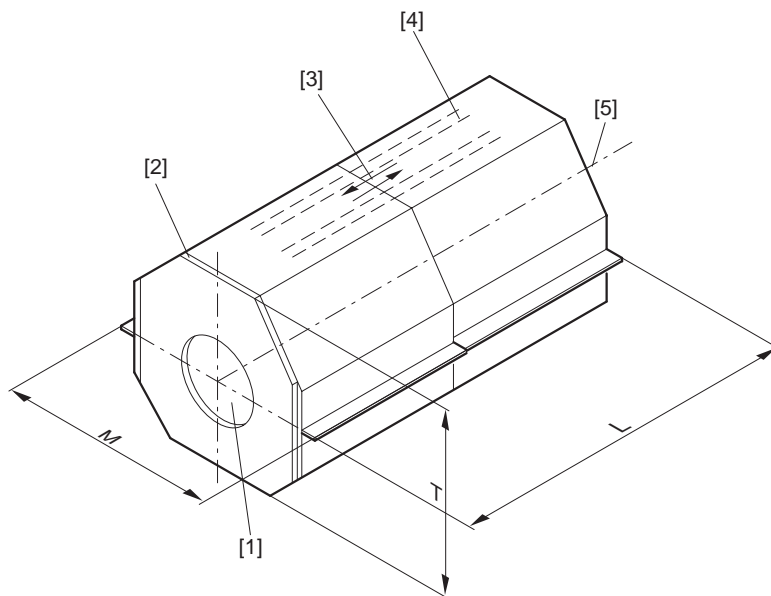


6.8 Protector de acoplamiento

El protector de acoplamiento para el eje de entrada puede utilizarse con o sin ventilación.

El protector de acoplamiento se fija directamente a la tapa del rodamiento del reductor. No se requiere de soporte adicional para el protector de acoplamiento. El diseño del protector cumple con las **normas de seguridad europeas**.

Tamaño del protector	Máx. diámetro del acoplamiento	Longitud L	Máx. \varnothing del eje de accionamiento y del eje accionado	Altura T	Ancho W
[mm]					
1	140	138 - 189	65	160	216
2	140	190 - 293	65	160	216
3	230	190 - 293	105	250	306
4	230	297 - 482	105	250	306
5	290	297 - 482	105	310	408
6	360	297 - 482	145	380	436
7	470	483 - 829	205	490	546
8	570	483 - 829	205	590	646

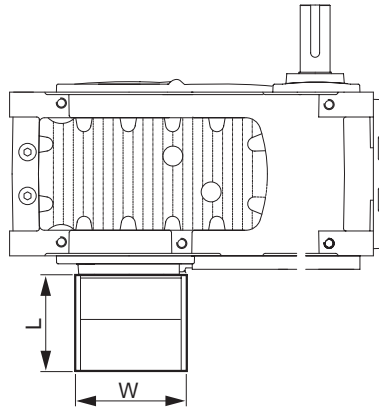


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- [1] Eje del reductor (LSS, HSS)
- [2] Brida de montaje al reductor
- [3] Longitud ajustable
- [4] Conductos de ventilación
- [5] Máquina de accionamiento y accionada



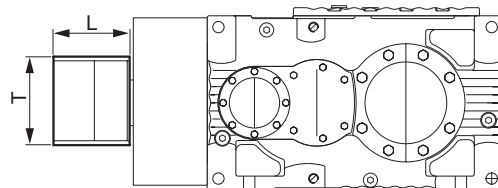
LSS
protector de
acoplamiento



54275AXX

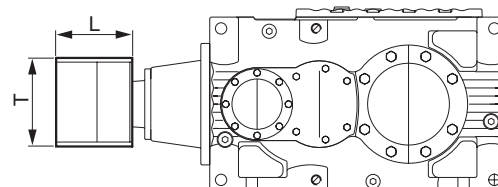
HSS
protector de
acoplamiento

Reductor MC..R
con ventilador



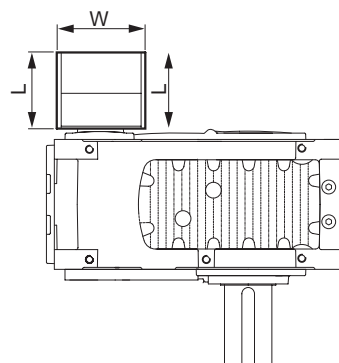
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Reductor MC..R
sin ventilador

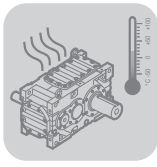


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Reductor MC..P



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7 Lubricación, refrigeración e instrumentación

El tipo de lubricación depende de los siguientes factores:

- Diseño del reductor y posición de montaje
- Condiciones de funcionamiento
- Condiciones ambientales

Existen tres tipos diferentes de lubricación:

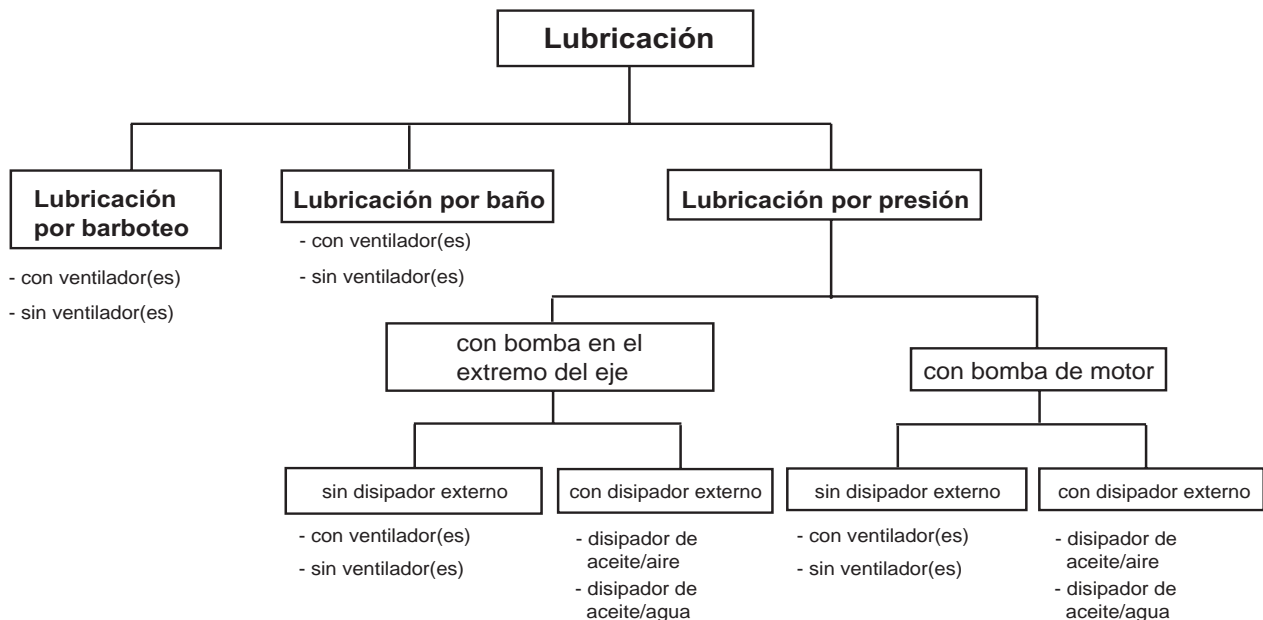
- Lubricación por barboteo
- Lubricación por baño
- Lubricación por presión

Pueden ser necesarios métodos adicionales de refrigeración dependiendo de la capacidad térmica del reductor.

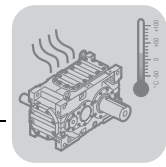
Los siguientes métodos de refrigeración son posibles de forma estándar:

- Ventilación sobre el HSS
- 2 ventiladores sobre el HSS continuo (solo para los modelos MC2P)
- Sistema de lubricación por presión con refrigeración por aceite/agua
- Sistema de lubricación por presión con refrigeración por aceite/aire

La tabla siguiente muestra una descripción general de posibles combinaciones de lubricación y refrigeración:



Los sistemas más comunes de lubricación y refrigeración se describen en los siguientes capítulos.



7.1 Lubricación por barboteo

La lubricación por barboteo se utiliza para reductores industriales de la serie MC.. con LSS horizontal (denominación de modelo MC..L..). Con la lubricación por barboteo el nivel de aceite es bajo. El aceite salpica los rodamientos y los componentes del reductor.

Si se requiere de refrigeración adicional pueden utilizarse ventiladores

7.2 Lubricación por baño

Lubricación por baño de aceite

La lubricación por baño de aceite se utiliza en reductores industriales de la serie MC.. con LSS vertical (denominación de modelo MC..V..) y posición de montaje hacia arriba (denominación de modelo MC..E). Con la lubricación por baño de aceite los niveles de aceite son tan altos que los rodamientos y los componentes del reductor se sumergen completamente en el lubricante.

Siempre se utilizan depósitos de expansión de aceite para los reductores industriales de las series MC.PV., MC.RV.. y MC.RV.. con **lubricación por baño de aceite. Los depósitos de expansión de aceite permiten que el lubricante se expanda cuando el reductor se calienta durante su funcionamiento.**

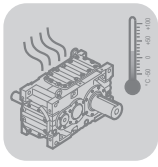
Se utiliza un depósito de expansión de acero para aceite, **independientemente del diseño del reductor**, si éste se instala en exteriores y las condiciones ambientales son muy húmedas. El depósito de expansión de aceite puede utilizarse para las versiones de eje macizo y eje hueco. Una membrana en el depósito de expansión de aceite separa el aceite que contiene el reductor del aire húmedo del entorno y de esta forma se garantiza que no se acumule humedad en el reductor.

Si se requiere de refrigeración adicional pueden utilizarse ventiladores.

Símbolos utilizados

La siguiente tabla contiene todos los símbolos utilizados en las figuras subsiguientes y su significado:

Símbolo	Significado
	Tapón de salida de gases
	Abertura para inspección
	Varilla graduada de aceite
	Tapón de drenaje del aceite
	Tapón de llenado de aceite
	Mirilla de aceite
	Tornillo para salida de aire

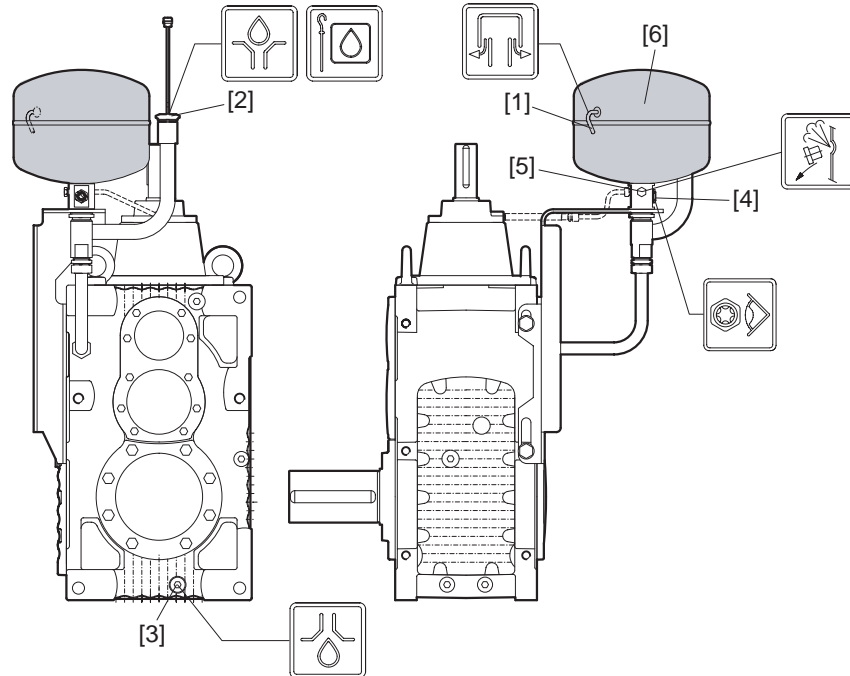


Lubricación, refrigeración e instrumentación

Lubricación por baño

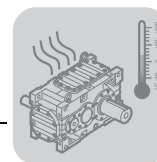
Lubricación por baño de aceite, montado hacia arriba

El depósito de expansión de aceite [6] se utiliza para los reductores industriales de la serie **MC** con **posición de montaje hacia arriba** (denominación de modelo **MC..RE..**).



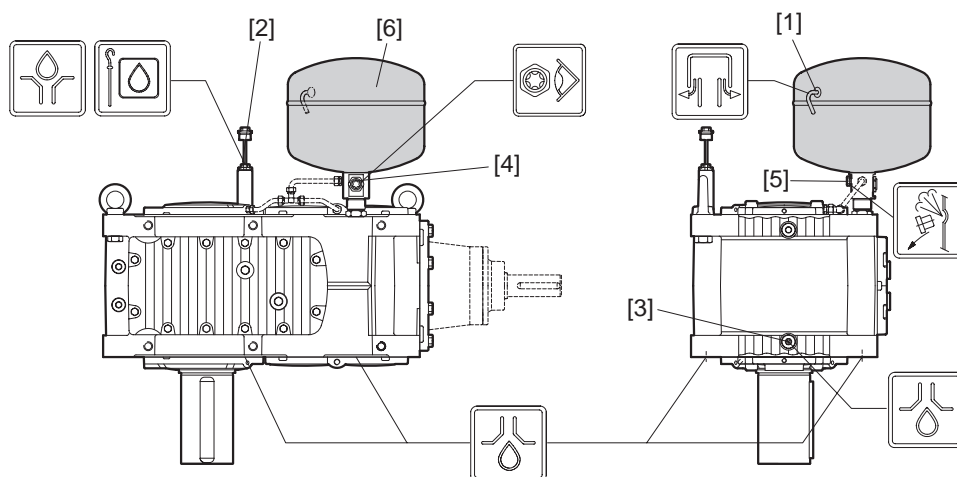
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- | | |
|---------------------------------|--|
| [1] Salida de gases | [4] Mirilla de aceite |
| [2] Varilla graduada de aceite | [5] Tornillo para salida de aire |
| [3] Tapón de drenaje del aceite | [6] Depósito de acero de expansión para aceite |



**LSS vertical con
lubricación por
baño de aceite**

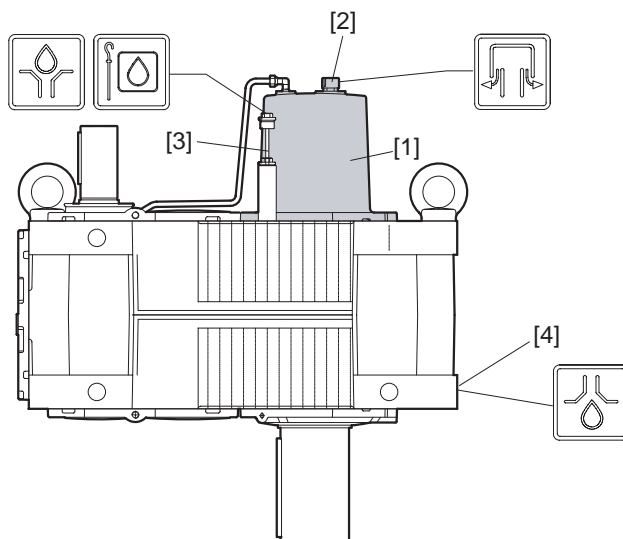
El depósito de acero de expansión de aceite [6] para reductores industriales de la serie **MC con LSS vertical** (denominación de modelo **MC.PV./MC.RV..**) está ubicado en el lateral de la tapa de montaje.



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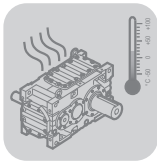
- | | |
|---------------------------------|--|
| [1] Salida de gases | [4] Mirilla de aceite |
| [2] Varilla graduada de aceite | [5] Tornillo para salida de aire |
| [3] Tapón de drenaje del aceite | [6] Depósito de acero de expansión para aceite |

En **condiciones de ambiente seco** se utiliza un **depósito de expansión de aceite de fundición**[1]. Este depósito de expansión de aceite se utiliza sólo para la posición de montaje vertical con el **eje de salida macizo dirigido hacia abajo** (denominación de modelo **MC.PVSF..** o **MC.RVSF..**).



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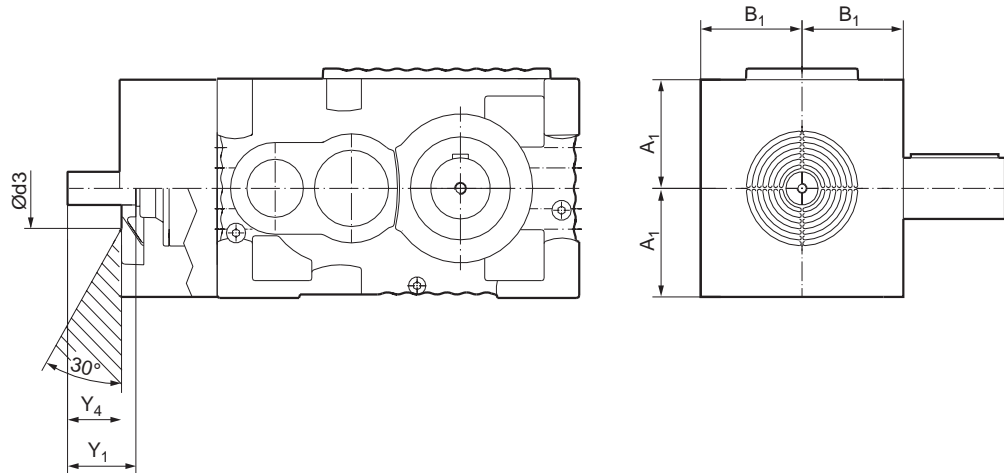
- | | |
|--|---------------------------------|
| [1] Depósito de fundición de expansión de aceite | [3] Varilla graduada de aceite |
| [2] Tapón de salida de gases | [4] Tapón de drenaje del aceite |



7.3 Ventilación

Ventilador

Puede instalarse un ventilador si la capacidad térmica planificada del reductor no es suficiente. El ventilador puede instalarse posteriormente si las condiciones ambientales han cambiado después de haberse instalado el reductor. El sentido de giro del reductor no influye en el funcionamiento del ventilador.



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¡Compruebe que los conductos de admisión de aire no estén bloqueados ni tapados!

La posición del(de los) ventilador(es) se muestra en los planos de cotas.

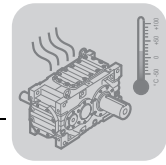
7.4 Lubricación por presión

Si se requiere, es posible utilizar la lubricación por presión como método de lubricación **independientemente de la posición de montaje**.

Con la lubricación por presión, el nivel de aceite es bajo. Para tamaños de 04 a 09 los componentes del reductor y los rodamientos que no están sumergidos en el baño de aceite se lubrican por medio de una bomba mecánica (→ Sec. "Bomba mecánica"), o para tamaños de 02 a 09, por medio de una motobomba (→ Sec. "Motobomba").

El método de lubricación "lubricación por presión" se utiliza si

- no se desea la lubricación por baño de aceite, para LSS con posición de montaje hacia arriba o vertical
- las velocidades de entrada son muy altas
- el reductor debe refrigerarse por medio de un sistema externo de aceite/agua (→ sección "Sistema de refrigeración con aceite/agua") o por medio de un sistema de refrigeración de aceite/aire (→ sección "Sistema de refrigeración con aceite/aire")



7.5 Bomba mecánica

Uso Si se requiere de lubricación por presión (→ sección "Lubricación"), la bomba SHP libre de mantenimiento colocada en el extremo del eje y con tubería externa es la solución de preferencia para reductores de tamaño 04 a 09.

Selección Pueden combinarse cinco tamaños de bomba con cada tamaño de reductor. El tamaño de bomba correcto para la aplicación se selecciona dependiendo del

- flujo de aceite requerido para el reductor
- la posición de la bomba (conectada al HSS o al eje intermedio)
- coeficiente del reductor
- rango de velocidades del reductor



Para seleccionar el tamaño de bomba correcto contacte a SEW-EURODRIVE o utilice el programa de selección GEAR, que está disponible en la oficina de SEW más cercana a su localidad.



Se requiere de una velocidad de entrada mínima para el correcto funcionamiento de la bomba mecánica. Por tanto, es absolutamente obligatorio contactar a SEW en caso de velocidad de entrada variable (por ej. con accionamientos controlados por variador vectorial) o cuando se cambie el rango de velocidades de entrada de un reductor ya entregado con bomba mecánica.

Posición de la bomba

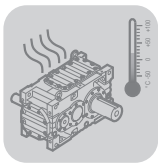
La bomba se instala por fuera del reductor y se acciona directamente mediante el eje de entrada (HSS) o el eje intermedio del reductor. De esta forma se asegura una alta fiabilidad de la función de la bomba. La posición de la bomba depende del

- número de etapas del reductor
- tipo de reductor (helicoidal o cónico)
- posición del eje en el reductor
- tipo de LSS



Revise si existe interferencia de la bomba mecánica con otras estructuras adyacentes → sección "Planos de cotas", opción "/SEP".

Las tablas siguientes indican la posición de la bomba:

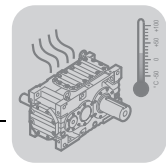


	Posiciones del eje			
	23	13 ¹	24 ¹⁾	14
MC2P <ul style="list-style-type: none"> Eje macizo Eje hueco con chaveta Eje hueco con disco de contracción 				
MC3P <ul style="list-style-type: none"> Eje macizo Eje hueco con chaveta Eje hueco con disco de contracción 				

1. Las cargas externas máximas permitidas sobre el LSS son inferiores

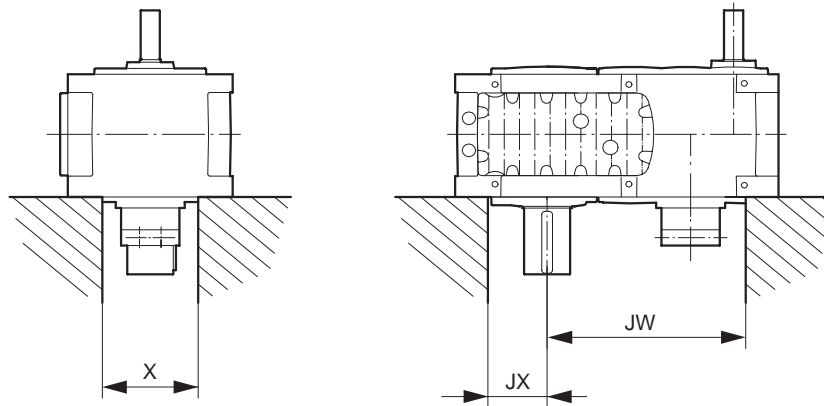
	Posiciones del eje			
	03	04	03 ¹	04 ¹⁾
MC2R <ul style="list-style-type: none"> Eje macizo 				
MC2R <ul style="list-style-type: none"> Eje hueco con chaveta 				
MC2R <ul style="list-style-type: none"> Eje hueco con disco de contracción 				
MC3R <ul style="list-style-type: none"> Eje macizo Eje hueco con chaveta Eje hueco con disco de contracción 				

1. Las cargas externas máximas permitidas sobre el LSS son inferiores.



Diseño vertical

Para reductores con diseño vertical (MC..V), debe proporcionarse un espacio adecuado para la bomba mecánica.



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Tamaño de reductor	MC2PV.., MC2RV.., MC3RV..			MC3PV..		
	X	JX	JW	X	JX	JW
04	250	162	380	250	162	488
05	250	169	420	250	169	532
06	250	182	454	250	182	574
07	250	204	499	250	204	629
08	316	219	556	316	219	696
09	386	232	611	386	232	765

8

7.6 Interruptor de flujo

Uso

El interruptor de flujo es un interruptor eléctrico que se utiliza para controlar el funcionamiento correcto de un sistema de lubricación por presión (→ Bomba en el extremo del eje; → Motobomba) mediante la comprobación del flujo de aceite.

En los suministros desde el primero de marzo de 2005, el interruptor de flujo es una característica estándar para todas las unidades suministradas con

- una motobomba
- una bomba mecánica con un caudal de 8,5 l/min o superior.

Las bombas mecánicas con un caudal inferior a 8,5 l/min están equipadas con un dispositivo de control visual de flujo (→ Indicador visual de flujo) estándar.

Selección

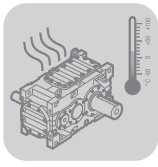
SEW-EURODRIVE selecciona el interruptor de flujo. Normalmente se utiliza de forma estándar un interruptor de flujo del tipo DW-R-20. Los siguientes datos técnicos se refieren a este tipo.

Función

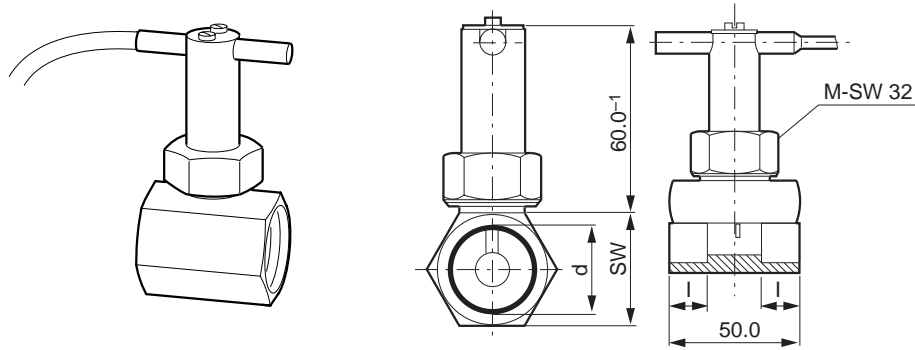
El flujo ejerce presión contra un disco acoplado a un péndulo. El péndulo, regulado por muelle, se mueve sobre su eje. Un imán fijado al extremo del péndulo acciona un contacto móvil. El interruptor en sí está separado del aceite.

El interruptor de flujo tiene dos puntos de conmutación:

1. El punto de conmutación ALTO (límite superior del caudal de flujo) → indica que el contacto está cerrado - ON
2. El punto de conmutación BAJO (límite inferior del caudal de flujo) → indica que el contacto está abierto - OFF



Cotas



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	d Rosca interna	NW (anchura nominal)	I	SW	Z	Z	L	H	Z
	[mm]								
Material				A+B+C	A+B	C	Pr	Pr	Pr
Cota	R 3/4"	20	11	30	50	50	19	109	66

Abreviaturas de materiales:

A = Latón

B = Latón niquelado

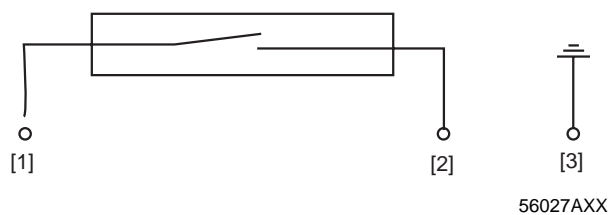
C = Acero inoxidable

D = Acero inoxidable / PVC



Para determinar la posición exacta del interruptor de flujo, consulte el plano de cotas específico de cada pedido

Conexión eléctrica

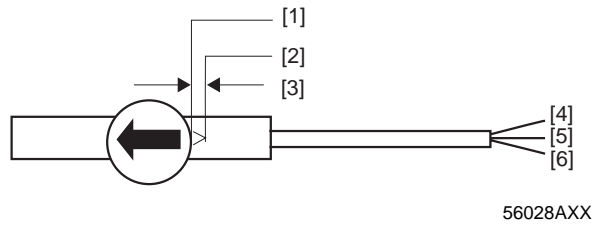
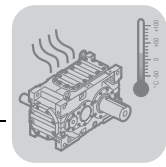


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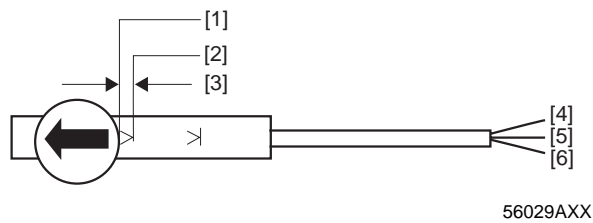
[1] Marrón

[3] Amarillo/verde

[2] Azul



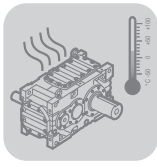
- [1] Punto de conmutación alto
- [2] Punto de conmutación bajo
- [3] Intervalo de ajuste
- [4] Azul
- [5] Marrón
- [6] Amarillo/verde



- [1] Punto de conmutación alto
- [2] Punto de conmutación bajo
- [3] Intervalo de ajuste
- [4] Azul
- [5] Marrón
- [6] Amarillo/verde

- Alimentación: 230 V; 1,5 A; 80 W, 90 V_{Amax}
- Índice de protección: IP 65
- Témporatura máxima del medio: 110°C
- Máxima temperatura ambiente: 70°C
- Máxima presión de trabajo: 25 bar
- Longitud del cable de conexión: 1,5 m
- Interruptor: Puede utilizar el interruptor como contacto normalmente cerrado o normalmente abierto; el interruptor SPDT está disponible bajo solicitud
- Histéresis del interruptor: aprox. 5 %

tipo	Intervalo de puntos de conmutación ON	Intervalo de puntos de conmutación OFF [l/min]	Máximo caudal de flujo
DW-R-20	8.5 - 12.0	6.6 - 11.0	80



7.7 Indicador visual de flujo

Uso

El indicador visual de flujo es un método simplificado para controlar el funcionamiento de un sistema de lubricación por presión mediante la inspección visual del flujo de aceite. En las entregas desde el 1 de marzo de 2005, el indicador visual de flujo es una característica estándar de todos los reductores suministrados con una bomba mecánica y un caudal inferior a 8,5 l/min.

Las bombas en el extremo del eje con un caudal superior a 8,5 l/min están equipadas con un interruptor eléctrico de flujo (→ Interruptor de Flujo) estándar.

Función

El flujo de aceite en el sistema acciona un elemento giratorio, el cual puede verse desde fuera. Si el elemento giratorio no se mueve, debe revisarse la bomba mecánica.



Para determinar la posición exacta del indicador visual de flujo, consulte el plano de cotas específico de cada pedido

7.8 Refrigeración con aceite/agua con bomba mecánica

Uso

Puede utilizarse un sistema de refrigeración externo por aceite/agua si la capacidad térmica del reductor ventilado de manera natural o la ventilación con un ventilador sobre el HSS son insuficientes. Condiciones previas para el uso de un sistema de refrigeración externo por aceite/agua:

- Disponibilidad en el sitio de agua adecuada para la refrigeración
- Velocidad de entrada suficiente para la bomba mecánica

Selección

La bomba mecánica, descrita en el capítulo 7.5, se completa por un intercambiador de calor en bandeja de aceite/agua.

Se han estandarizado cinco tamaños para intercambiadores de calor, con las siguientes capacidades de refrigeración:

(Válido para $T_{\text{agua}} = 20^{\circ}\text{C}$, $T_{\text{aceite}} = 60^{\circ}\text{C}$, $V_{\text{agua}} = 0,25 \times V_{\text{aceite}}$)

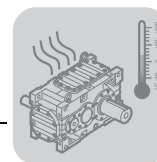
tipo	Capacidad de refrigeración
P820	3,6 kW (con $V_{\text{aceite}} = 10,5$ l/min)
P830	4,6 kW (con $V_{\text{aceite}} = 10,5$ l/min)
P1540	10 kW (con $V_{\text{aceite}} = 18$ l/min)
P2540	16 kW (con $V_{\text{aceite}} = 27$ l/min)
P2560	26 kW (con $V_{\text{aceite}} = 43$ l/min)

El tamaño y tipo correcto del disipador para la aplicación se selecciona dependiendo del

- flujo de aceite requerido para el reductor
- tamaño del reductor
- pérdidas de potencia con calor a disipar (si se requiere refrigeración adicional)
- temperatura y flujo disponible de agua para refrigeración



Contacte a SEW-EURODRIVE para seleccionar el tipo correcto de disipador por aceite/agua.



Volumen de suministro

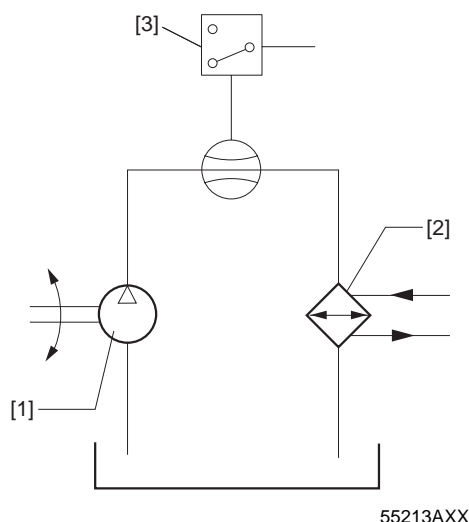
Los elementos de refrigeración consisten en

- bomba mecánica
- intercambiador de calor en bandeja de aceite/agua
- interruptor de flujo

Opcionalmente puede añadirse la siguiente instrumentación:

- Filtro de aceite (20 μm) con válvula bypass interna para el indicador óptico de contaminación y el filtro.
- Interruptor térmico con punto de conmutación fijo o ajustable:
Sirve para controlar el disipador

Diagrama de flujo



- [1] Bomba mecánica
- [2] intercambiador de calor por aceite/agua
- [3] Interruptor de flujo

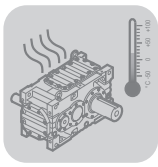
Posición del sistema de refrigeración

El sistema de refrigeración se entrega como un montaje acoplado al reductor. La posición depende de

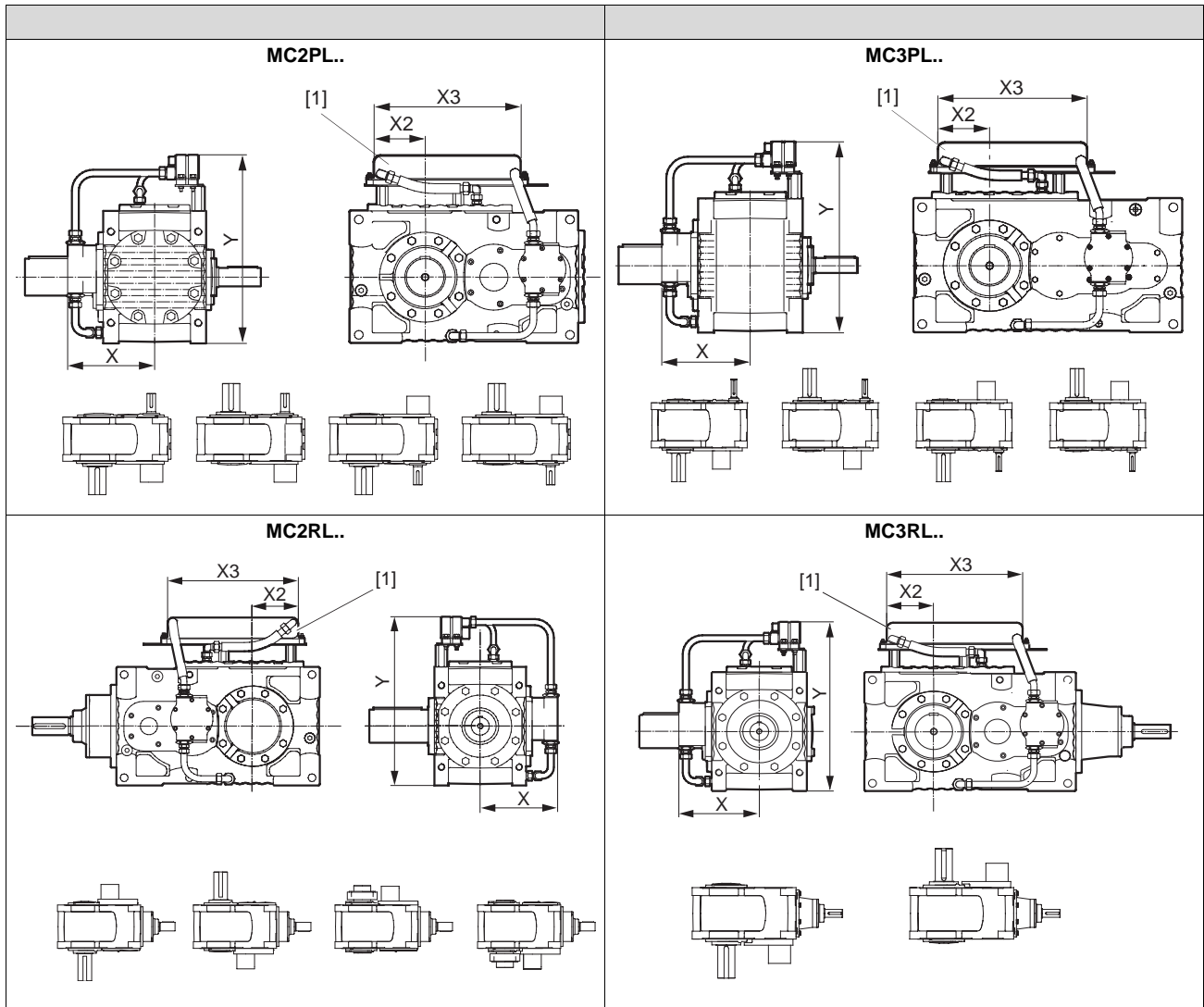
- tipo de reductor (MC..R., MC..P) y número de etapas
- diseño del reductor (MC..L, MC..V..., MC..E..)



Para la posición exacta del sistema de refrigeración, consulte el plano de cotas específico de cada pedido; los dibujos esquemáticos que aparecen en las páginas siguientes pueden utilizarse como guía.



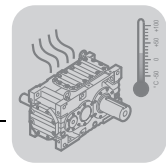
Diseño de reductor "MC...L.."



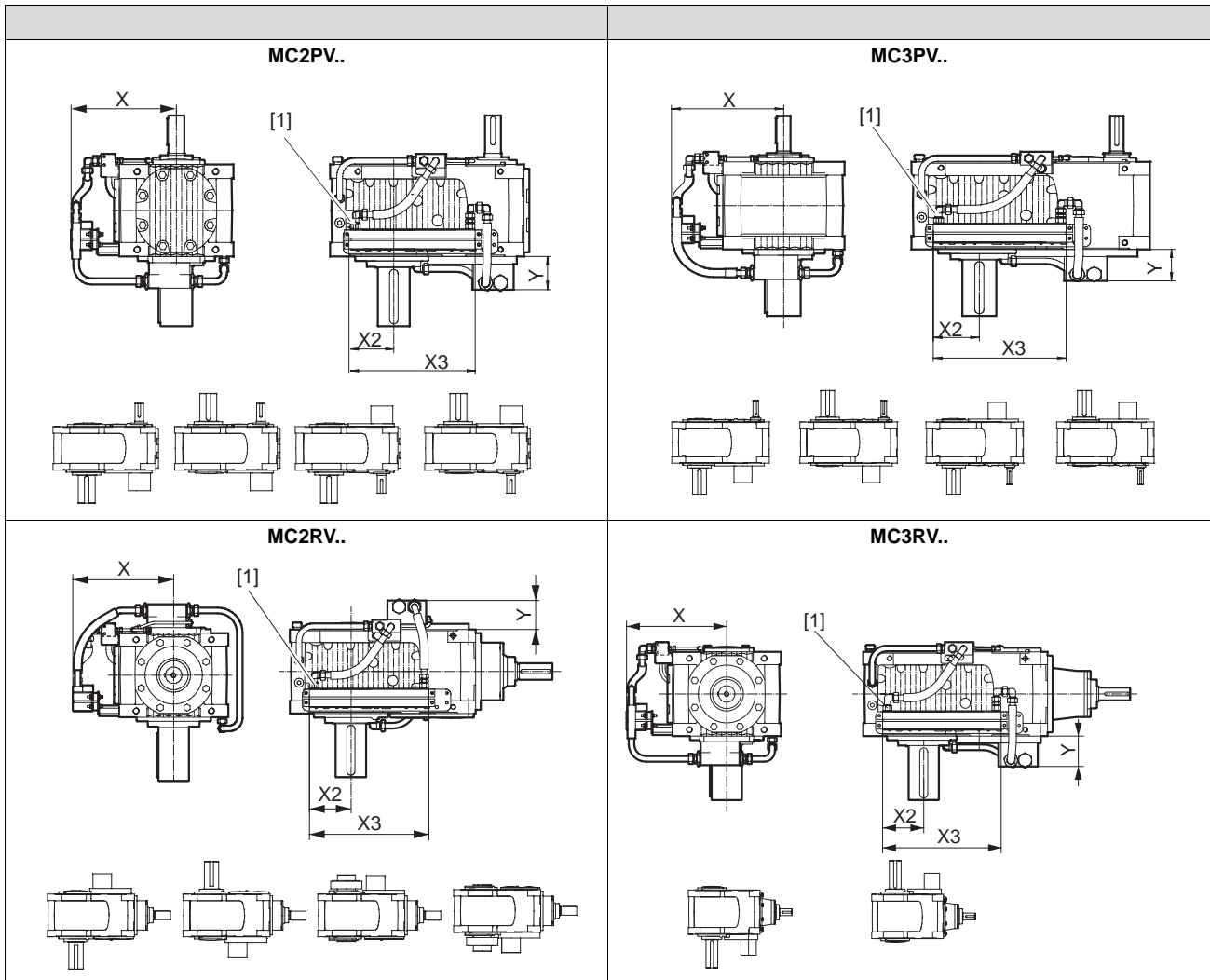
[1] Entrada de agua

Tamaño de reductor	Cotas / máx. [mm.]			
	X	X2	X3	Y
04	312	200	466	562
05	320	210	524	637
06	333	240	524	677
07	345	265	524	737
08	371	292	524	807
09	381	305	524	877

Tamaño	Rosca
P8..	R 1/2
P15..	R 1/2
P25..	R1



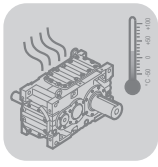
Diseño de reductor "MC...V.."



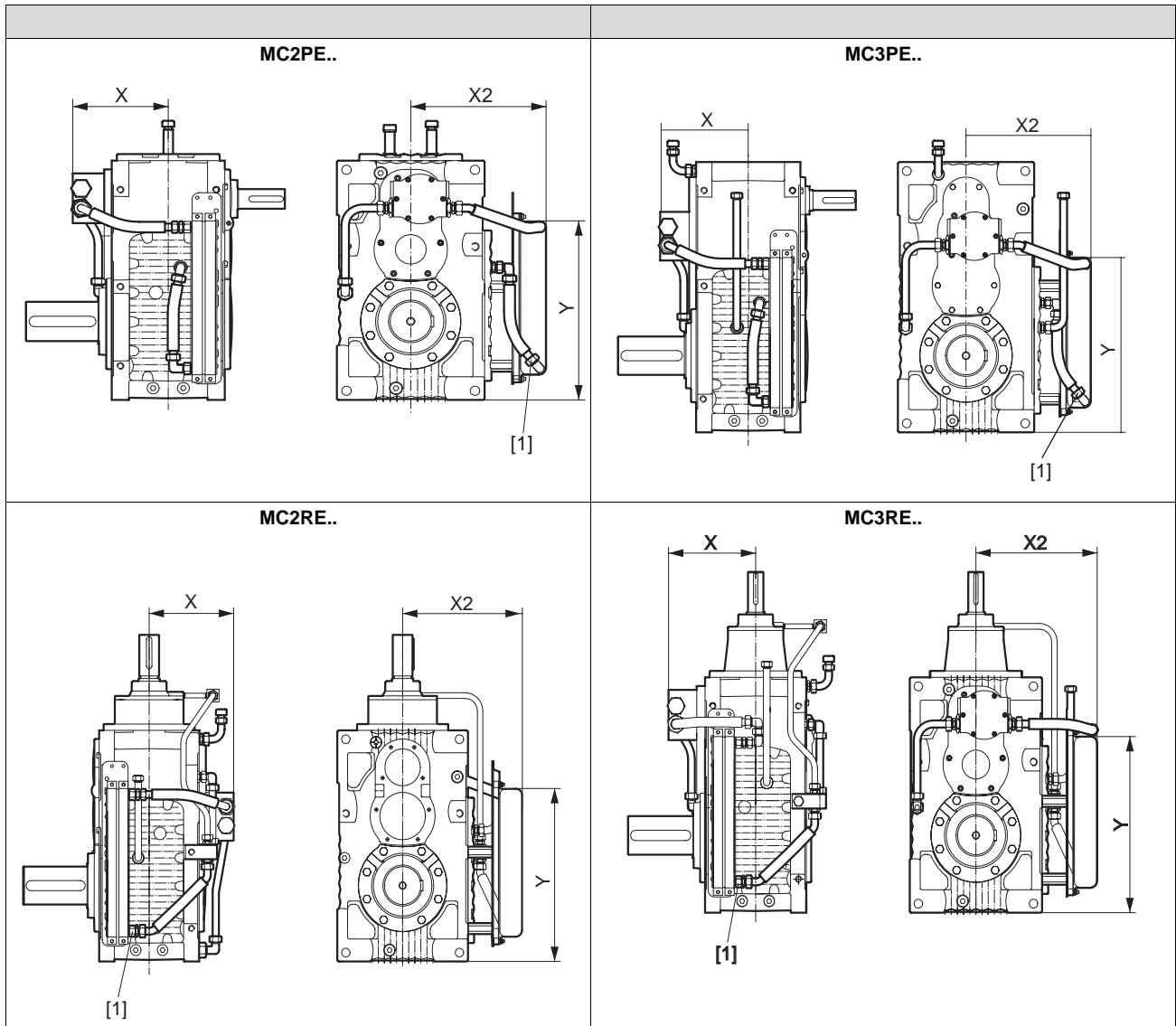
[1] Entrada de agua

Tamaño de reductor	Cotas / máx. [mm.]			
	X	X2	X3	Y
04	362	200	466	155
05	422	210	524	155
06	422	240	524	155
07	472	264	524	155
08	507	292	524	155
09	542	305	524	155

Tamaño	Rosca
P8..	R 1/2
P15..	R 1/2
P25..	R1



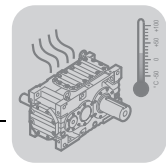
Diseño de reductor "MC...E.."



[1] Entrada de agua

Tamaño de reductor	Cotas / máx. [mm.]		
	X	X2	Y
04	312	362	496
05	320	422	554
06	333	442	554
07	345	472	554
08	371	507	554
09	381	542	554

Tamaño	Rosca
P8..	R 1/2
P15..	R 1/2
P25..	R1



7.9 Motobomba

Uso Si se requiere de lubricación por presión (→ sección "Lubricación") y la bomba mecánica no suministra suficiente aceite debido a que la velocidad de entrada es demasiado baja, puede utilizarse una motobomba para los tamaños 04...09.

Selección Como norma, existen tres tipos de bombas que pueden combinarse con cada tamaño de reductor.

tipo	Flujo de aceite [l/min]	Potencia nominal [kW]
MFZP-1	5	0.37
Tamaño UF 1	10	0.37
Tamaño UF 2	40	2.2

El tipo correcto de bomba para la aplicación se selecciona dependiendo del flujo de aceite requerido por el reductor. El flujo de aceite depende de

- tamaño del reductor
- pérdidas de potencia con calor a disipar (si se necesita refrigeración adicional)



Contacte a SEW-EURODRIVE para la selección del tipo correcto de bomba.

Posición de la bomba

La motobomba se entrega como un grupo ensamblado, que puede opcionalmente suministrarse

- acoplado al reductor, o
- de manera separada para el montaje sobre un marco de base suministrado por el cliente.

Volumen de suministro

El volumen de suministro del grupo de motobombas incluye:

- Bomba de aletas
- Motor asincrónico montado directamente, trifásico, montaje B5, voltaje 230/400 V - 50 Hz o 440/480 V - 60 Hz
- Presostato interno
- Interruptor de flujo

Si se utiliza una bomba UK, la entrega también incluirá lo siguiente:

- Filtro de aceite (20 µm) con válvula bypass interna e indicador óptico de contaminación.

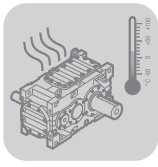
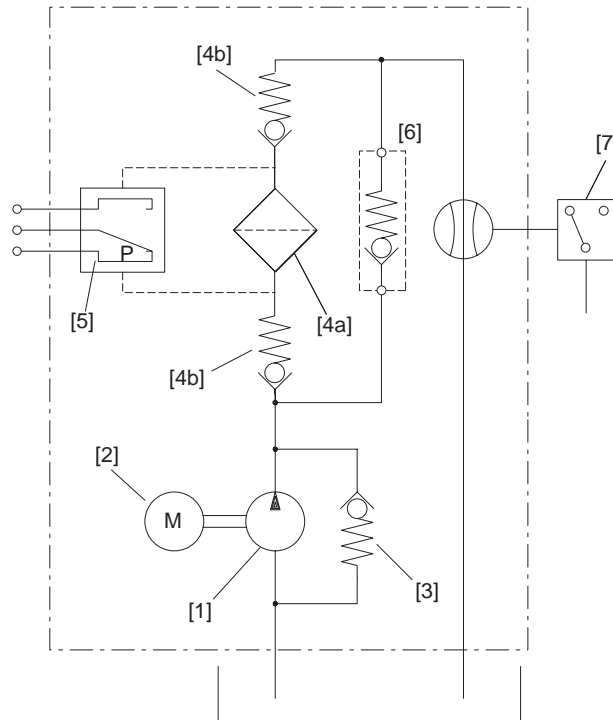
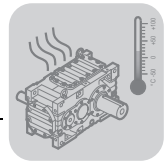


Diagrama de flujo



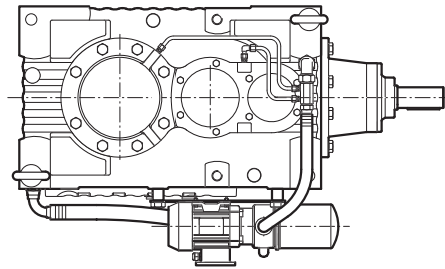
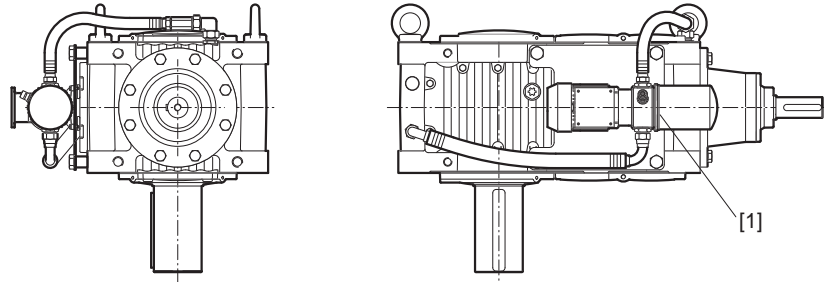
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- | | |
|---|--|
| [1] Bomba | [4b] Válvulas bypass internas |
| [2] Motor | [5] Indicador eléctrico de contaminación (control de diferencia de presión) [opcional] |
| [3] Válvula de presión interna | [6] Válvula bypass externa [opcional] |
| [4a] Filtro de aceite (sólo el tipo UK) | [7] Interruptor de flujo |



Para determinar la posición exacta de la motobomba, consulte el plano de cotas específico de cada pedido. En los dibujos siguientes se muestran ejemplos.

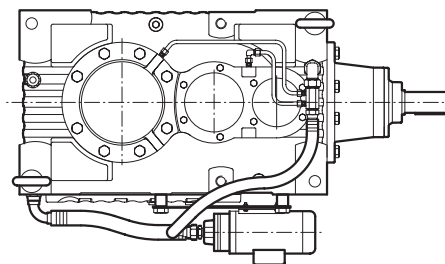
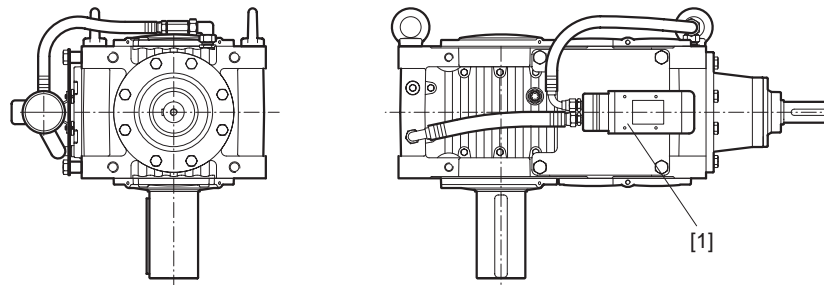
Ejemplo:
Reductor MC..RV



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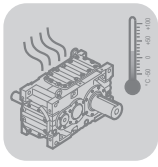
[1] Motobomba UF tamaño 1

Ejemplo:
Reductor MC..RV..

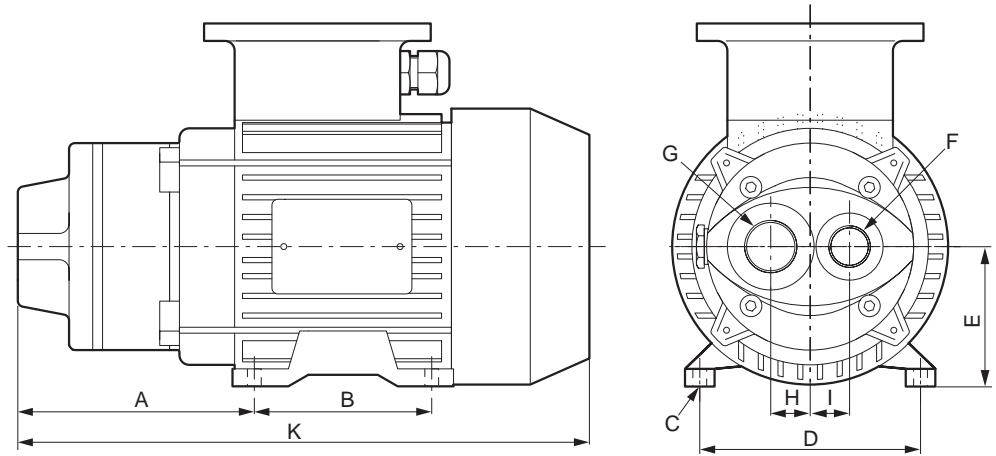


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[1] Motobomba MFZP-1



Cotas de conexión MFZP-1

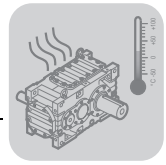


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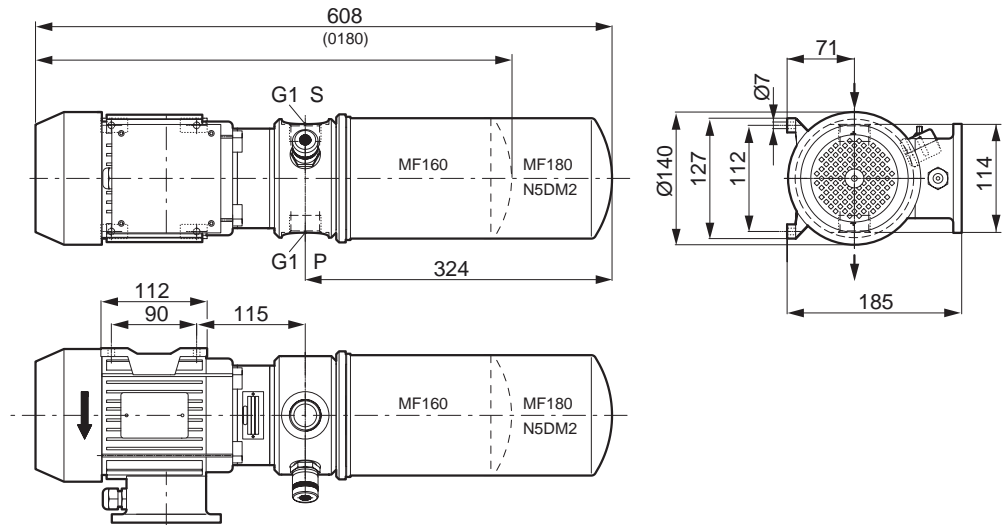
tipo	A	B	C	D	E	F	G	H	I
	[mm]								
MFZP-1/1.1/X/71	120	90	7	112	71	G 1/2	G 3/4	20	20

Longitudes "K" de motores y reductores:

MFZP-1 con motor eléc. tamaño 71/0,37 kW/B34 brida pequeña: aprox. 320 mm

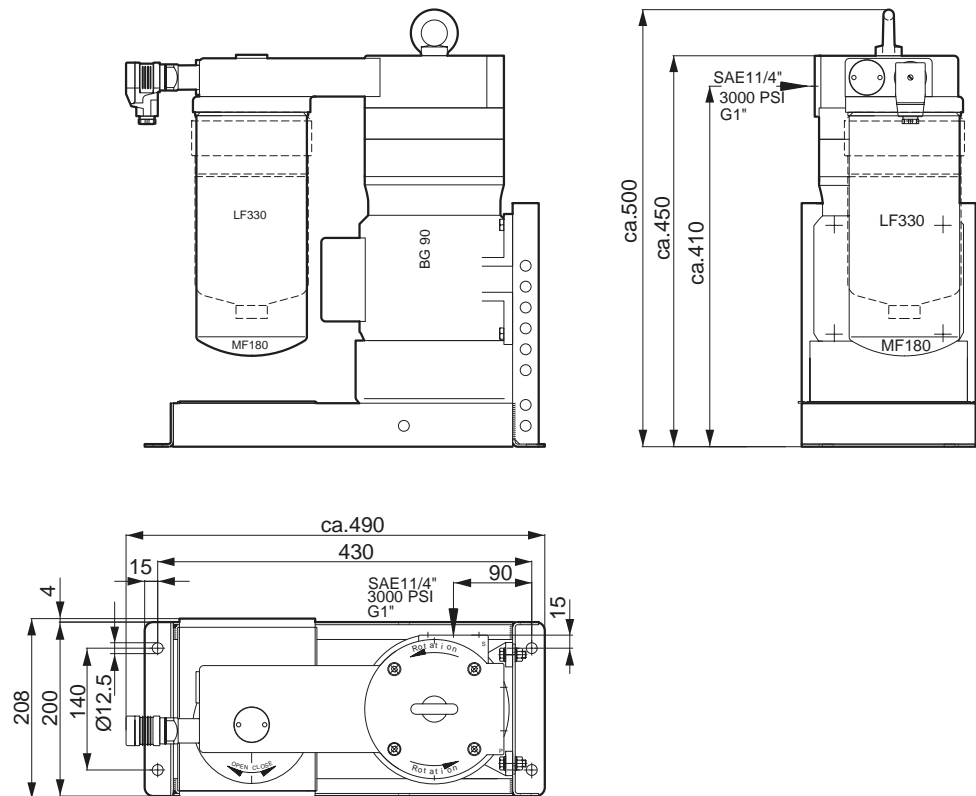


**Cotas de
conexión UF1**



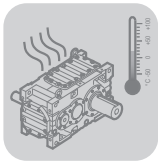
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**Cotas de
conexiones UF2**

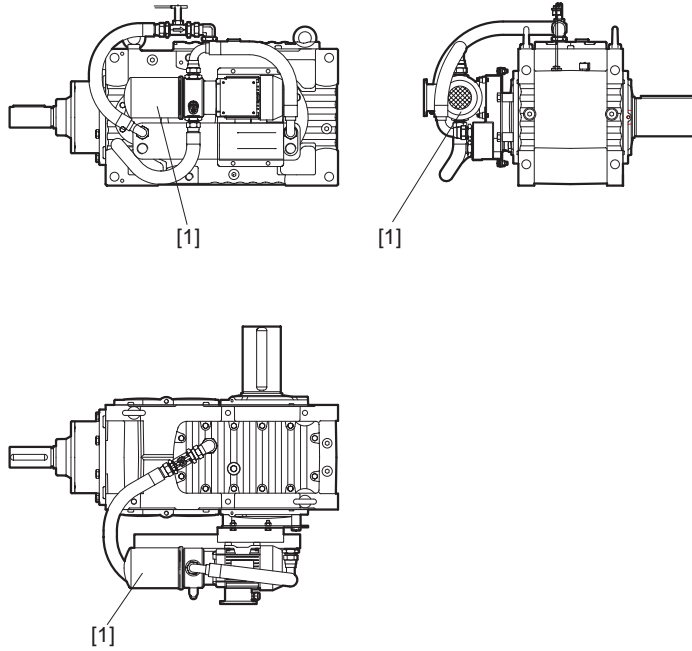


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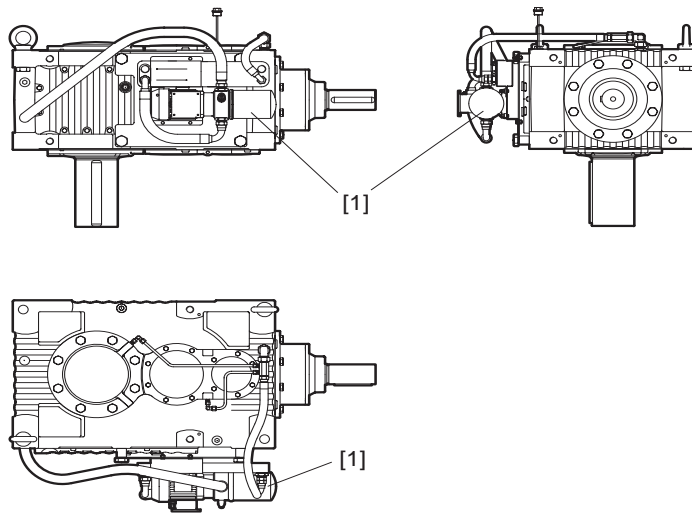
Ejemplo de reductor MC..RL con disipador por aceite/agua UKF-1



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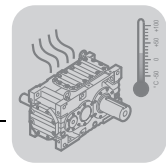
[1] Disipador por aceite/agua UKF-1

Ejemplo de reductor MC..RV con disipador por aceite/agua UKF-1



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[1] Disipador por aceite/agua UKF-1



7.10 Refrigeración con aceite/agua con motobomba

Uso

Puede utilizarse un sistema de refrigeración externo por aceite/agua si la capacidad térmica del reductor, ventilado de manera natural o con un ventilador sobre el HSS, es insuficiente. La condición antes de utilizar un sistema de refrigeración por aceite/agua es la disponibilidad de agua adecuada para el refrigeración en el sitio.

Selección

Normalmente, los grupos de motobombas descritos en el capítulo 7.9 se completan con un intercambiador de calor en bandeja de aceite/agua.

Existen dos tamaños estándar para intercambiadores de calor, con la siguiente capacidad de refrigeración:

(Válido para $T_{\text{agua}} = 20^{\circ}\text{C}$, $T_{\text{aceite}} = 60^{\circ}\text{C}$, $V_{\text{agua}} = 0,25 \times V_{\text{aceite}}$)

Tipo	Capacidad de refrigeración
CP415-20	7 kW (con $V_{\text{aceite}} = 10 \text{ l/min}$)
CP415-60	20 kW (con $V_{\text{aceite}} = 40 \text{ l/min}$)

El tamaño y tipo correcto del disipador para la aplicación se selecciona dependiendo del

- flujo de aceite requerido para el reductor
- tamaño del reductor
- pérdidas de potencia con calor a disipar
- temperatura y flujo disponible de agua para refrigeración

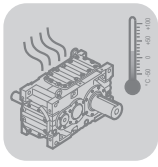


Contacte a SEW-EURODRIVE para seleccionar el tipo correcto de disipador por aceite/agua.

Posición del sistema de refrigeración

El sistema de refrigeración se entrega como sistema ensamblado, el cual opcionalmente puede entregarse

- acoplado al reductor, o
- de manera separada, para el montaje sobre un marco de base suministrado por el cliente.



Lubricación, refrigeración e instrumentación

Refrigeración con aceite/agua con motobomba

Volumen de suministro

Los elementos de refrigeración consisten en

- Bomba de aletas
- Motor asincrónico montado directamente, trifásico, montaje B5, tensión 230/400 V - 50 Hz o 440/480 V - 60 Hz
- Válvula de limitación de presión interna
- Filtro de aceite (20 μ m) con válvula bypass interna para el filtro y el indicador óptico de contaminación
- Intercambiador de calor en bandeja de aceite/agua

Opcionalmente puede añadirse la siguiente instrumentación:

- Interruptor de flujo:
Sirve para controlar la función de la bomba mediante el control del flujo de aceite. El interruptor de flujo se dispara si el flujo desciende por debajo de cierto valor.
- Interruptor térmico con punto de conmutación fijo o ajustable:
Sirve para controlar el disipador
- Válvula termostática en el circuito de aceite:
Estabiliza la temperatura del aceite (se mezcla el aceite frío con el caliente dependiendo de la temperatura del aceite).
- Válvula termostática en el circuito de agua:
Regula el flujo de agua de refrigeración dependiendo de la temperatura de aceite
- Filtro en el circuito de agua

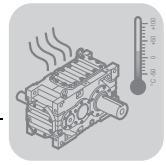
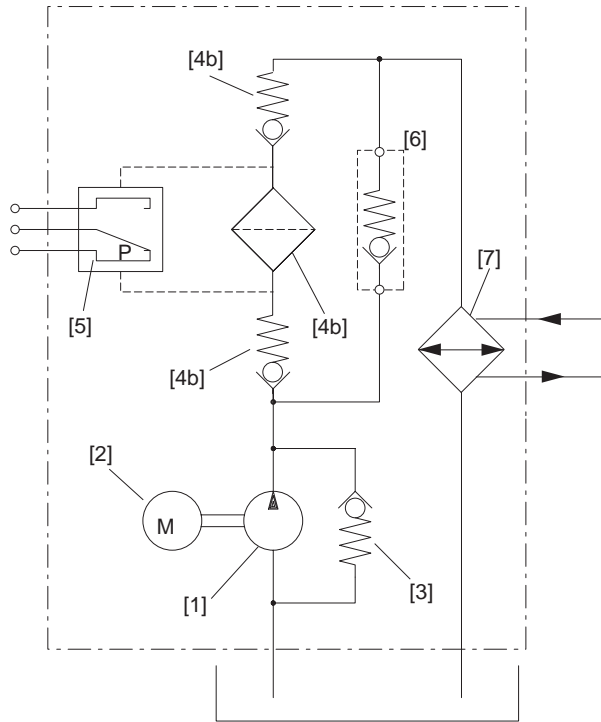
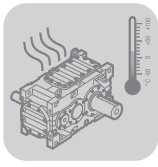


Diagrama de flujo



54937AXX

- | | |
|--------------------------------|--|
| [1] Bomba | [4a] Filtro de aceite (sólo el tipo UK) |
| [2] Motor | [4b] Válvulas bypass internas |
| [3] Válvula de presión interna | [5] Indicador eléctrico de contaminación (control de diferencia de presión) [opcional] |
| | [6] Válvula bypass externa [opcional] |
| | [7] intercambiador de calor por aceite/agua |



Lubricación, refrigeración e instrumentación

Refrigeración con aceite/agua con motobomba

Datos de funcionamiento del intercambiador de calor

Es importante que se tengan en cuenta las especificaciones del agua de refrigeración y otros datos de funcionamiento.

- Medio:
 - Agua glicol (refrigerante)
 - Líquidos para funcionamiento HFC
 - Agua
 - Aceite

- Contaminación:

La cantidad de partículas en suspensión debe ser inferior a 10 mg/l. El tamaño de la partícula debe ser < 0,6 mm (esférica). Las partículas en forma de hilo incrementan rápidamente las caídas de presión.

- Rango de temperatura:

-10°C a +225°C (¡deben tenerse en cuenta el punto de congelación y el punto de ebullición!)

- Presión:

Máx. 27 bar (estática)

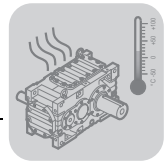
- Corrosión:

Los siguientes valores críticos indican un valor de pH de

 - cloruro libre, $CL_2 < 0,5$ ppm
 - iones cloruro CL
< 700 ppm a 20°C
< 200 ppm a 50°C

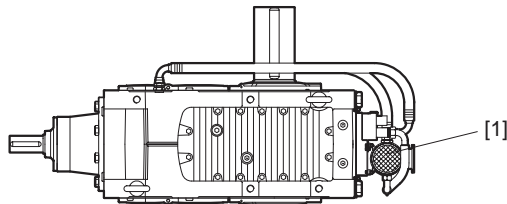
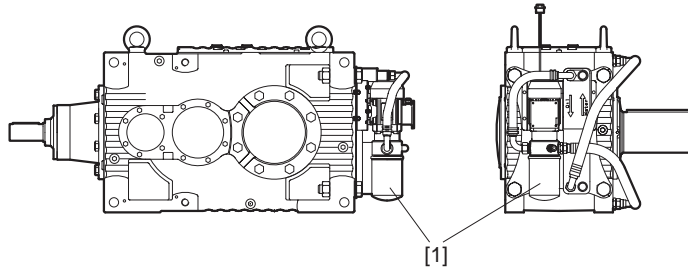
- Otros valores críticos:
 - ph 7 ... 10
 - sulfato SO_4^{2-}
< 100 ppm
 - $[HCO_3^-] / [SO_4^{2-}] > 1$
 - amoníaco, $NH_3 < 10$ ppm
 - CO libre < 10 ppm

- Los siguientes iones no son corrosivos bajo condiciones normales:
 - fosfato
 - nitrato
 - nitrito
 - hierro
 - manganeso
 - sodio
 - potasio



Para determinar la posición exacta del sistema de refrigeración, consulte el plano de cotas específico de cada pedido. En los dibujos siguientes se muestran ejemplos.

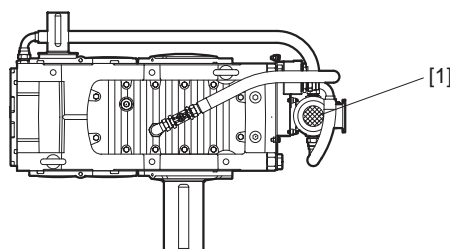
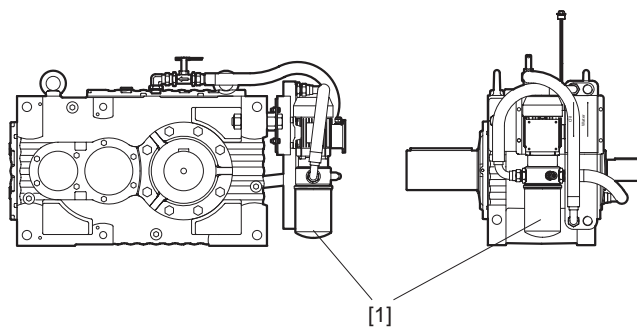
Ejemplo de reductor MC..RL con disipador por aceite/agua UKF-1



54977AXX

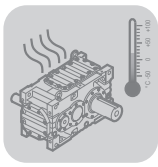
[1] Disipador por aceite/agua UKF-1

Ejemplo de reductor MC..PL con disipador por aceite/agua UKF-1



54984AXX

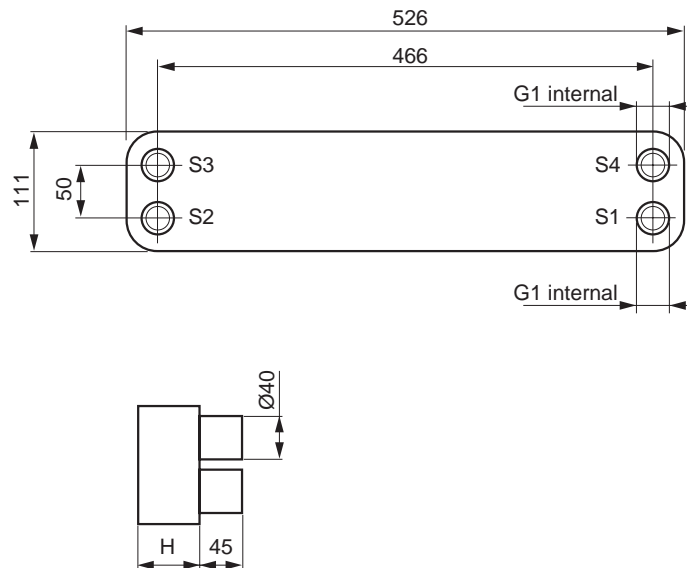
[1] Disipador por aceite/agua UKF-1



Lubricación, refrigeración e instrumentación

Refrigeración con aceite/agua con motobomba

Cotas de conexión para el intercambiador de calor



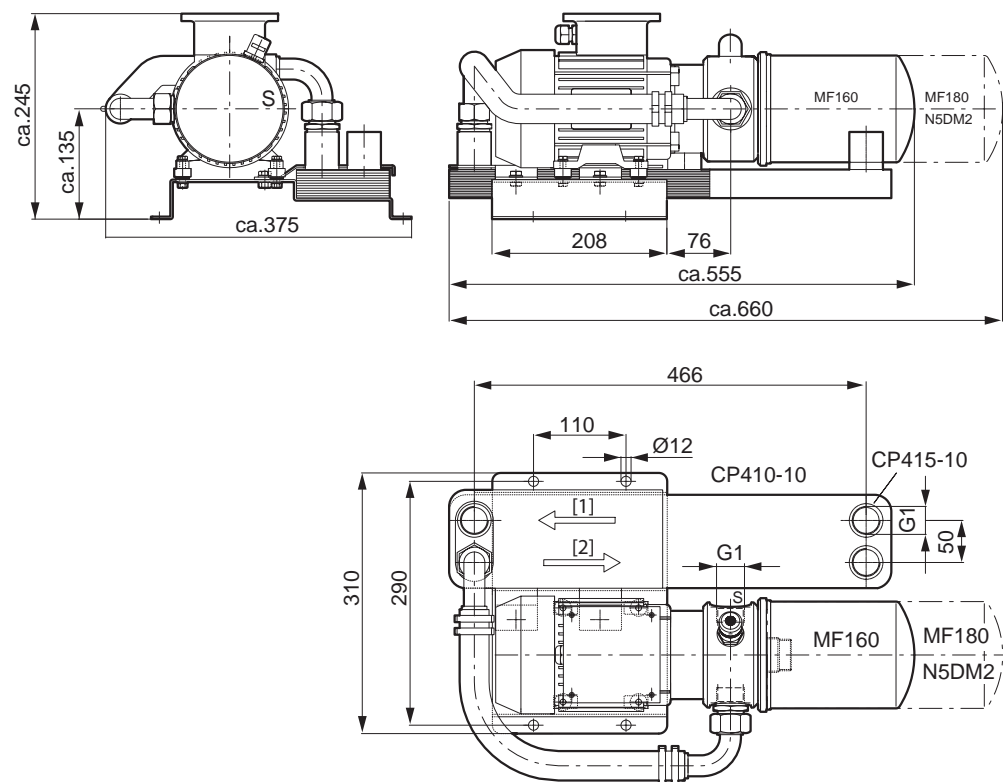
54928AEN

Con H =

CP415-20: 58 mm (m = 6,5 kg)

CP415-60: 154 mm (m = 15,7 kg)

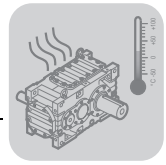
Cotas de conexión para UKF1



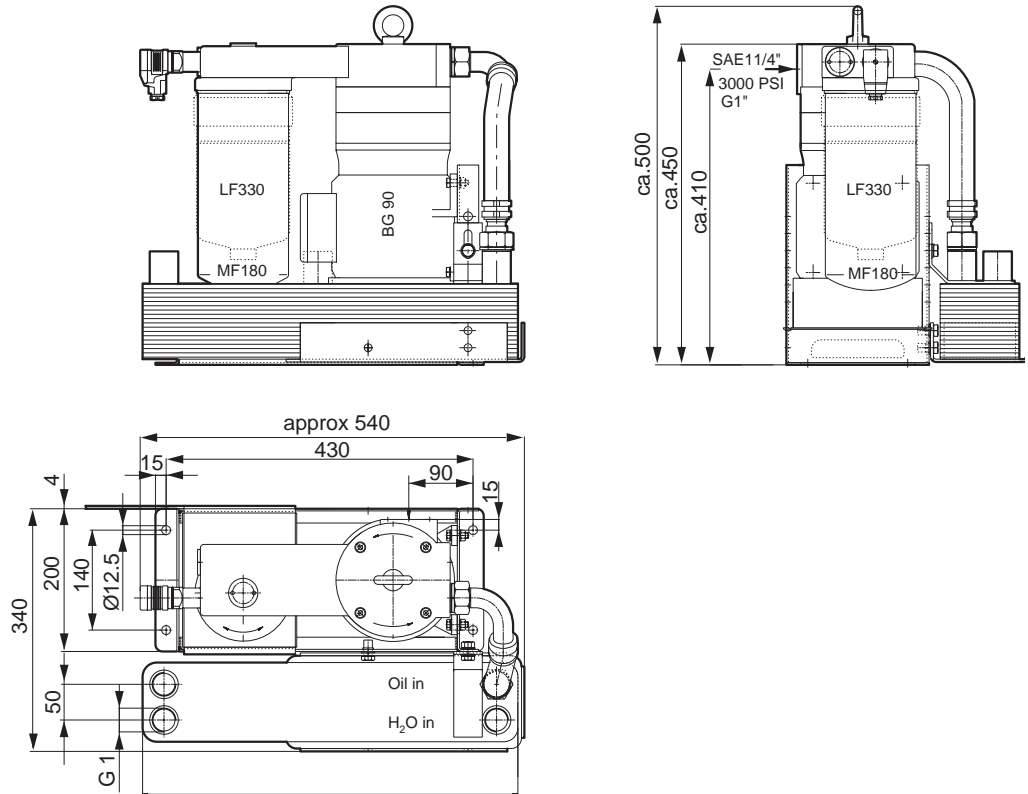
54930AXX

[1] Agua

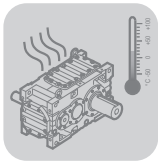
[2] Aceite



Cotas de
conexión para
UKF2



54931AXX



7.11 refrigeración con aceite/aire con motobomba

Uso

Puede utilizarse un sistema de refrigeración externo por aceite/aire si la capacidad térmica del reductor, ventilado de manera natural o con un ventilador sobre el HSS, es insuficiente.

Selección

Normalmente, los grupos de motobombas descritos en el capítulo 7.9 se completan con un intercambiador de calor accionado por ventilador.

Existen dos tamaños estándar para intercambiadores de calor, con la siguiente capacidad de refrigeración:

(Válido para $T_{\text{aire}} = 20^{\circ}\text{C}$, $T_{\text{aceite}} = 60^{\circ}\text{C}$)

Tipo	Capacidad de refrigeración
OK-EL4s	$\approx 8 \text{ kW}$ (con $V_{\text{aceite}} = 10 \text{ l/min}$)
OK-EL6s	$\approx 20 \text{ kW}$ (con $V_{\text{aceite}} = 40 \text{ l/min}$)

El tamaño y tipo correcto del disipador para la aplicación se selecciona dependiendo del

- flujo de aceite requerido para el reductor
- tamaño del reductor
- pérdidas de potencia con calor a disipar
- diferencia de temperatura entre el aceite y el entorno



Contacte a SEW-EURODRIVE para seleccionar el tipo correcto de disipador por aceite/aire.

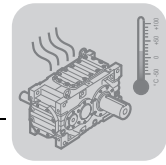
Posición del sistema de refrigeración

El sistema de refrigeración se entrega como sistema ensamblado, el cual opcionalmente puede entregarse

- acoplado al reductor, o
- de manera separada, para el montaje sobre un marco de base suministrado por el cliente.



Para determinar la posición exacta del sistema de refrigeración, consulte el plano de cotas específico de cada pedido.



Volumen de suministro

Los elementos de refrigeración consisten en

- Bomba de aletas
- Motor asincrónico montado directamente, trifásico, montaje B5
Voltaje 230 V / 400 V - 50 Hz or 440 V / 480 V - 60 Hz
- Válvula de limitación de presión interna
- Filtro de aceite (20 µm) con válvula bypass interna para el filtro y el indicador óptico de contaminación
- Intercambiador de calor por aceite/agua accionado por ventilador

Opcionalmente pueden añadirse las siguientes características:

- Interruptor de flujo:
Sirve para controlar la función de la bomba mediante el control del flujo de aceite. El interruptor de flujo se dispara si el flujo desciende por debajo de un cierto valor
- Interruptor térmico con punto de conmutación fijo o ajustable:
Sirve para controlar el disipador
- Válvula termostática en el circuito de aceite:
Estabiliza la temperatura del aceite (se mezcla el aceite frío con el caliente dependiendo de la temperatura del aceite).
- "LFM":
Rejilla de filtro de aire en el elemento de succión (Atención: Aunque el filtro esté limpio la potencia de refrigeración disminuye en $\approx 8\%$)
- "LFG":
Rejilla de filtro de aire en el elemento de succión (Atención: Aunque el filtro esté limpio la potencia de refrigeración disminuye en $\approx 5\%$)
- "GP":
Amortiguador de vibraciones

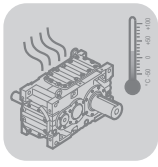
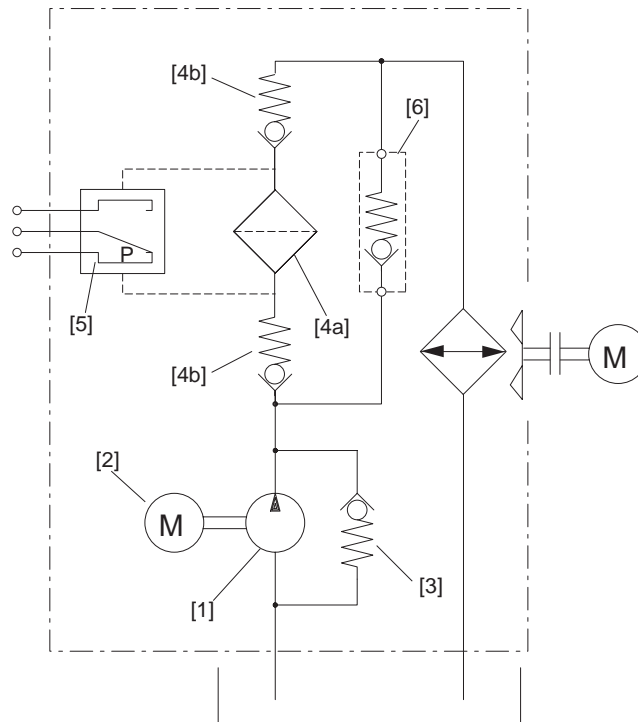


Diagrama de flujo



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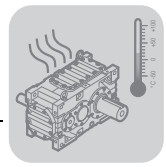
- | | |
|--------------------------------|--|
| [1] Bomba | [4a] Filtro de aceite (sólo el tipo UK) |
| [2] Motor | [4b] Válvulas bypass internas |
| [3] Válvula de presión interna | [5] Indicador eléctrico de contaminación (control de diferencia de presión [opcional]) |
| | [6] Válvula bypass externa [opcional] |
| | [7] intercambiador de calor por aceite/aire |

Datos de funcionamiento

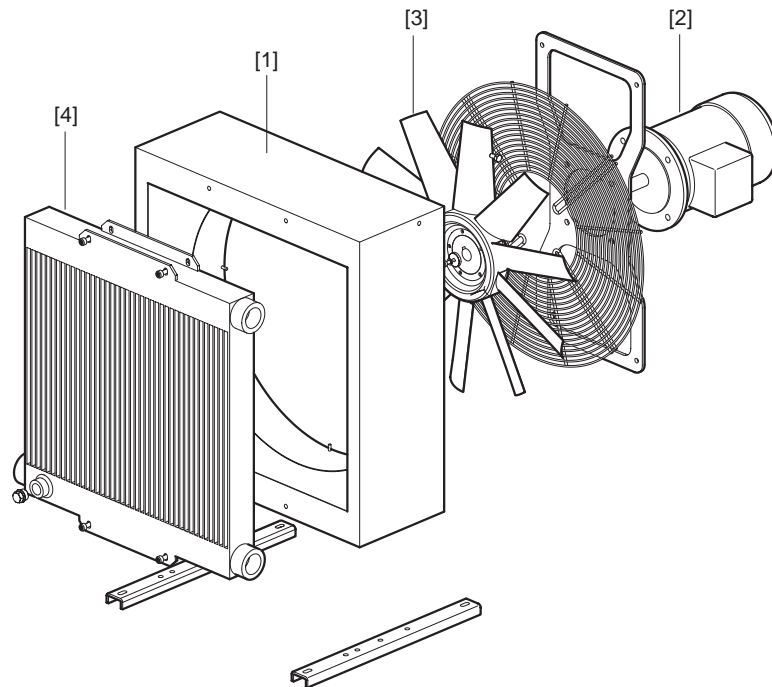
Es importante tener presente el resto de datos de funcionamiento:

Tipo de disipador	Desplazamiento [cm ³ /U]	Flujo de aceite [l/min]	Nº de polos [-] / tamaño [-]	Capacidad del motor [kW] a 50 Hz	Nivel de ruido (1 m de distancia) [dB (A)] a 50 Hz
OK-EL4S	-	150	4 / 71	0.37	74
OK-EL6S	-	225	4 / 90	1.1	75

Tipo de disipador	Máx. presión de funcionamiento [bar]	Máx. temperatura de aceite [°C]	Máx. viscosidad [mm ² /s]	Tamaño de filtro	Peso [kg]
OK-EL4S	16	130	2000	-	31
OK-EL6S	16	130	2000	-	43



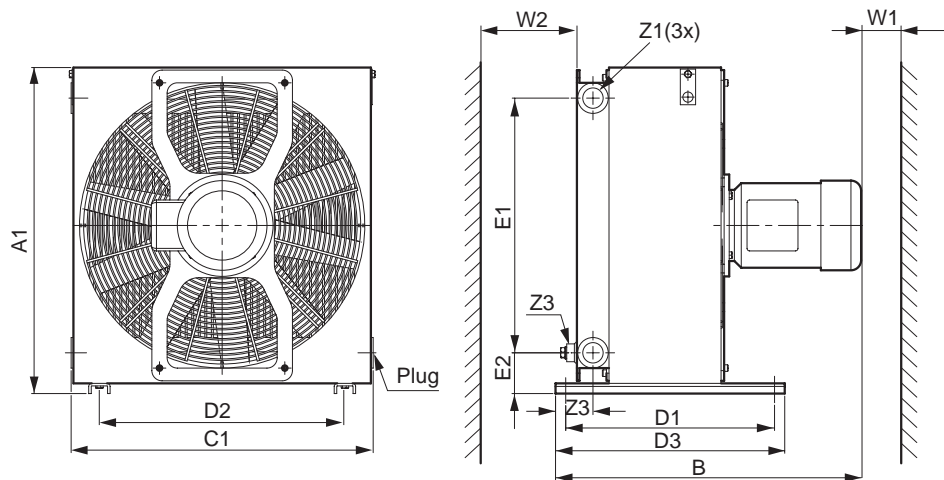
Estructura del intercambiador de calor



54932AXX

- [1] Carcasa metálica
- [2] Motor
- [3] Ventilador axial
- [4] Intercambiador de calor

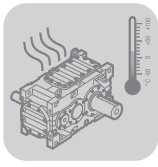
Cotas de conexión



54933AXX

Tipo	A1 ±10	B ±10	C1 ±10	Pr1 ±2	Pr2 ±2	Pr3 ±2	E1 ±5	E2 ±5	E3 ±5	F	W1 mín. ¹	W2 mín. ¹	Z1	Z3
[mm]														
OK-EL4L,S	520	502	485	410	425	450	439	51	104	9	1200	400	G 1"	-
OK-EL6L,S	640	600	550	410	482	450	500	80	74	9	1800	600	G 1 1/4"	M22x1,5

1. para distancias menores contacte nuestro servicio de asistencia para ventas



7.12 Lubricación por presión - Datos importantes para la selección

Si se requiere de lubricación por presión con refrigeración adicional, se recomienda llenar el siguiente formulario

Suministro eléctrico	CA		CC	
	Trifásico	Monofásico		
Tensión de red	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Tensión auxiliar	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Clase de protección	IP		<input type="text"/>	<input type="text"/>
Requisito a prueba de explosión	<input type="text"/>	No	<input type="text"/>	<input type="text"/>
	<input type="text"/>	Sí	<input type="text"/>	<input type="text"/>

Refrigeración adicional (si se requiere)	Permitido		No permitido	
Ventilador	<input type="text"/>	<input type="text"/>		
Disipador de aceite/aire	<input type="text"/>	<input type="text"/>		
Disipador de aceite/agua	<input type="text"/>	<input type="text"/>		

Agua de refrigeración disponible	<input type="text"/>	Sí
	<input type="text"/>	No

Montaje de sistema de lubricación por presión

- acoplado directamente al reductor
- base propia (construcción por el cliente)

Equipos para sistemas de lubricación por presión con o sin disipador

- Filtro de aceite (20 µm) con válvula bypass interna
- Con indicador óptico de contaminación (desbloqueo manual)
- Con indicador eléctrico y óptico de contaminación

Control de presión

- Manómetro visual
- Presostato
- Transductor de presión

Control de flujo

- Visual
- Eléctrico
- Visual y eléctrico

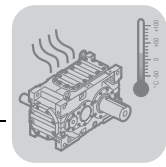
Cableado para todos los instrumentos en la caja de bornas común

Requisitos especiales en relación a la conexión mecánica de los sistemas de lubricación

- No
- Sí

Requisitos especiales en relación al sistema de tuberías y mangueras

- No
- Sí



Sistemas de lubricación por presión con refrigeración por aceite/agua

Datos de selección:

Temperatura de aceite deseada durante el funcionamiento :	<input type="text"/>	°C
Temperatura ambiente:	<input type="text"/>	°C
Normal (promedio):	<input type="text"/>	°C
Mín:	<input type="text"/>	°C
Máx:	<input type="text"/>	°C

Suministro de agua para refrigeración:

Temperatura:	<input type="text"/>	°C
Incremento permitido de temperatura del agua para refrigeración ΔT :	<input type="text"/>	K
Caudal de agua disponible Q_{Agua} :	<input type="text"/>	l/h
	<input type="text"/>	l/min
	<input type="text"/>	l/s

Equipos requeridos:

<input type="checkbox"/>	Termómetro visual
<input type="checkbox"/>	Interruptor térmico con punto de conmutación fijo
<input type="checkbox"/>	Interruptor térmico con punto de conmutación ajustable
<input type="checkbox"/>	Válvula termostática en el circuito de aceite
<input type="checkbox"/>	Filtro en circuito de agua
<input type="checkbox"/>	<input type="text"/>

Sistemas de lubricación por presión con refrigeración por aceite/aire

Datos de selección:

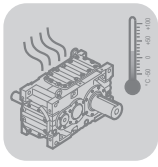
Temperatura de aceite deseada durante el funcionamiento :	<input type="text"/>	°C
Temperatura ambiente:	<input type="text"/>	°C
Normal (promedio):	<input type="text"/>	°C
Mín:	<input type="text"/>	°C
Máx:	<input type="text"/>	°C

Limitación del ruido

Nivel máximo permitido de presión acústica a 1 m de distancia	<input type="text"/>	dB(A)
---	----------------------	-------

Equipos requeridos:

<input type="checkbox"/>	Termómetro visual
<input type="checkbox"/>	Interruptor térmico con punto de conmutación fijo
<input type="checkbox"/>	Interruptor térmico con punto de conmutación ajustable
<input type="checkbox"/>	Válvula termostática en el circuito de aceite
<input type="checkbox"/>	Rejilla del filtro de aire en la succión
<input type="checkbox"/>	<input type="text"/>



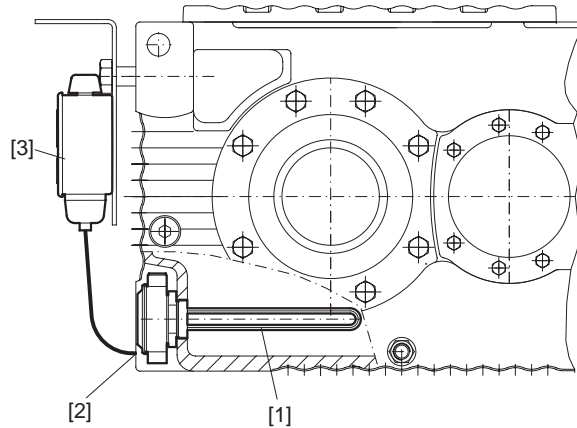
7.13 Calentador de aceite

El calentamiento de aceite se requiere para asegurar la lubricación durante la puesta en marcha, cuando la temperatura ambiente es baja (por ej. puesta en marcha del reductor en frío).

Comportamiento en la activación y la desactivación

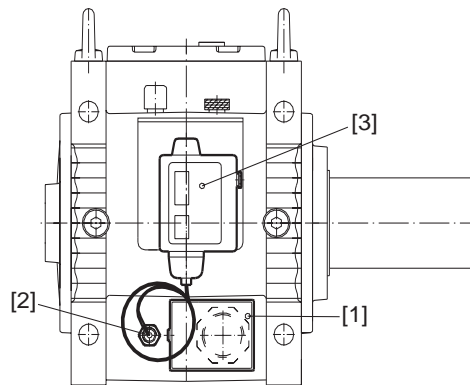
El calentador de aceite

- se activa cuando se alcanza la temperatura especificada en la fábrica
- se desactiva cuando la temperatura especificada se excede en valores entre 8°C y 10°C



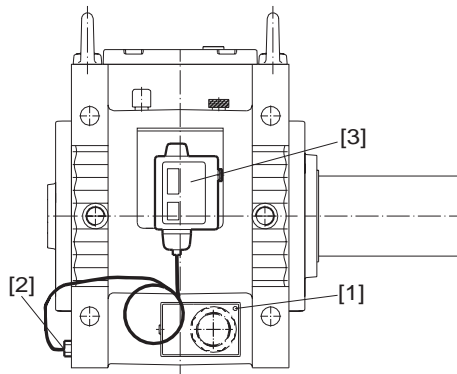
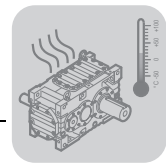
55359AXX

- [1] Calentador de aceite
 [2] Sensor de temperatura
 [3] Termostato



50538AXX

- [1] Calentador de aceite
 [2] Sensor de temperatura
 [3] Termostato



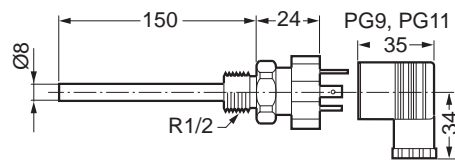
55361AXX

- [1] Calentador de aceite [3] Termostato
[2] Sensor de temperatura

7.14 Sensor de temperatura

El sensor de temperatura PT100 puede utilizarse para medir la temperatura del aceite en el reductor.

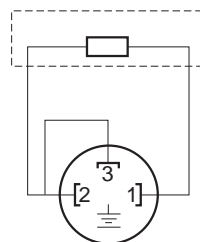
Cotas



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8

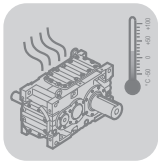
Conexión eléctrica



50534AXX

Datos técnicos

- Tolerancia del sensor $\pm (0.3 + 0.005 \times t)$, (corresponde a DIN IEC 751 clase B), t = temperatura del aceite
- Conector enchufable DIN 43650 PG9 (IP65)
- El par de apriete para el tornillo de retención en la parte trasera del conector enchufable para la conexión eléctrica es de 25 Nm.

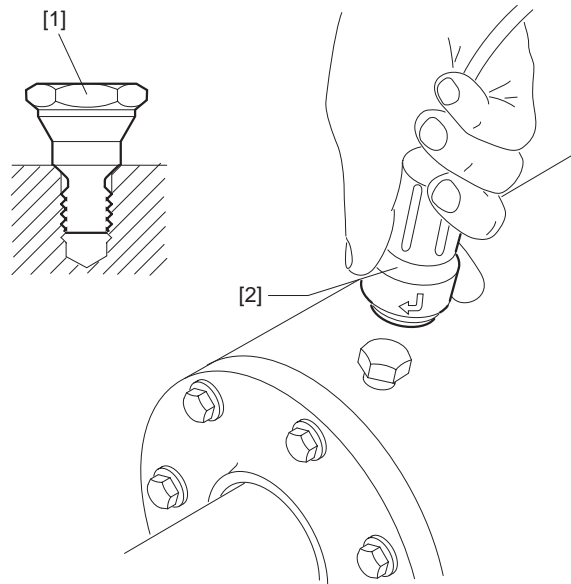


7.15 Adaptador SPM

Los adaptadores SPM se utilizan para medir los impulsos de choque de los rodamientos del reductor. Los impulsos de choque se miden utilizando los sensores acoplados al adaptador SPM.

Posición de montaje

<p>MC.R..: Se requiere un adaptador alargado SPM [3] si se utiliza una brida de motor o un ventilador</p>	<p>MC.R..: Los adaptadores SPM [1] y [2] se acoplan en la superficie lateral del reductor, el adaptador SPM [3] se acopla a la carcasa del piñón.</p>	<p>MC.P..: Los adaptadores SPM [1] y [2] se acoplan a la superficie lateral del reductor.</p>



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8 Notas de diseño y de funcionamiento

8.1 Directivas para la selección del aceite

General

A menos que se acuerde de otra forma, SEW-EURODRIVE suministra los accionamientos sin carga de aceite.



Por tanto es necesario que se llene el reductor con el tipo correcto y la cantidad adecuada de aceite antes de ponerlo en marcha. La información requerida se indica en la placa de características del reductor.

El tipo y cantidad de aceite que se requiere en el reductor depende de lo siguiente:

- tamaño y tipo de reductor
- diseño del reductor (MC..L., MC...V., MC...E) y orientación de la carcasa (M1...M6)
- temperatura de aceite durante el funcionamiento, lo cual depende de
 - la potencia transmitida
 - la temperatura ambiente
 - el tipo de lubricación (lubricación por barboteo, por baño o por presión)
 - los métodos de refrigeración adicionales
- la temperatura mínima durante la puesta en marcha en frío

Además de la viscosidad requerida, el aceite debe satisfacer los criterios siguientes:

- Alto índice de viscosidad
- Debe contener agentes antidesgaste, antiherrumbre, antioxidantes y antiespumantes
- Debe contener también aditivos resistentes a la presión (Aditivos EP)

Si se seleccionan aceites sintéticos debido a las temperaturas de funcionamiento o a los intervalos de cambio de aceite, SEW-EURODRIVE recomienda aceites con base de polialfaolefina (PAO).

Aceites minerales

Normas

Los aceites lubricantes se agrupan en clases de viscosidad ISO VG de las normas ISO 3448 y DIN 51519.

Clase ISO	ISO 6743-6 denominación	DIN 51517-3 denominación	AGMA 9005-D94 denominación
220	ISO-L-CKC 220	DIN 51517-CLP 220	AGMA 5 EP
460	ISO-L-CKC 460	DIN 51517-CLP 460	AGMA 7 EP



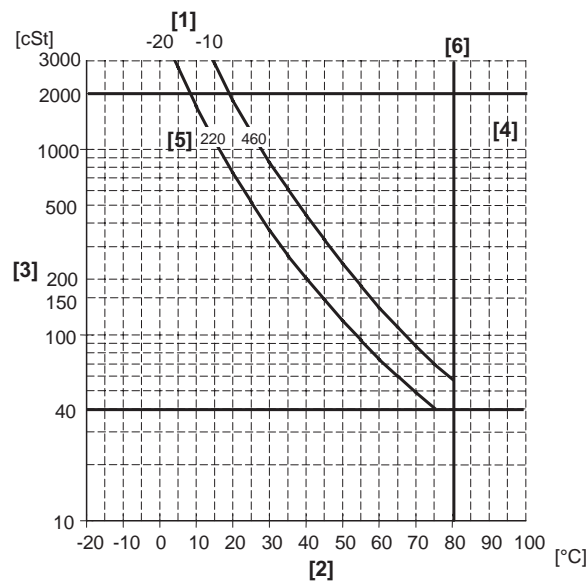
Selección de la viscosidad para aceites minerales

Método de lubricación	Temperatura ambiente	ISO VG mineral
<ul style="list-style-type: none"> Lubricación por baño Lubricación por barboteo Lubricación por presión con calentador de aceite y disipador 	-15...+20 °C	220
<ul style="list-style-type: none"> Lubricación por baño Lubricación por barboteo Lubricación por presión con calentador de aceite y disipador 	-5...+40 °C	460
<ul style="list-style-type: none"> Lubricación por presión con disipador 	+10...+20 °C	220
<ul style="list-style-type: none"> Lubricación por presión sin disipador 	+20...+40 °C	460



¡La lubricación por presión con o sin disipador requiere que se revise la situación durante la puesta en marcha en frío! Cuando se utiliza una bomba de aceite (lubricación por presión) la viscosidad durante la puesta en marcha debe ser inferior a 2000 cSt (→ figura 55052AXX).

Utilice un calentador de aceite (→ capítulo 7.13) si es necesario.



55052AXX

[1] Punto de fluidez [°C]

[4] Índice de viscosidad VI = 90...100

[2] Temperatura de aceite del reductor en funcionamiento [°C]

[5] ISO VG

[3] Viscosidad [cSt]

[6] Límite de temperatura 80°C



Debe observarse la temperatura máxima del reductor en marcha. La temperatura máxima permitida durante el funcionamiento es de 70°C (temp. para funcionamiento prolongado) para ISO VG 220 y de 80°C para ISO VG 460. Puede utilizarse una temperatura de 90°C para periodos cortos.

Cuando se requiera puede utilizarse un dispositivo de refrigeración (ventilador, refrigeración por agua y aire), o debe acortarse el intervalo de cambio de aceite (ver capítulo "Intervalo de cambio de lubricante" en las instrucciones de funcionamiento).



Selección del tipo de aceite entre los aceites minerales

Seleccione el tipo de aceite conforme con la viscosidad requerida según la tabla que aparece en el capítulo 8.2 "Lubricantes".

Aceites sintéticos

Norma

Los aceites lubricantes se agrupan en clases de viscosidad ISO VG de las normas ISO 3448 y DIN 51519.

ISO-L-CKT 460	Denominación ISO 6743-6
220	ISO-L-CKT 220
320	ISO-L-CKT 320
460	ISO-L-CKT 460

Los requisitos mínimos son los mismos que para los aceites minerales

Selección de la viscosidad para aceites sintéticos

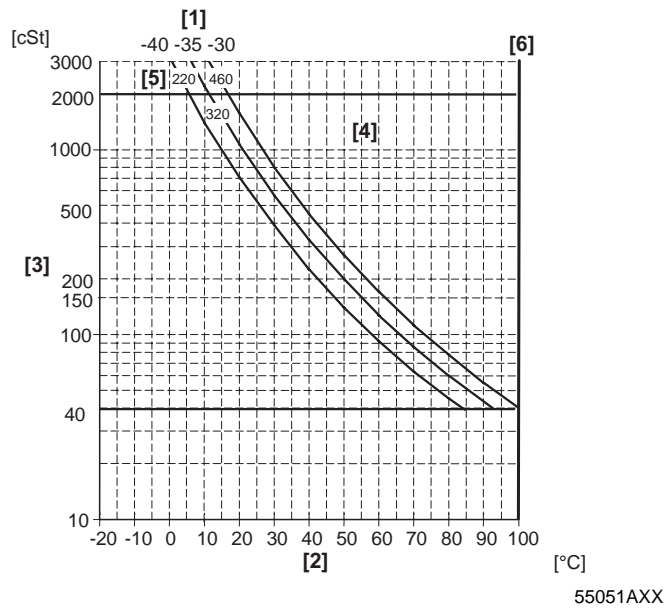
Método de lubricación	Temperatura ambiente	ISO VG sintético
<ul style="list-style-type: none"> Lubricación por baño Lubricación por barboteo Lubricación por presión con calentador de aceite y disipador 	-35...+30 °C	220
<ul style="list-style-type: none"> Lubricación por baño Lubricación por barboteo Lubricación por presión con calentador de aceite y disipador 	-30...+40 °C	320
<ul style="list-style-type: none"> Lubricación por baño Lubricación por barboteo Lubricación por presión con calentador de aceite y sin disipador 	-25...+50 °C	460
<ul style="list-style-type: none"> Lubricación por presión con disipador 	+5...+30 °C	220
<ul style="list-style-type: none"> Lubricación por presión con disipador 	+10...+40 °C	320
<ul style="list-style-type: none"> Lubricación por presión sin disipador 	+15...+50 °C	460

8



¡La lubricación por presión con o sin disipador requiere que se revise la situación durante la puesta en marcha en frío! Cuando se utiliza una bomba de aceite (lubricación por presión) la viscosidad durante la puesta en marcha debe ser inferior a 2000 cSt (→ 55051AXX).

Utilice un calentador de aceite (→ capítulo 7.13) si es necesario.



[1] Punto de fluidez [°C]

[4] Índice de viscosidad
VI = 140..0,180

[2] Temperatura de aceite del reductor en funcionamiento [°C]

[5] ISO VG

[3] Viscosidad [cSt]

[6] Límite de temperatura 100 °C



Debe observarse la temperatura máxima del reductor en marcha. La temperatura máxima permitida durante el funcionamiento es de 70°C (temp. para funcionamiento prolongado) para ISO VG 220 y de 80°C para ISO VG 460. Puede utilizarse una temperatura de 90°C para períodos cortos.

Cuando se requiera puede utilizarse un dispositivo de refrigeración (ventilador, refrigeración por agua y aire), o debe acortarse el intervalo de cambio de aceite (ver capítulo "Intervalo de cambio de lubricante" en las instrucciones de funcionamiento).

Selección del tipo de aceite entre los aceites sintéticos

Seleccione el tipo de aceite conforme con la viscosidad requerida según la tabla que aparece en el capítulo 8.2 "Lubricantes".



8.2 Lubricantes para reductores industriales MC..

Tabla de lubricantes


La tabla de lubricantes que aparece en la página siguiente muestra los lubricantes permitidos para los reductores SEW-EURODRIVE. Tenga en cuenta el significado de las siguientes leyendas en la tabla de lubricantes.

Leyendas de la tabla de lubricantes

Abreviaturas y significado del color y de las notas:

CLP = Aceite mineral

CLP PAO = Polialfaolefina sintética

 = Lubricante sintético (= grasa sintético para rodamientos antifricción)

 = Lubricante mineral (= grasa para rodamientos antifricción con base mineral)

1) = Temperatura ambiente



= por favor contacte a SEW-EURODRIVE



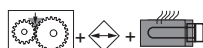
= Lubricación y refrigeración



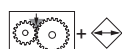
= Lubricación por barboteo



= Lubricación por baño



= Lubricación por presión con calentador de aceite y disipador



= Lubricación por presión con disipador (sin calentador de aceite)



Notas de diseño y de funcionamiento

Lubricantes para reductores industriales MC..

Tabla de lubricantes

47 0490 005

				ISO VG class	Mobil®	Shell	KLÜBER	ARAL	bp	TEXACO	FUCHS	Q8	Castrol	TOTAL
		CLP	CLP PAO	VG 150				Degol BG Plus 150	BP Energol GX-XF 150		Renolin CLP150Plus	Q8 Goya NT 150		
				VG 150				Degol PAS 150 Degol GS 150	Energyn EP-XF 150 Energyn SG-XP 150		Renolin Unisyn CLP 150	Q8 ELGRECO 150		Carter SH 150
				VG 220				Degol BG Plus 220	BP Energol GX-XF 220	Meropa 220	Renolin CLP220Plus	Q8 Goya NT 220	Alphamax 220 Tribol 1710/ 220 Optigear BM 220	
				VG 220				Degol PAS 220 Degol GS220	Energyn EP-XF 220 Energyn SG-XP 220		Renolin Unisyn CLP 220	Q8 ELGRECO 220	Optigear Synthetic X 220	Carter SH 220
				VG 320				Degol BG Plus 320	BP Energol GX-XF 320	Meropa 320	Renolin CLP320Plus	Q8 Goya NT 320	Alphamax 320 Tribol 1100/ 320 Optigear BM 320	
				VG 320				Degol PAS 320 Degol GS 320	Energyn EP-XF 320 Energyn SG-XP 320		Renolin Unisyn CLP 320	Q8 ELGRECO 320	Tribol 1510/ 320 Tribol 1710/ 320 Optigear Synthetic A320 Optigear Synthetic X 320	Carter SH 320
				VG 460				Degol BG Plus 460	BP Energol GX-XF 460	Meropa 460	Renolin CLP460Plus	Q8 Goya NT 460	Alphamax 460 Tribol 1100/ 460 Optigear BM 460	
				VG 460				Degol PAS 460 Degol GS 460	Energyn EP-XF 460 Energyn SG-XP 460		Renolin Unisyn CLP 460	Q8 ELGRECO 460	Tribol 1510/ 460 Tribol 1710/ 460 Optigear Synthetic A460 Optigear Synthetic X 460	Carter SH 460
				VG 680				Degol BG Plus 680	BP Energol GX-XF 680	Meropa 680		Q8 Goya NT 680	Tribol 1100/ 680 Optigear BM 680	Renolin CLP680
				VG 680				Degol PAS 680 Degol GS 680	Energyn EP-XF 680 Energyn SG-XP 680		Renolin Unisyn CLP 680	Q8 ELGRECO 680		





8.3 Grasa de sellado

SEW-EURODRIVE recomienda los tipos de grasa que aparecen en la tabla siguiente para temperaturas de funcionamiento entre - 30°C y +100°C.

Empresa	Aceite
Aral	Aralub HLP2
BP	Energrease LS-EPS
Castrol	Spheerol EPL2
Chevron	Dura-Lith EP2
Elf	Epexa EP2
Esso	Beacon EP2
Exxon	Beacon EP2
Gulf	Gulf crown Grease 2
Klüber	Centoplex EP2
Kuwait	Q8 Rembrandt EP2
Mobil	Mobilux EP2
Molub	Alloy BRB-572
Optimol	Olista Longtime 2
Shell	Alvania EP2
Texaco	Multifak EP2
Total	Multis EP2
Tribol	Tribol 3030-2



8.4 Montaje / desmontaje de reductores de eje hueco con chaveta



- Incluido en el volumen de suministro (→ Figura 56813AXX):
 - Circlips [3], placa terminal [4]
- **No** incluido en el volumen de suministro (→ Figura 56813AXX / Figura 56814AXX / Figura 56815AXX):
 - Varilla roscada [2], tuerca [5], tornillo de retención [6], tornillo expulsor [8]

La selección de la rosca y longitud adecuadas para la varilla roscada, así como para los tornillos de retención, depende del diseño de la máquina del cliente.

Tamaños de rosca

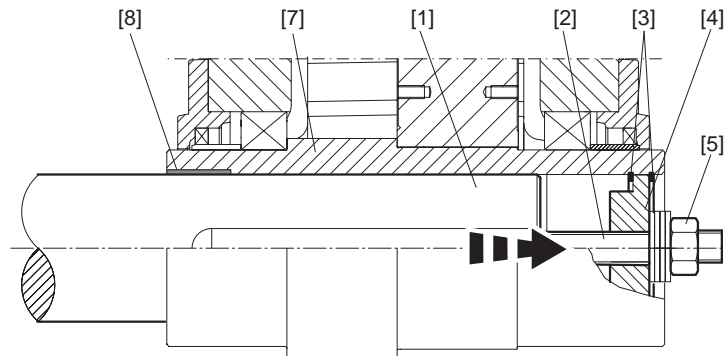
SEW-EURODRIVE recomienda los siguientes tamaños de rosca:

Tamaño de reductor	Tamaño de rosca para <ul style="list-style-type: none"> • la varilla roscada [2] • tuerca (DIN 934) [5] • tornillo de retención [6]
02 - 06	M24
07 - 09	M30

El tamaño de rosca del tornillo expulsor depende de la placa terminal [4]:

Tamaño de reductor	Tamaño de rosca del tornillo expulsor [8]
02 - 06	M30
07 - 09	M36

Montaje del reductor de eje hueco en el eje del cliente



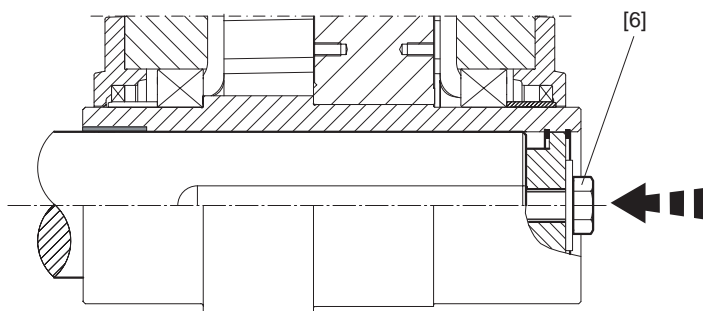
56813AXX

- | | |
|---------------------|---------------|
| [1] Eje del cliente | [5] Tuerca |
| [2] Varilla roscada | [7] Eje hueco |
| [3] Circlips | [8] Buje |
| [4] Placa terminal | |

- Para instalar y fijar el reductor, coloque los circlips [3] y la placa terminal [4] en el orificio del eje hueco.

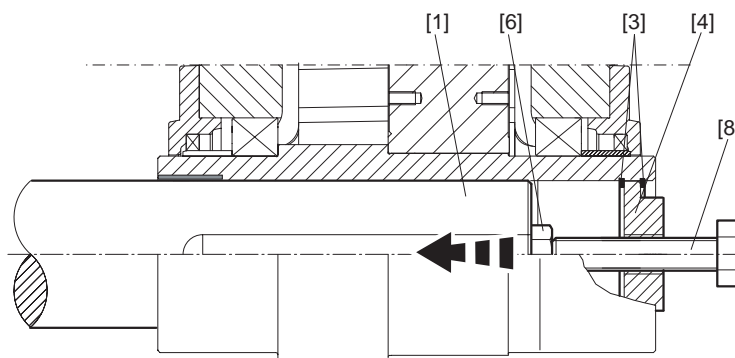


- Aplicar la pasta NOCO® al eje hueco [7] y al extremo del eje del cliente [1].
- Presione el reductor contra el eje del cliente [1]. Enrosque la varilla roscada [2] en el eje del cliente [1]. Apriete el eje del cliente [1] con la tuerca [5] hasta que su extremo se una a la placa terminal [4].
- Afloje la tuerca [5] y desenrosque la varilla roscada [2]. Después de que haya montado el reductor, fije el eje del cliente [1] con el tornillo de retención [6].



56814AXX

Desmontaje del reductor de eje hueco del eje del cliente



56815AXX

- | | |
|---------------------|---------------------------|
| [1] Eje del cliente | [6] Tornillo de retención |
| [3] Circlips | [8] Tornillo expulsor |
| [4] Placa terminal | |

- Retire el tornillo de retención [Figura 56814AXX, Pos. 6].
- Retire el circlip externo [3] y la placa terminal [4].
- Enrosque el tornillo de retención [6] en el eje del cliente [1].
- Gire la placa terminal [4] y vuelva a montar la placa terminal y el circlip externo [3].
- Enrosque el tornillo expulsor [8] en la placa terminal [4] para sacar el reductor del eje del cliente [1].



8.5 Montaje / desmontaje de reductores de eje hueco con disco de contracción

El disco de contracción sirve como elemento de conexión entre el eje hueco del reductor y el eje del cliente. Consulte la sección "Identificación del tipo de disco de contracción" en referencia al tipo de disco de contracción utilizado (denominación: RLK608),



- Incluido en el volumen de suministro (→ Figura 56816AXX):
 - Circlip [3], placa terminal [4]
- **No** incluido en el volumen de suministro (→ Figura 56816AXX / Figura 56817AXX / Figura 56818AXX):
 - Varilla roscada [2], tuerca [5], tornillo de retención [6], tornillo expulsor [8]

La selección de la rosca y longitud adecuadas para la varilla roscada, así como para los tornillos de retención, depende del diseño de la máquina del cliente.

Tamaños de rosca

SEW-EURODRIVE recomienda los siguientes tamaños de rosca:

Tamaño de reductor	Tamaño de rosca para <ul style="list-style-type: none"> • la varilla roscada [2] • tuerca (DIN 934) [5] • tornillo de retención [6] → Figura 56816AXX, 56817AXX
02 - 06	M24
07 - 09	M30

El tamaño de rosca del tornillo expulsor depende de la placa terminal [4]:

Tamaño de reductor	Tamaño de rosca del tornillo expulsor [8]
02 - 06	M30
07 - 09	M36

Identificación del tipo de disco de contracción

Normalmente se utiliza el disco de contracción de tipo RLK608. Éste tiene un matiz de color metálico. Las letras "RLK 608-..." están grabadas en el mismo.

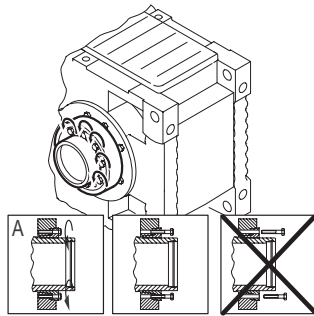


Pueden utilizarse otros tipos de disco de contracción, específicos de cada pedido. En ese caso consulte el manual específico para el disco de contracción.



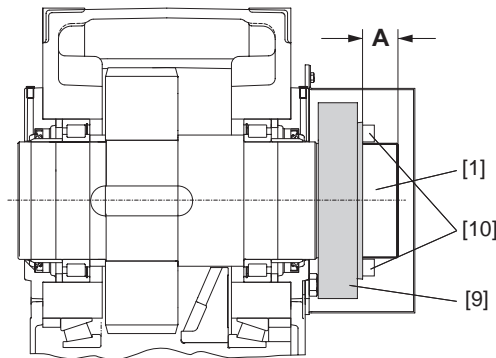
Montaje del disco de contracción

- No apriete los tornillos de bloqueo [10] antes de haber montado el eje del cliente [1], ¡El eje podría deformarse si lo hace!



56810AXX

- Deslice el disco de contracción [9], sin apretar los tornillos, hacia el moyú del eje hueco. Posicione el eje del cliente [1] en el eje hueco. A continuación mueva el disco de contracción [9] la cota A (→ siguiendo la figura, sec. "Cota A") desde el extremo del eje hueco:



56901AXX

- [1] Eje del cliente [10] Tornillos de bloqueo
[9] Disco de contracción



Es esencial asegurarse de que el área de sujeción del disco de contracción esté libre de grasa.

Cota A

Tamaño de reductor MC..	Tipo de disco de contracción RLK608 Cota A [mm]
02	39
03	45
04	44
05	42
06	44
07	50
08	51
09	49

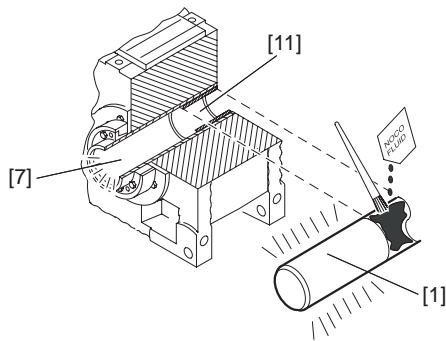


Notas de diseño y de funcionamiento

Montaje / desmontaje de reductores de eje hueco con disco de contracción

Montaje del reductor de eje hueco en el eje del cliente

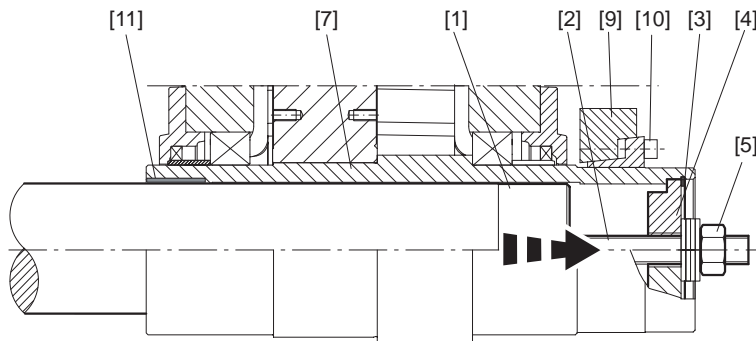
- Antes de instalar el reductor, desengrase el orificio del eje hueco y el eje del cliente [1].
- Aplique una pequeña cantidad de pasta NOCO® en el eje del cliente al área del buje [11].



56811AXX



Nunca aplique la pasta NOCO® directamente al buje ya que la pasta podría alcanzar el área de sujeción del disco de contracción al montar el eje de entrada.



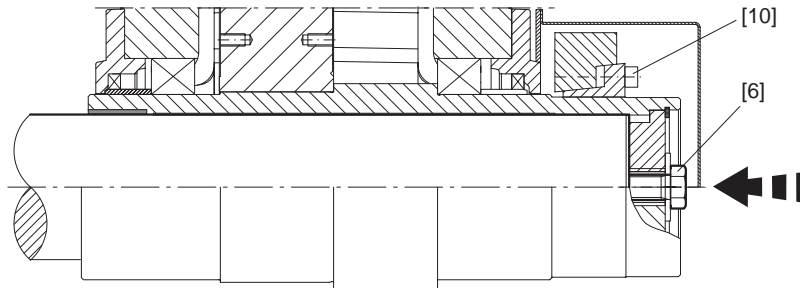
56816AXX

- | | |
|---------------------|---------------------------|
| [1] Eje del cliente | [7] Eje hueco |
| [2] Varilla roscada | [9] Disco de contracción |
| [3] Circlip | [10] Tornillos de bloqueo |
| [4] Placa terminal | [11] Buje |
| [5] Tuerca | |

- Para instalar y fijar el reductor, conecte los circlips [3] y la placa terminal [4] en el orificio del eje hueco.
- Presione el reductor contra el eje del cliente [1]. Enrosque la varilla roscada [2] en el eje del cliente [1]. Apriete el eje del cliente [1] con la tuerca [5] hasta que su extremo se una a la placa terminal [4].



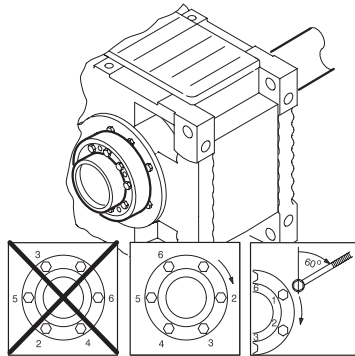
- Afloje la tuerca [5] y desenrosque la varilla roscada [2]. Después de que haya montado el reductor, fije el eje del cliente [1] con el tornillo de retención [6].



56817AXX

Fijación del disco de contracción de tipo RLK608

Apriete los tornillos de bloqueo manualmente al tiempo que alinea el disco de contracción. Apriete los tornillos de sujeción, uno por uno, en el sentido de las manecillas del reloj (no diagonalmente), girando cada uno 1/4 de vuelta.



56812AXX



Los tornillos de los discos de contracción con bujes cónicos ranurados deben apretarse de tal forma que se comience con el tornillo que está a un lado de la ranura y se continúe con el tornillo que está al otro lado de la ranura.

Continúe apretando los tornillos girándolos 1/4 de vuelta, en varias etapas, hasta que las caras laterales del tornillo en el anillo externo y el anillo interno estén alineadas, como se muestra en Figura 56812AXX.

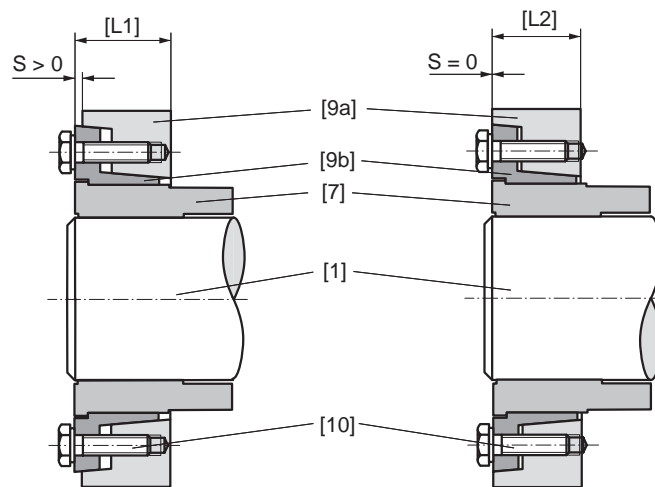


El montaje se define por el movimiento axial del buje cónico y puede realizarse sin una llave dinamométrica.



Notas de diseño y de funcionamiento

Montaje / desmontaje de reductores de eje hueco con disco de contracción



56886AXX

[L1] Estado al momento de la entrega (pre [7] Eje hueco ensamblado)

[L2] Listo para funcionar (montaje final)

[1] Eje del cliente

[9a] Cono

[10] Tornillos de bloqueo

[9b] Buje cónico

Desmontaje del disco de contracción

Afloje los tornillos de bloqueo [10] mediante 1/4 de vuelta en cada uno en secuencia uniforme en varias etapas, a fin de evitar la inclinación de la superficie de sujeción.



Nunca desenrosque los tornillos de bloqueo completamente del agujero roscado, ya que puede producirse un accidente.

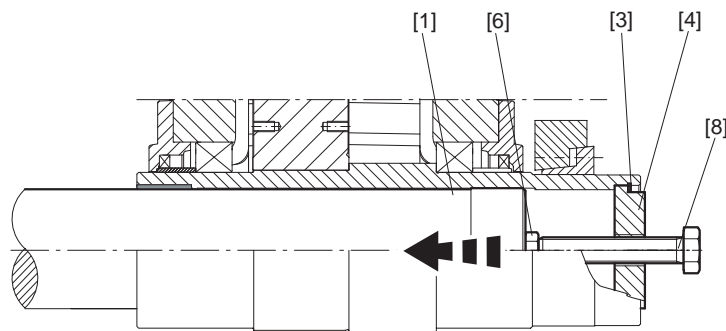
Si el buje cónico y el anillo cónico no se separan por sí solos:

Tome la cantidad requerida de tornillos de bloqueo y enrósquelos uniformemente en los orificios de rosca a desmontar. Apriete los tornillos de bloqueo en varias etapas hasta que el buje cónico se separe del anillo cónico.

Retire el disco de contracción del eje hueco.



Desmontaje del reductor de eje hueco del eje del cliente



56818AXX

- [1] Eje del cliente
- [6] Tornillo de retención
- [3] Circlip
- [8] Tornillo expulsor
- [4] Placa terminal

- Retire el tornillo de retención [Figura 56817AXX, Pos. 6].
- Retire el circlip externo [3] y la placa terminal [4].
- Enrosque el tornillo de retención [6] en el eje del cliente [1].
- Gire la placa terminal [4] y vuelva a montar la placa terminal y el circlip externo [3].
- Enrosque el tornillo expulsor [8] en la placa terminal [4] para sacar el reductor del eje del cliente [1].

8.6 Diámetros opcionales de eje hueco

Eje hueco con chaveta

El diámetro máximo de eje hueco puede leerse en la siguiente tabla

Tamaño de reductor	Diámetro estándar [mm]	Diámetro máximo [mm]
02	80	85
03	95	100
04	105	110
05	115	120
06	125	132
07	135	140
08	150	152
09	165	165



Consulte a SEW-EURODRIVE para

- diámetros más pequeños que la norma para ejes huecos con chaveta
- diámetros diferentes de la norma (más pequeños o más grandes) para reductores de eje hueco con conexión a disco de contracción



8.7 Sujeción de los reductores

No incluido en el volumen de suministro:

- Juego completo de llaves
- Llave de apriete (para discos de contracción)
- Dispositivo de montaje
- Anillos de separación y arandelas de ajuste en caso necesario
- Dispositivos de sujeción para los elementos de entrada y de salida
- Lubricante (por ej. pasta NOCO® de SEW-EURODRIVE)
- Para reductores de eje hueco (→ Sec. "Montaje/desmontaje de los reductores de eje hueco con conexiones de chaveta): Varilla roscada, tuerca (DIN 934), tornillo de retención, tornillo expulsor
- Sujeción de los componentes para la base del reductor

Tolerancias de instalación

Extremo del eje	Bridas
Tolerancia diametral de conformidad con DIN 748 <ul style="list-style-type: none"> • ISO k6 para ejes macizos con $\varnothing \leq 50$ mm • ISO m6 para ejes macizos con $\varnothing > 50$ mm • ISO H7 para ejes huecos para discos de contracción • ISO H8 para ejes huecos con chaveta • Orificio central de conformidad con DIN 332, forma DS.. 	Tolerancia de centrado: <ul style="list-style-type: none"> • ISO js7 / H8

Pares de apriete



Tamaño de reductor	Tornillo / tuerca	Par de apriete de tornillo y tuerca [Nm]
02	M20	315
03		
04	M24	540
05		
06	M30	1090
07		
08	M36	1900
09		



9 Información importante sobre los Planos de Cotas

9.1 Notas sobre los planos de cotas

Volumen de suministro

-  = SEW-EURODRIVE suministra las piezas estándar.
 = SEW-EURODRIVE no suministra las piezas estándar.

Tolerancias

∅ > 130 mm → M30

Chavetas: de conformidad con DIN 6885 (tipo con cúpula).

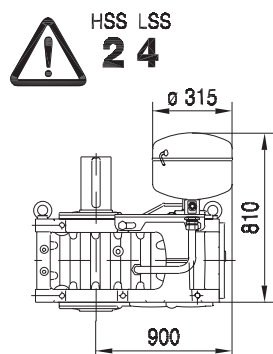
Ejes huecos

Tolerancia de diámetro:

∅ → ISO H7 medida con calibre insertable

Abreviaturas para los accesorios opcionales

- /BS Antirretorno
- /MF Brida de montaje
- /SEP Bomba mecánica
- /ODV Válvula de drenaje
- /SD Disco de contracción
- T Brazo de par
- /LSST LSS continuo = posición de eje 34 ó 43
- /HSST HSS continuo = posición de eje 12 ó 21
- /FAN Ventilador
- /FAN2 2 ventiladores o HSS



55887AXX



Asegúrese de que haya suficiente espacio disponible en la máquina accionada.










Información importante sobre los Planos de Cotas

Notas sobre los planos de cotas

Símbolos







La siguiente tabla contiene todos los símbolos utilizados en las figuras subsiguientes y su significado:

Símbolo	Significado
	Tapón de salida de gases
	Abertura para inspección
	Varilla graduada de aceite
	Tapón de drenaje del aceite
	Tapón de llenado de aceite
	Mirilla de aceite
	Tornillo para salida de aire



9.2 Notas sobre las tablas de selección

Tablas de selección detalladas

MC.PL..02, $n_1 = 1800$ 1/min								P_{TH}						8,0 kNm	
i_N	i_{ex}	n_2 [1/ min]	M_{N2} [kNm]	P_{N1} [kW]	F_{Ra} [kN]	F_{Re} [kN]									
								$P_{TH[20]}$ 20°C	$P_{TH[40]}$ 40°C	$P_{TH[20]}$ 20°C	$P_{TH[40]}$ 40°C	$P_{TH[20]}$ 20°C	$P_{TH[40]}$ 40°C		
[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]

- [1] Coeficiente nominal del reductor (reducción)
- [2] Relación exacta de reducción del reductor
- [3] Velocidad de salida (LSS)
- [4] Par nominal del reductor
- [5] Potencia nominal del reductor
- [6] Carga radial permitida en el centro del LSS con $F_S = 1,5$
- [7] Carga radial permitida en el centro del HSS con $F_S = 1,5$
- [8] Símbolo para el diseño del reductor
- [9] Capacidad térmica nominal del reductor a una temperatura ambiente de 20°C
- [10] Capacidad térmica nominal del reductor a una temperatura ambiente de 40°C
- [11] Capacidad térmica nominal del reductor a una temperatura ambiente de 20°C con un ventilador
- [12] Capacidad térmica nominal del reductor a una temperatura ambiente de 40°C con un ventilador
- [13] Capacidad térmica nominal del reductor a una temperatura ambiente de 20°C con dos ventiladores
- [14] Capacidad térmica nominal del reductor a una temperatura ambiente de 20°C con dos ventiladores
- [15] Plano de cotas para el reductor básico y los accesorios
- [16] Plano de cotas para el reductor básico con adaptador de motor

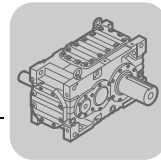
Forma abreviada de las tablas de selección

Tamaño MC2P	[2] n_1 [1/min]	Potencia nominal del reductor P_{N1} en [kW] [4]									
		Coeficiente nominal i_N [3]									
		7.1	8	9	10	11.2	12.5	14	16	18	20
02 [1]											

- [1] Tamaño de reductor
- [2] n_1 = Velocidad de entrada del HSS
- [3] i_n = Coeficiente nominal
- [4] P_{N1} = Potencia nominal del reductor

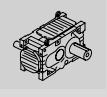
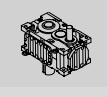
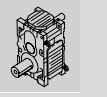



Información importante sobre los Planos de Cotas
Notas sobre las tablas de selección

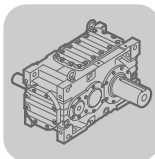


10 Helical Gear Units MC...P

10.1 Selection table guide

MC2P... MC3P...	Torque class [kNm]	Gear unit design "L" 				Gear unit design "V" 				Gear unit design "E" 			
		Input speed $n_1 = \dots$ 1/min				Input speed $n_1 = \dots$ 1/min				Input speed $n_1 = \dots$ 1/min			
		1800	1500	1200	1000	1800	1500	1200	1000	1800	1500	1200	1000
Selection data on page... 													
02	8.0	136	140	144	148	184	188	192	196	232	236	240	244
03	11.5	136	140	144	148	184	188	192	196	232	236	240	244
04	15.5	137	141	145	149	185	189	193	197	233	237	241	245
05	20.0	137	141	145	149	185	189	193	197	233	237	241	245
06	25.0	138	142	146	150	186	190	194	198	234	238	242	246
07	35.0	138	142	146	150	186	190	194	198	234	238	242	246
08	46.0	139	143	147	151	187	191	195	199	235	239	243	247
09	65.0	139	143	147	151	187	191	195	199	235	239	243	247

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Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

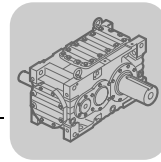
10.2 Selection tables (detailed) MC.PL..

10.2.1 MC.PL..., n₁ = 1800 1/min








MC.PL..02, n ₁ = 1800 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	255	6.9	189	*)	*)	MC2PLSF02 MC2PLHF02 MC2PLHT02	39	*)	106	64	135	85	152	280		
8.00	8.18	220	7.1	170	*)	2.15		42	18	108	66	138	88				
9.00	9.18	196	7.4	156	*)	3.68		44	20	110	68	140	90				
10.00	9.83	183	7.5	148	*)	*)		45	21	111	69	141	91				
11.20	11.37	158	8.0	136	*)	1.78		47	23	114	72	143	93				
12.50	12.31	146	7.9	124	*)	*)		49	24	115	73	145	95				
14.00	14.24	126	8.0	109	*)	2.45		51	26	117	75	147	97				
16.00	15.98	113	7.5	91	3.45	5.3		40	16	98	56	123	73				
18.00	17.88	101	7.5	82	4.59	5.6		42	17	99	57	125	75				
20.00	20.24	89	7.0	67	7.8	6.7		43	19	101	59	126	76				
22.50	22.30	81	8.3	73	1.68	1.96	MC3PLSF02 MC3PLHF02 MC3PLHT02	41	22	92	59	114	76	168	281		
25.00	25.79	70	7.9	60	6.5	3.13		42	24	93	61	116	77				
28.00	28.95	62	7.4	50	9.0	3.37		43	25	94	62	117	79				
31.50	32.31	56	8.0	49	8.4	3.38		44	26	95	63	118	80				
35.50	36.27	50	7.5	41	10.4	3.42		45	27	96	64	119	81				
40.00	38.89	46	8.5	43	8.2	1.62		46	27	97	65	119	81				
45.00	44.97	40	8.1	35	10.6	2.66		47	29	98	66	121	82				
50.00	50.47	36	7.5	29	12.8	3.45		48	29	99	67	121	83				
56.00	56.34	32	8.1	28	12.4	3.61		49	30	100	67	122	84				
63.00	63.23	28	7.6	24	14.4	3.78		50	31	100	68	123	85				
71.00	71.20	25	8.1	22	14.4	2.12		41	23	85	53	105	67				
80.00	79.91	23	7.7	19	16.4	2.71		42	23	86	54	106	67				
90.00	90.45	20	7.1	15.3	18.9	2.72	43	24	87	55	106	68					
100.00	95.36	19	7.7	15.9	18.0	2.72	43	24	87	55	107	68					
112.00	107.94	17	7.1	13.0	20.5	2.73	44	25	88	56	107	69					








MC.PL..03, n ₁ = 1800 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	247	8.8	235	5.5	1.73	MC2PLSF03 MC2PLHF03 MC2PLHT03	50	*)	133	80	170	107	154	280		
8.00	8.23	219	9.3	219	5.9	4.44		53	22	136	83	173	110				
9.00	9.28	194	9.5	198	6.9	6.6		55	25	138	85	175	113				
10.00	9.95	181	9.8	191	5.8	0.90		57	26	140	87	177	114				
11.20	11.23	160	10.1	175	6.6	4.53		59	29	142	89	179	116				
12.50	12.70	142	10.1	154	7.1	2.48		61	31	144	92	181	119				
14.00	14.32	126	10.9	148	7.1	4.05		64	33	146	94	183	121				
16.00	16.16	111	10.8	129	8.9	7.1		50	20	122	70	154	92				
18.00	17.91	100	10.8	117	9.8	7.4		52	22	124	71	156	94				
20.00	20.40	88	9.9	95	13.1	8.1		54	24	126	73	158	96				
22.50	22.65	79	11.3	98	9.9	2.35	MC3PLSF03 MC3PLHF03 MC3PLHT03	51	28	114	74	142	95	170	281		
25.00	25.55	70	11.4	87	11.7	3.16		53	29	116	76	144	96				
28.00	28.83	62	10.6	72	14.9	4.30		54	31	117	77	145	98				
31.50	32.60	55	11.5	69	14.0	4.53		55	32	118	78	147	99				
35.50	36.78	49	10.7	57	17.4	5.3		57	33	120	80	148	100				
40.00	39.81	45	11.8	58	15.1	2.47		57	34	121	81	149	101				
45.00	44.91	40	11.6	51	17.6	3.37		59	35	122	82	150	102				
50.00	50.67	36	10.8	42	21.1	4.44		60	37	123	83	151	104				
56.00	57.29	31	11.7	40	20.4	4.65		61	38	124	84	152	105				
63.00	64.64	28	10.9	33	24.1	5.4		62	39	125	85	153	106				
71.00	71.62	25	11.8	32	23.3	3.30		51	28	106	66	130	83				
80.00	80.80	22	11.0	27	27.1	3.60		52	29	107	67	131	84				
90.00	92.02	20	10.1	22	30.7	3.61	53	30	108	68	132	85					
100.00	101.82	18	11.1	21	30.3	3.61	54	31	109	69	133	86					
112.00	115.96	16	10.2	17.3	30.7	3.62	55	32	110	70	134	87					

Helical Gear Units MC...P Selection tables (detailed) MC.PL..



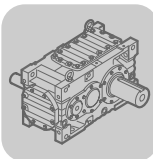
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MC.PL..04, n ₁ = 1800 1/min							P _{TH}						15.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	253	11.2	305	5.7	2.77	MC2PLSF04 MC2PLHF04 MC2PLHT04	62	*)	167	100	213	135	156	280		
8.00	8.01	225	11.7	282	6.9	5.0		66	*)	170	104	216	138				
9.00	8.96	201	12.1	262	8.1	6.8		69	30	173	107	219	141				
10.00	9.95	181	12.5	243	5.8	2.31		71	33	176	109	222	144				
11.20	11.19	161	13.0	226	7.1	4.59		74	36	179	112	225	146				
12.50	12.72	141	13.5	206	6.0	1.56		77	39	182	115	228	150				
14.00	14.31	126	14.1	191	7.3	3.92		80	42	184	118	231	152				
16.00	16.00	113	14.4	174	9.9	6.6		63	25	154	87	194	115				
18.00	17.12	105	14.7	166	10.1	6.3		65	26	155	89	195	117				
20.00	19.25	94	14.1	142	13.5	9.4		67	29	158	91	198	119				
22.50	23.20	78	13.8	117	14.6	1.70	MC3PLSF04 MC3PLHF04 MC3PLHT04	64	35	142	92	176	118	172	281		
25.00	26.10	69	15.6	117	13.6	1.70		65	37	143	94	178	119				
28.00	29.18	62	14.9	100	16.7	3.23		67	38	145	95	180	121				
31.50	33.39	54	15.9	93	16.1	3.84		69	40	147	97	182	123				
35.50	37.33	48	14.9	78	19.8	4.47		70	42	148	99	183	124				
40.00	40.28	45	14.3	70	20.8	*)		71	43	149	100	184	125				
45.00	45.30	40	16.0	69	20.0	*)		73	44	151	101	186	127				
50.00	50.64	36	14.9	58	24.1	1.55		74	45	152	103	187	128				
56.00	57.96	31	16.2	55	23.4	1.97		76	47	154	104	188	130				
63.00	64.79	28	15.0	45	27.7	3.25		77	48	155	105	190	131				
71.00	72.86	25	16.3	44	26.8	2.43		64	35	131	82	161	103				
80.00	81.44	22	15.0	36	31.5	3.62		65	36	132	83	163	104				
90.00	91.60	20	14.3	31	35.1	4.10		66	37	134	84	164	105				
100.00	97.56	18	14.8	30	34.9	3.70	67	38	134	85	164	106					
112.00	109.73	16	14.4	26	35.3	4.11	68	39	135	86	165	107					








MC.PL..05, n ₁ = 1800 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	253	15.6	425	1.81	*)	MC2PLSF05 MC2PLHF05 MC2PLHT05	71	*)	190	114	243	153	158	280		
8.00	8.00	225	16.2	394	2.77	3.52		75	*)	194	118	247	157				
9.00	8.87	203	16.8	366	4.23	6.4		78	*)	197	121	250	160				
10.00	9.78	184	17.3	343	1.58	*)		81	37	200	124	253	163				
11.20	11.01	163	18.0	317	2.66	2.35		84	40	203	128	256	167				
12.50	12.52	144	18.6	287	1.93	*)		88	44	207	131	260	170				
14.00	14.10	128	19.5	268	2.54	1.17		91	47	210	134	263	173				
16.00	15.64	115	19.9	246	4.90	5.8		72	28	175	99	221	131				
18.00	17.24	104	20.0	225	6.4	5.9		74	30	177	101	223	133				
20.00	19.40	93	18.6	186	10.3	11.3		77	33	180	104	226	136				
22.50	22.58	80	15.4	134	14.5	1.54	MC3PLSF05 MC3PLHF05 MC3PLHT05	73	40	163	106	204	136	174	282		
25.00	25.41	71	17.3	134	13.7	1.54		75	42	166	108	206	138				
28.00	28.19	64	19.2	134	13.1	1.54		77	44	167	110	208	139				
31.50	32.53	55	19.9	120	13.1	2.68		79	46	170	112	210	142				
35.50	36.08	50	19.9	108	15.2	3.65		81	48	171	114	212	143				
40.00	40.62	44	18.4	89	19.1	5.2		83	49	173	116	213	145				
45.00	43.55	41	18.1	81	19.3	2.85		84	50	174	117	214	146				
50.00	48.31	37	20.0	81	18.8	2.88		85	52	175	118	216	148				
56.00	55.74	32	20.5	72	19.3	4.01		87	54	177	120	218	150				
63.00	61.84	29	20.2	64	22.0	5.0		88	55	179	121	219	151				
71.00	71.06	25	20.8	57	22.5	1.49		74	40	152	94	187	119				
80.00	78.83	23	20.4	51	25.5	2.43		75	41	153	96	188	120				
90.00	88.73	20	18.9	42	29.7	3.68		76	43	154	97	189	121				
100.00	96.36	19	18.9	38	30.6	3.36	77	44	155	98	190	122					
112.00	108.46	17	19.1	34	32.9	3.97	78	45	157	99	192	123					








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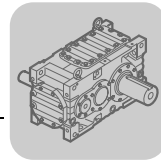









Helical Gear Units MC...P
Selection tables (detailed) MC.PL..








MC.PL..06, n ₁ = 1800 1/min								P _{TH}						25.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	264	18.0	511	4.79	*	MC2PLSF06 MC2PLHF06 MC2PLHT06	84	*)	229	137	293	184	160	280		
8.00	7.89	228	20.5	504	1.10	*)		90	*)	234	143	299	190				
9.00	8.85	203	21.3	466	2.66	5.5		94	*)	239	147	303	194				
10.00	9.82	183	19.9	393	6.0	*)		98	45	242	151	307	198				
11.20	11.37	158	23.1	393	0.71	*)		103	50	248	156	312	203				
12.50	12.04	150	20.9	336	7.4	*)		105	52	249	158	314	205				
14.00	13.93	129	24.2	336	2.00	*)		110	57	254	162	319	210				
16.00	15.63	115	25.3	313	3.17	4.36		87	34	212	120	268	159				
18.00	17.59	102	26.3	289	2.95	3.33		90	37	215	124	271	162				
20.00	19.91	90	24.2	236	13.8	11.8		94	41	219	127	275	166				
22.50	22.80	79	18.6	159	21.8	*)	MC3PLSF06 MC3PLHF06 MC3PLHT06	87	47	194	126	242	161	176	282		
25.00	26.39	68	21.5	159	20.7	*)		90	51	197	129	245	164				
28.00	29.61	61	24.1	159	19.4	*)		92	53	200	131	247	167				
31.50	32.33	56	23.9	145	20.5	*)		94	55	201	133	249	168				
35.50	36.28	50	26.1	141	20.0	*)		96	57	203	135	251	170				
40.00	41.07	44	23.9	114	26.1	0.167		98	59	206	137	253	173				
45.00	45.96	39	22.3	95	29.1	2.06		100	61	207	139	255	175				
50.00	51.58	35	25.1	95	28.0	2.06		102	63	209	141	257	176				
56.00	56.31	32	24.8	86	29.3	3.22		104	64	211	143	259	178				
63.00	63.20	28	26.5	82	29.9	3.77		105	66	213	144	260	180				
71.00	71.10	25	25.1	69	33.7	0.59		87	48	180	112	222	141				
80.00	79.80	23	26.7	66	34.6	1.11		89	49	182	114	223	142				
90.00	90.32	20	24.9	54	40.8	2.78		91	51	184	115	225	144				
100.00	96.73	19	26.0	53	40.0	2.17		91	52	184	116	226	145				
112.00	109.49	16	25.1	45	45.1	3.37	93	54	186	118	227	147					

MC.PL..07, n ₁ = 1800 1/min								P _{TH}						35.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	262	23.1	653	4.33	*)	MC2PLSF07 MC2PLHF07 MC2PLHT07	104	*)	282	169	361	227	162	280		
8.00	7.73	233	25.0	625	3.26	1.64		110	*)	287	175	367	233				
9.00	8.68	207	25.9	576	5.0	5.2		115	*)	293	180	372	238				
10.00	9.65	187	25.4	509	5.8	*)		120	55	297	185	377	243				
11.20	10.86	166	27.9	497	2.74	0.63		125	60	302	190	382	248				
12.50	12.19	148	26.7	424	7.8	*)		130	64	307	195	386	253				
14.00	13.73	131	30.1	424	2.31	*)		134	69	312	199	391	257				
16.00	15.42	117	30.8	387	5.6	3.80		106	41	260	147	329	195				
18.00	17.66	102	32.1	352	5.8	3.31		111	46	265	152	334	200				
20.00	20.25	89	33.3	318	9.7	7.6		116	51	270	157	338	205				
22.50	22.38	80	24.8	217	23.1	*)	MC3PLSF07 MC3PLHF07 MC3PLHT07	106	58	238	155	297	198	178	283		
25.00	25.20	71	27.9	217	21.8	*)		110	61	242	158	300	201				
28.00	28.31	64	31.4	217	20.0	*)		112	64	244	161	303	204				
31.50	31.86	57	31.7	195	21.0	1.59		115	67	247	163	306	207				
35.50	35.78	50	35.7	195	18.8	1.59		118	69	250	166	309	209				
40.00	41.02	44	33.2	158	26.0	4.61		121	72	253	169	312	212				
45.00	43.89	41	29.1	130	31.0	3.42		122	74	254	171	313	214				
50.00	49.30	37	32.7	130	29.4	3.42		125	76	257	173	316	216				
56.00	55.47	32	32.8	116	31.0	5.2		127	79	259	175	318	218				
63.00	62.31	29	36.6	115	29.6	5.3		129	81	261	177	320	221				
71.00	68.66	26	33.2	95	35.6	0.435		107	58	221	137	272	173				
80.00	77.12	23	36.9	94	34.3	0.57		109	60	223	139	274	175				
90.00	88.41	20	34.1	76	42.7	3.10		111	63	225	142	276	177				
100.00	99.48	18	32.0	63	47.5	3.44		113	64	227	144	278	179				
112.00	114.04	16	34.4	59	49.1	4.02	115	67	229	146	280	181					

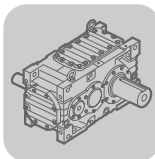
Helical Gear Units MC...P Selection tables (detailed) MC.PL..



MC.PL..08, n ₁ = 1800 1/min							P _{TH}						46.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.01	257	29.8	823	8.4	*	MC2PLSF08 MC2PLHF08 MC2PLHT08	131	*)	351	211	449	283	164	280		
8.00	7.89	228	33.6	823	3.85	*)		138	*)	358	218	456	290				
9.00	8.96	201	35.2	760	5.3	3.78		145	*)	365	225	464	297				
10.00	9.80	184	32.7	646	9.9	*)		150	69	370	230	468	302				
11.20	11.03	163	36.9	646	4.94	*)		156	75	376	237	475	309				
12.50	12.49	144	34.7	538	11.9	*)		162	81	383	243	481	315				
14.00	14.06	128	39.1	538	6.7	*)		168	87	388	249	487	321				
16.00	15.97	113	41.8	506	6.6	3.25		134	52	324	185	410	244				
18.00	17.76	101	43.2	470	6.7	2.09		138	57	329	189	414	248				
20.00	19.90	90	43.6	423	12.3	7.4		143	62	334	194	419	253				
22.50	21.70	83	35.5	320	21.3	*)	MC3PLSF08 MC3PLHF08 MC3PLHT08	131	71	294	190	367	244	180	283		
25.00	24.43	74	39.9	320	19.6	*)		135	74	298	194	370	247				
28.00	27.74	65	45.4	320	17.3	*)		138	78	302	198	374	251				
31.50	31.14	58	44.1	277	19.8	1.20		142	82	305	201	378	255				
35.50	35.36	51	46.5	257	21.0	2.79		146	85	309	205	381	258				
40.00	39.60	45	43.3	214	27.9	6.3		149	89	312	208	385	262				
45.00	43.63	41	43.5	195	27.7	*)		151	91	314	211	387	264				
50.00	49.55	36	46.9	185	28.1	0.359		154	94	318	214	390	267				
56.00	55.61	32	47.9	168	28.6	2.46		157	97	320	217	393	270				
63.00	63.15	29	47.3	147	33.6	5.2		160	100	323	220	396	273				
71.00	69.09	26	48.3	137	33.6	*)		132	72	274	170	337	214				
80.00	78.46	23	47.7	119	38.9	1.69		135	75	276	173	339	216				
90.00	87.87	20	44.5	99	46.5	4.41		137	77	279	175	342	219				
100.00	97.27	19	45.7	92	47.0	3.65		139	79	281	177	344	221				
112.00	108.95	17	45.0	81	52	5.3	141	81	283	179	346	223					




MC.PL..09, n ₁ = 1800 1/min							P _{TH}						65.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.91	260	37.9	1059	14.8	*)	MC2PLSF09 MC2PLHF09 MC2PLHT09	150	*)	406	244	520	327	166	280		
8.00	7.99	225	43.8	1059	12.6	*)		160	*)	416	254	530	337				
9.00	8.97	201	48.0	1036	10.9	*)		168	*)	423	261	537	345				
10.00	9.53	189	41.5	841	16.6	*)		172	*)	427	265	541	349				
11.20	11.03	163	48.0	841	14.1	*)		181	87	436	274	550	358				
12.50	11.77	153	43.5	715	18.3	*)		185	91	440	278	554	362				
14.00	13.61	132	50.3	715	15.8	*)		193	99	449	286	563	370				
16.00	15.27	118	56.5	715	12.6	*)		152	*)	374	212	473	280				
18.00	17.01	106	57.6	655	14.3	*)		158	*)	379	217	478	286				
20.00	19.26	93	59.5	597	16.3	*)		164	70	386	224	485	292				
22.50	21.63	83	44.9	406	29.5	*)	MC3PLSF09 MC3PLHF09 MC3PLHT09	155	84	349	226	435	289	182	283		
25.00	25.02	72	51.9	406	27.3	*)		161	89	354	231	441	295				
28.00	28.08	64	58.3	406	25.0	*)		165	93	358	236	445	299				
31.50	30.88	58	56.3	357	28.1	0.442		168	97	362	239	448	302				
35.50	34.65	52	63.2	357	25.6	0.443		172	101	366	243	452	306				
40.00	39.22	46	58.8	293	34.3	5.2		176	105	370	247	456	310				
45.00	44.10	41	61.6	273	32.3	*)		180	108	373	251	460	314				
50.00	49.49	36	63.6	252	34.9	*)		183	112	377	254	463	317				
56.00	54.43	33	64.2	231	35.8	2.29		186	115	380	257	466	320				
63.00	61.08	29	64.0	205	40.8	5.3		189	118	383	260	469	323				
71.00	68.03	26	64.4	185	42.5	*)		156	85	324	201	399	253				
80.00	76.35	24	64.6	165	47.4	*)		159	88	327	204	402	256				
90.00	86.42	21	60.4	137	57	3.60		163	91	330	207	405	259				
100.00	93.94	19	64.2	134	55	1.70		165	93	332	209	407	261				
112.00	106.33	17	60.3	111	64	4.94	167	96	335	212	410	264					




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Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

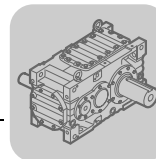
10.2.2 MC.PL..., n₁ = 1500 1/min

MC.PL..02, n ₁ = 1500 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	212	7.2	166	*	*	MC2PLSF02 MC2PLHF02 MC2PLHT02	43	18	97	58	125	78	152	280		
8.00	8.18	183	7.6	150	*	2.20		45	21	100	61	127	81				
9.00	9.18	163	7.4	131	*	4.61		47	23	102	63	129	83				
10.00	9.83	153	7.9	130	*	*		48	24	103	64	130	84				
11.20	11.37	132	8.0	114	*	2.87		50	26	105	66	132	86				
12.50	12.31	122	8.3	109	*	*		51	27	106	67	133	87				
14.00	14.24	105	8.0	91	1.21	3.70		53	29	108	69	135	89				
16.00	15.98	94	7.6	77	5.3	6.2		43	18	90	51	114	67				
18.00	17.88	84	7.6	69	6.5	6.4		44	20	91	52	115	69				
20.00	20.24	74	7.0	56	8.8	7.2		46	21	93	54	117	70				
22.50	22.30	67	8.4	62	3.71	2.41	MC3PLSF02 MC3PLHF02 MC3PLHT02	43	24	85	55	105	70	168	281		
25.00	25.79	58	8.0	51	8.1	3.30		44	25	86	56	107	71				
28.00	28.95	52	7.4	42	10.3	3.37		45	26	87	57	108	72				
31.50	32.31	46	8.0	41	9.6	3.37		46	27	88	58	109	73				
35.50	36.27	41	7.5	34	11.6	3.42		47	28	89	59	110	74				
40.00	38.89	39	8.5	36	9.6	2.01		48	29	89	60	110	75				
45.00	44.97	33	8.1	29	12.0	3.07		49	30	90	61	111	76				
50.00	50.47	30	7.6	25	14.2	3.74		49	31	91	61	112	77				
56.00	56.34	27	8.1	23	13.9	3.75		50	32	92	62	113	78				
63.00	63.23	24	7.7	20	15.9	3.78		51	32	93	63	114	78				
71.00	71.20	21	8.1	19	16.0	2.11		42	24	79	49	97	61				
80.00	79.91	19	7.7	15.8	18.0	2.71		43	25	79	50	98	62				
90.00	90.45	17	7.1	12.9	20.6	2.72	44	25	80	50	98	63					
100.00	95.36	16	7.8	13.4	19.7	2.72	44	26	81	51	99	63					
112.00	107.94	14	7.2	10.9	22.3	2.73	45	26	81	51	99	64					

MC.PL..03, n ₁ = 1500 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	206	9.3	207	5.7	1.76	MC2PLSF03 MC2PLHF03 MC2PLHT03	54	23	122	74	157	99	154	280		
8.00	8.23	182	9.8	192	6.3	4.79		57	26	125	76	159	101				
9.00	9.28	162	10.0	175	7.2	6.9		59	28	127	79	162	104				
10.00	9.95	151	10.3	168	6.1	0.95		60	30	129	80	163	105				
11.20	11.23	134	10.7	154	7.0	4.77		62	32	131	82	165	107				
12.50	12.70	118	10.1	129	8.6	4.58		65	34	133	84	167	109				
14.00	14.32	105	11.5	130	7.5	4.32		67	36	135	86	169	111				
16.00	16.16	93	10.8	108	10.5	8.1		53	23	113	64	142	85				
18.00	17.91	84	10.9	98	11.4	8.0		55	25	114	66	144	86				
20.00	20.40	74	10.0	79	14.8	8.7		57	26	116	68	146	88				
22.50	22.65	66	11.3	82	11.8	2.90	MC3PLSF03 MC3PLHF03 MC3PLHT03	53	30	105	68	131	87	170	281		
25.00	25.55	59	11.4	73	13.5	3.67		55	31	107	70	133	89				
28.00	28.83	52	10.7	61	16.8	4.81		56	33	108	71	134	90				
31.50	32.60	46	11.6	58	16.0	5.0		57	34	109	72	135	91				
35.50	36.78	41	10.8	48	19.4	5.3		59	35	111	73	137	93				
40.00	39.81	38	11.8	48	17.3	3.01		59	36	111	74	137	93				
45.00	44.91	33	11.7	42	19.7	3.86		60	37	112	75	139	95				
50.00	50.67	30	10.9	35	23.3	4.94		62	38	114	77	140	96				
56.00	57.29	26	11.7	33	22.9	5.2		63	39	115	78	141	97				
63.00	64.64	23	11.0	28	26.5	5.3		64	40	116	79	142	98				
71.00	71.62	21	11.8	27	26.0	3.58		53	30	98	61	121	77				
80.00	80.80	19	11.1	22	29.6	3.60		54	31	99	62	121	77				
90.00	92.02	16	10.2	18.1	30.7	3.61	55	32	100	63	122	78					
100.00	101.82	15	11.2	18.0	30.7	3.61	55	32	101	63	123	79					
112.00	115.96	13	10.3	14.6	30.7	3.62	56	33	101	64	124	80					

Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

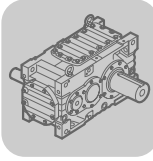


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













MC.PL..04, n₁ = 1500 1/min							P_{TH}						15.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	211	11.8	268	6.0	2.95	MC2PLSF04 MC2PLHF04 MC2PLHT04	67	29	153	92	197	124	156	280		
8.00	8.01	187	12.3	248	7.3	5.3		70	32	157	95	200	127				
9.00	8.96	167	12.8	231	8.6	7.2		73	35	159	98	203	130				
10.00	9.95	151	13.2	215	6.0	2.39		76	37	162	101	205	132				
11.20	11.19	134	13.8	199	7.4	4.82		79	40	165	103	208	135				
12.50	12.72	118	14.2	181	6.4	1.68		81	43	168	106	211	138				
14.00	14.31	105	14.9	168	7.7	4.14		84	46	170	109	213	140				
16.00	16.00	94	14.9	150	11.8	7.5		67	29	142	80	179	106				
18.00	17.12	88	14.9	140	12.5	7.8		68	30	143	82	180	108				
20.00	19.25	78	14.2	119	15.4	10.6		71	32	145	84	183	110				
22.50	23.20	65	13.8	97	16.9	2.43	MC3PLSF04 MC3PLHF04 MC3PLHT04	66	38	131	85	163	108	172	281		
25.00	26.10	57	15.5	97	15.9	2.43		68	39	132	86	165	110				
28.00	29.18	51	14.9	83	19.0	3.91		69	41	134	88	166	112				
31.50	33.39	45	16.0	78	18.4	4.39		71	42	136	90	168	113				
35.50	37.33	40	15.0	65	22.2	4.47		73	44	137	91	169	115				
40.00	40.28	37	14.3	58	23.3	0.477		74	45	138	92	170	116				
45.00	45.30	33	16.1	58	22.6	0.476		75	46	139	93	172	117				
50.00	50.64	30	14.9	48	26.8	2.08		76	47	141	95	173	118				
56.00	57.96	26	16.3	46	26.1	2.46		78	49	142	96	174	120				
63.00	64.79	23	15.0	38	30.7	3.77		79	50	143	97	175	121				
71.00	72.86	21	16.4	37	29.7	2.89		66	37	121	75	149	95				
80.00	81.44	18	15.0	30	34.6	4.08		67	38	122	77	150	96				
90.00	91.60	16	14.4	26	35.3	4.10		68	39	123	78	151	97				
100.00	97.56	15	14.8	25	35.3	4.10		68	40	124	78	152	98				
112.00	109.73	14	14.5	22	35.3	4.11	69	41	125	79	153	99					
MC.PL..05, n₁ = 1500 1/min							P_{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	211	16.5	375	1.88	*)	MC2PLSF05 MC2PLHF05 MC2PLHT05	77	*)	175	105	224	141	158	280		
8.00	8.00	188	17.2	347	2.86	3.63		80	36	178	108	228	145				
9.00	8.87	169	17.7	322	4.45	6.7		83	39	181	111	231	148				
10.00	9.78	153	18.3	302	1.61	*)		86	42	184	114	233	150				
11.20	11.01	136	19.1	279	2.77	2.42		89	45	187	117	237	153				
12.50	12.52	120	18.7	242	4.55	*)		92	49	191	121	240	157				
14.00	14.10	106	20.6	236	2.84	1.45		95	52	194	124	243	160				
16.00	15.64	96	19.9	206	7.7	8.0		76	32	161	91	204	121				
18.00	17.24	87	20.1	188	8.6	8.1		78	34	163	93	206	123				
20.00	19.40	77	18.8	156	12.0	12.2		81	37	166	96	208	125				
22.50	22.58	66	15.5	112	16.5	2.20	MC3PLSF05 MC3PLHF05 MC3PLHT05	76	43	151	98	188	125	174	282		
25.00	25.41	59	17.4	112	15.7	2.20		78	45	153	100	190	127				
28.00	28.19	53	19.3	112	15.1	2.20		80	47	154	101	192	129				
31.50	32.53	46	19.9	100	15.3	3.37		82	49	157	104	194	131				
35.50	36.08	42	20.0	90	17.4	4.32		84	50	158	105	196	132				
40.00	40.62	37	18.5	75	21.3	5.9		85	52	160	107	197	134				
45.00	43.55	34	18.1	68	21.7	3.59		86	53	161	108	198	135				
50.00	48.31	31	20.0	68	21.3	3.59		88	54	162	109	200	136				
56.00	55.74	27	20.5	60	22.0	4.74		89	56	164	111	201	138				
63.00	61.84	24	20.3	54	24.6	5.7		91	57	165	112	203	140				
71.00	71.06	21	20.7	48	25.4	2.04		76	42	140	87	173	110				
80.00	78.83	19	20.5	42	28.2	2.92		77	44	141	88	174	111				
90.00	88.73	17	19.0	35	32.6	4.18		78	45	143	90	175	112				
100.00	96.36	16	18.9	32	33.7	3.87		79	46	144	90	176	113				
112.00	108.46	14	19.2	29	36.0	4.46	80	47	145	92	177	114					

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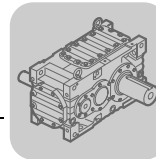
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















Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC.PL..06, n ₁ = 1500 1/min							P _{TH}						25.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	220	19.0	449	5.1	*	MC2PLSF06 MC2PLHF06 MC2PLHT06	92	*)	211	126	270	169	160	280		
8.00	7.89	190	21.7	443	1.21	*)		97	*)	216	131	276	175				
9.00	8.85	169	22.5	410	2.77	5.8		101	48	220	135	280	179				
10.00	9.82	153	21.1	346	6.2	*)		104	51	224	139	283	182				
11.20	11.37	132	24.4	346	0.66	*)		109	56	228	143	288	187				
12.50	12.04	125	22.1	296	7.7	*)		111	58	230	145	290	189				
14.00	13.93	108	25.6	296	1.95	*)		115	62	234	150	294	193				
16.00	15.63	96	26.3	271	4.85	5.7		92	39	195	110	247	146				
18.00	17.59	85	26.3	241	8.4	7.2		95	42	199	114	250	149				
20.00	19.91	75	24.3	197	16.5	13.0		99	46	202	117	254	153				
22.50	22.80	66	18.5	133	24.7	*)	MC3PLSF06 MC3PLHF06 MC3PLHT06	91	51	179	116	224	149	176	282		
25.00	26.39	57	21.4	133	23.8	*)		94	54	182	119	226	152				
28.00	29.61	51	24.1	133	22.6	*)		96	56	184	121	229	154				
31.50	32.33	46	23.9	121	23.6	*)		97	58	186	123	230	155				
35.50	36.28	41	26.2	118	23.1	*)		99	60	188	125	232	157				
40.00	41.07	37	24.2	96	29.1	0.50		101	62	190	127	234	159				
45.00	45.96	33	22.3	79	32.6	2.87		103	64	192	129	236	161				
50.00	51.58	29	25.1	79	31.6	2.87		105	66	194	130	238	163				
56.00	56.31	27	24.8	72	33.0	4.04		106	67	195	132	239	164				
63.00	63.20	24	26.7	69	33.5	4.52		108	68	196	133	241	166				
71.00	71.10	21	25.1	58	37.7	1.20		90	50	167	103	205	130				
80.00	79.80	19	26.9	55	38.5	1.64		91	52	168	105	207	132				
90.00	90.32	17	25.0	45	44.9	3.33		93	53	170	107	208	133				
100.00	96.73	16	26.0	44	44.5	2.75		94	54	170	107	209	134				
112.00	109.49	14	25.2	38	45.3	3.90	95	56	172	109	210	135					
MC.PL..07, n ₁ = 1500 1/min							P _{TH}						35.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	219	24.4	574	4.61	*)	MC2PLSF07 MC2PLHF07 MC2PLHT07	113	*)	259	155	333	209	162	280		
8.00	7.73	194	26.4	551	3.38	1.70		118	*)	265	160	338	214				
9.00	8.68	173	27.3	507	5.4	5.6		123	58	270	165	343	219				
10.00	9.65	155	26.8	448	6.0	*)		128	62	274	170	348	224				
11.20	10.86	138	29.5	438	2.69	0.57		132	67	279	175	352	228				
12.50	12.19	123	28.3	374	8.2	*)		137	72	283	179	357	233				
14.00	13.73	109	31.8	374	2.39	*)		141	76	288	183	361	237				
16.00	15.42	97	32.6	341	5.7	3.93		113	47	240	135	303	179				
18.00	17.66	85	34.0	310	6.0	3.43		117	52	244	140	308	184				
20.00	20.25	74	33.7	268	15.0	9.8		122	57	249	144	312	188				
22.50	22.38	67	24.9	181	26.2	0.74	MC3PLSF07 MC3PLHF07 MC3PLHT07	111	63	220	142	275	182	178	283		
25.00	25.20	60	28.0	181	25.0	0.74		114	65	223	145	278	185				
28.00	28.31	53	31.4	181	23.4	0.74		117	68	226	148	280	188				
31.50	31.86	47	31.7	162	24.6	2.60		119	71	228	151	283	191				
35.50	35.78	42	35.6	162	22.6	2.60		122	73	231	153	285	193				
40.00	41.02	37	33.4	133	29.7	5.5		125	76	234	156	288	196				
45.00	43.89	34	29.0	108	35.0	4.58		126	78	235	157	290	197				
50.00	49.30	30	32.6	108	33.6	4.58		128	80	237	160	292	200				
56.00	55.47	27	32.9	97	35.2	6.3		131	82	239	162	294	202				
63.00	62.31	24	36.8	96	33.6	6.4		133	84	241	164	296	204				
71.00	68.66	22	33.2	79	40.1	1.20		110	61	204	127	252	159				
80.00	77.12	19	37.1	78	38.7	1.27		112	63	206	129	254	161				
90.00	88.41	17	34.4	63	47.2	3.80		114	65	208	131	256	163				
100.00	99.48	15	32.0	52	52	4.16		116	67	210	133	257	165				
112.00	114.04	13	34.7	50	53	4.69	118	69	212	134	259	167					

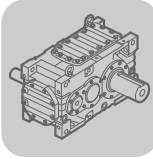
Helical Gear Units MC...P Selection tables (detailed) MC.PL..



MC.PL..08, n ₁ = 1500 1/min							P _{TH}						46.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	7.01	214	31.5	724	8.9	*)	MC2PLSF08 MC2PLHF08 MC2PLHT08	141	*)	323	194	414	260	164	280
8.00	7.89	190	35.5	724	4.04	*)		148	*)	330	200	421	267		
9.00	8.96	167	37.2	669	5.6	4.02		155	74	337	207	428	274		
10.00	9.80	153	34.6	568	10.5	*)		159	78	341	212	432	278		
11.20	11.03	136	38.9	568	5.2	*)		165	84	347	217	438	284		
12.50	12.49	120	36.7	473	12.6	*)		171	90	353	223	444	290		
14.00	14.06	107	41.3	473	7.1	*)		177	95	358	229	450	296		
16.00	15.97	94	44.1	445	7.0	3.43		142	60	299	170	378	224		
18.00	17.76	84	45.7	414	6.9	2.12		146	65	304	174	383	229		
20.00	19.90	75	43.8	355	17.1	10.2		151	69	308	179	387	233		
22.50	21.70	69	37.4	281	22.5	*)	MC3PLSF08 MC3PLHF08 MC3PLHT08	137	76	271	175	339	225	180	283
25.00	24.43	61	42.1	281	20.7	*)		140	80	275	179	342	228		
28.00	27.74	54	46.3	272	19.9	*)		144	84	278	182	346	232		
31.50	31.14	48	46.5	244	21.0	1.31		147	87	282	186	349	235		
35.50	35.36	42	46.8	216	24.6	3.98		150	90	285	189	353	239		
40.00	39.60	38	43.5	179	31.8	7.5		153	93	288	192	355	242		
45.00	43.63	34	43.7	163	31.7	0.320		156	96	290	194	358	244		
50.00	49.55	30	47.2	155	32.1	1.51		159	99	293	197	361	247		
56.00	55.61	27	48.0	141	33.1	3.73		161	101	296	200	364	250		
63.00	63.15	24	47.6	123	38.1	6.4		164	104	299	203	366	252		
71.00	69.09	22	48.3	114	38.5	0.247		136	76	253	157	311	197		
80.00	78.46	19	48.1	100	43.4	2.54		139	79	255	159	314	200		
90.00	87.87	17	44.9	83	51	5.3		141	81	258	162	316	202		
100.00	97.27	15	45.7	77	52	4.62	143	83	259	163	318	204			
112.00	108.95	14	45.3	68	57	6.2	145	85	261	165	320	206			








MC.PL..09, n ₁ = 1500 1/min							P _{TH}						65.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	6.91	217	40.0	932	15.7	*)	MC2PLSF09 MC2PLHF09 MC2PLHT09	163	*)	374	223	479	301	166	280
8.00	7.99	188	46.2	932	13.3	*)		172	*)	383	233	489	310		
9.00	8.97	167	50.7	911	11.5	*)		179	*)	390	240	496	317		
10.00	9.53	157	43.8	740	17.5	*)		183	89	394	244	500	321		
11.20	11.03	136	50.7	740	14.9	*)		192	97	402	252	508	330		
12.50	11.77	127	46.0	629	19.4	*)		195	101	406	256	512	333		
14.00	13.61	110	53.1	629	16.7	*)		203	109	414	264	519	341		
16.00	15.27	98	59.6	629	13.3	*)		162	68	345	194	436	258		
18.00	17.01	88	60.9	576	15.1	*)		167	73	350	200	441	263		
20.00	19.26	78	59.9	501	20.1	*)		173	79	356	206	447	269		
22.50	21.63	69	47.4	358	31.1	*)	MC3PLSF09 MC3PLHF09 MC3PLHT09	162	91	322	208	402	267	182	283
25.00	25.02	60	54.9	357	28.8	*)		167	96	327	213	407	272		
28.00	28.08	53	61.6	357	26.4	*)		171	100	331	217	411	276		
31.50	30.88	49	59.5	314	29.7	0.455		174	103	334	220	414	279		
35.50	34.65	43	63.4	298	30.3	1.90		178	107	338	224	418	283		
40.00	39.22	38	59.1	246	39.0	6.7		182	110	342	228	422	286		
45.00	44.10	34	61.6	228	37.5	*)		185	114	345	231	425	290		
50.00	49.49	30	64.0	211	39.9	1.31		188	117	348	234	428	293		
56.00	54.43	28	64.5	193	41.1	3.82		191	120	351	237	431	296		
63.00	61.08	25	64.6	172	46.0	6.8		194	123	354	240	434	299		
71.00	68.03	22	64.5	154	48.3	*)		161	90	300	186	369	234		
80.00	76.35	20	64.9	139	53	0.94		164	93	302	189	372	237		
90.00	86.42	17	60.4	114	63	4.80		167	96	305	191	375	239		
100.00	93.94	16	63.9	111	62	2.95	169	97	307	193	377	241			
112.00	106.33	14	60.5	93	71	6.1	171	100	310	196	379	244			








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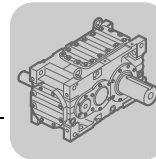
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

10.2.3 MC.PL..., n₁ = 1200 1/min







MC.PL..02, n ₁ = 1200 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	170	7.8	142	*	*	MC2PLSF02 MC2PLHF02 MC2PLHT02	46	22	88	53	113	71	152	280		
8.00	8.18	147	8.0	126	*	2.73		49	24	91	55	116	73				
9.00	9.18	131	7.5	105	2.08	5.8		50	26	92	57	117	75				
10.00	9.83	122	8.4	110	*	0.205		51	27	93	58	118	76				
11.20	11.37	106	8.0	91	1.22	4.43		53	29	95	60	120	78				
12.50	12.31	97	8.4	89	*	1.04		54	30	96	61	121	79				
14.00	14.24	84	8.0	73	3.69	5.2		56	32	98	62	123	81				
16.00	15.98	75	7.6	62	7.4	7.2		45	21	82	46	103	61				
18.00	17.88	67	7.6	55	8.1	7.3		47	22	83	47	105	62				
20.00	20.24	59	7.0	45	10.2	7.9		48	24	84	49	106	64				
22.50	22.30	54	8.4	50	6.4	2.99	MC3PLSF02 MC3PLHF02 MC3PLHT02	45	26	77	50	96	64	168	281		
25.00	25.79	47	8.0	41	9.6	3.30		46	27	78	51	97	65				
28.00	28.95	41	7.5	34	11.7	3.36		47	28	79	52	98	66				
31.50	32.31	37	8.1	33	11.2	3.37		48	29	80	53	99	67				
35.50	36.27	33	7.6	27	13.3	3.42		49	30	81	54	100	68				
40.00	38.89	31	8.6	29	11.2	2.50		49	31	81	54	100	68				
45.00	44.97	27	8.1	24	13.9	3.60		50	32	82	55	101	69				
50.00	50.47	24	7.7	20	16.0	3.74		51	32	83	56	102	70				
56.00	56.34	21	8.1	19	15.9	3.75		52	33	84	57	103	71				
63.00	63.23	19	7.7	16.0	17.9	3.78		52	34	85	57	104	71				
71.00	71.20	17	8.1	15.0	18.0	2.09		44	25	72	44	88	56				
80.00	79.91	15	7.8	12.8	20.1	2.71		45	26	72	45	89	57				
90.00	90.45	13	7.2	10.4	22.7	2.72		45	27	73	46	90	57				
100.00	95.36	13	7.8	10.8	21.9	2.72		45	27	73	46	90	58				
112.00	107.94	11	7.2	8.8	22.7	2.73	46	27	74	47	90	58					

MC.PL..03, n ₁ = 1200 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	165	10.0	177	6.1	1.86	MC2PLSF03 MC2PLHF03 MC2PLHT03	59	28	111	66	142	89	154	280		
8.00	8.23	146	10.4	164	6.8	5.1		61	30	113	69	145	92				
9.00	9.28	129	10.7	149	7.8	7.4		63	33	115	71	147	94				
10.00	9.95	121	11.0	143	6.6	1.25		64	34	117	72	148	95				
11.20	11.23	107	11.5	132	7.4	4.99		66	36	119	74	150	97				
12.50	12.70	95	10.2	104	10.4	6.5		68	38	121	76	152	99				
14.00	14.32	84	11.7	105	9.3	6.3		70	40	123	78	154	101				
16.00	16.16	74	10.9	87	12.5	8.9		57	26	102	58	129	77				
18.00	17.91	67	10.9	79	13.5	8.8		58	28	104	59	131	78				
20.00	20.40	59	10.1	64	17.0	9.5		60	30	106	61	133	80				
22.50	22.65	53	11.3	65	14.2	3.61	MC3PLSF03 MC3PLHF03 MC3PLHT03	56	33	96	62	119	79	170	281		
25.00	25.55	47	11.5	59	15.8	4.33		57	34	97	63	121	81				
28.00	28.83	42	10.8	49	19.3	5.2		58	35	98	64	122	82				
31.50	32.60	37	11.6	47	18.6	5.2		60	36	99	66	123	83				
35.50	36.78	33	10.9	39	22.1	5.3		61	37	101	67	124	84				
40.00	39.81	30	11.8	39	20.1	3.70		61	38	101	67	125	85				
45.00	44.91	27	11.8	34	22.5	4.51		62	39	102	68	126	86				
50.00	50.67	24	11.0	28	26.3	5.3		63	40	103	69	127	87				
56.00	57.29	21	11.7	27	26.1	5.3		64	41	104	70	128	88				
63.00	64.64	19	11.1	22	29.6	5.3		65	42	105	71	129	89				
71.00	71.62	17	11.8	21	29.4	3.58		55	31	89	55	110	70				
80.00	80.80	15	11.2	18.1	30.7	3.60		55	32	90	56	111	70				
90.00	92.02	13	10.3	14.7	30.7	3.61		56	33	91	57	111	71				
100.00	101.82	12	11.3	14.6	30.7	3.61		57	34	92	58	112	72				
112.00	115.96	10	10.3	11.7	30.7	3.62	58	35	92	59	113	73					

Helical Gear Units MC...P Selection tables (detailed) MC.PL..

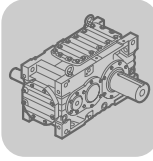


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













MC.PL..04, n ₁ = 1200 1/min							P _{TH}						15.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	168	12.7	230	6.4	3.15	MC2PLSF04 MC2PLHF04 MC2PLHT04	73	35	139	83	178	112	156	280		
8.00	8.01	150	13.2	213	7.8	5.6		76	38	142	86	181	115				
9.00	8.96	134	13.6	197	9.4	7.7		79	40	145	89	184	117				
10.00	9.95	121	14.2	184	6.4	2.50		81	43	147	91	186	120				
11.20	11.19	107	14.7	170	8.0	5.2		83	45	149	93	189	122				
12.50	12.72	94	15.2	154	7.2	1.96		86	48	152	96	191	125				
14.00	14.31	84	15.9	143	8.6	4.56		88	50	154	98	194	127				
16.00	16.00	75	14.9	120	14.3	9.5		71	33	129	73	163	96				
18.00	17.12	70	14.9	112	15.1	9.7		73	34	130	74	164	97				
20.00	19.25	62	14.2	96	18.0	11.7		75	36	132	76	166	100				
22.50	23.20	52	13.8	78	19.7	3.33	MC3PLSF04 MC3PLHF04 MC3PLHT04	69	41	119	77	148	98	172	281		
25.00	26.10	46	15.5	78	18.9	3.33		71	42	120	78	150	100				
28.00	29.18	41	14.9	67	21.9	4.35		72	44	122	80	151	101				
31.50	33.39	36	16.1	63	21.4	4.38		74	45	123	81	153	103				
35.50	37.33	32	15.0	52	25.5	4.47		75	47	125	83	154	104				
40.00	40.28	30	14.3	46	26.7	1.16		76	47	125	84	155	105				
45.00	45.30	26	16.1	46	26.0	1.16		77	49	127	85	156	106				
50.00	50.64	24	15.0	39	30.4	2.76		79	50	128	86	157	108				
56.00	57.96	21	16.4	37	29.6	3.08		80	51	129	87	159	109				
63.00	64.79	19	15.0	30	34.5	4.45		81	52	130	88	160	110				
71.00	72.86	16	16.6	30	33.5	3.51		68	39	110	69	136	86				
80.00	81.44	15	15.1	24	35.3	4.08		69	40	111	70	137	87				
90.00	91.60	13	14.6	21	35.3	4.10		70	41	112	70	138	88				
100.00	97.56	12	14.8	20	35.3	4.10		70	41	113	71	138	89				
112.00	109.73	11	14.6	17.4	35.3	4.11	71	42	114	72	139	90					
MC.PL..05, n ₁ = 1200 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	169	17.6	320	2.08	*)	MC2PLSF05 MC2PLHF05 MC2PLHT05	83	39	158	95	203	128	158	280		
8.00	8.00	150	18.3	296	3.16	4.01		87	43	162	98	207	131				
9.00	8.87	135	18.9	275	4.79	7.2		89	46	165	101	209	134				
10.00	9.78	123	19.6	258	1.73	*)		92	48	167	103	212	136				
11.20	11.01	109	20.4	239	3.04	2.71		95	51	170	106	215	139				
12.50	12.52	96	18.9	195	7.8	4.23		98	54	173	109	218	142				
14.00	14.10	85	21.2	194	5.4	4.61		101	57	176	112	221	145				
16.00	15.64	77	20.1	166	9.8	10.5		81	37	146	82	185	109				
18.00	17.24	70	20.2	151	10.8	10.7		83	39	148	84	187	111				
20.00	19.40	62	18.8	125	14.5	13.4		85	42	151	87	189	114				
22.50	22.58	53	15.4	89	19.1	3.12	MC3PLSF05 MC3PLHF05 MC3PLHT05	80	47	137	89	171	114	174	282		
25.00	25.41	47	17.4	89	18.5	3.12		82	48	139	90	173	115				
28.00	28.19	43	19.3	89	17.9	3.12		83	50	140	92	174	117				
31.50	32.53	37	19.9	80	18.4	4.32		85	52	142	94	177	119				
35.50	36.08	33	20.1	73	20.2	5.2		87	53	144	95	178	120				
40.00	40.62	30	18.7	60	24.3	6.7		88	55	145	97	179	122				
45.00	43.55	28	18.1	54	24.9	4.55		89	56	146	98	180	123				
50.00	48.31	25	20.0	54	24.6	4.55		90	57	148	99	182	124				
56.00	55.74	22	20.5	48	25.4	5.7		92	59	149	101	183	126				
63.00	61.84	19	20.5	43	27.9	6.6		93	60	150	102	184	127				
71.00	71.06	17	20.7	38	29.1	2.74		78	45	128	79	157	100				
80.00	78.83	15	20.7	34	31.8	3.56		79	46	129	80	158	101				
90.00	88.73	14	19.2	28	36.4	4.85		80	47	130	81	159	102				
100.00	96.36	12	18.9	26	37.8	4.55		81	48	131	82	160	103				
112.00	108.46	11	19.3	23	40.1	5.1	82	49	132	83	161	104					

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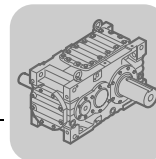


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC.PL..06, n ₁ = 1200 1/min							P _{TH}						25.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	176	20.3	385	5.4	*	MC2PLSF06 MC2PLHF06 MC2PLHT06	100	46	191	113	245	153	160	280		
8.00	7.89	152	23.2	380	1.17	*		105	51	196	118	250	158				
9.00	8.85	136	24.1	351	3.03	6.3		108	55	200	122	254	162				
10.00	9.82	122	22.5	296	6.5	*		112	58	203	125	257	165				
11.20	11.37	106	26.1	296	0.60	*		116	63	207	130	262	170				
12.50	12.04	100	23.6	253	8.2	*		118	64	209	131	263	171				
14.00	13.93	86	27.3	252	2.45	*		122	69	213	135	267	175				
16.00	15.63	77	26.4	218	11.6	9.1		98	45	177	100	224	132				
18.00	17.59	68	26.6	195	14.0	10.2		101	48	180	103	227	135				
20.00	19.91	60	24.5	159	19.7	14.2		104	51	183	106	230	138				
22.50	22.80	53	18.5	106	28.5	*	MC3PLSF06 MC3PLHF06 MC3PLHT06	95	56	163	105	203	135	176	282		
25.00	26.39	45	21.4	106	27.7	*		98	58	165	108	206	138				
28.00	29.61	41	24.0	106	26.6	*		100	60	167	110	208	140				
31.50	32.33	37	23.9	97	27.7	*		101	62	169	111	209	141				
35.50	36.28	33	26.4	95	27.1	*		103	64	171	113	211	143				
40.00	41.07	29	24.4	78	33.2	0.98		105	65	173	115	213	145				
45.00	45.96	26	22.3	63	37.2	3.94		107	67	174	117	215	147				
50.00	51.58	23	25.1	63	36.3	3.94		108	69	176	118	217	148				
56.00	56.31	21	24.8	58	37.9	5.1		109	70	177	120	218	149				
63.00	63.20	19	26.9	56	38.3	5.5		111	71	179	121	219	151				
71.00	71.10	17	25.1	46	42.9	1.97		93	53	151	94	187	118				
80.00	79.80	15	27.1	44	43.6	2.33		94	55	153	95	188	120				
90.00	90.32	13	25.2	36	45.3	4.05		96	56	154	97	189	121				
100.00	96.73	12	26.0	35	45.3	3.51		96	57	155	98	190	122				
112.00	109.49	11	25.4	30	45.3	4.61	98	58	156	99	192	123					
MC.PL..07, n ₁ = 1200 1/min							P _{TH}						35.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	175	26.2	492	4.83	*	MC2PLSF07 MC2PLHF07 MC2PLHT07	123	57	235	140	302	189	162	280		
8.00	7.73	155	28.2	471	3.59	1.81		128	62	240	145	307	194				
9.00	8.68	138	29.2	433	5.8	6.0		132	67	245	149	312	198				
10.00	9.65	124	28.7	384	6.4	*		137	71	249	153	316	203				
11.20	10.86	110	31.6	375	2.94	0.64		141	76	253	158	320	207				
12.50	12.19	98	30.2	319	9.0	*		145	80	257	162	324	211				
14.00	13.73	87	34.0	319	2.78	*		149	84	261	166	328	215				
16.00	15.42	78	34.8	291	6.3	4.27		120	55	217	122	276	162				
18.00	17.66	68	36.4	265	6.3	3.64		125	59	222	127	280	167				
20.00	20.25	59	33.9	216	19.2	13.0		129	63	226	131	284	171				
22.50	22.38	54	24.8	145	30.5	2.08	MC3PLSF07 MC3PLHF07 MC3PLHT07	117	68	200	129	250	166	178	283		
25.00	25.20	48	27.9	145	29.5	2.08		119	71	203	132	252	168				
28.00	28.31	42	31.4	145	28.0	2.08		122	73	205	134	255	171				
31.50	31.86	38	31.7	130	29.3	3.92		124	76	208	137	257	173				
35.50	35.78	34	35.6	130	27.5	3.92		126	78	210	139	260	176				
40.00	41.02	29	33.6	107	34.4	6.7		129	80	212	142	262	178				
45.00	43.89	27	29.0	86	40.1	6.0		130	82	214	143	264	179				
50.00	49.30	24	32.6	86	38.9	6.0		132	84	216	145	266	181				
56.00	55.47	22	32.9	77	40.7	7.8		134	86	218	147	268	183				
63.00	62.31	19	36.9	77	39.2	7.8		136	88	220	149	270	185				
71.00	68.66	17	33.2	63	45.9	2.20		114	65	186	115	229	145				
80.00	77.12	16	37.3	63	44.6	2.20		115	67	188	117	231	147				
90.00	88.41	14	34.6	51	53	4.72		117	69	190	119	233	149				
100.00	99.48	12	32.0	42	53	5.1		119	70	191	120	234	150				
112.00	114.04	11	35.0	40	53	5.6	121	72	193	122	236	152					

Helical Gear Units MC...P

Selection tables (detailed) MC.PL..



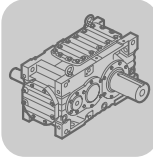
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MC.PL..08, n₁ = 1200 1/min							P_{TH}						46.0 kNm	
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}				
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.01	171	33.6	619	9.6	*	MC2PLSF08 MC2PLHF08 MC2PLHT08	154	72	293	175	376	236	164 280
8.00	7.89	152	37.9	619	4.41	*		160	79	299	181	382	242	
9.00	8.96	134	39.8	572	6.0	4.26		166	85	305	187	388	248	
10.00	9.80	122	36.9	486	11.3	*		170	89	310	191	393	252	
11.20	11.03	109	41.6	486	5.7	*		176	95	315	197	398	258	
12.50	12.49	96	39.2	404	13.6	*		181	100	320	202	404	263	
14.00	14.06	85	44.1	404	7.7	*		186	105	325	207	409	268	
16.00	15.97	75	47.2	381	7.5	3.70		151	70	271	153	344	203	
18.00	17.76	68	47.4	344	11.0	4.07		155	74	276	157	348	207	
20.00	19.90	60	44.2	286	21.0	13.7		159	78	280	162	352	211	
22.50	21.70	55	37.4	225	27.0	*	143	83	246	159	308	204	180 283	
25.00	24.43	49	42.1	225	25.4	*	147	86	250	162	311	207		
28.00	27.74	43	46.5	219	24.5	0.139	150	90	253	166	315	211		
31.50	31.14	39	47.0	197	25.4	2.76	153	93	256	168	318	214		
35.50	35.36	34	47.0	173	29.6	5.6	156	96	259	172	321	217		
40.00	39.60	30	43.9	145	36.8	9.1	159	99	262	174	323	219		
45.00	43.63	28	44.1	132	36.8	1.85	161	101	264	177	326	222		
50.00	49.55	24	47.4	125	37.7	3.15	164	104	267	179	329	225		
56.00	55.61	22	48.1	113	38.8	5.4	166	106	269	182	331	227		
63.00	63.15	19	47.9	99	43.8	8.0	169	109	272	184	334	230		
71.00	69.09	17	48.5	92	44.6	1.48	140	80	230	142	283	179		
80.00	78.46	15	48.3	80	49.8	3.80	143	83	232	145	286	182		
90.00	87.87	14	45.2	67	58	6.5	145	85	234	147	288	184		
100.00	97.27	12	45.7	61	59	5.9	147	87	236	148	289	185		
112.00	108.95	11	45.7	55	64	7.4	149	88	238	150	291	187		

MC.PL..09, n₁ = 1200 1/min							P_{TH}						65.0 kNm	
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}				
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.91	174	42.7	797	16.8	*	MC2PLSF09 MC2PLHF09 MC2PLHT09	177	83	339	202	435	272	166 280
8.00	7.99	150	49.4	797	14.2	*		186	92	347	210	444	281	
9.00	8.97	134	54.2	779	12.4	*		192	98	354	217	450	288	
10.00	9.53	126	46.8	633	18.7	*		196	102	357	220	454	291	
11.20	11.03	109	54.2	633	15.9	*		204	110	365	228	462	299	
12.50	11.77	102	49.1	538	20.7	*		207	113	369	231	465	302	
14.00	13.61	88	56.8	538	17.9	*		214	120	376	239	472	309	
16.00	15.27	79	63.7	538	14.3	*		173	79	313	176	396	233	
18.00	17.01	71	64.2	486	17.1	*		178	84	318	180	401	238	
20.00	19.26	62	60.2	402	25.1	*		183	89	323	186	407	244	
22.50	21.63	55	50.8	306	33.2	*	170	99	292	188	365	242	182 283	
25.00	25.02	48	58.7	306	30.8	*	175	103	297	193	370	247		
28.00	28.08	43	63.3	294	30.7	*	178	107	301	197	374	250		
31.50	30.88	39	63.5	268	31.8	0.50	181	110	304	200	377	253		
35.50	34.65	35	63.9	241	36.0	3.66	185	113	307	203	380	257		
40.00	39.22	31	59.6	198	45.1	8.5	188	117	311	207	384	260		
45.00	44.10	27	61.6	182	44.3	1.09	191	120	314	210	387	264		
50.00	49.49	24	64.3	169	46.7	3.36	194	123	317	213	390	267		
56.00	54.43	22	64.5	154	48.3	6.0	197	125	319	215	392	269		
63.00	61.08	20	64.9	139	53	8.8	200	128	322	218	395	272		
71.00	68.03	18	64.6	124	56	*	166	95	273	169	336	212		
80.00	76.35	16	65.5	112	61	2.31	169	98	275	171	339	215		
90.00	86.42	14	60.2	91	72	6.4	172	100	278	174	341	218		
100.00	93.94	13	64.0	89	70	4.44	173	102	280	176	343	219		
112.00	106.33	11	60.5	74	80	7.6	176	105	282	178	345	222		




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


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Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

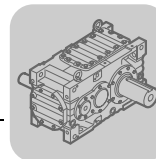
10.2.4 MC.PL..., n₁ = 1000 1/min

MC.PL..02, n ₁ = 1000 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	141	8.2	125	*)	*)	MC2PLSF02 MC2PLHF02 MC2PLHT02	49	25	82	49	105	66	152	280		
8.00	8.18	122	8.0	105	*)	4.03		51	27	84	51	107	68				
9.00	9.18	109	7.5	88	3.86	6.8		53	28	85	52	109	69				
10.00	9.83	102	8.4	93	*)	1.45		54	29	86	53	109	70				
11.20	11.37	88	8.0	76	3.25	5.6		56	31	88	55	111	72				
12.50	12.31	81	8.4	74	1.08	2.43		57	32	89	56	112	73				
14.00	14.24	70	8.0	61	5.9	6.3		58	34	91	58	114	75				
16.00	15.98	63	7.6	52	8.5	7.8		47	23	76	43	96	56				
18.00	17.88	56	7.7	46	9.2	7.9		49	24	77	44	97	58				
20.00	20.24	49	7.1	38	11.4	8.4		50	26	78	45	98	59				
22.50	22.30	45	8.5	42	8.5	3.22	MC3PLSF02 MC3PLHF02 MC3PLHT02	46	28	71	46	89	59	168	281		
25.00	25.79	39	8.1	34	10.9	3.30		47	29	72	47	90	60				
28.00	28.95	35	7.6	29	13.0	3.36		48	30	73	48	91	61				
31.50	32.31	31	8.1	27	12.6	3.37		49	31	74	49	92	62				
35.50	36.27	28	7.6	23	14.7	3.42		50	31	75	50	93	63				
40.00	38.89	26	8.6	24	12.7	2.95		50	32	75	50	93	63				
45.00	44.97	22	8.1	20	15.5	3.70		51	33	76	51	94	64				
50.00	50.47	20	7.7	16.7	17.5	3.74		52	34	77	52	95	65				
56.00	56.34	18	8.1	15.8	17.5	3.75		53	34	78	52	95	65				
63.00	63.23	16	7.8	13.5	19.6	3.78		54	35	78	53	96	66				
71.00	71.20	14	8.1	12.5	19.9	2.09		45	26	66	41	82	52				
80.00	79.91	13	7.8	10.7	22.0	2.70		46	27	67	42	82	52				
90.00	90.45	11	7.2	8.7	22.7	2.72		46	27	68	42	83	53				
100.00	95.36	10	7.9	9.1	22.7	2.72		46	28	68	43	83	53				
112.00	107.94	9.3	7.3	7.4	22.7	2.73	47	28	69	43	84	54					

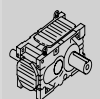


MC.PL..03, n ₁ = 1000 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	137	10.6	156	6.4	1.84	MC2PLSF03 MC2PLHF03 MC2PLHT03	62	31	103	61	132	83	154	280		
8.00	8.23	122	11.1	145	7.1	5.2		64	34	105	63	134	85				
9.00	9.28	108	10.7	124	9.4	8.9		66	36	107	65	136	87				
10.00	9.95	100	11.7	126	6.9	1.20		67	37	108	67	137	88				
11.20	11.23	89	11.6	111	8.9	6.6		69	39	110	69	139	90				
12.50	12.70	79	10.3	87	12.1	8.1		71	41	112	70	141	92				
14.00	14.32	70	11.7	88	11.2	7.9		73	43	114	72	143	94				
16.00	16.16	62	11.0	73	14.4	9.6		59	29	95	53	120	71				
18.00	17.91	56	11.0	66	15.4	9.5		61	30	96	55	121	72				
20.00	20.40	49	10.2	54	18.9	10.2		63	32	98	56	123	74				
22.50	22.65	44	11.3	54	16.3	4.23	MC3PLSF03 MC3PLHF03 MC3PLHT03	58	35	89	57	111	73	170	281		
25.00	25.55	39	11.6	50	17.8	4.91		59	36	90	58	112	75				
28.00	28.83	35	10.8	41	21.4	5.2		60	37	91	60	113	76				
31.50	32.60	31	11.6	39	21.0	5.2		61	38	92	61	114	77				
35.50	36.78	27	11.0	32	24.4	5.3		62	39	93	62	115	78				
40.00	39.81	25	11.8	32	22.6	4.30		63	40	94	62	116	79				
45.00	44.91	22	11.8	29	25.0	5.1		64	41	95	63	117	80				
50.00	50.67	20	11.0	24	28.8	5.3		65	42	96	64	118	81				
56.00	57.29	17	11.7	22	28.9	5.3		66	43	97	65	119	82				
63.00	64.64	15	11.2	19	30.7	5.3		67	44	98	66	120	82				
71.00	71.62	14	11.8	17.9	30.7	3.58		56	33	83	51	102	64				
80.00	80.80	12	11.2	15.2	30.7	3.60		57	33	83	52	103	65				
90.00	92.02	11	10.4	12.3	30.7	3.61		57	34	84	53	103	66				
100.00	101.82	9.8	11.5	12.3	30.7	3.61		58	35	85	53	104	67				
112.00	115.96	8.6	10.5	9.9	30.7	3.62	59	36	86	54	105	67					




Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

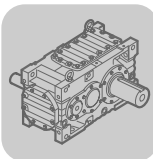


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






MC.PL..04, n ₁ = 1000 1/min							P _{TH}						15.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	140	13.3	202	6.9	3.38	MC2PLSF04 MC2PLHF04 MC2PLHT04	77	39	129	77	165	103	156	280		
8.00	8.01	125	13.9	187	8.3	6.0		80	42	131	79	168	106				
9.00	8.96	112	14.5	174	9.6	8.1		83	44	134	82	170	109				
10.00	9.95	101	14.9	161	7.1	2.84		85	46	136	84	173	111				
11.20	11.19	89	15.5	149	8.7	5.6		87	49	138	86	175	113				
12.50	12.72	79	15.2	128	11.6	4.18		90	51	141	89	177	116				
14.00	14.31	70	16.1	121	11.8	6.2		92	53	143	91	180	118				
16.00	16.00	63	14.9	100	16.4	11.0		75	36	119	67	151	89				
18.00	17.12	58	14.9	94	17.3	11.3		76	37	120	68	152	90				
20.00	19.25	52	14.3	80	20.3	12.6		78	39	122	70	154	92				
22.50	23.20	43	13.8	65	22.2	4.12	MC3PLSF04 MC3PLHF04 MC3PLHT04	72	43	110	71	137	91	172	281		
25.00	26.10	38	15.5	65	21.5	4.12		73	44	111	72	139	93				
28.00	29.18	34	15.0	56	24.6	4.35		75	46	113	74	140	94				
31.50	33.39	30	16.2	53	23.9	4.38		76	47	114	75	142	95				
35.50	37.33	27	15.0	44	28.3	4.47		77	49	115	77	143	97				
40.00	40.28	25	14.3	39	29.6	1.75		78	49	116	77	144	97				
45.00	45.30	22	16.1	39	29.1	1.75		79	51	117	79	145	99				
50.00	50.64	20	15.0	32	33.4	3.33		80	52	119	80	146	100				
56.00	57.96	17	16.5	31	32.7	3.65		82	53	120	81	147	101				
63.00	64.79	15	15.0	25	35.3	5.1		83	54	121	82	148	102				
71.00	72.86	14	16.6	25	35.3	3.95		69	41	102	63	126	80				
80.00	81.44	12	15.0	20	35.3	4.08		70	41	103	64	127	81				
90.00	91.60	11	14.7	17.4	35.3	4.10		71	42	104	65	128	82				
100.00	97.56	10	14.8	16.5	35.3	4.10		72	43	105	66	128	82				
112.00	109.73	9.1	14.8	14.7	35.3	4.11	72	44	106	67	129	83					








MC.PL..05, n ₁ = 1000 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	141	18.6	282	2.09	*)	MC2PLSF05 MC2PLHF05 MC2PLHT05	88	44	147	87	188	118	158	280		
8.00	8.00	125	19.4	260	3.39	4.32		91	48	150	90	191	121				
9.00	8.87	113	19.8	241	5.5	7.9		94	50	152	93	194	123				
10.00	9.78	102	20.7	228	1.79	*)		96	53	155	95	196	126				
11.20	11.01	91	21.1	206	4.42	4.52		99	55	157	98	199	129				
12.50	12.52	80	19.0	163	9.6	7.0		102	58	160	101	202	131				
14.00	14.10	71	21.2	162	8.4	7.2		104	61	163	103	204	134				
16.00	15.64	64	20.2	139	11.7	12.5		85	41	135	76	171	101				
18.00	17.24	58	20.2	126	12.9	12.8		87	43	137	78	173	103				
20.00	19.40	52	19.0	105	16.4	14.4		89	45	139	80	176	105				
22.50	22.58	44	15.4	74	21.4	3.93	MC3PLSF05 MC3PLHF05 MC3PLHT05	83	49	127	82	159	105	174	282		
25.00	25.41	39	17.4	74	20.8	3.93		84	51	129	84	160	107				
28.00	28.19	35	19.3	74	20.4	3.93		86	53	130	85	162	108				
31.50	32.53	31	19.9	66	20.9	5.1		88	54	132	87	164	110				
35.50	36.08	28	20.2	61	22.7	5.9		89	56	133	88	165	111				
40.00	40.62	25	18.8	50	26.8	7.5		91	57	135	90	166	113				
45.00	43.55	23	18.1	45	27.7	5.4		91	58	136	91	167	114				
50.00	48.31	21	20.0	45	27.5	5.4		93	59	137	92	168	115				
56.00	55.74	18	20.5	40	28.4	6.5		94	61	138	93	170	117				
63.00	61.84	16	20.6	36	30.9	7.4		95	62	139	94	171	118				
71.00	71.06	14	20.8	32	32.3	3.34		80	47	118	73	146	92				
80.00	78.83	13	20.8	29	35.0	4.13		81	48	119	74	147	93				
90.00	88.73	11	19.3	24	39.7	5.4		82	49	120	75	148	94				
100.00	96.36	10	18.9	21	41.3	5.1		83	50	121	76	149	95				
112.00	108.46	9.2	19.5	20	41.3	5.6	84	51	122	77	150	96					

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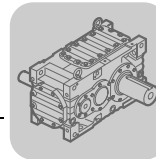
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC.PL..06, n ₁ = 1000 1/min							P _{TH}						25.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	147	21.5	339	5.6	*	MC2PLSF06 MC2PLHF06 MC2PLHT06	106	53	176	104	227	142	160	280		
8.00	7.89	127	24.5	334	1.30	*		110	57	181	109	232	146				
9.00	8.85	113	25.5	309	3.11	6.5		114	61	185	113	235	150				
10.00	9.82	102	23.8	260	7.0	*		117	64	188	116	238	153				
11.20	11.37	88	27.2	257	1.94	*		121	68	192	120	242	157				
12.50	12.04	83	24.9	223	8.9	*		123	70	193	121	244	158				
14.00	13.93	72	27.3	211	8.2	3.85		126	73	197	125	248	162				
16.00	15.63	64	26.6	183	14.9	11.8		103	50	164	92	208	122				
18.00	17.59	57	26.7	163	16.8	12.7		106	52	167	95	211	125				
20.00	19.91	50	24.7	133	22.6	15.3		108	55	170	98	214	128				
22.50	22.80	44	18.5	88	31.7	*	MC3PLSF06 MC3PLHF06 MC3PLHT06	98	59	151	97	188	125	176	282		
25.00	26.39	38	21.4	88	31.0	*		101	61	153	100	191	127				
28.00	29.61	34	24.1	88	30.1	*		103	63	155	102	193	129				
31.50	32.33	31	23.9	81	31.3	*		104	65	157	103	194	131				
35.50	36.28	28	26.6	80	30.5	*		106	66	158	105	196	132				
40.00	41.07	24	24.6	65	36.7	1.39		108	68	160	107	198	134				
45.00	45.96	22	22.3	53	41.1	4.87		109	70	162	108	199	136				
50.00	51.58	19	25.1	53	40.5	4.87		111	71	163	110	201	137				
56.00	56.31	18	24.8	48	42.1	6.0		112	72	164	111	202	138				
63.00	63.20	16	27.0	47	42.4	6.4		113	74	166	112	203	140				
71.00	71.10	14	25.1	38	45.3	2.63		95	55	140	87	173	110				
80.00	79.80	13	27.3	37	45.3	2.94		96	57	142	88	174	111				
90.00	90.32	11	25.4	31	45.3	4.66		98	58	143	90	176	112				
100.00	96.73	10	26.0	29	45.3	4.17		98	59	144	90	176	113				
112.00	109.49	9.1	25.6	25	45.3	5.2	100	60	145	92	178	114					

MC.PL..07, n ₁ = 1000 1/min							P _{TH}						35.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	146	27.7	433	5.0	*	MC2PLSF07 MC2PLHF07 MC2PLHT07	130	65	217	129	279	174	162	280		
8.00	7.73	129	29.8	414	3.84	1.94		135	70	222	133	284	179				
9.00	8.68	115	30.8	382	6.1	6.3		139	74	226	138	289	183				
10.00	9.65	104	30.2	337	7.0	*		143	78	230	142	292	187				
11.20	10.86	92	33.4	330	3.05	0.64		147	82	234	146	296	191				
12.50	12.19	82	31.9	281	9.3	*		151	86	238	150	300	195				
14.00	13.73	73	35.7	279	3.61	*		155	90	242	153	304	199				
16.00	15.42	65	36.5	254	7.6	4.90		126	61	201	113	255	150				
18.00	17.66	57	36.8	224	12.2	6.1		130	65	205	117	259	154				
20.00	20.25	49	34.1	181	22.5	15.5		134	68	209	121	263	158				
22.50	22.38	45	24.9	121	34.1	3.15	MC3PLSF07 MC3PLHF07 MC3PLHT07	121	72	185	119	231	153	178	283		
25.00	25.20	40	28.0	121	33.2	3.15		123	74	188	122	234	156				
28.00	28.31	35	31.4	121	31.8	3.15		125	77	190	124	236	158				
31.50	31.86	31	31.9	109	33.0	4.91		128	79	192	127	239	160				
35.50	35.78	28	35.8	109	31.3	4.92		130	81	195	129	241	163				
40.00	41.02	24	33.9	90	38.4	7.7		132	84	197	131	243	165				
45.00	43.89	23	29.0	72	44.6	7.3		134	85	198	132	244	166				
50.00	49.30	20	32.6	72	43.5	7.3		135	87	200	134	246	168				
56.00	55.47	18	32.9	64	45.5	9.1		137	89	202	136	248	170				
63.00	62.31	16	36.9	64	44.1	9.1		139	91	204	138	250	172				
71.00	68.66	15	33.2	53	51	3.06		116	68	172	106	212	134				
80.00	77.12	13	37.3	53	49.8	3.06		118	69	174	108	214	136				
90.00	88.41	11	34.8	43	53	5.5		120	71	176	110	216	138				
100.00	99.48	10	32.0	35	53	6.0		121	73	177	112	217	139				
112.00	114.04	8.8	35.3	34	53	6.3	123	74	179	113	219	141					

Helical Gear Units MC...P

Selection tables (detailed) MC.PL..



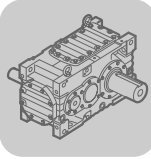
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MC.PL..08, n ₁ = 1000 1/min							P _{TH}						46.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.01	143	35.6	546	10	*	MC2PLSF08 MC2PLHF08 MC2PLHT08	163	82	271	161	348	218	164	280
8.00	7.89	127	40.1	546	4.54	*		169	87	277	167	354	223		
9.00	8.96	112	42.0	504	6.3	4.50		175	93	282	173	360	229		
10.00	9.80	102	39.1	428	11.8	*		179	97	286	177	364	233		
11.20	11.03	91	44.0	428	5.8	*		184	102	292	182	369	238		
12.50	12.49	80	41.4	356	14.4	*		189	108	297	187	374	243		
14.00	14.06	71	46.6	356	8.2	*		193	112	301	191	379	248		
16.00	15.97	63	47.4	319	13.9	6.9		158	77	251	141	318	188		
18.00	17.76	56	47.5	287	17.8	7.4		162	80	255	145	322	192		
20.00	19.90	50	44.5	241	24.4	16.6		166	84	259	149	326	196		
22.50	21.70	46	37.3	187	31.0	0.94	MC3PLSF08 MC3PLHF08 MC3PLHT08	148	88	228	147	285	189	180	283
25.00	24.43	41	42.1	187	29.5	0.94		151	91	231	150	288	192		
28.00	27.74	36	46.8	183	28.4	1.51		155	95	234	153	292	195		
31.50	31.14	32	47.1	164	29.6	4.23		157	97	237	156	295	198		
35.50	35.36	28	47.4	146	33.7	6.9		160	100	240	159	297	201		
40.00	39.60	25	44.4	122	40.9	10.4		163	103	243	161	300	203		
45.00	43.63	23	43.7	109	42.0	3.53		165	105	245	163	302	205		
50.00	49.55	20	47.8	105	42.2	4.42		168	108	247	166	305	208		
56.00	55.61	18	48.3	94	43.8	6.8		170	110	250	168	307	210		
63.00	63.15	16	48.3	83	48.8	9.3		172	112	252	171	309	213		
71.00	69.09	14	48.7	77	49.9	2.56		144	84	213	132	263	166		
80.00	78.46	13	48.6	67	55	4.84		146	86	215	134	265	168		
90.00	87.87	11	45.5	56	63	7.6	148	88	217	136	267	170			
100.00	97.27	10	45.7	51	65	7.0	150	90	219	138	269	172			
112.00	108.95	9.2	46.1	46	67	7.6	151	91	221	139	270	174			

MC.PL..09, n ₁ = 1000 1/min							P _{TH}						65.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.91	145	45.1	702	17.7	*	MC2PLSF09 MC2PLHF09 MC2PLHT09	188	94	313	186	403	251	166	280
8.00	7.99	125	52.2	702	15.0	*		196	102	321	194	411	260		
9.00	8.97	112	57.3	686	13.1	*		202	108	327	200	417	266		
10.00	9.53	105	49.5	558	19.7	*		206	111	331	203	420	269		
11.20	11.03	91	57.2	558	16.8	*		213	119	338	211	428	276		
12.50	11.77	85	51.9	474	21.8	*		216	122	341	214	431	279		
14.00	13.61	73	60.1	474	18.8	*		223	129	348	220	437	286		
16.00	15.27	65	64.3	452	18.7	*		181	87	289	162	367	216		
18.00	17.01	59	64.6	407	21.1	*		186	91	294	167	372	220		
20.00	19.26	52	60.4	337	29.5	4.75		191	97	299	172	377	225		
22.50	21.63	46	51.1	256	37.7	*	MC3PLSF09 MC3PLHF09 MC3PLHT09	176	105	271	174	339	224	182	283
25.00	25.02	40	59.0	256	35.4	*		180	109	275	179	343	229		
28.00	28.08	36	63.7	247	35.4	*		184	113	279	182	347	232		
31.50	30.88	32	64.4	227	36.2	1.82		187	115	281	185	349	235		
35.50	34.65	29	64.1	201	41.4	5.3		190	119	285	188	353	238		
40.00	39.22	26	59.7	165	51	10.2		193	122	288	191	356	241		
45.00	44.10	23	61.5	152	50	3.02		196	125	291	194	359	244		
50.00	49.49	20	64.9	143	52	4.91		199	128	294	197	362	247		
56.00	54.43	18	64.5	129	55	7.8		201	130	296	199	364	249		
63.00	61.08	16	65.7	117	59	10.3		204	132	299	202	367	252		
71.00	68.03	15	64.5	103	63	1.39		170	99	253	156	312	197		
80.00	76.35	13	65.9	94	67	3.54		173	102	255	159	314	199		
90.00	86.42	12	60.2	76	79	7.8	175	104	258	161	316	202			
100.00	93.94	11	64.0	74	77	5.7	177	106	259	163	318	203			
112.00	106.33	9.4	60.5	62	80	8.9	179	108	262	165	320	206			

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10



Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

10.2.5 MC.PL .. [mm]

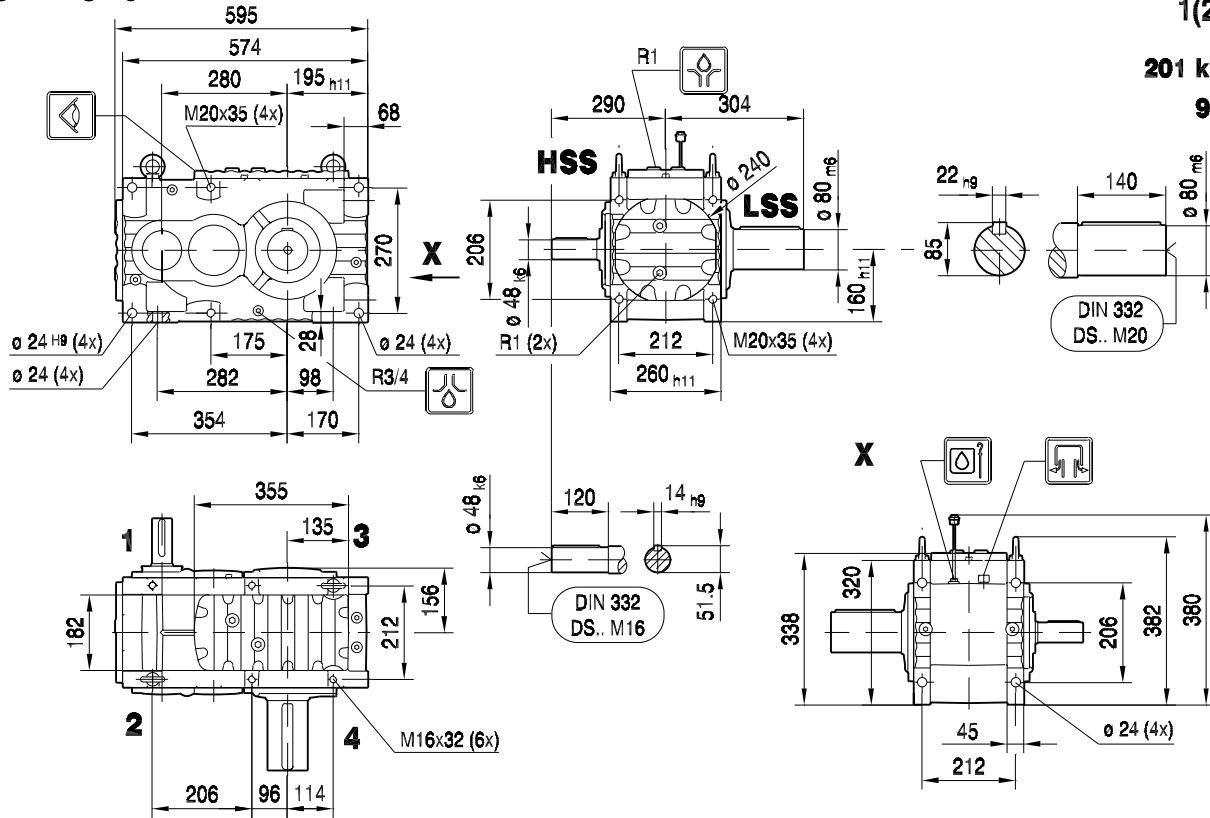
MC2PLSF02

47 033 00 03

1(2)

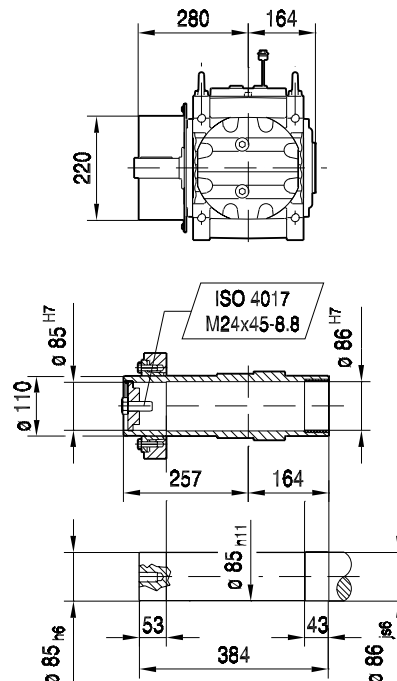
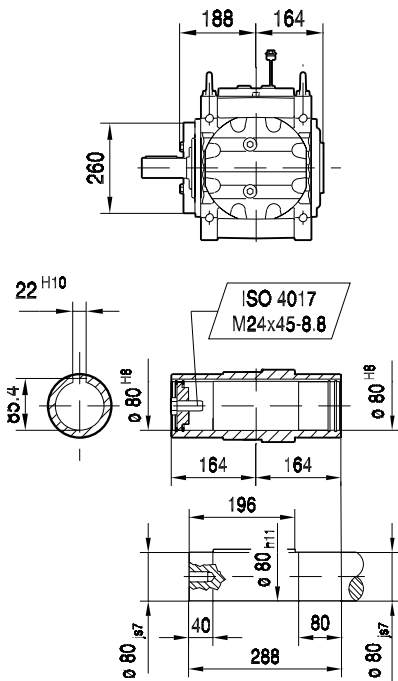
201 kg

9 l

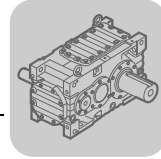


MC2PLHF02

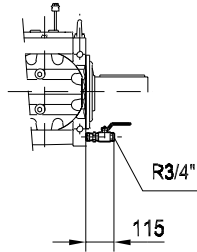
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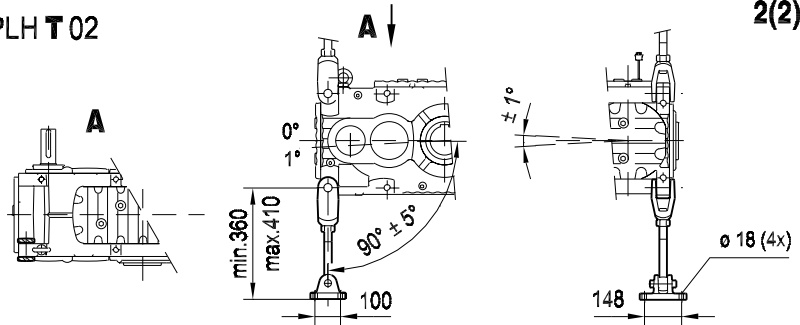
Helical Gear Units MC...P
 Selection tables (detailed) MC.PL..



MC2PL..02
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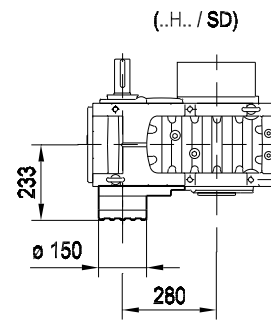
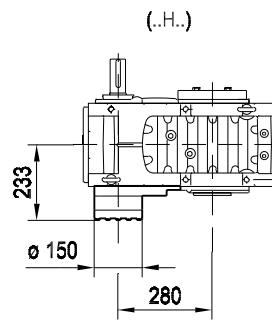
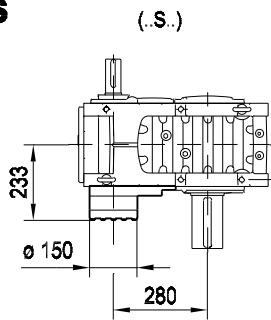


MC2PLH T 02

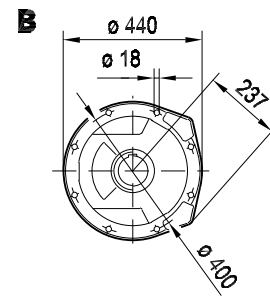
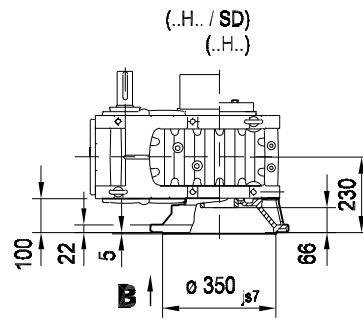
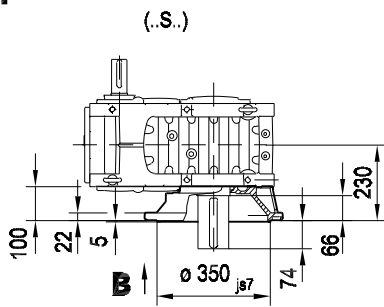


47 033 00 03
2(2)

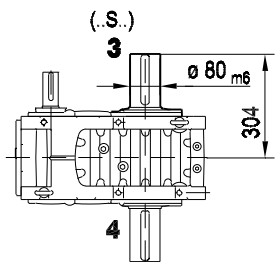
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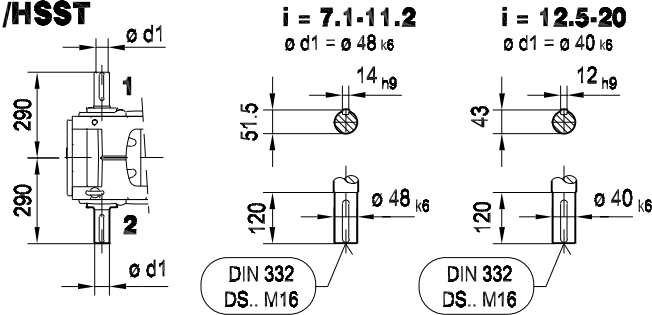
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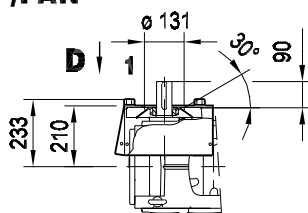


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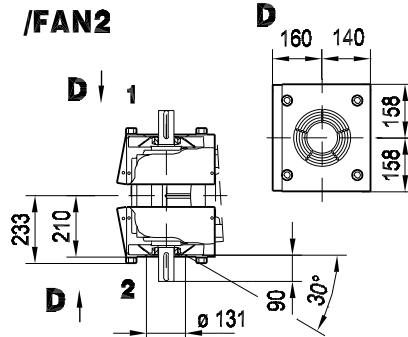


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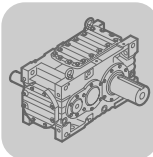
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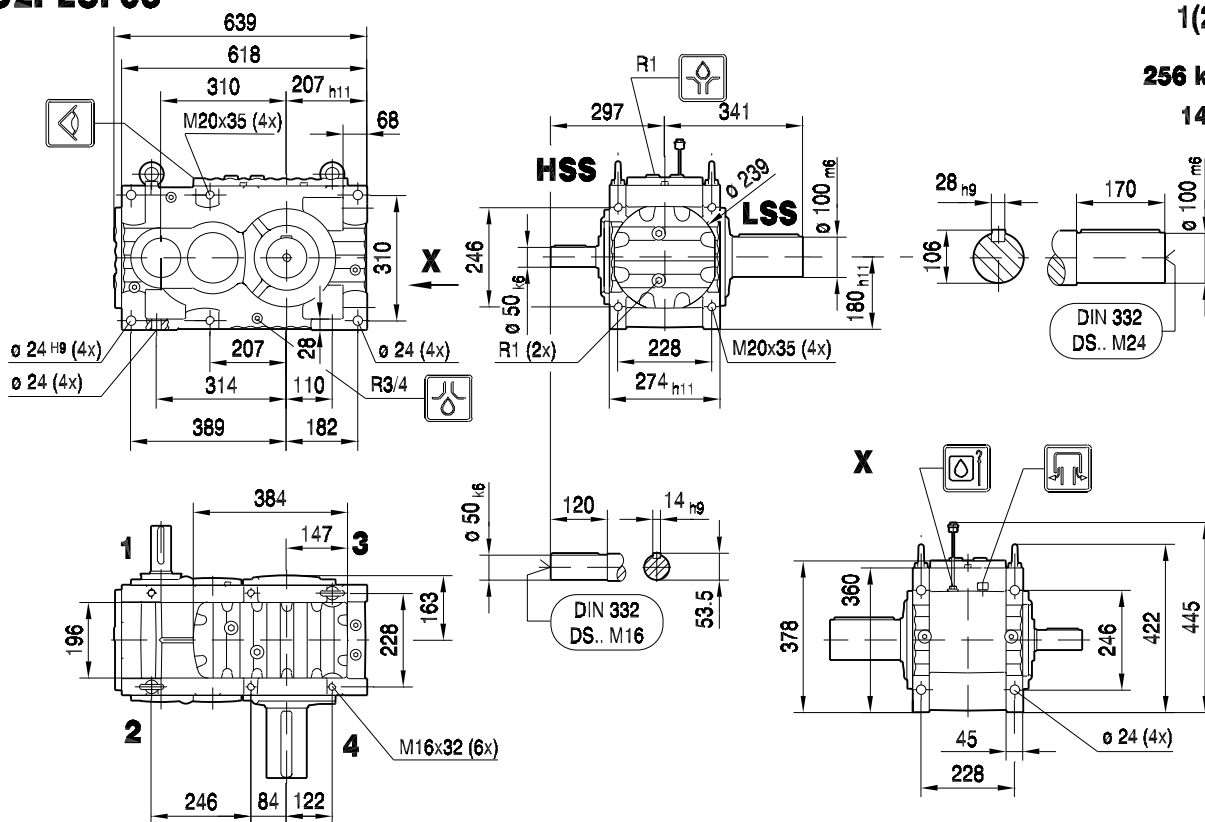


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF03

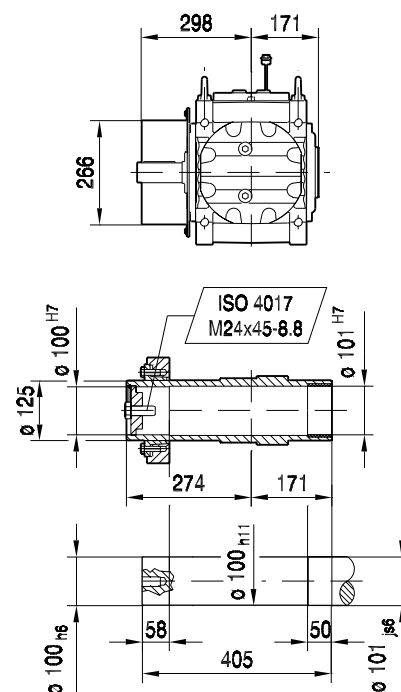
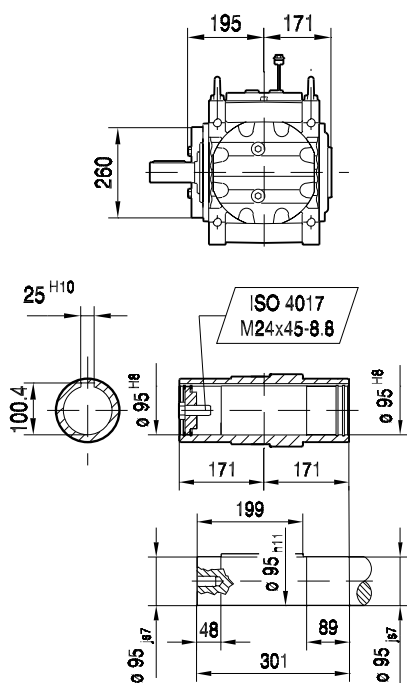
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1(2)

256 kg
14 l

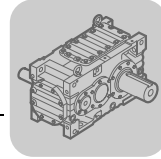


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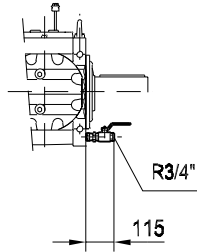
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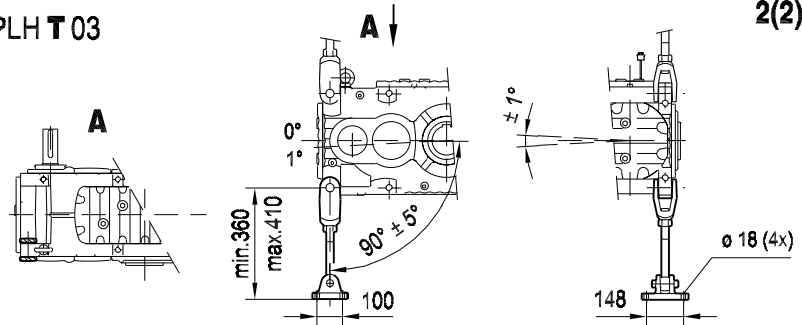
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MC2PL..03
/ODV

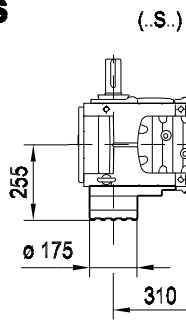


MC2PLH T 03

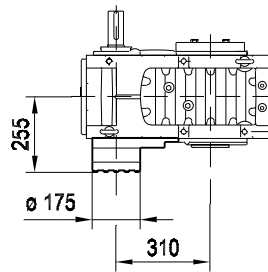


47 034 00 03
2(2)

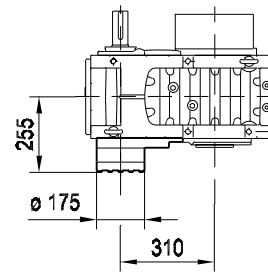
/BS



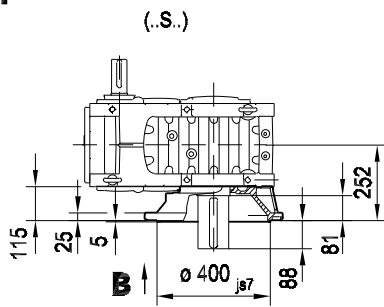
(..H..)



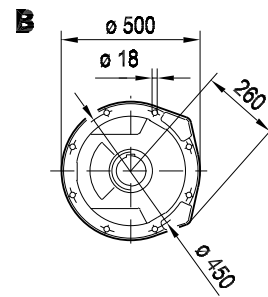
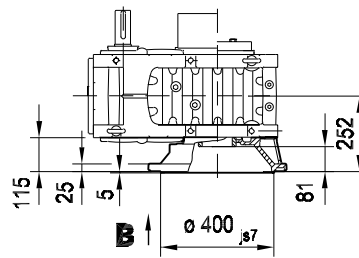
(..H.. / SD)



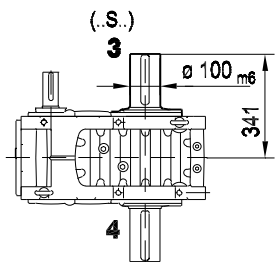
/MF



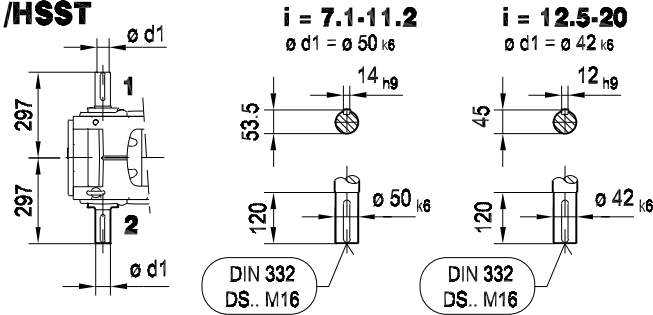
(..H.. / SD)
 (..H..)



/LSST

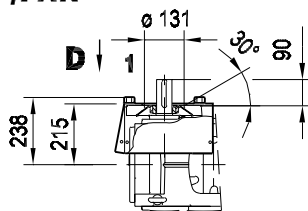


/HSST

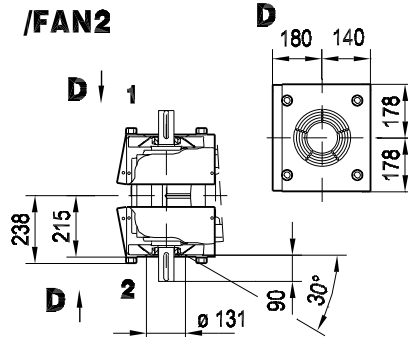


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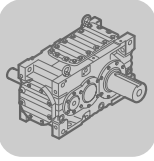
/FAN



/FAN2



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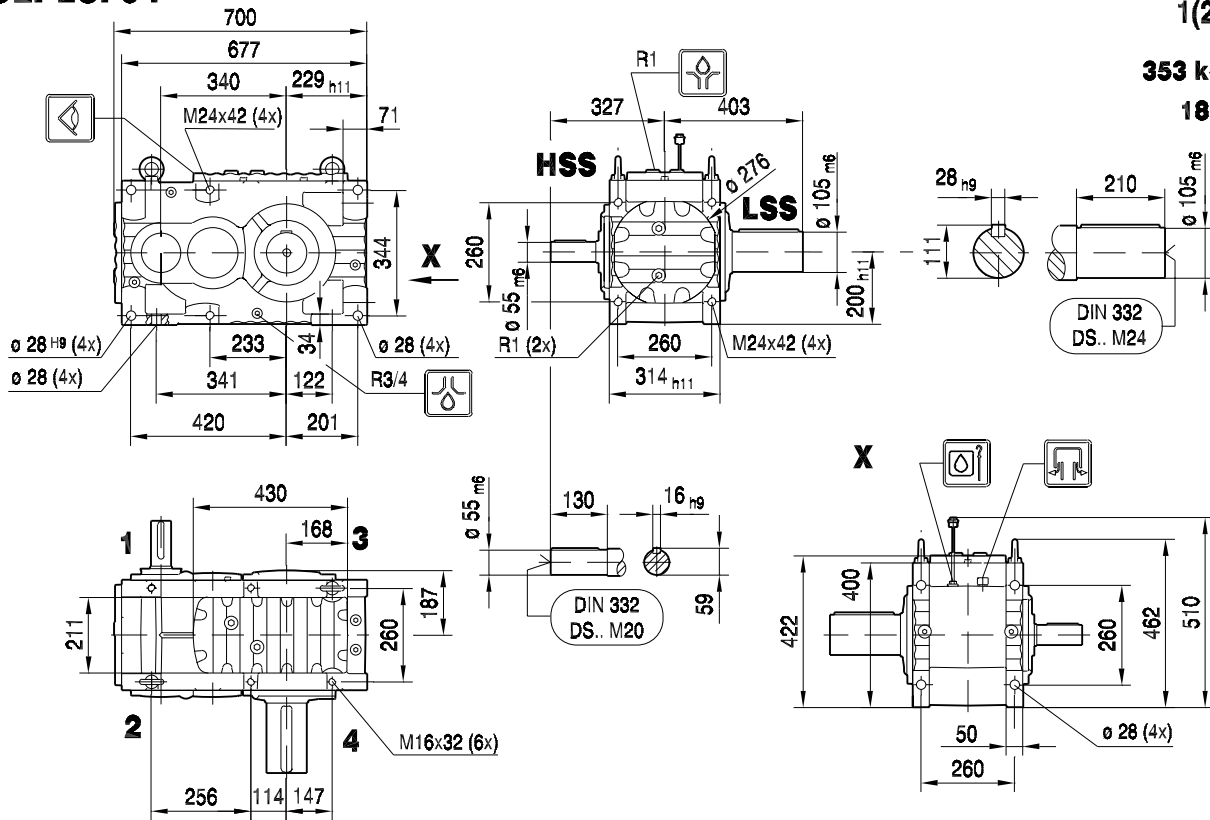


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF04

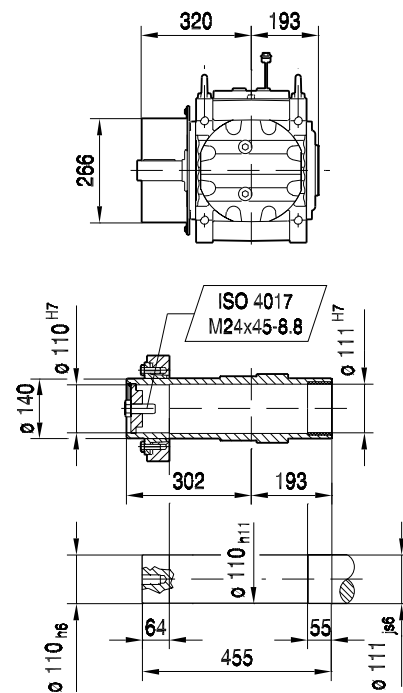
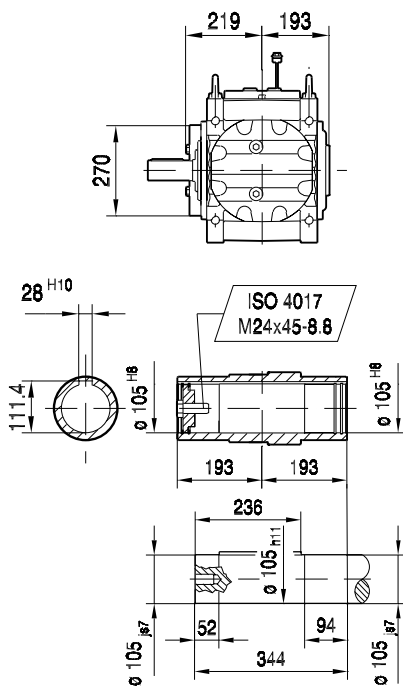
47 035 00 03
1(2)

353 kg
18 l

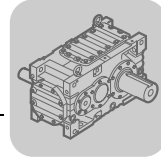


MC2PLHF04

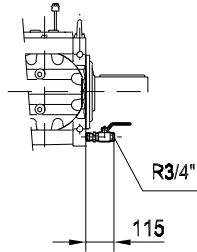
MC2PLHF04 /SD



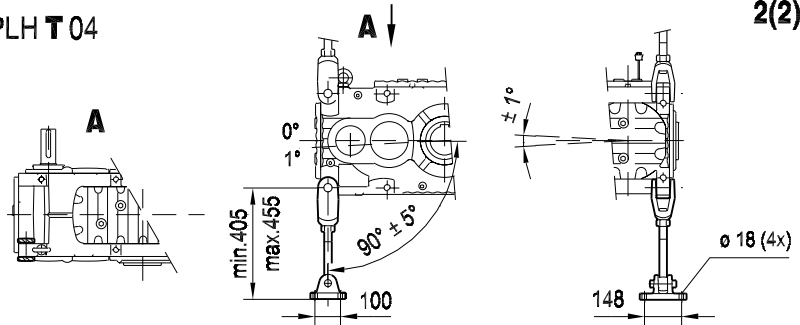
Helical Gear Units MC...P
 Selection tables (detailed) MC.PL..



MC2PL..04
/ODV

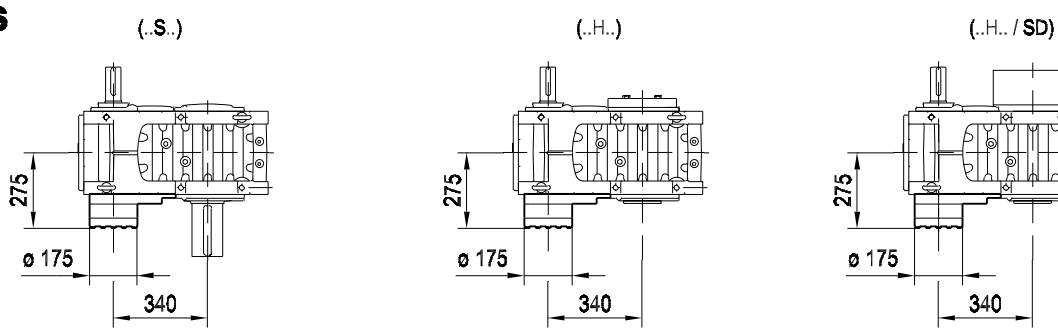


MC2PLH T 04

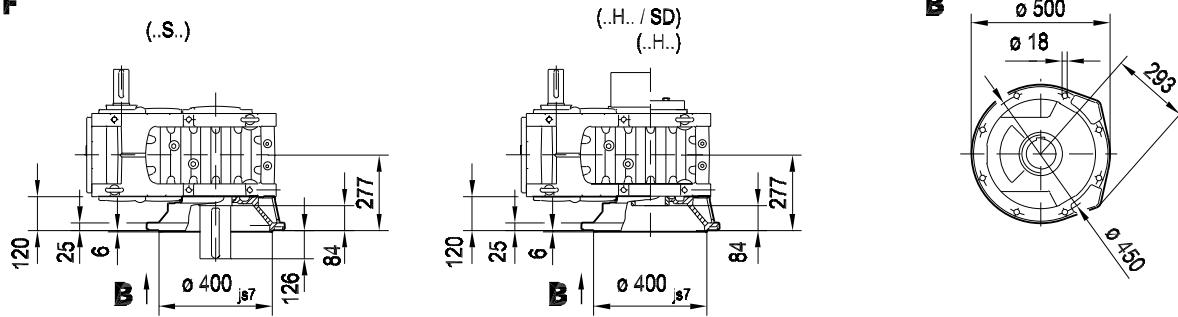


47 035 00 03
2(2)

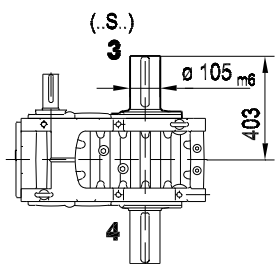
/BS



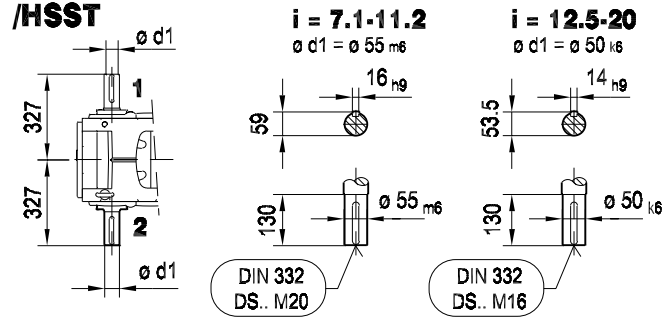
/MF



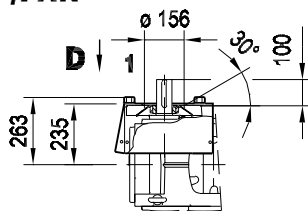
/LSST



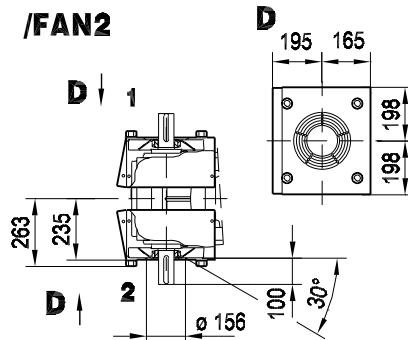
/HSST



/FAN

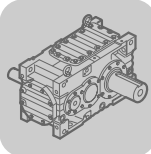


/FAN2



10

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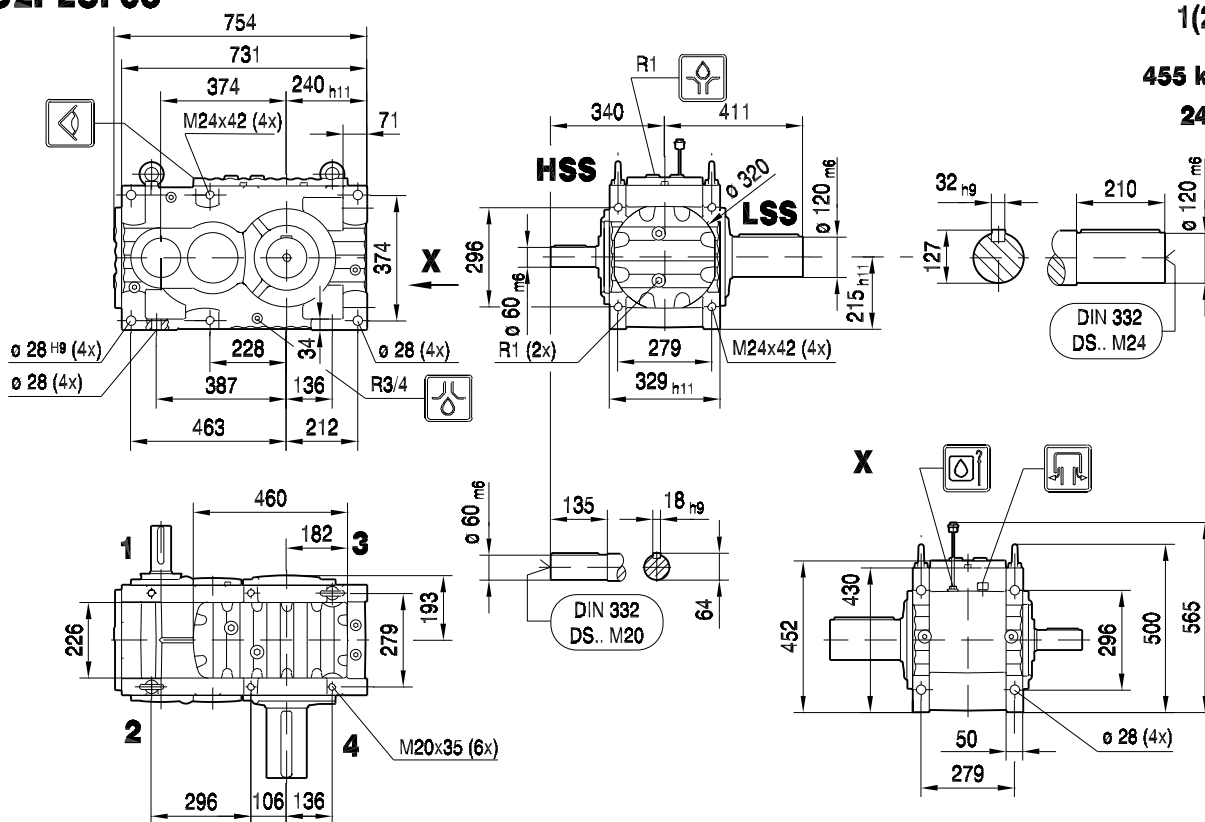


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF05

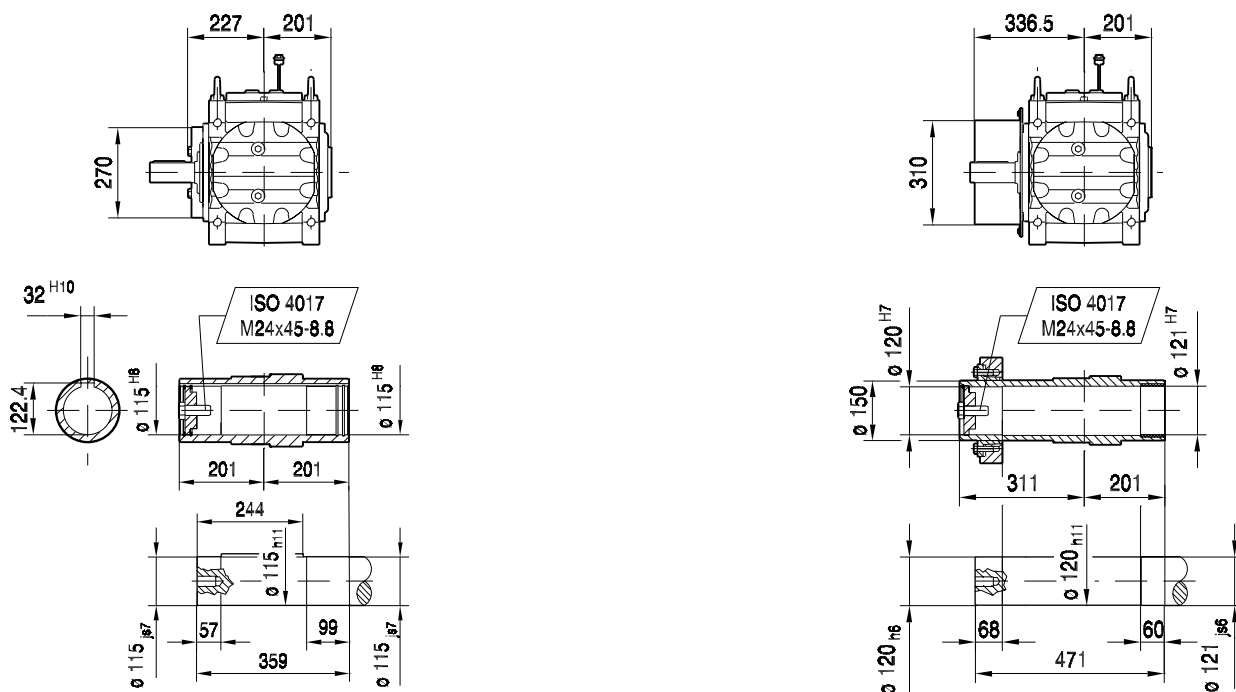
47 036 00 03
1(2)

455 kg
24 l

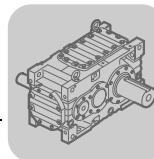


MC2PLHF05

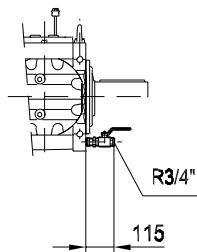
MC2PLHF05 /SD



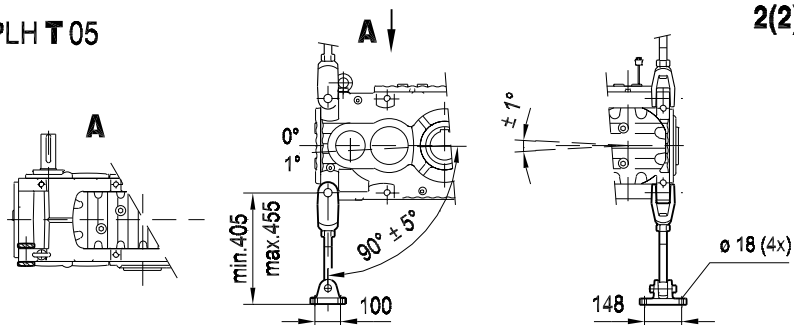
Helical Gear Units MC...P
 Selection tables (detailed) MC.PL..



MC2PL..05
/ODV

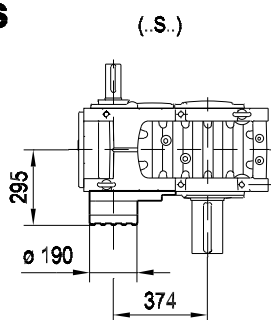


MC2PLH T 05

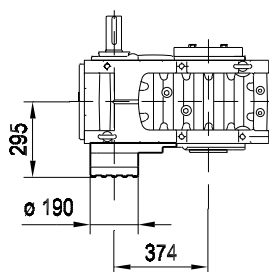


47 036 00 03
2(2)

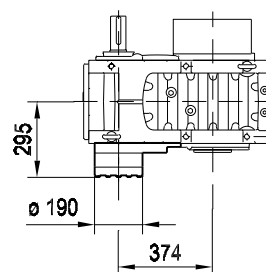
/BS



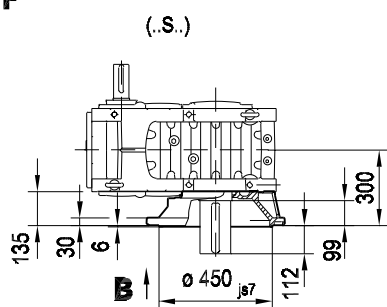
(..H.)



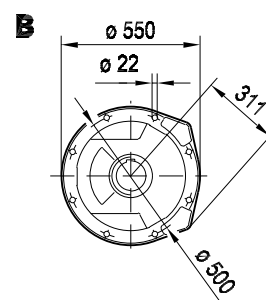
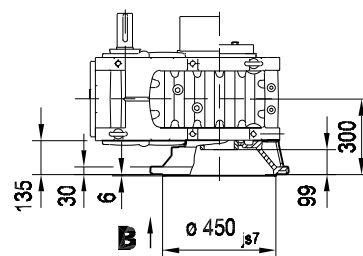
(..H.. / SD)



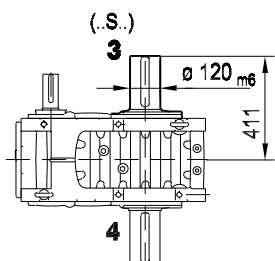
/MF



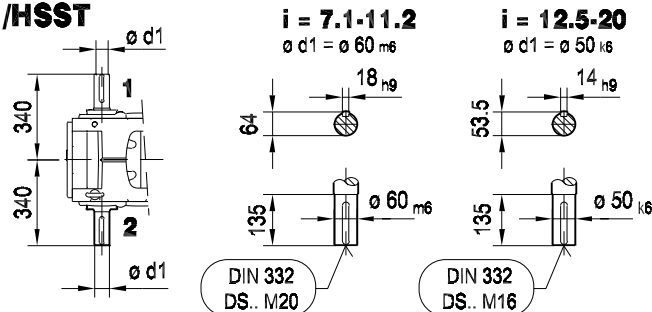
(..H.. / SD)
 (..H.)



/LSST

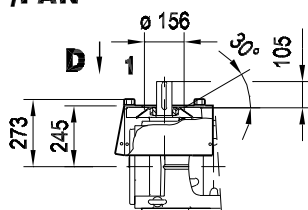


/HSST

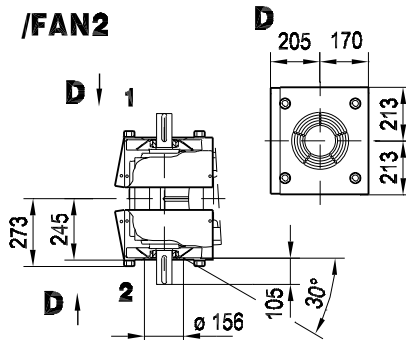


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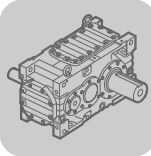
/FAN



/FAN2



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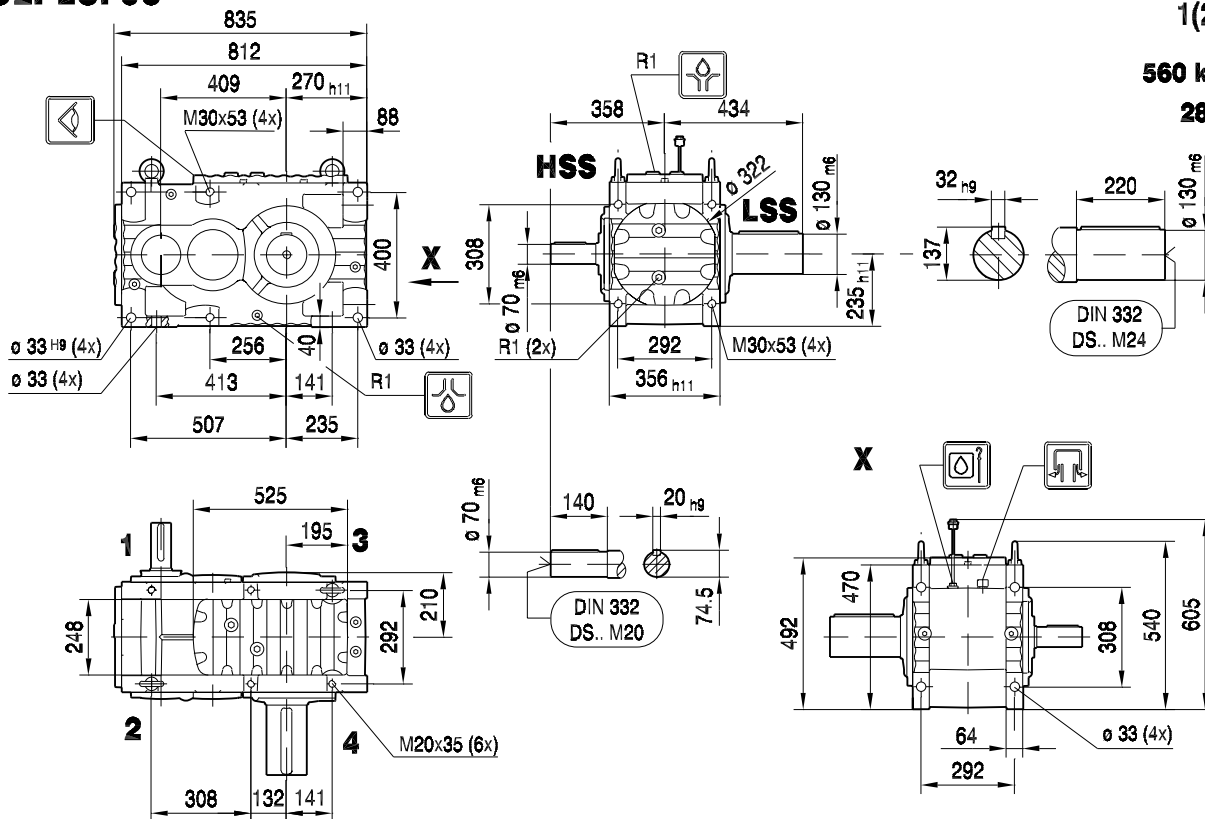


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF06

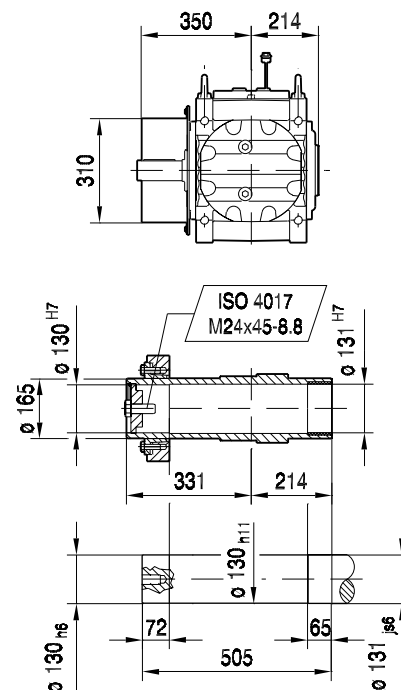
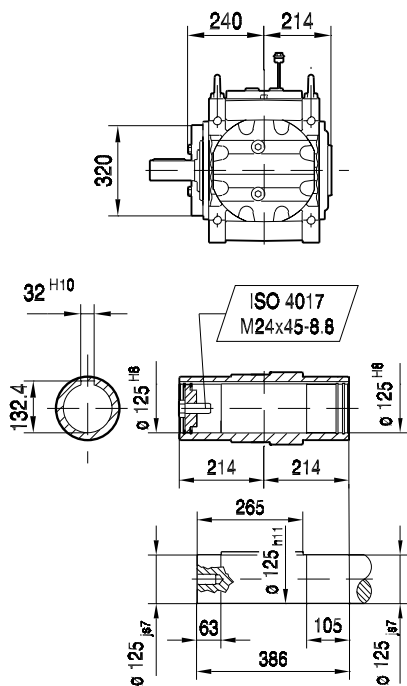
47 037 00 03
1(2)

560 kg
28 l

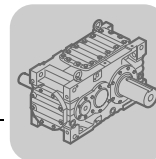


MC2PLHF06

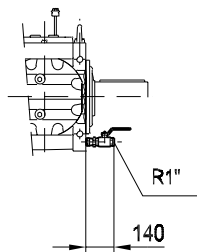
MC2PLHF06 /SD



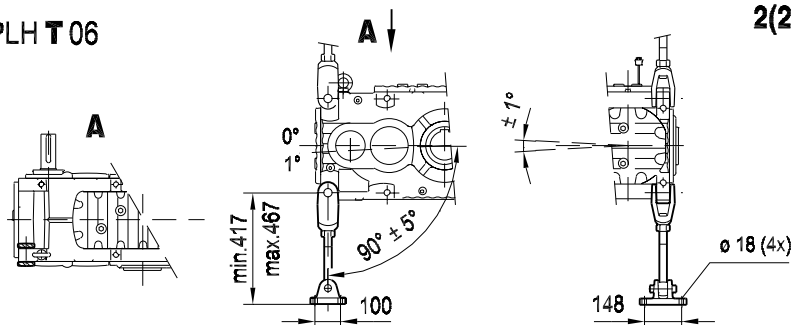
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..



MC2PL..06
/ODV

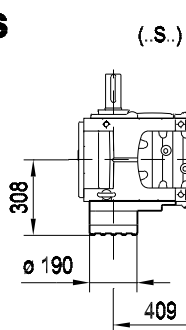


MC2PLH T 06

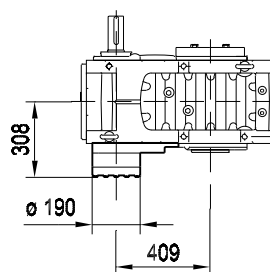


47 037 00 03
2(2)

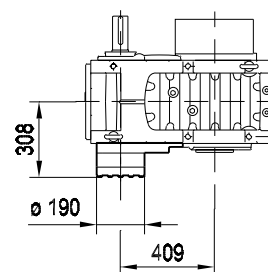
/BS



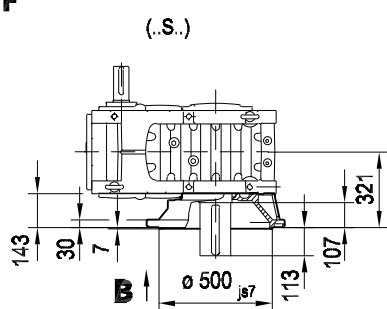
(..H.)



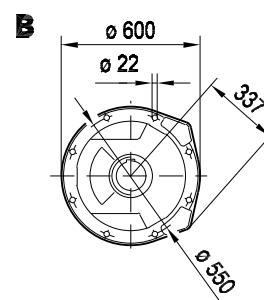
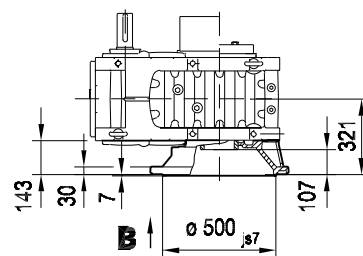
(..H.. / SD)



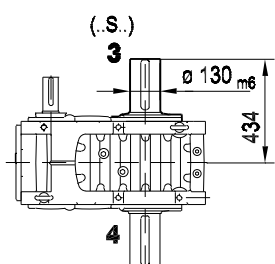
/MF



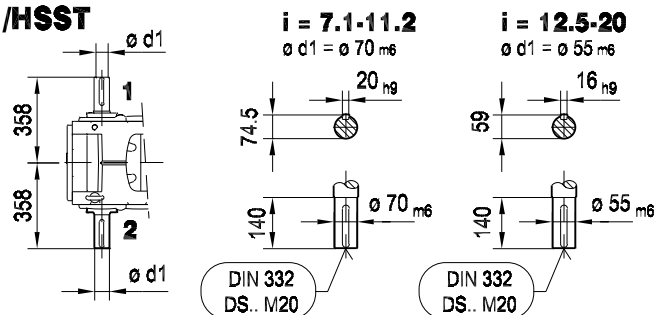
(..H.. / SD)
(..H.)



/LSST

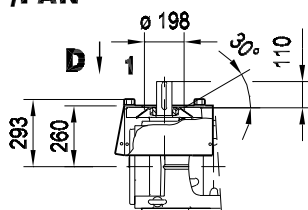


/HSST

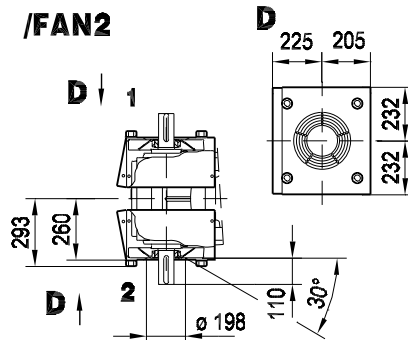


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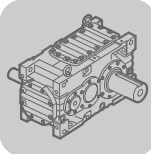
/FAN



/FAN2



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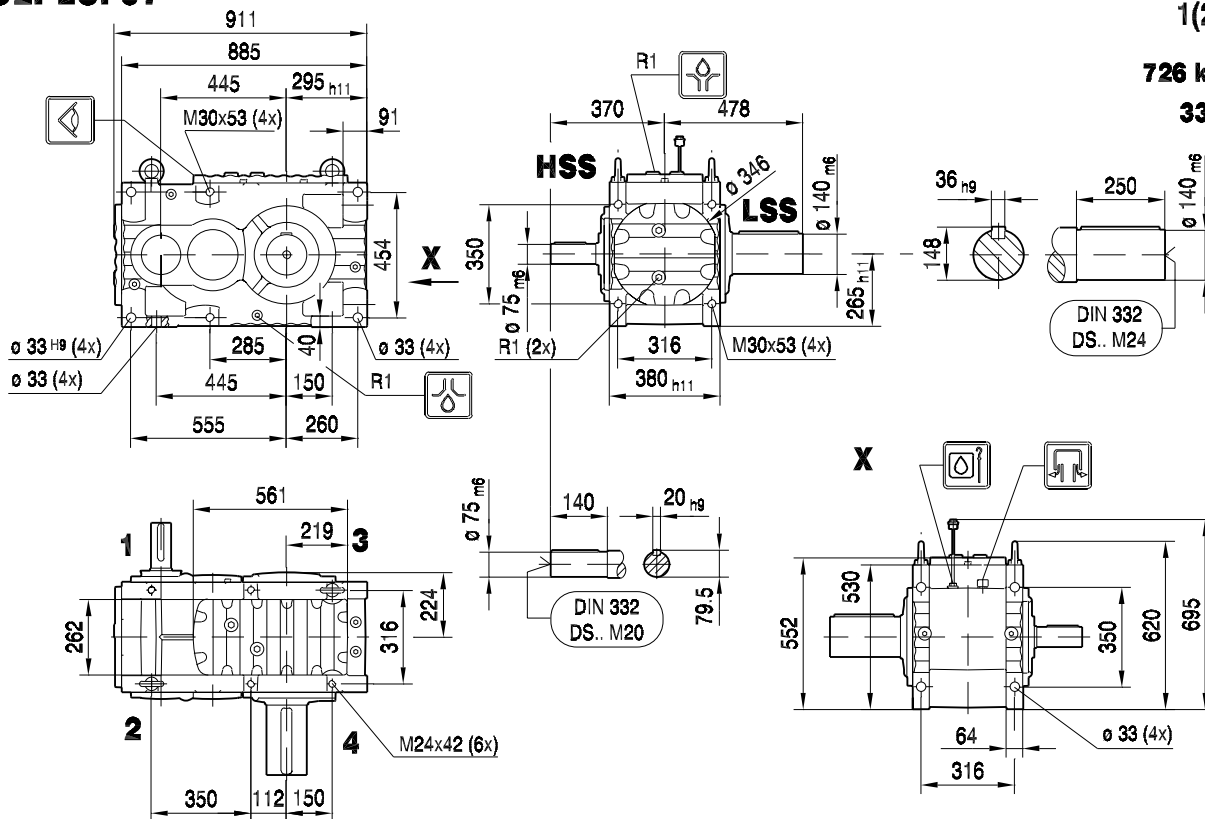


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF07

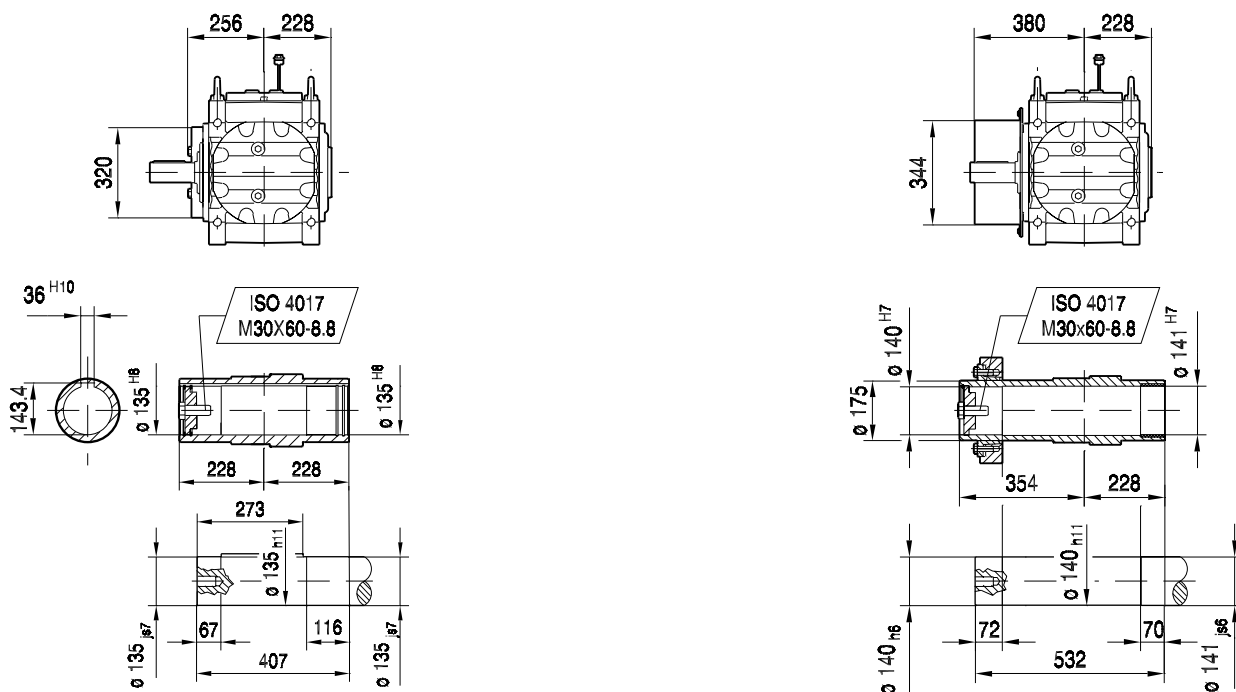
47 038 00 03
1(2)

726 kg
33 l

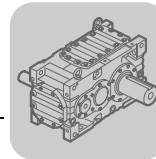


MC2PLHF07

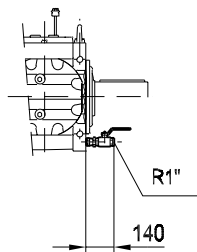
MC2PLHF07 /SD



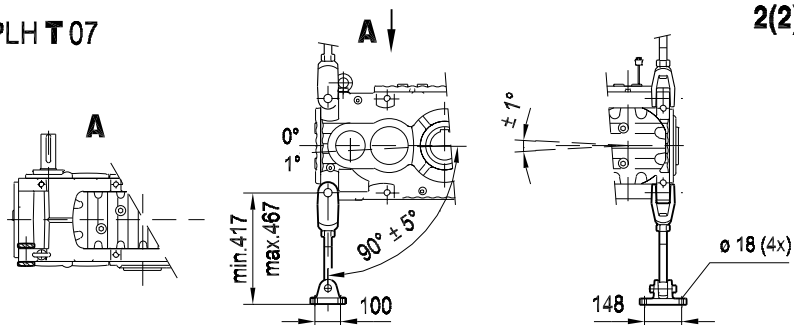
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..



MC2PL..07
/ODV

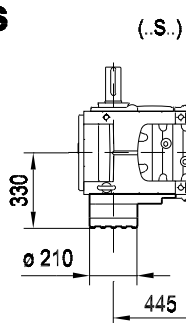


MC2PLH T 07

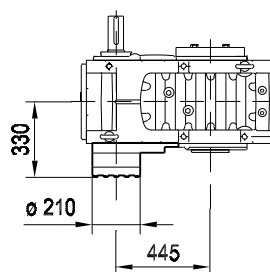


47 038 00 03
2(2)

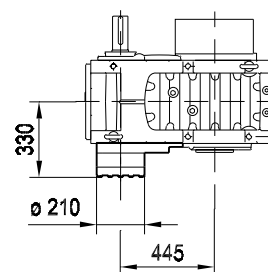
/BS



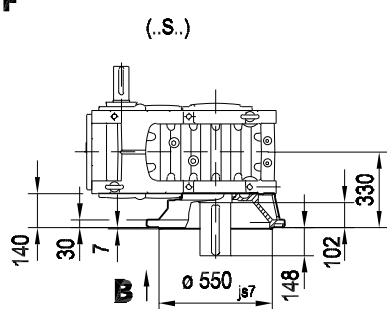
(..H.)



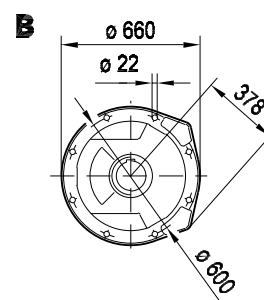
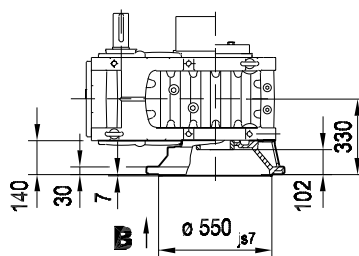
(..H. / SD)



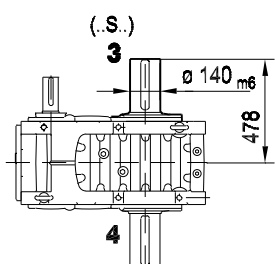
/MF



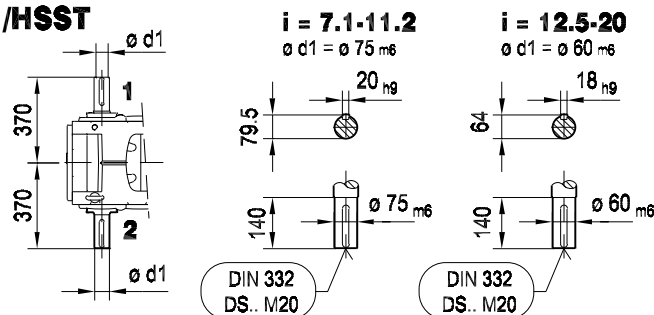
(..H. / SD)
(..H.)



/LSST

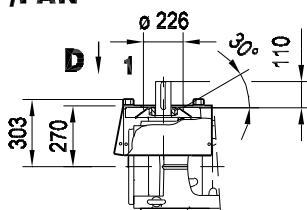


/HSST

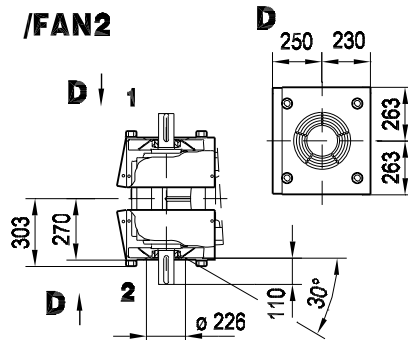


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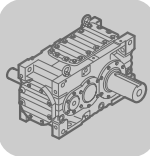
/FAN



/FAN2



10

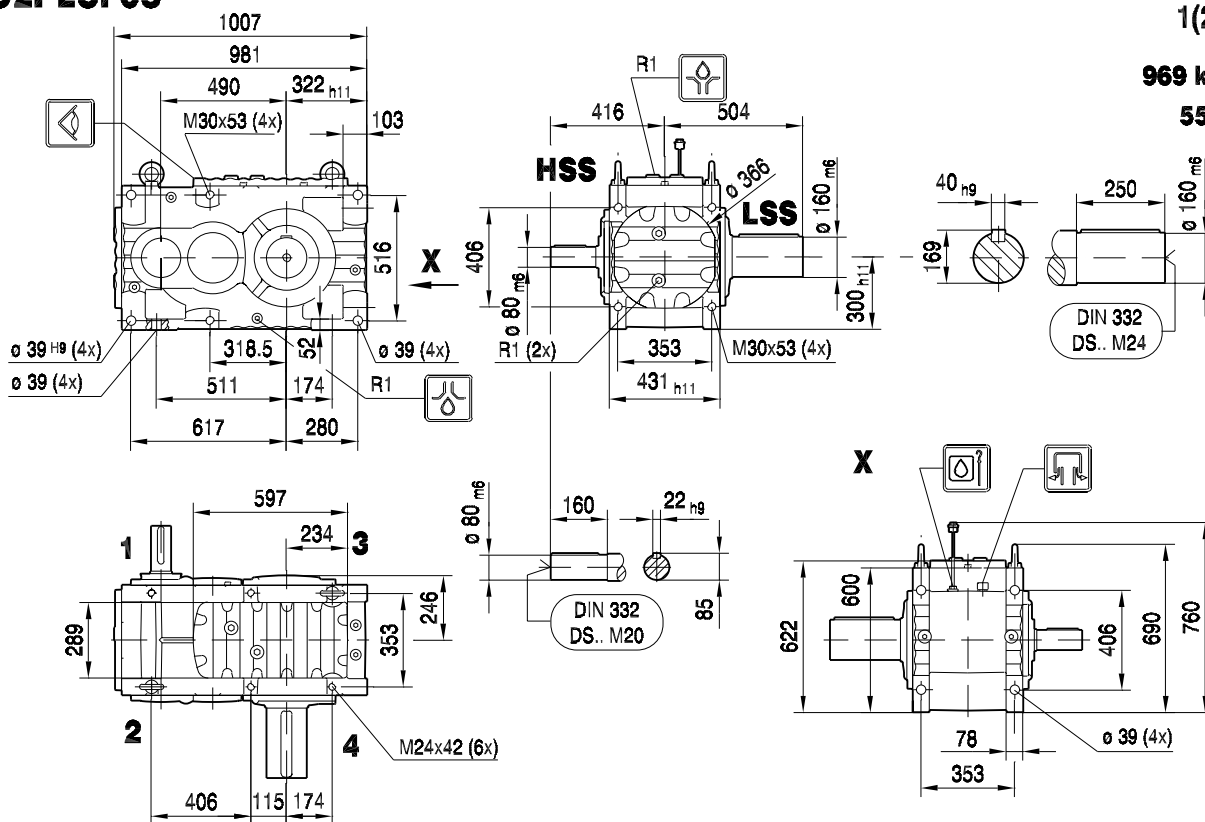


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF08

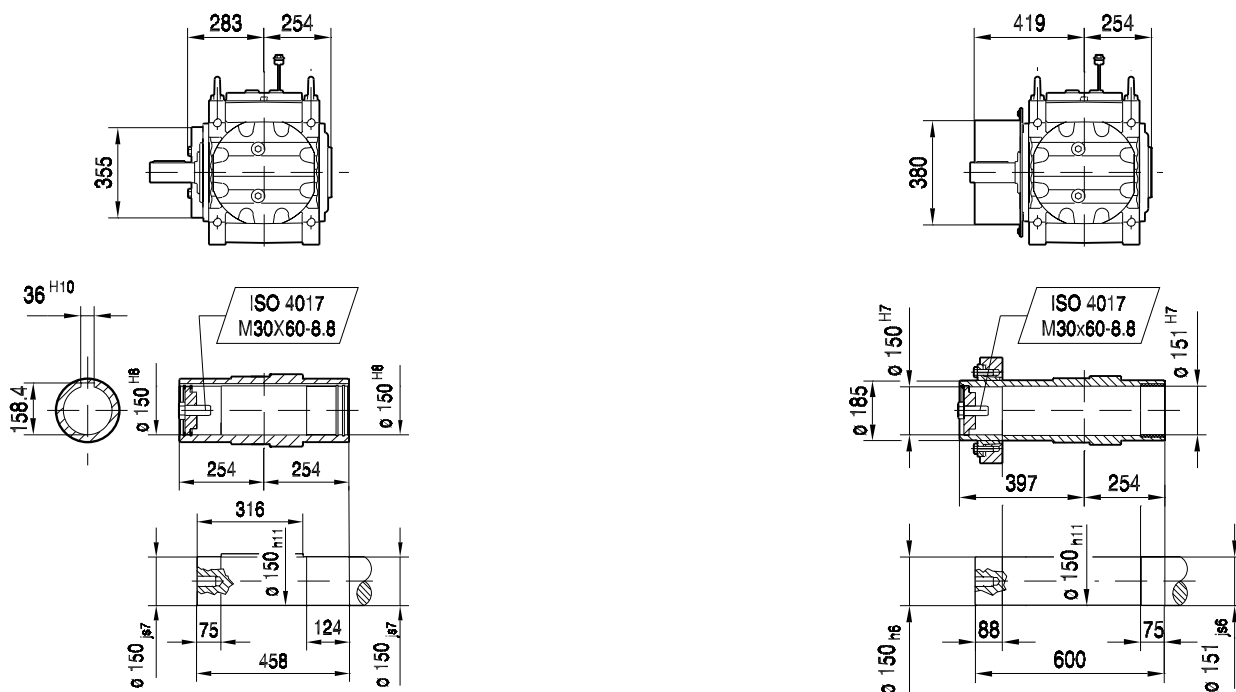
47 039 00 03
1(2)

969 kg
55 l

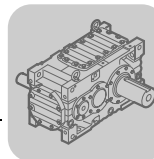


MC2PLHF08

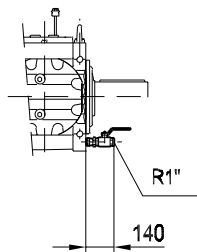
MC2PLHF08 /SD



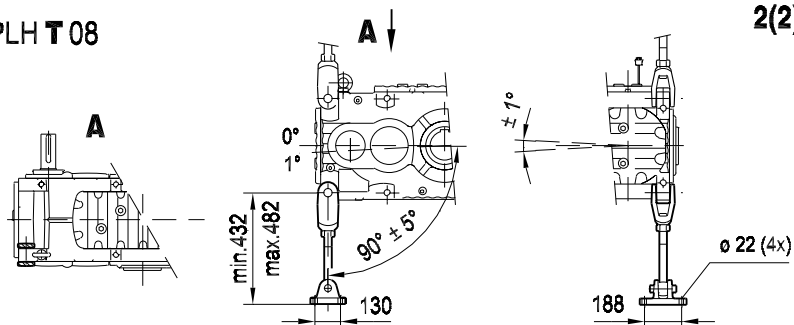
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..



MC2PL..08
/ODV

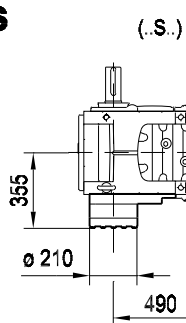


MC2PLH T 08

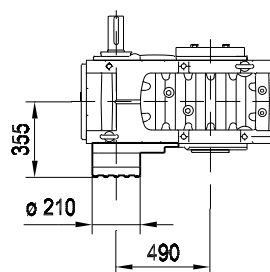


47 039 00 03
2(2)

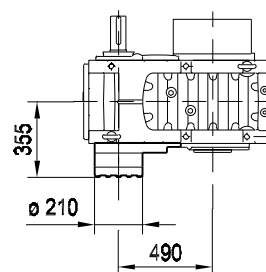
/BS



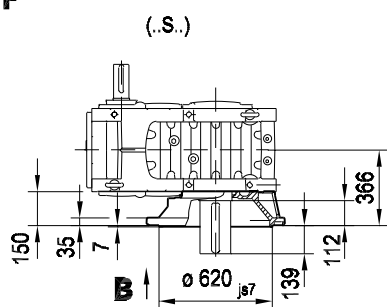
(..H..)



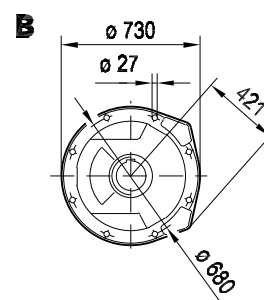
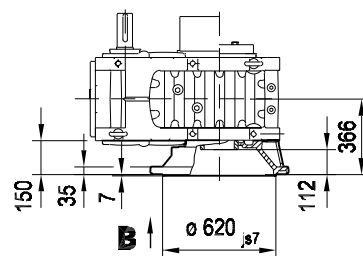
(..H.. / SD)



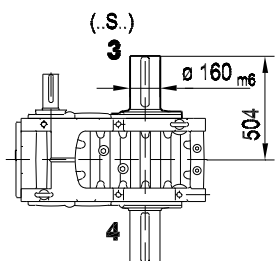
/MF



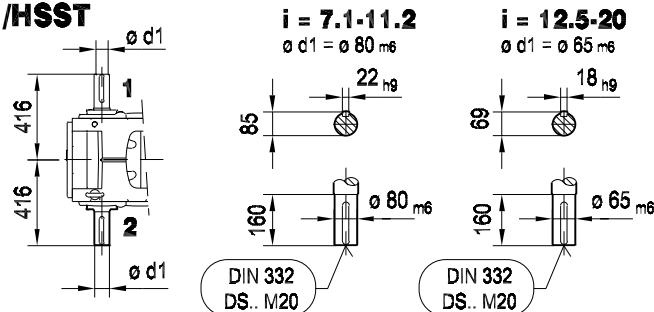
(..H.. / SD)
(..H..)



/LSST

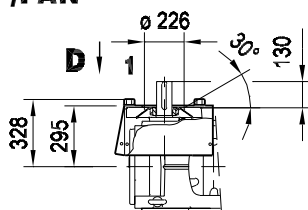


/HSST

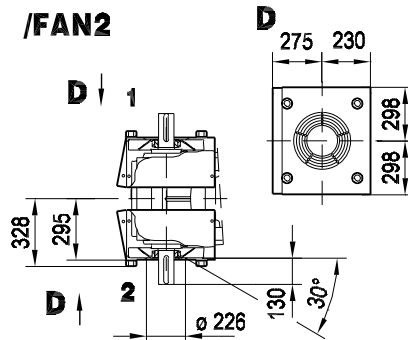


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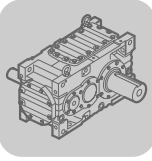
/FAN



/FAN2



10

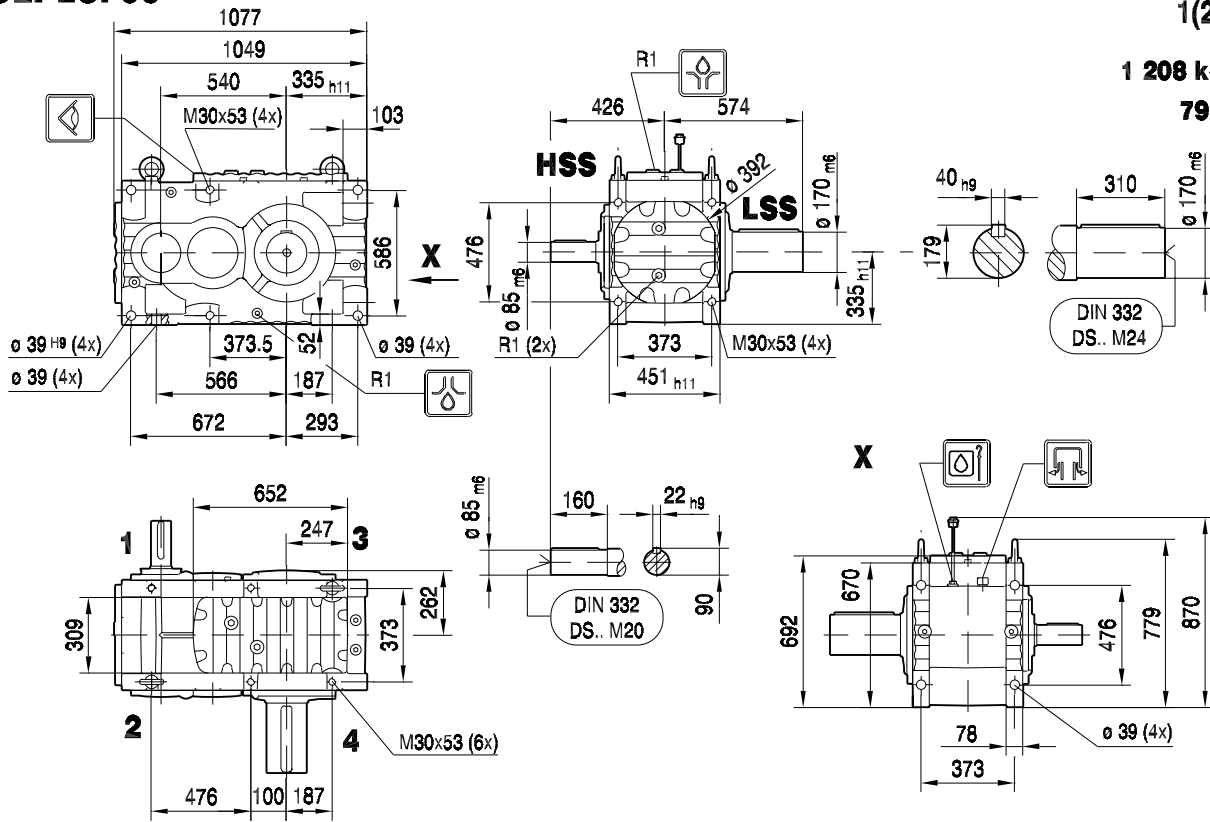


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC2PLSF09

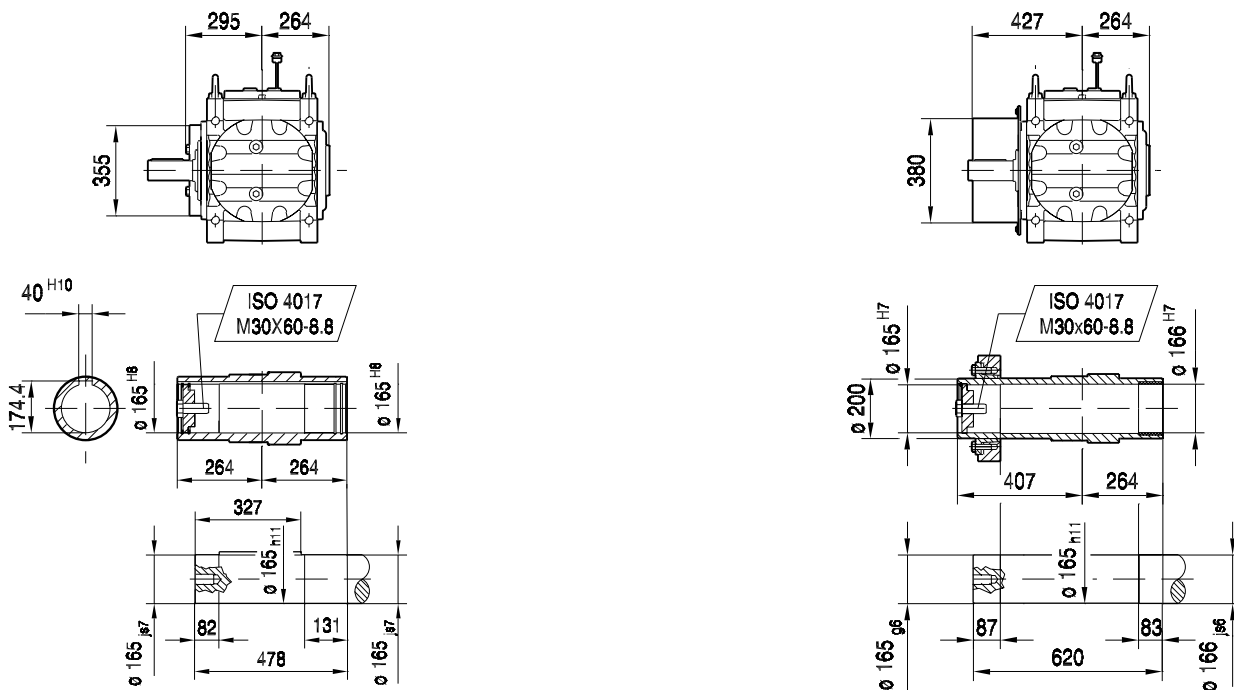
47 040 00 03
1(2)

1 208 kg
79 l



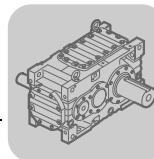
MC2PLHF09

MC2PLHF09 /SD



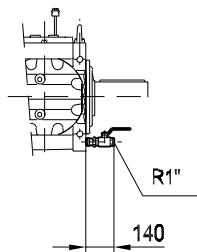
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

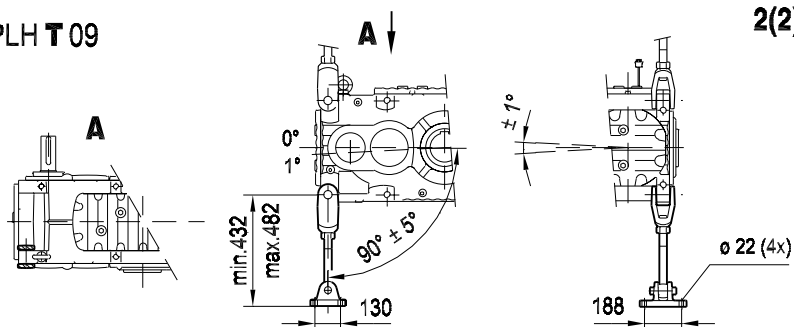


MC2PL..09

/ODV

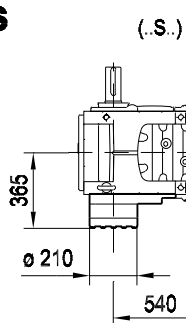


MC2PLH T 09

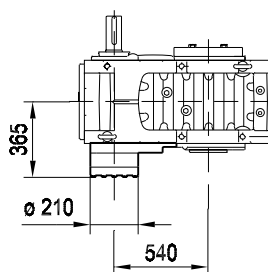


47 040 00 03
2(2)

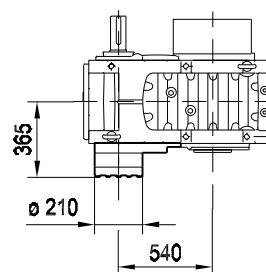
/BS



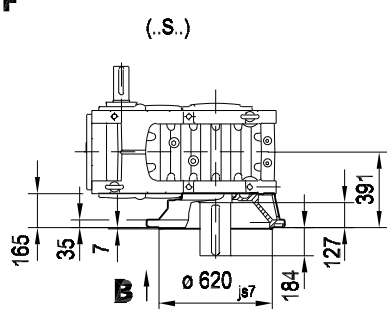
(..H.)



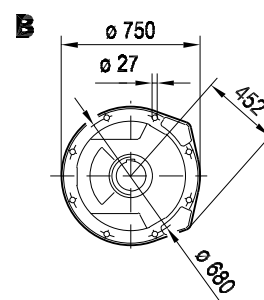
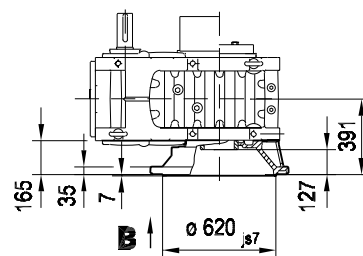
(..H.. / SD)



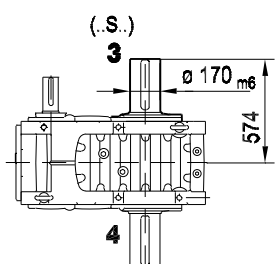
/MF



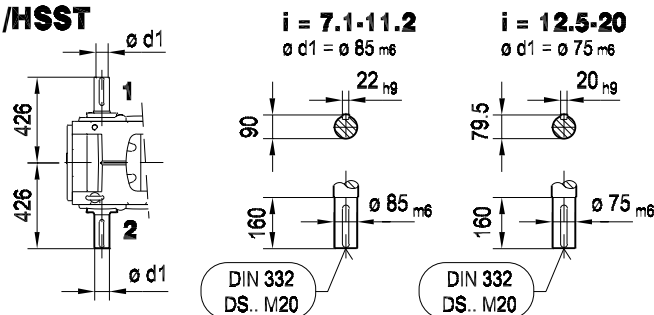
(..H.. / SD)
(..H..)



/LSST

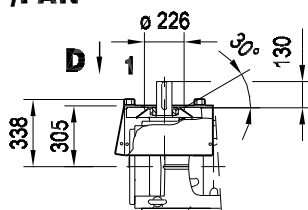


/HSST

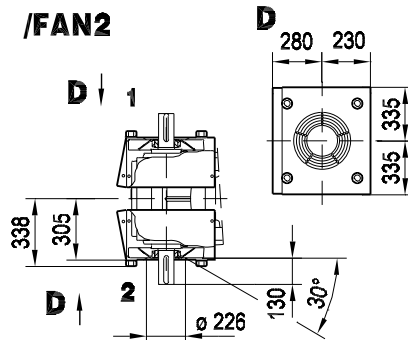


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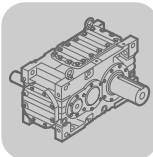
/FAN



/FAN2



10

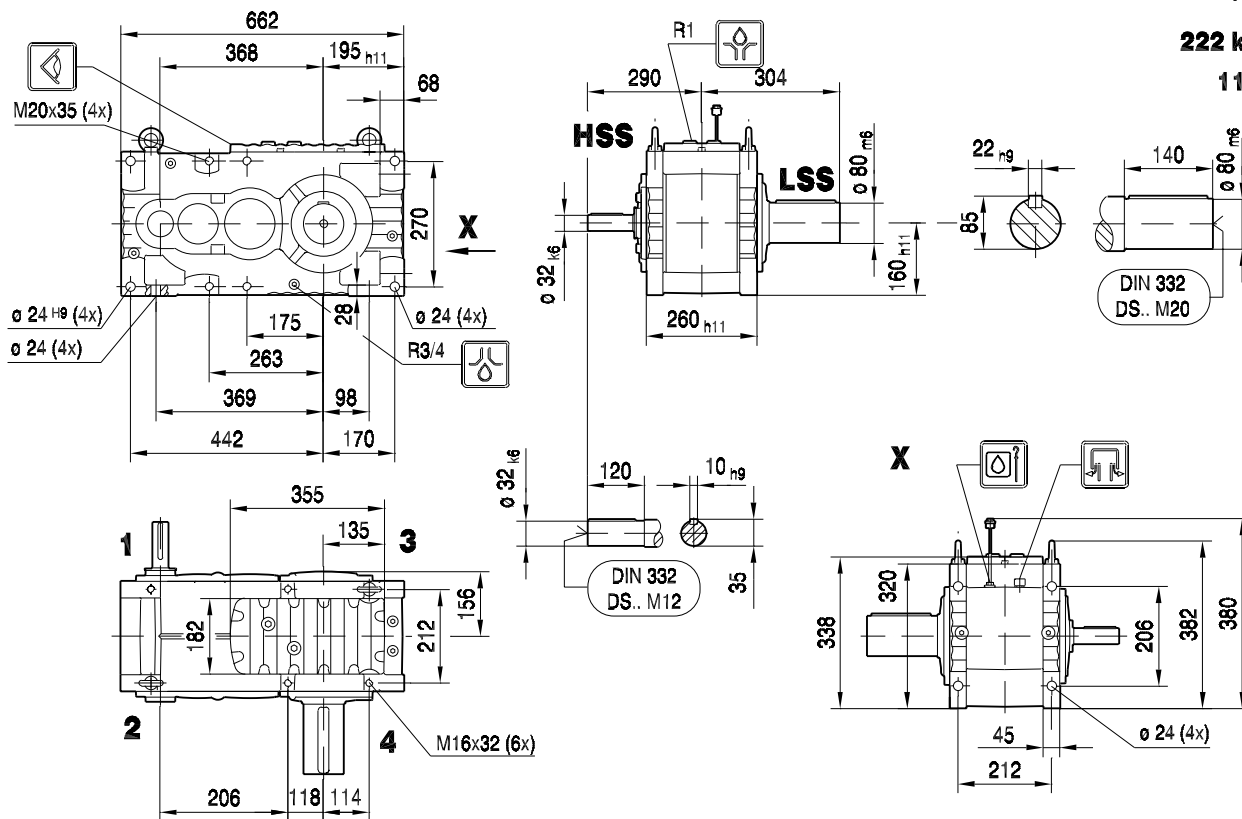


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF02

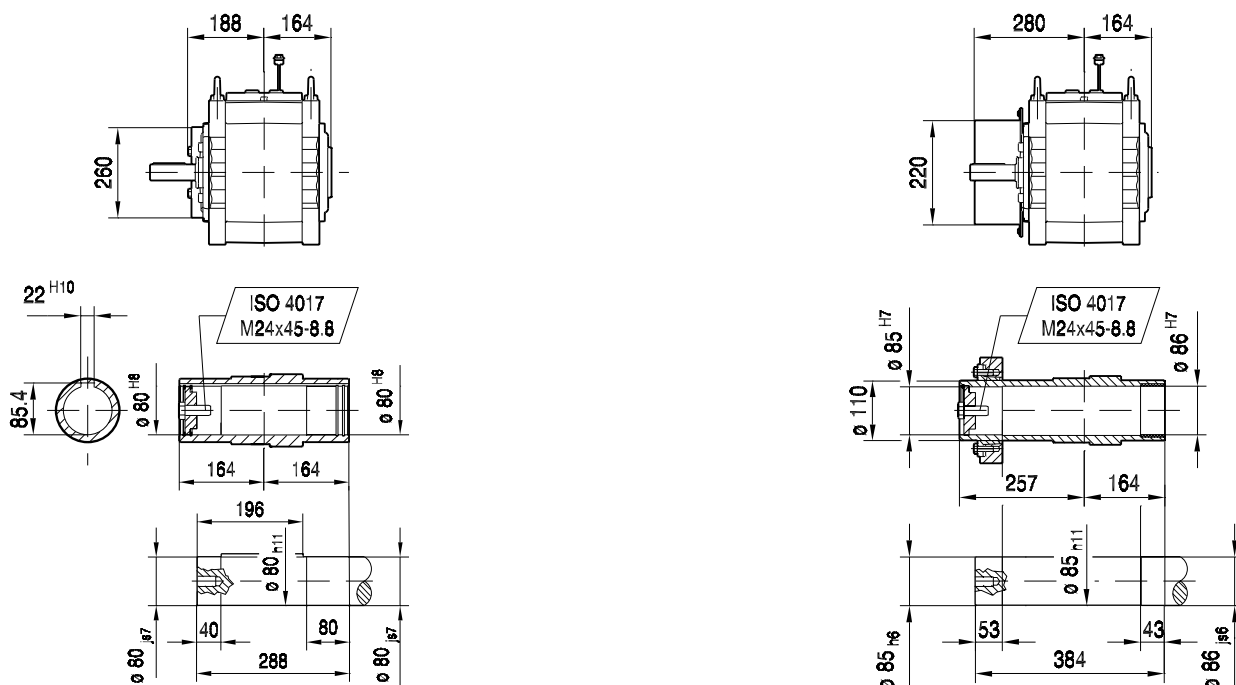
47 041 00 03
1(2)

222 kg
11 l



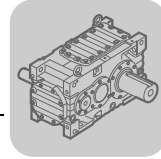
MC3PLHF02

MC3PLHF02 /SD



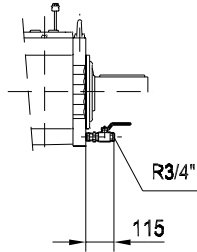
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

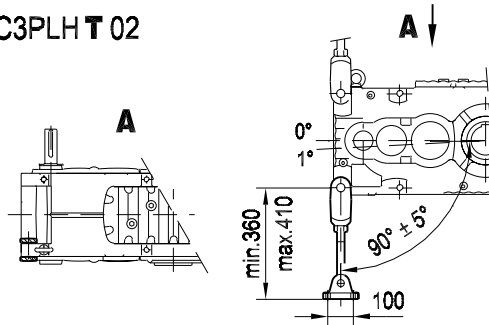


MC3PL..02

/ODV

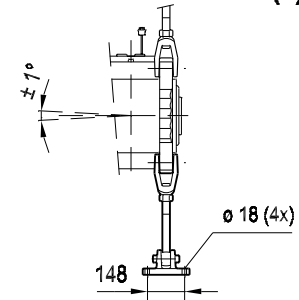


MC3PLH T 02



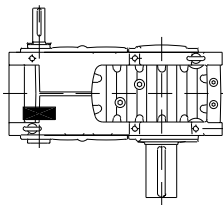
47 041 00 03

2(2)

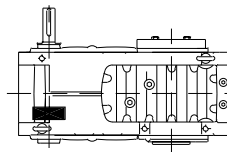


/BS

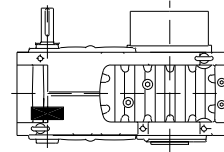
(.S.)



(.H.)

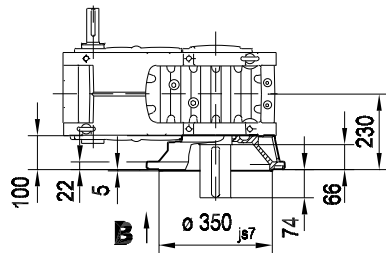


(.H.. / SD)

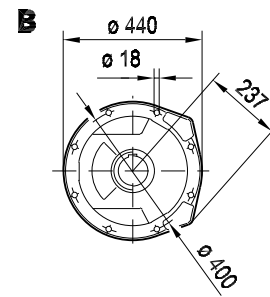
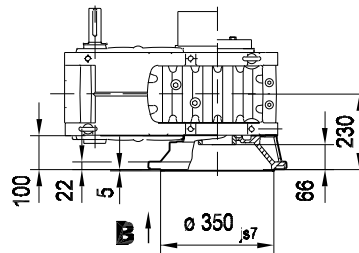


/MF

(.S.)

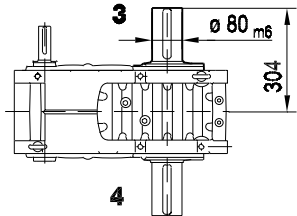


(.H.. / SD)
(.H.)

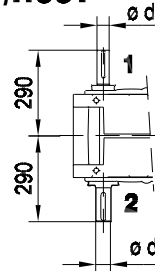


/LSST

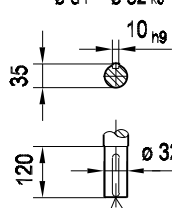
(.S.)



/HSST

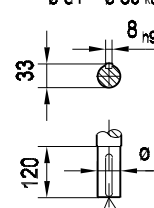


i = 22.5-35.5
Ø d1 = Ø 32 k6



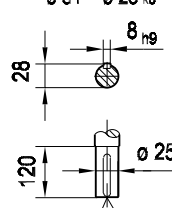
DIN 332
DS.. M12

i = 40-63
Ø d1 = Ø 30 k6



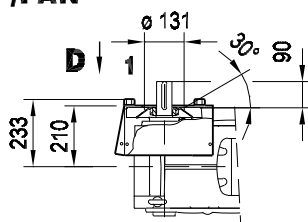
DIN 332
DS.. M10

i = 71-112
Ø d1 = Ø 25 k6

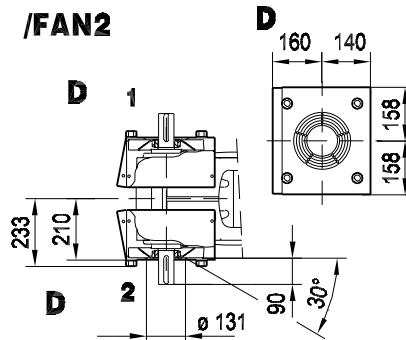


DIN 332
DS.. M10

/FAN

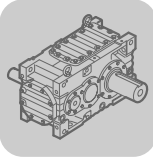


/FAN2



10

10

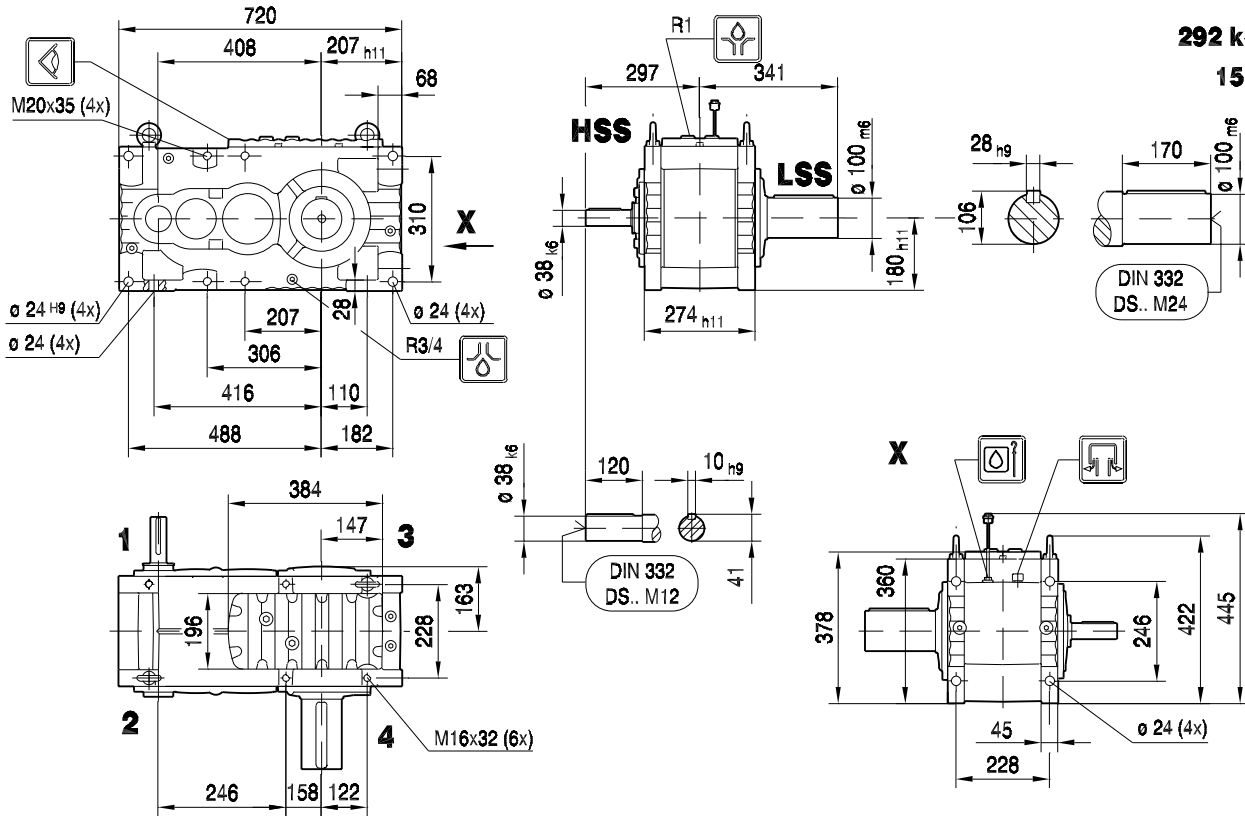


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF03

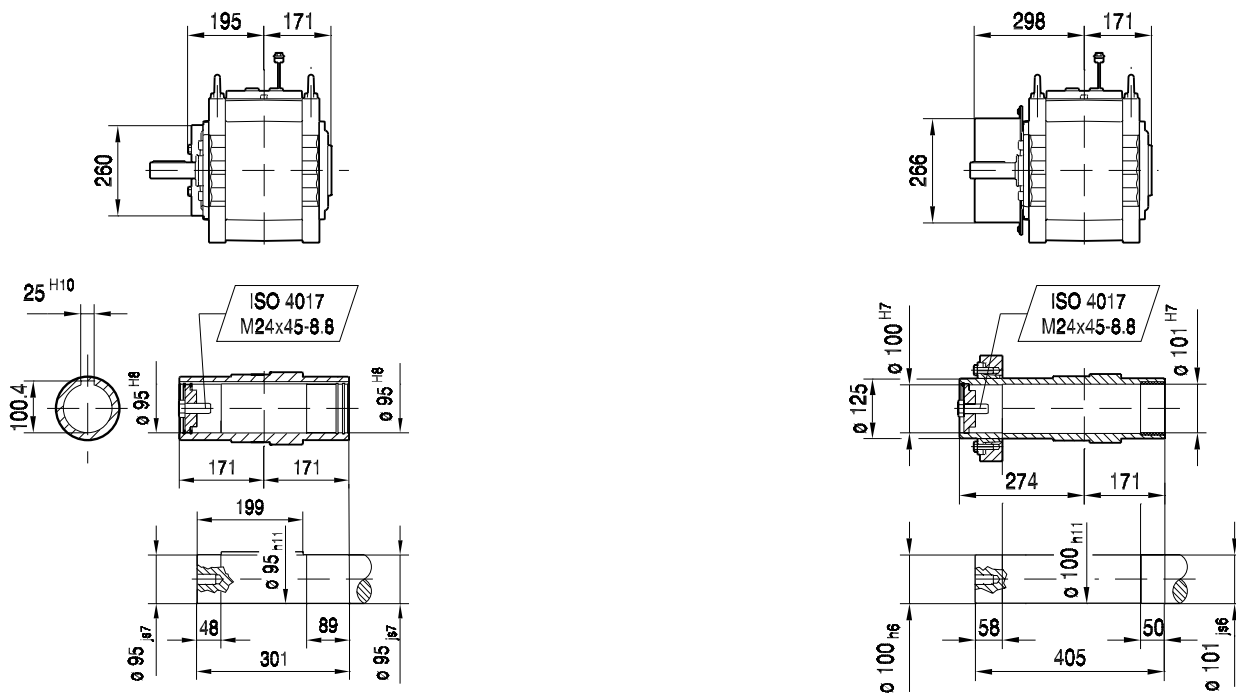
47 042 00 03
1(2)

292 kg
15 l



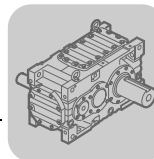
MC3PLHF03

MC3PLHF03 /SD



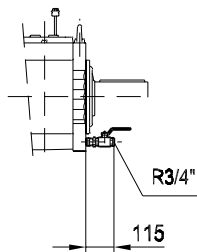
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

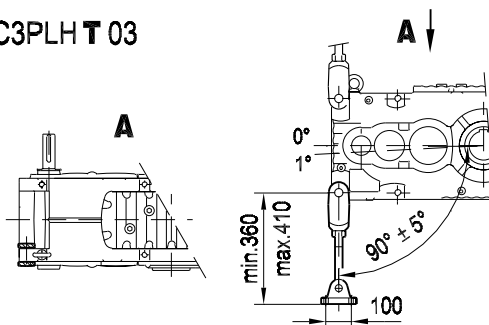


MC3PL..03

/ODV

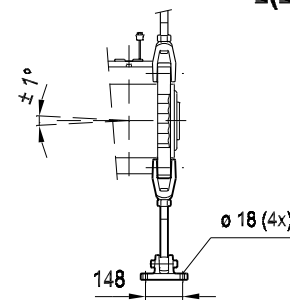


MC3PLH T 03



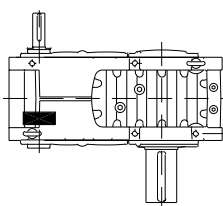
47 042 00 03

2(2)

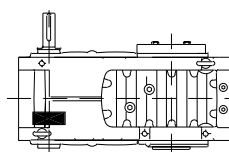


/BS

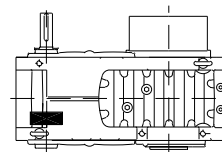
(.S.)



(.H.)

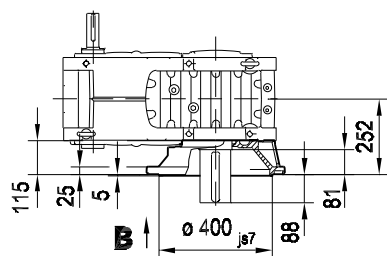


(.H.. / SD)

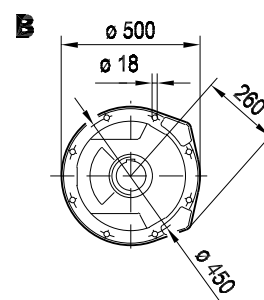
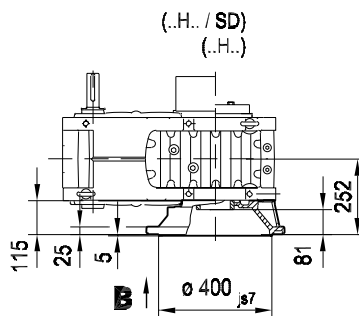


/MF

(.S.)

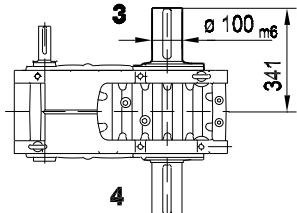


(.H.. / SD)

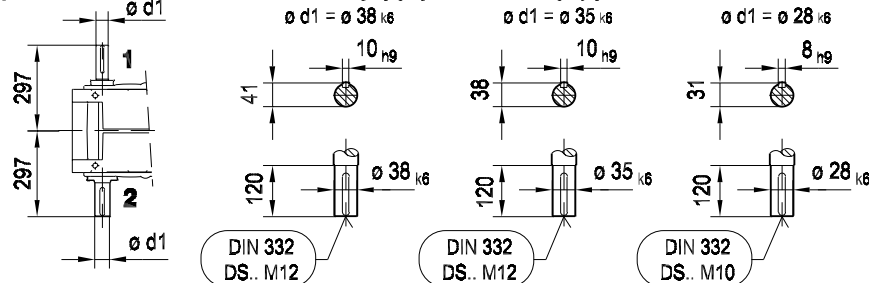


/LSST

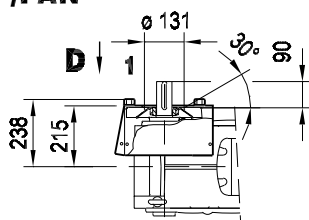
(.S.)



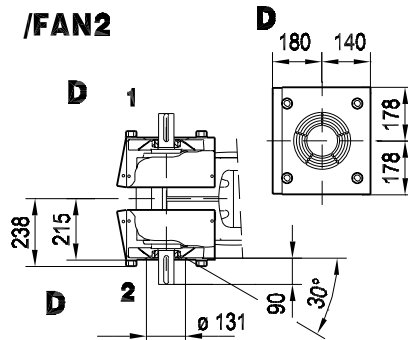
/HSST



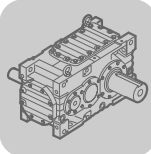
/FAN



/FAN2



10

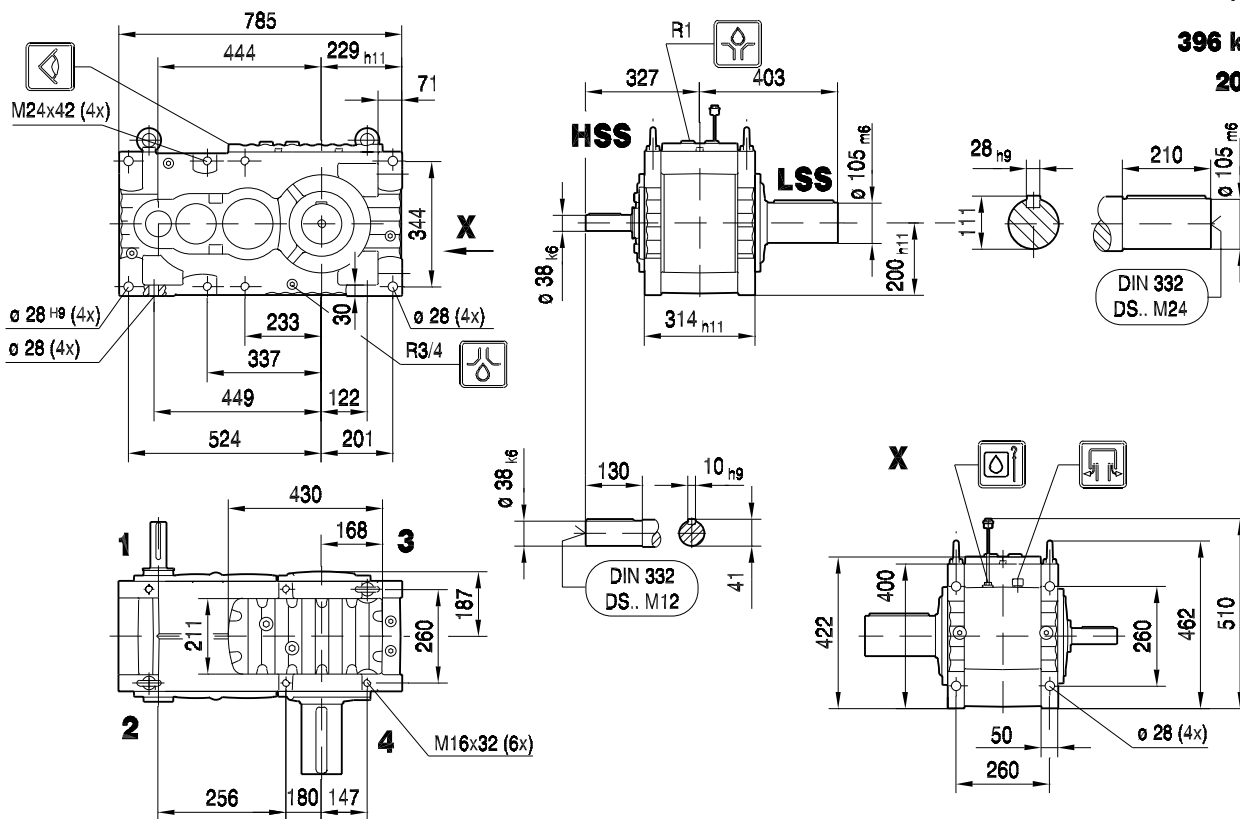


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF04

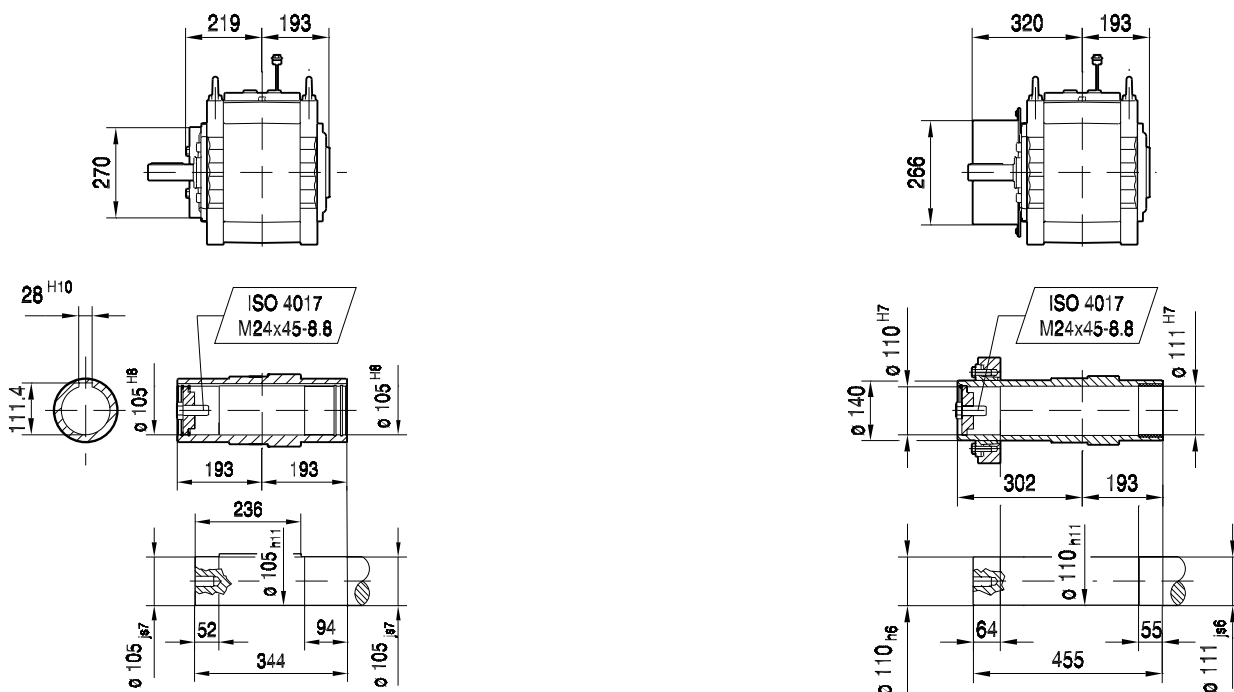
47 043 00 03
1(2)

396 kg
20 l



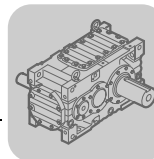
MC3PLHF04

MC3PLHF04 /SD



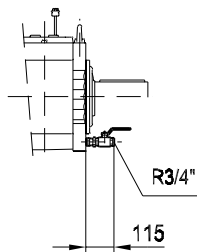
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

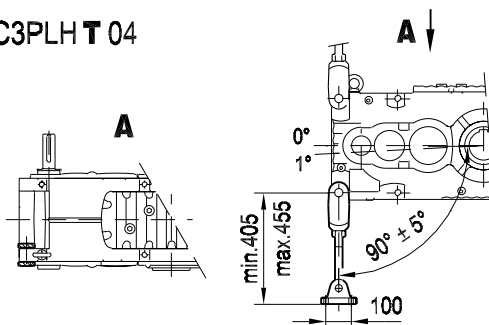


MC3PL..04

/ODV

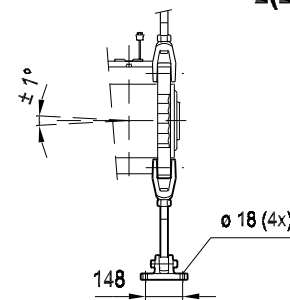


MC3PLH T 04



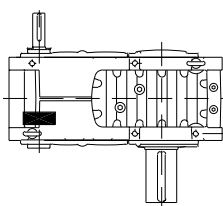
47 043 00 03

2(2)

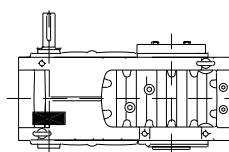


/BS

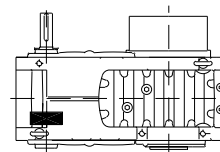
(.S.)



(..H.)

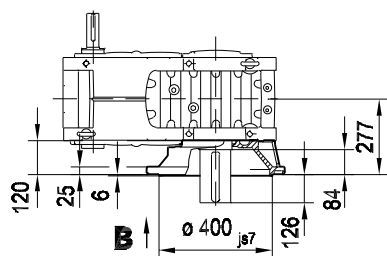


(..H. / SD)

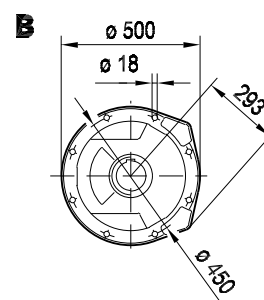
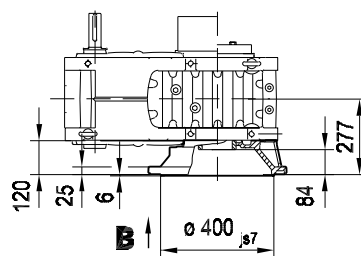


/MF

(.S.)

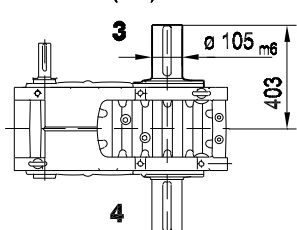


(..H. / SD)



/LSST

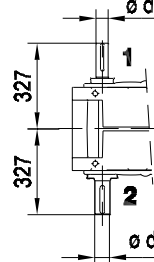
(.S.)



/HSST

i = 22.5-35.5

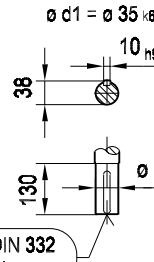
ø d1 = ø 38 k6



DIN 332 DS.. M12

i = 40-63

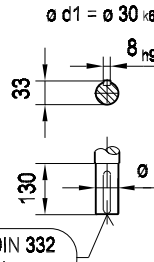
ø d1 = ø 35 k6



DIN 332 DS.. M12

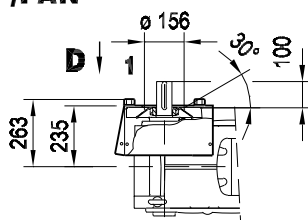
i = 71-112

ø d1 = ø 30 k6

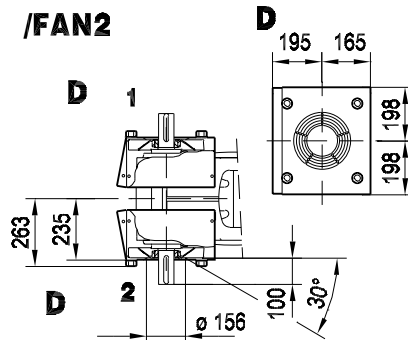


DIN 332 DS.. M10

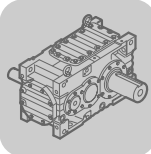
/FAN



/FAN2



10

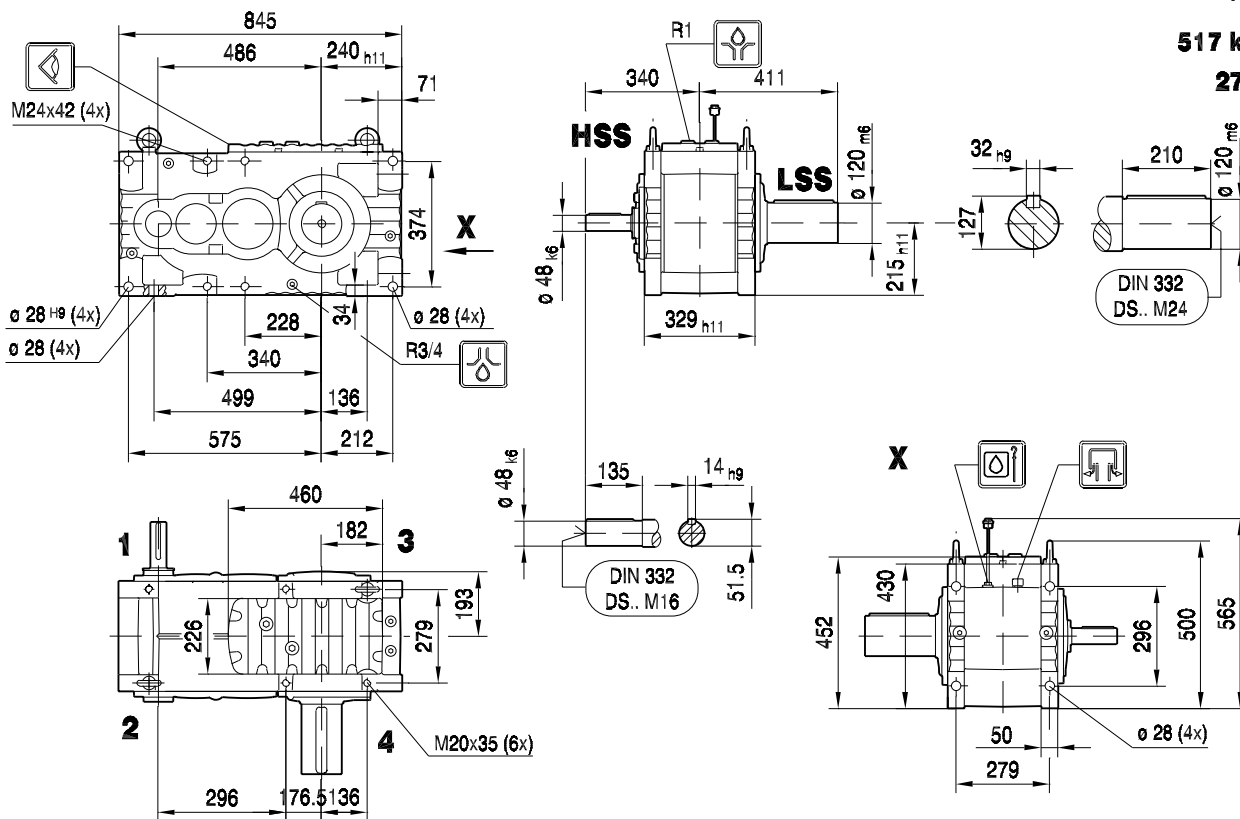


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF05

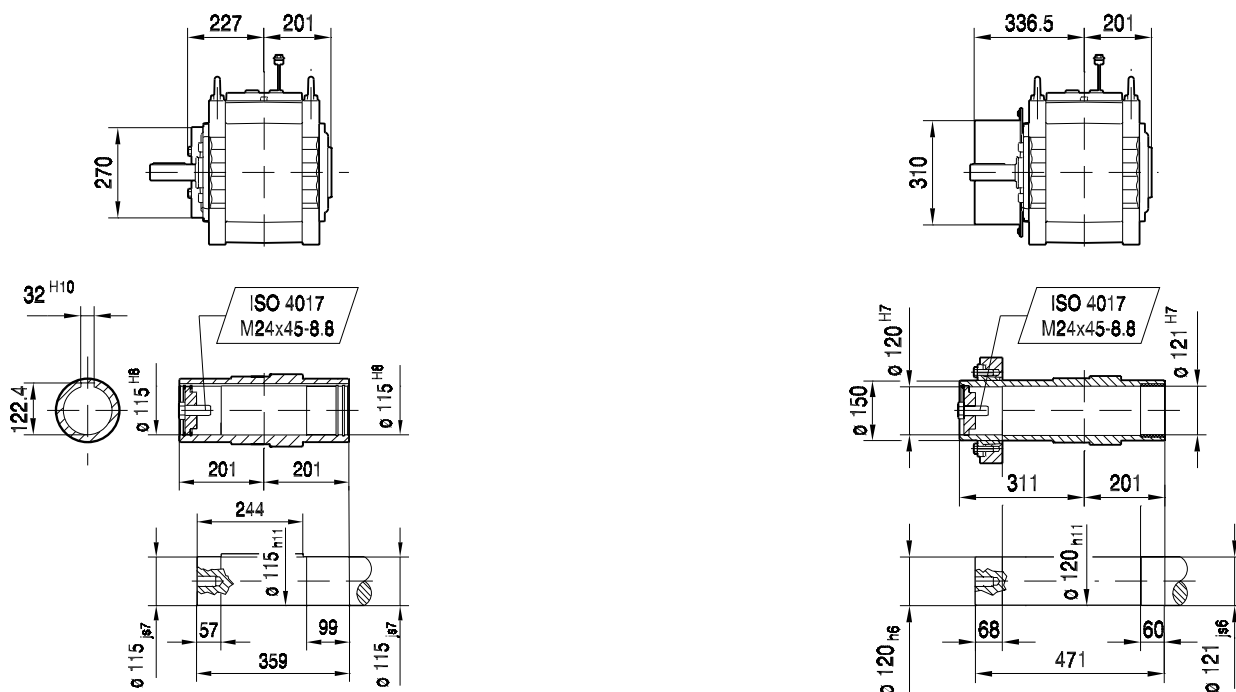
47 044 00 03
1(2)

517 kg
27 l



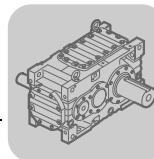
MC3PLHF05

MC3PLHF05 /SD



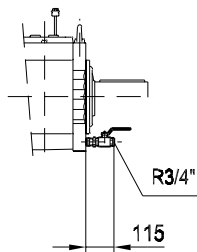
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

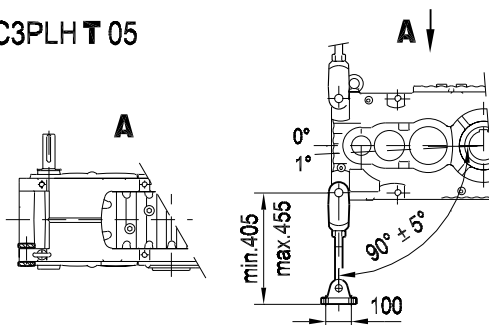


MC3PL..05

/ODV

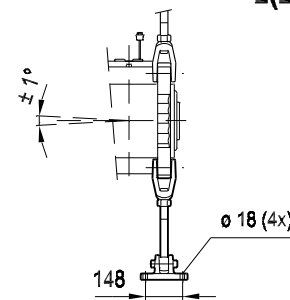


MC3PLH T 05



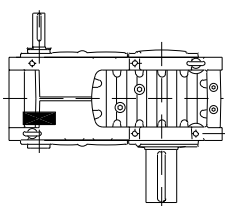
47 044 00 03

2(2)

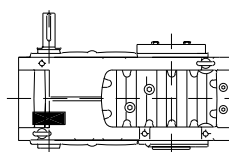


/BS

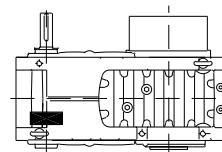
(.S.)



(.H.)

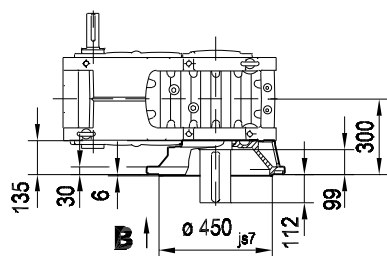


(.H.. / SD)



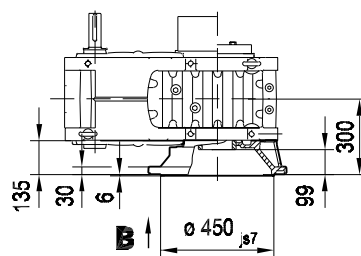
/MF

(.S.)

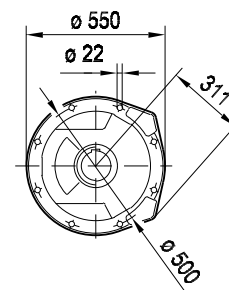


(.H.. / SD)

(.H.)

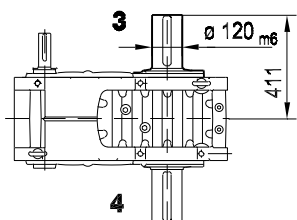


B



/LSST

(.S.)



/HSST

$i = 22.5-40$

$\phi d1 = \phi 48_{k6}$

14_{h9}

51.5

340

340

$\phi d1$

$\phi d1$

DIN 332 DS.. M16

$i = 45-63$

$\phi d1 = \phi 40_{k6}$

12_{h9}

43

135

135

$\phi 40_{k6}$

$\phi 40_{k6}$

DIN 332 DS.. M16

$i = 71-112$

$\phi d1 = \phi 32_{k6}$

10_{h9}

35

135

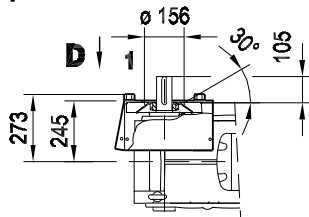
135

$\phi 32_{k6}$

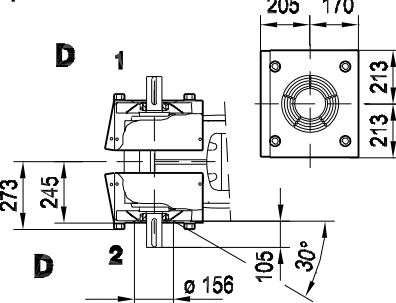
$\phi 32_{k6}$

DIN 332 DS.. M12

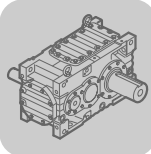
/FAN



/FAN2



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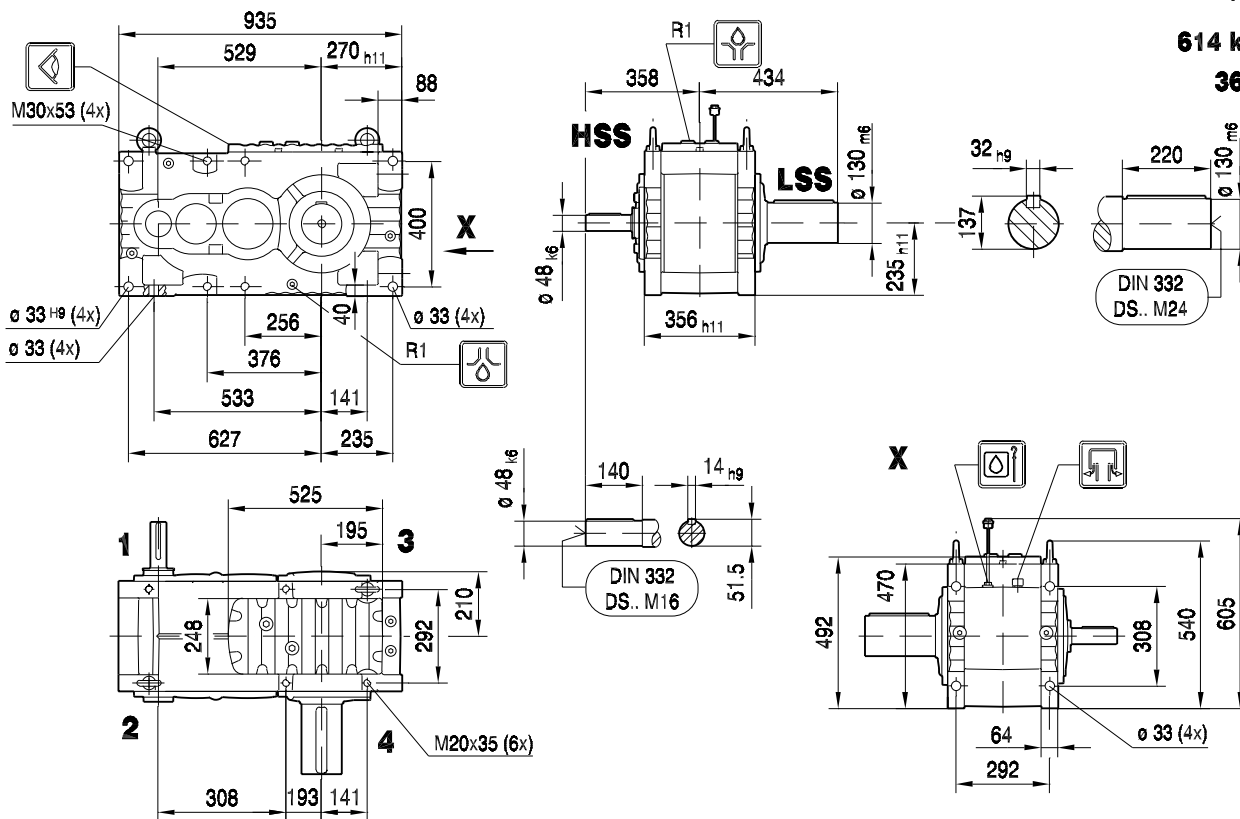


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF06

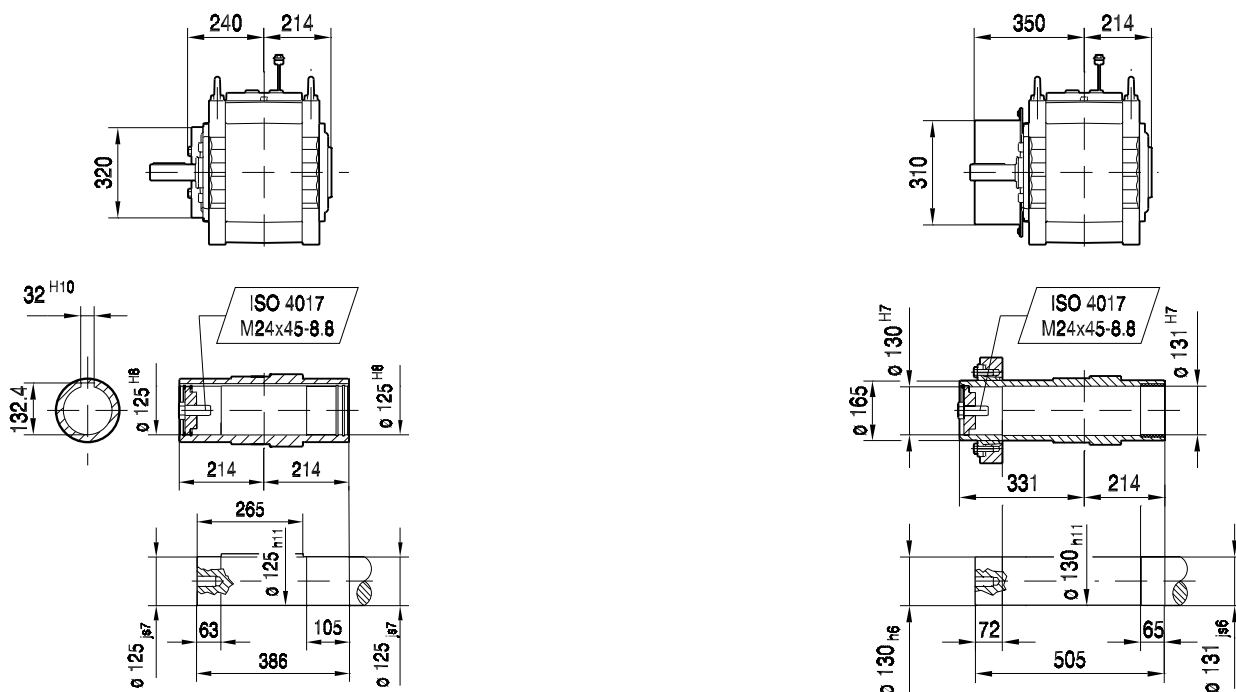
47 045 00 03
1(2)

614 kg
36 l



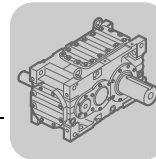
MC3PLHF06

MC3PLHF06 /SD



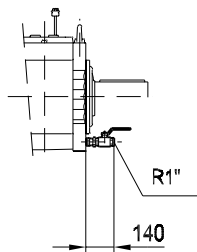
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

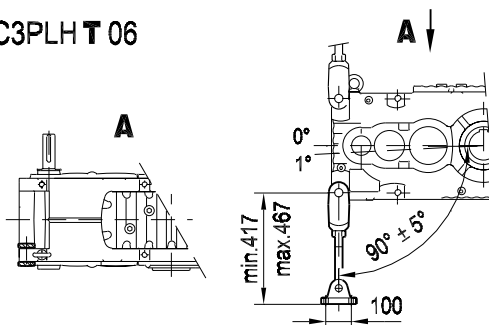


MC3PL..06

/ODV

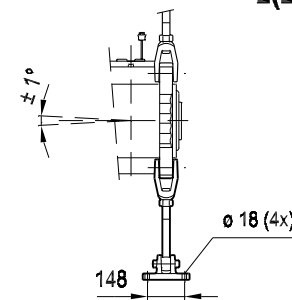


MC3PLH T 06



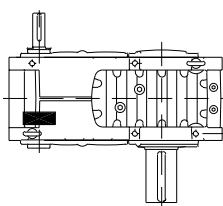
47 045 00 03

2(2)

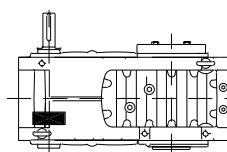


/BS

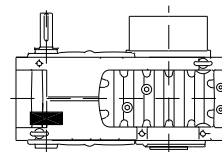
(.S.)



(.H.)

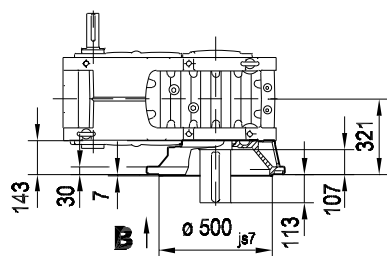


(.H.. / SD)

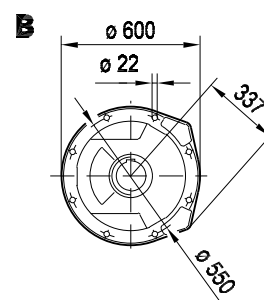
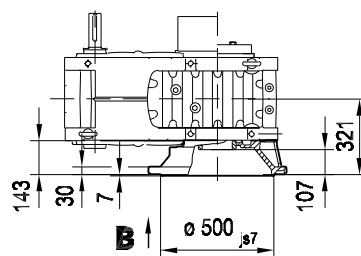


/MF

(.S.)

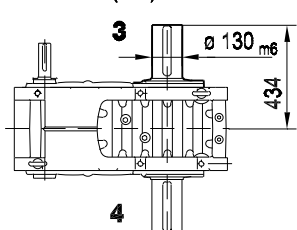


(.H.. / SD)

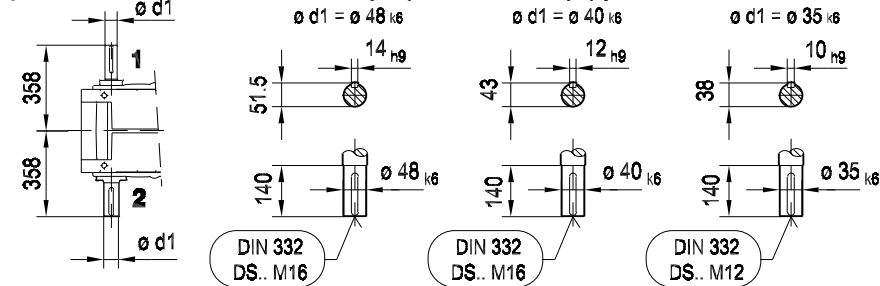


/LSST

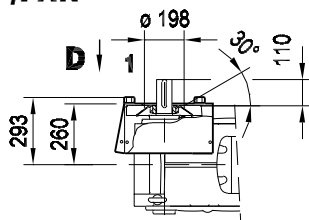
(.S.)



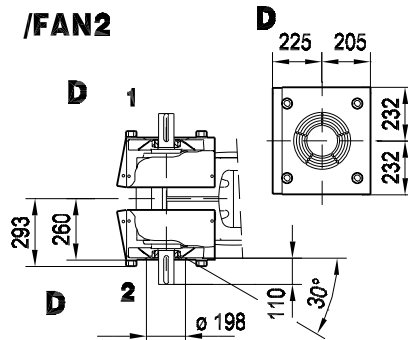
/HSST



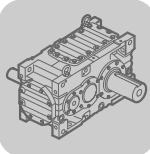
/FAN



/FAN2



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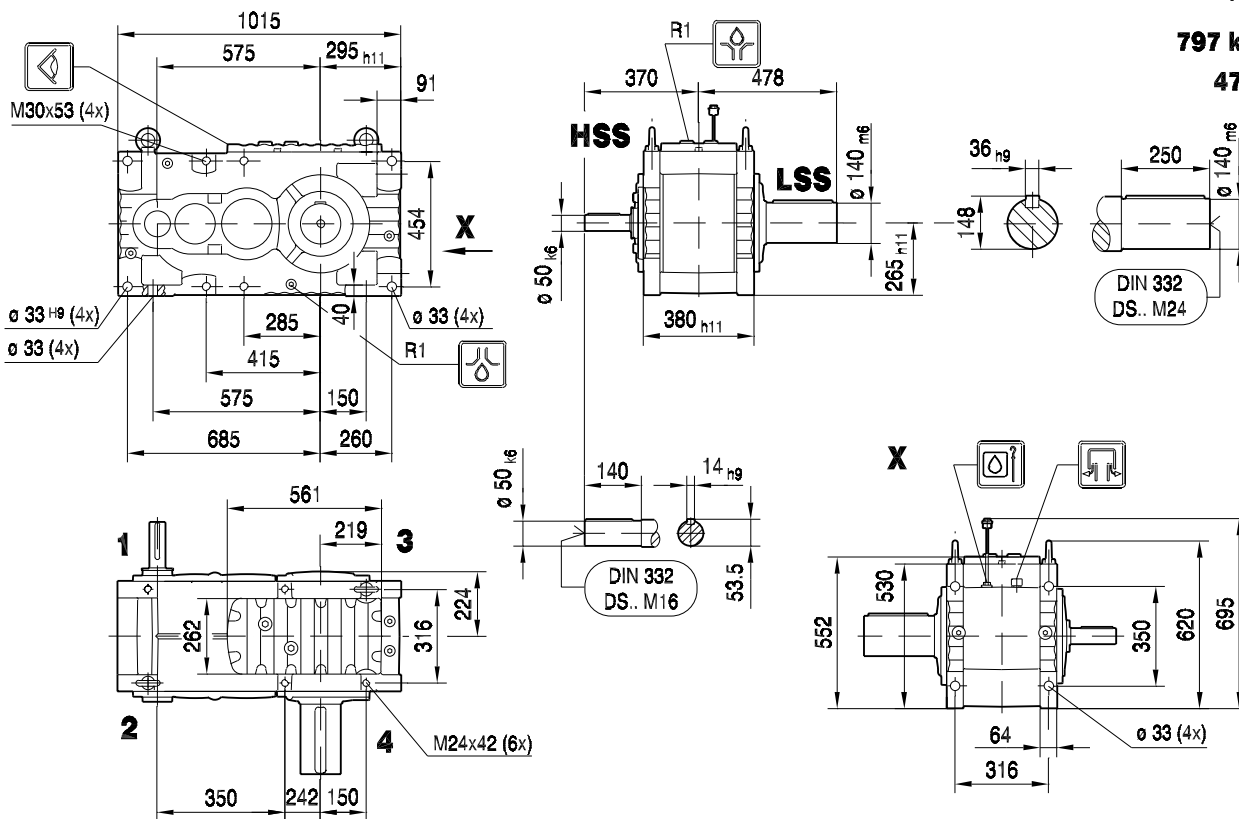


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF07

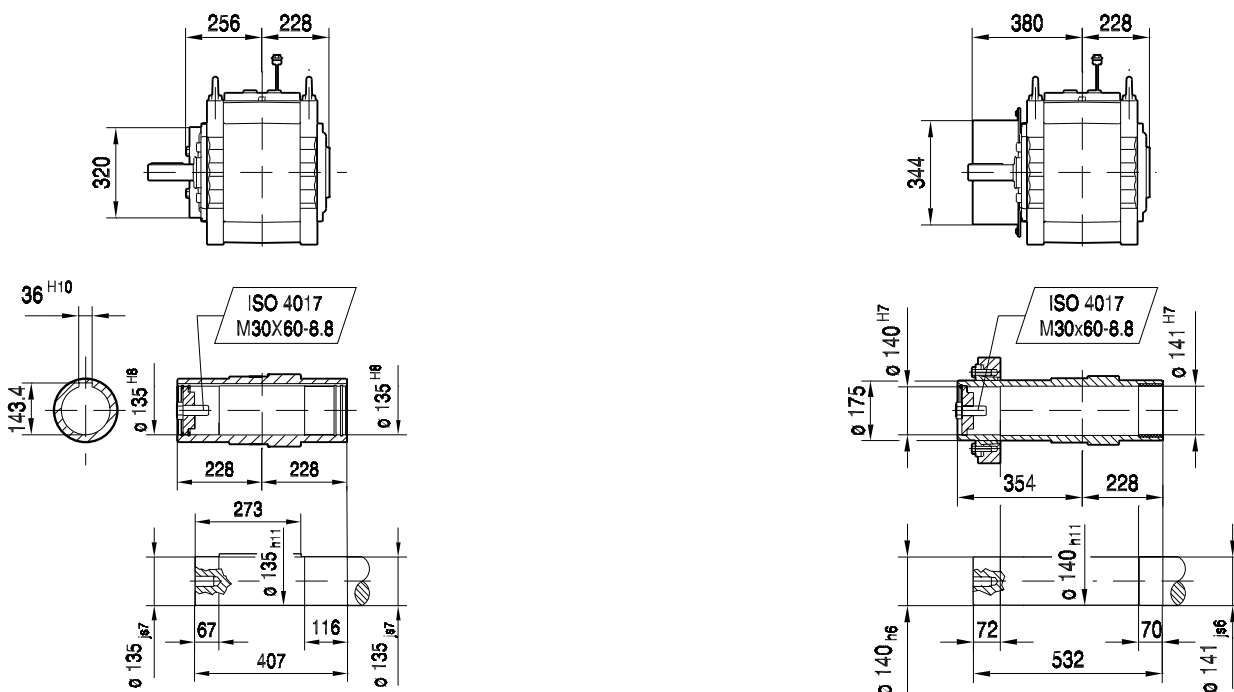
47 046 00 03
1(2)

797 kg
47 l

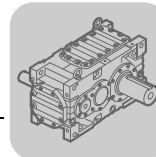


MC3PLHF07

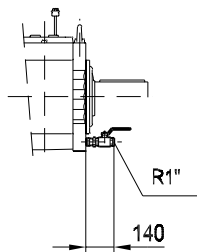
MC3PLHF07 /SD



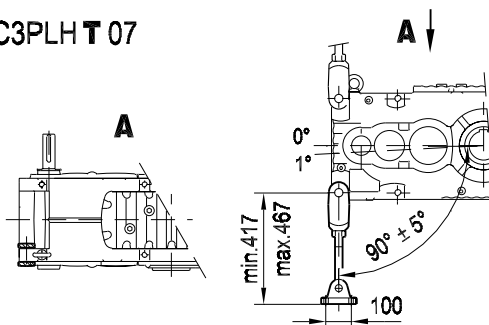
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..



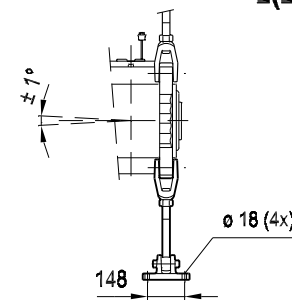
MC3PL..07
/ODV



MC3PLH T 07

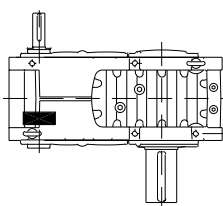


47 046 00 03
2(2)

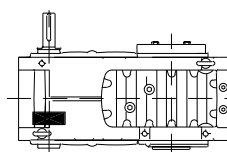


/BS

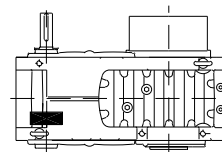
(.S.)



(..H..)

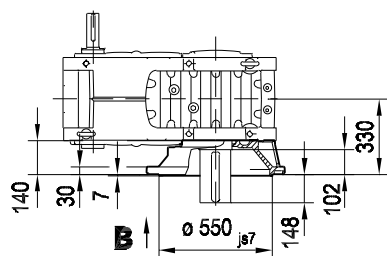


(..H.. / SD)

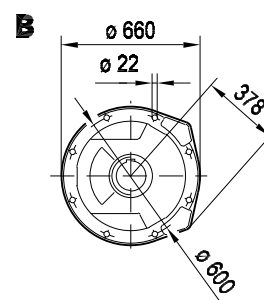
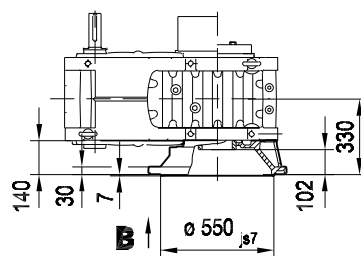


/MF

(.S.)

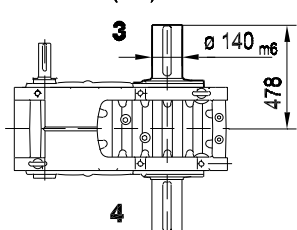


(..H.. / SD)
(..H..)

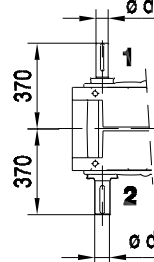


/LSST

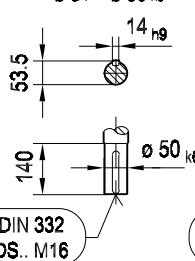
(.S.)



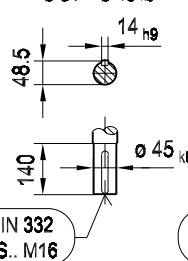
/HSST



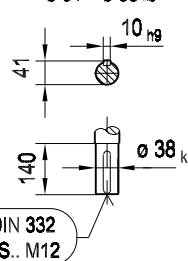
i = 22.5-40
Ø d1 = Ø 50 k6



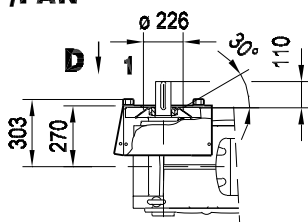
i = 45-63
Ø d1 = Ø 45 k6



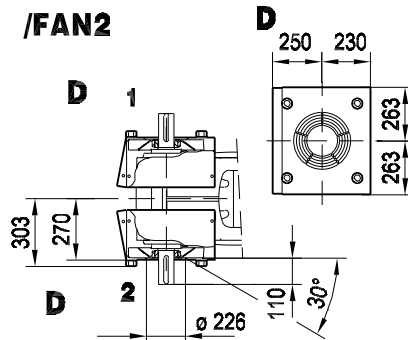
i = 71-112
Ø d1 = Ø 38 k6

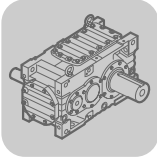


/FAN



/FAN2



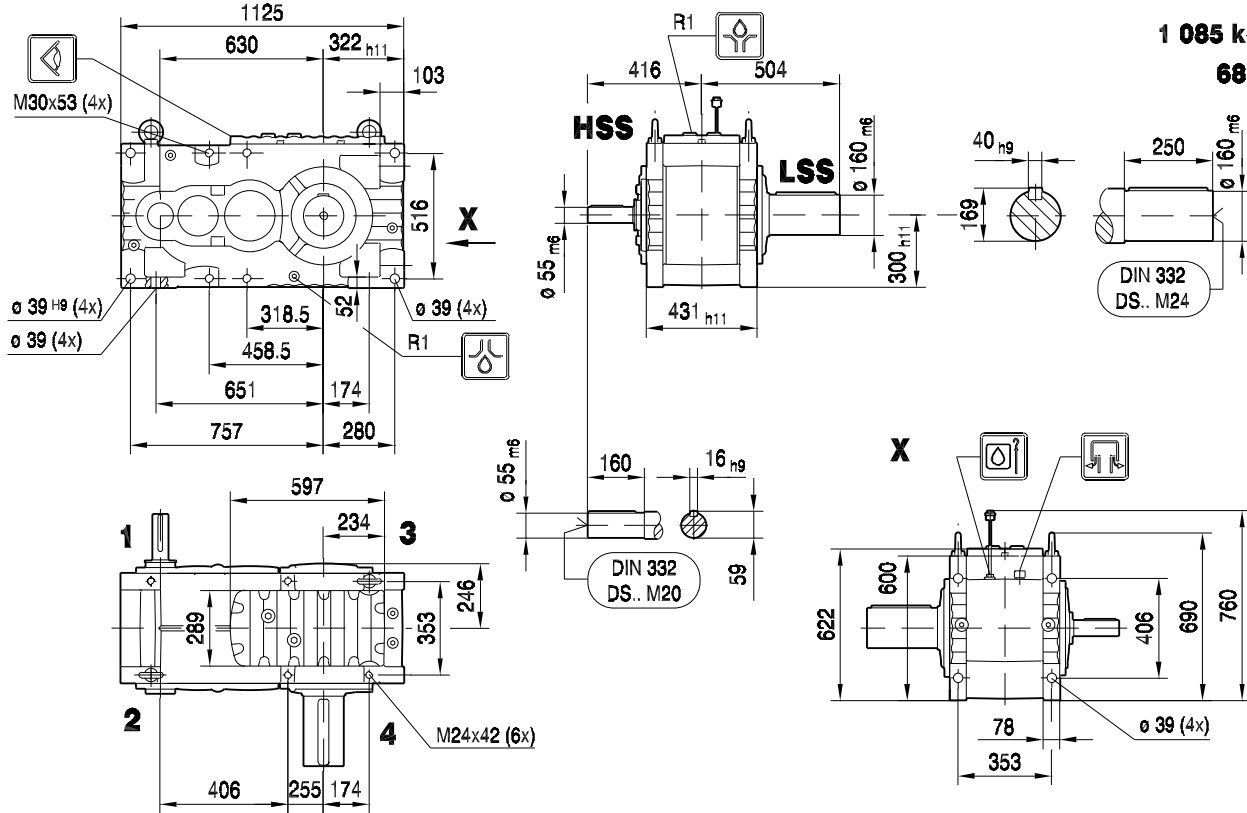


Helical Gear Units MC...P
 Selection tables (detailed) MC.PL..

MC3PLSF08

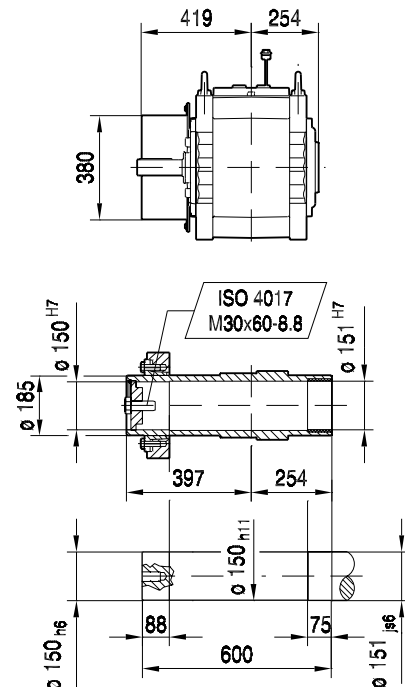
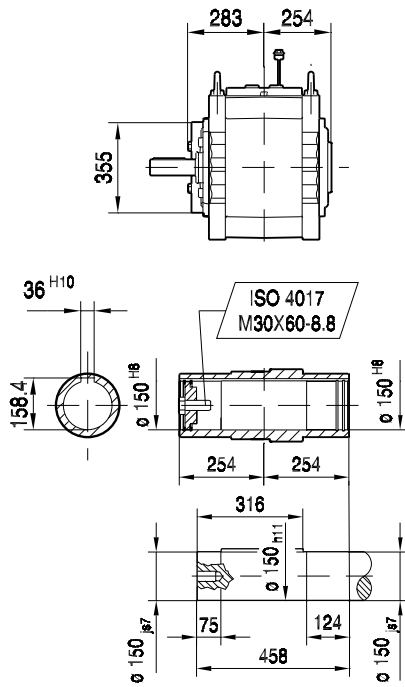
47 047 00 03
 1(2)

1 085 kg
 68 l



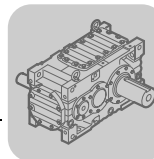
MC3PLHF08

MC3PLHF08 /SD



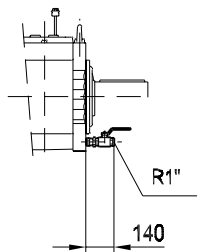
Helical Gear Units MC...P

Selection tables (detailed) MC.PL..

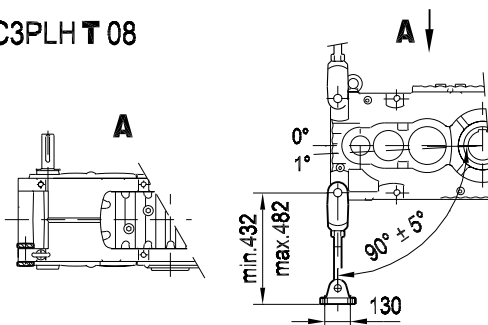


MC3PL..08

/ODV

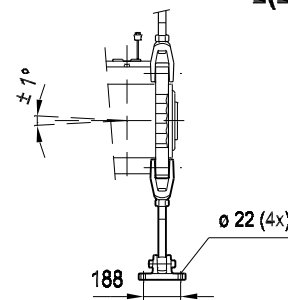


MC3PLH T 08



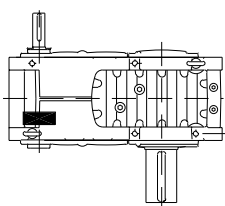
47 047 00 03

2(2)

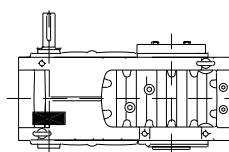


/BS

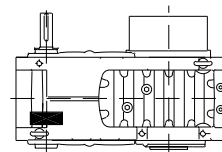
(.S.)



(.H.)

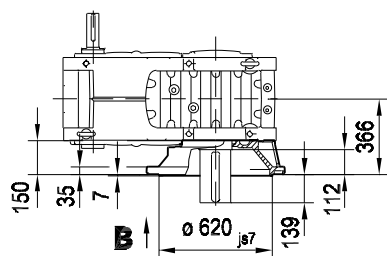


(.H. / SD)

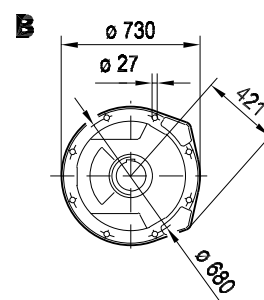
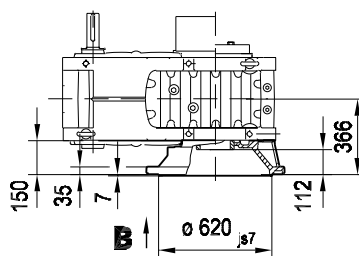


/MF

(.S.)

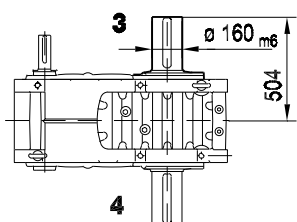


(.H. / SD)

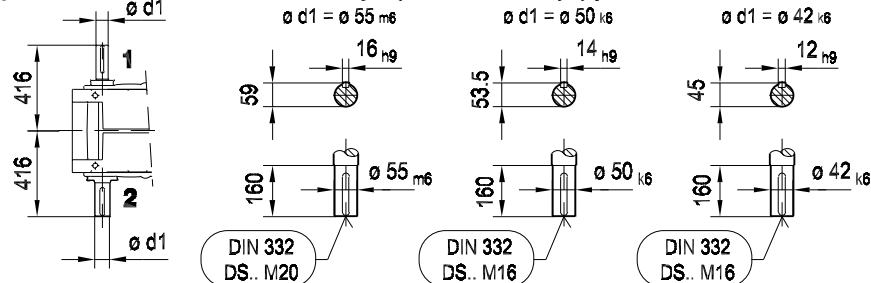


/LSST

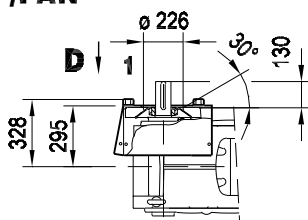
(.S.)



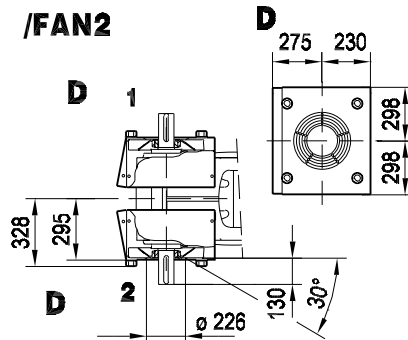
/HSST



/FAN

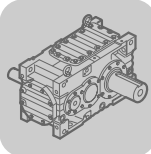


/FAN2



10

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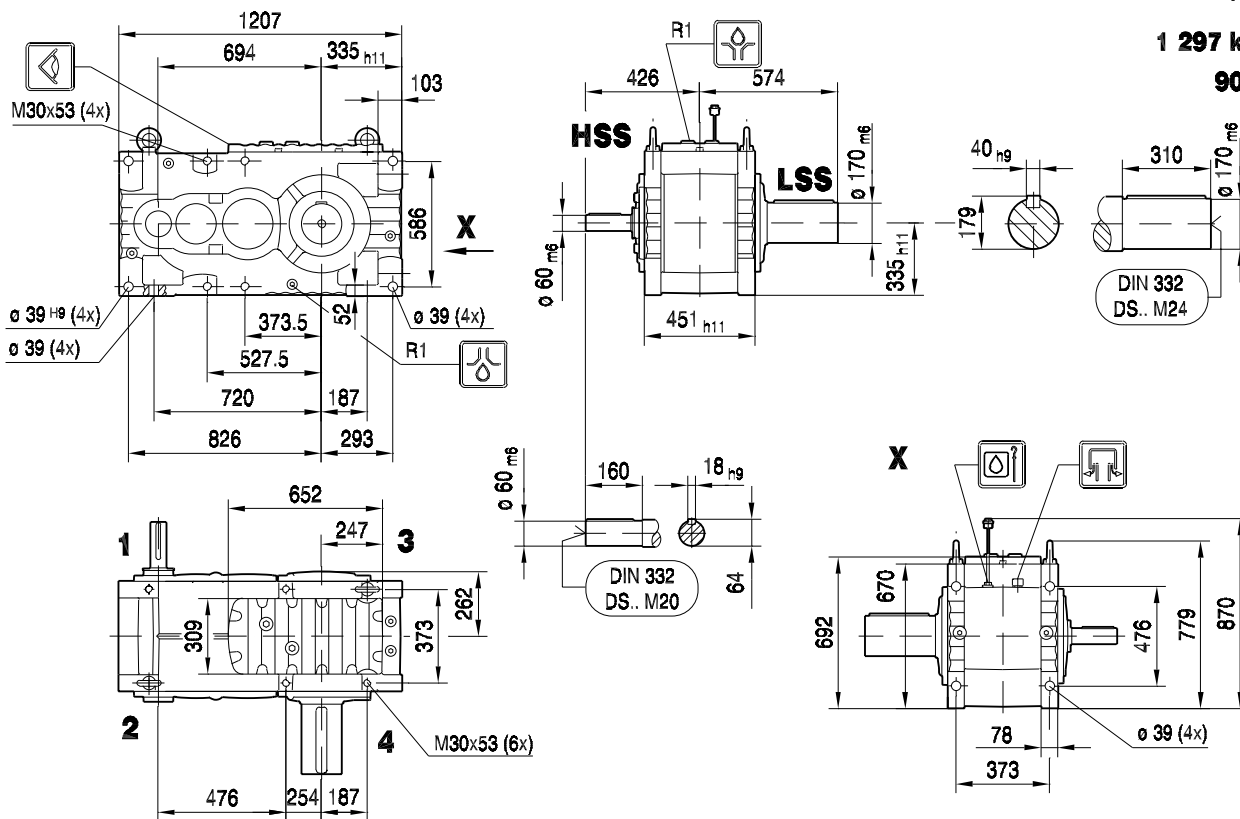


Helical Gear Units MC...P
Selection tables (detailed) MC.PL..

MC3PLSF09

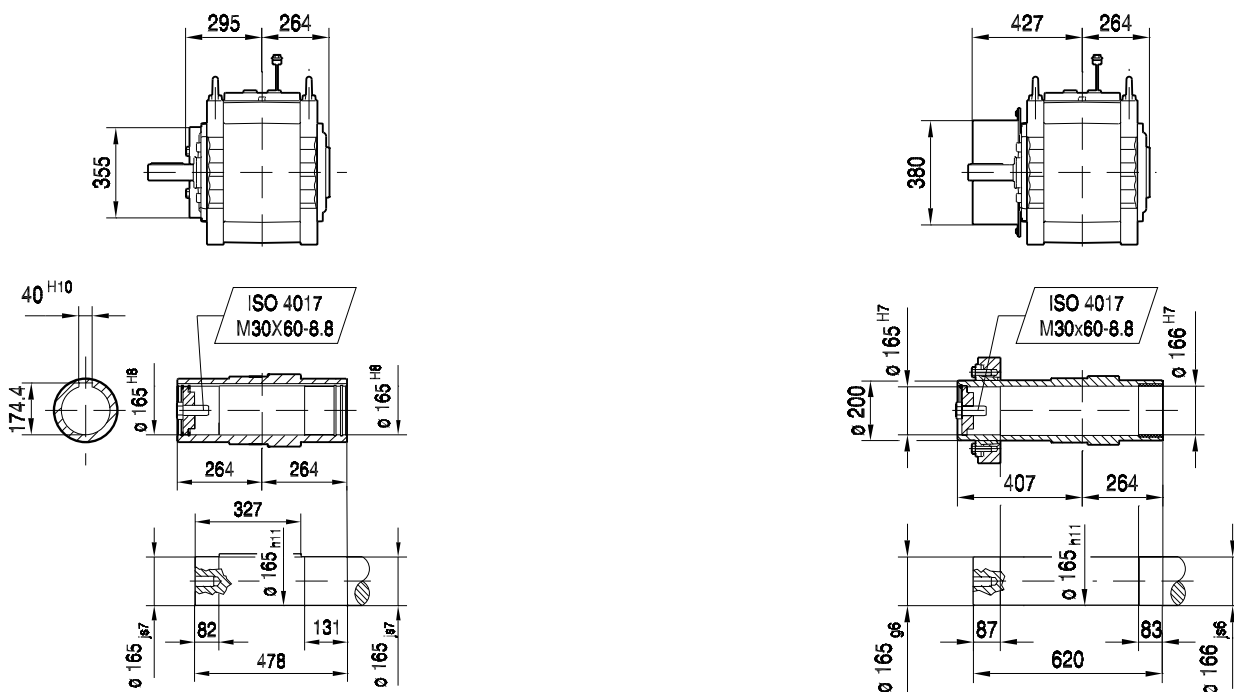
47 048 00 03
1(2)

1 297 kg
90 l

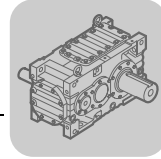


MC3PLHF09

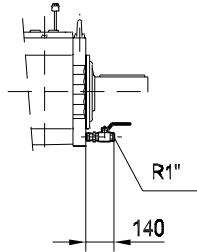
MC3PLHF09 /SD



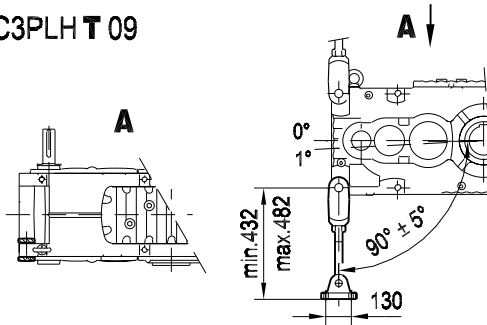
Helical Gear Units MC...P
Selection tables (detailed) MC.PL..



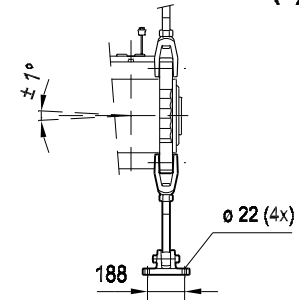
MC3PL..09
/ODV



MC3PLH T 09



47 048 00 03
2(2)

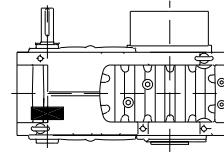
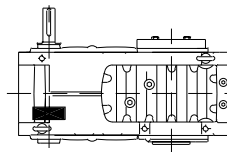
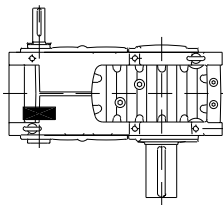


/BS

(.S.)

(.H.)

(.H. / SD)

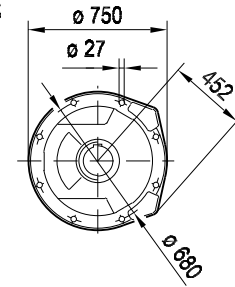
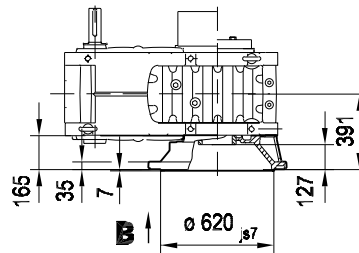
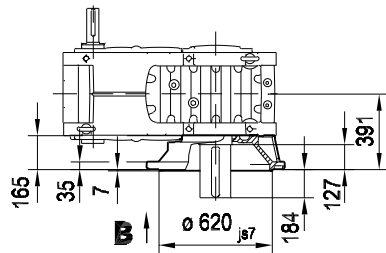


/MF

(.S.)

(.H. / SD)
(.H.)

B



/LSST

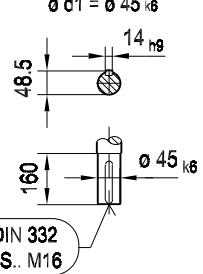
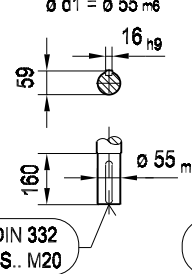
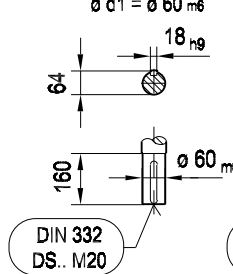
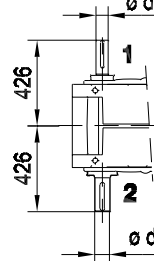
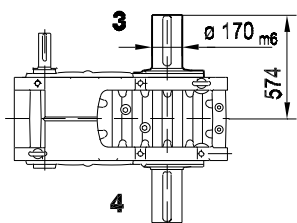
(.S.)

/HSST

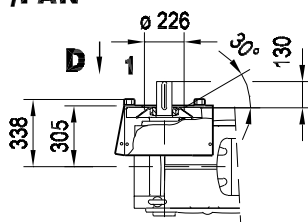
i = 22.5-40
 $\varnothing d1 = \varnothing 60_{m6}$

i = 45-63
 $\varnothing d1 = \varnothing 55_{m6}$

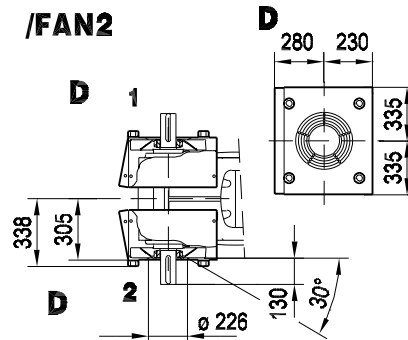
i = 71-112
 $\varnothing d1 = \varnothing 45_{k6}$



/FAN

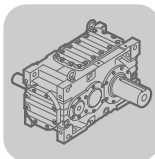


/FAN2



10

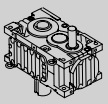
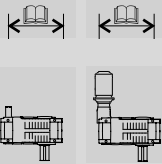
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Helical Gear Units MC...P Selection tables (detailed) MC.PV..

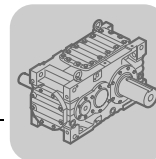
10.3 Selection tables (detailed) MC.PV..

10.3.1 MC.PV..., n₁ = 1800 1/min

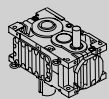
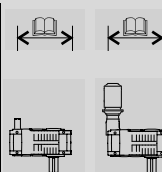
MC.PV..02, n ₁ = 1800 1/min							P _{TH}						8.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.07	255	6.9	189	*)	*)	MC2PVSF02 MC2PVHF02 MC2PVHT02	36	*)	100	60	-	-	200	280	
8.00	8.18	220	7.1	170	*)	2.15		38	*)	103	63	-	-			
9.00	9.18	196	7.4	156	*)	3.68		40	18	105	65	-	-			
10.00	9.83	183	7.5	148	*)	*)		41	19	106	66	-	-			
11.20	11.37	158	8.0	136	*)	1.78		43	21	108	68	-	-			
12.50	12.31	146	7.9	124	*)	*)		44	22	109	69	-	-			
14.00	14.24	126	8.0	109	*)	2.45		46	24	111	71	-	-			
16.00	15.98	113	7.5	91	3.45	5.3		36	14	93	53	-	-			
18.00	17.88	101	7.5	82	4.59	5.6		38	16	94	54	-	-			
20.00	20.24	89	7.0	67	7.8	6.7		39	17	96	56	-	-			
22.50	22.30	81	8.3	73	1.68	1.96	MC3PVSF02 MC3PVHF02 MC3PVHT02	37	20	87	56	-	-	216	281	
25.00	25.79	70	7.9	60	6.5	3.13		38	21	88	58	-	-			
28.00	28.95	62	7.4	50	9.0	3.37		39	22	89	59	-	-			
31.50	32.31	56	8.0	49	8.4	3.38		40	23	90	60	-	-			
35.50	36.27	50	7.5	41	10.4	3.42		41	24	91	61	-	-			
40.00	38.89	46	8.5	43	8.2	1.62		41	25	92	61	-	-			
45.00	44.97	40	8.1	35	10.6	2.66		42	26	93	62	-	-			
50.00	50.47	36	7.5	29	12.8	3.45		43	27	94	63	-	-			
56.00	56.34	32	8.1	28	12.4	3.61		44	27	95	64	-	-			
63.00	63.23	28	7.6	24	14.4	3.78		45	28	95	65	-	-			
71.00	71.20	25	8.1	22	14.4	2.12		37	20	81	50	-	-			
80.00	79.91	23	7.7	19	16.4	2.71		38	21	82	51	-	-			
90.00	90.45	20	7.1	15.3	18.9	2.72		39	22	82	52	-	-			
100.00	95.36	19	7.7	15.9	18.0	2.72		39	22	83	52	-	-			
112.00	107.94	17	7.1	13.0	20.5	2.73	40	23	83	53	-	-				


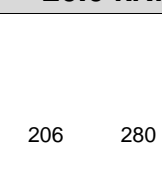
MC.PV..03, n ₁ = 1800 1/min							P _{TH}						11.5 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.29	247	8.8	235	5.5	1.73	MC2PVSF03 MC2PVHF03 MC2PVHT03	45	*)	126	76	-	-	202	280	
8.00	8.23	219	9.3	219	5.9	4.44		47	*)	129	79	-	-			
9.00	9.28	194	9.5	198	6.9	6.6		50	22	131	81	-	-			
10.00	9.95	181	9.8	191	5.8	0.90		51	24	133	83	-	-			
11.20	11.23	160	10.1	175	6.6	4.53		53	26	135	85	-	-			
12.50	12.70	142	10.1	154	7.1	2.48		55	28	137	87	-	-			
14.00	14.32	126	10.9	148	7.1	4.05		57	30	139	89	-	-			
16.00	16.16	111	10.8	129	8.9	7.1		45	18	116	66	-	-			
18.00	17.91	100	10.8	117	9.8	7.4		47	19	118	68	-	-			
20.00	20.40	88	9.9	95	13.1	8.1		49	21	120	70	-	-			
22.50	22.65	79	11.3	98	9.9	2.35	MC3PVSF03 MC3PVHF03 MC3PVHT03	46	25	108	70	-	-	218	281	
25.00	25.55	70	11.4	87	11.7	3.16		47	26	110	72	-	-			
28.00	28.83	62	10.6	72	14.9	4.30		49	28	111	73	-	-			
31.50	32.60	55	11.5	69	14.0	4.53		50	29	112	74	-	-			
35.50	36.78	49	10.7	57	17.4	5.3		51	30	114	76	-	-			
40.00	39.81	45	11.8	58	15.1	2.47		52	31	115	76	-	-			
45.00	44.91	40	11.6	51	17.6	3.37		53	32	116	78	-	-			
50.00	50.67	36	10.8	42	21.1	4.44		54	33	117	79	-	-			
56.00	57.29	31	11.7	40	20.4	4.65		55	34	118	80	-	-			
63.00	64.64	28	10.9	33	24.1	5.4		56	35	119	81	-	-			
71.00	71.62	25	11.8	32	23.3	3.30		46	25	101	63	-	-			
80.00	80.80	22	11.0	27	27.1	3.60		47	26	102	64	-	-			
90.00	92.02	20	10.1	22	30.7	3.61		48	27	103	65	-	-			
100.00	101.82	18	11.1	21	30.3	3.61		49	28	103	65	-	-			
112.00	115.96	16	10.2	17.3	30.7	3.62	50	29	104	66	-	-				

Helical Gear Units MC...P Selection tables (detailed) MC.PV..



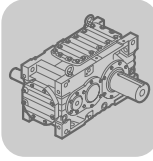
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MC.PV..04, n ₁ = 1800 1/min							P _{TH}						15.5 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.12	253	11.2	305	5.7	2.77	MC2PVSF04 MC2PVHF04 MC2PVHT04	56	*)	158	95	-	-	204	280	
8.00	8.01	225	11.7	282	6.9	5.0		59	*)	161	98	-	-			
9.00	8.96	201	12.1	262	8.1	6.8		62	27	164	101	-	-			
10.00	9.95	181	12.5	243	5.8	2.31		64	30	167	104	-	-			
11.20	11.19	161	13.0	226	7.1	4.59		67	32	170	107	-	-			
12.50	12.72	141	13.5	206	6.0	1.56		70	35	173	110	-	-			
14.00	14.31	126	14.1	191	7.3	3.92		72	37	175	112	-	-			
16.00	16.00	113	14.4	174	9.9	6.6		57	22	146	83	-	-			
18.00	17.12	105	14.7	166	10.1	6.3		58	24	147	84	-	-			
20.00	19.25	94	14.1	142	13.5	9.4		60	26	150	87	-	-			
22.50	23.20	78	13.8	117	14.6	1.70	MC3PVSF04 MC3PVHF04 MC3PVHT04	57	31	134	87	-	-	220	281	
25.00	26.10	69	15.6	117	13.6	1.70		59	33	136	89	-	-			
28.00	29.18	62	14.9	100	16.7	3.23		60	34	138	91	-	-			
31.50	33.39	54	15.9	93	16.1	3.84		62	36	139	92	-	-			
35.50	37.33	48	14.9	78	19.8	4.47		63	37	141	94	-	-			
40.00	40.28	45	14.3	70	20.8	*)		64	38	142	95	-	-			
45.00	45.30	40	16.0	69	20.0	*)		65	40	143	96	-	-			
50.00	50.64	36	14.9	58	24.1	1.55		67	41	144	97	-	-			
56.00	57.96	31	16.2	55	23.4	1.97		68	42	146	99	-	-			
63.00	64.79	28	15.0	45	27.7	3.25		69	43	147	100	-	-			
71.00	72.86	25	16.3	44	26.8	2.43		57	32	125	78	-	-			
80.00	81.44	22	15.0	36	31.5	3.62		58	33	126	79	-	-			
90.00	91.60	20	14.3	31	35.1	4.10		59	34	127	80	-	-			
100.00	97.56	18	14.8	30	34.9	3.70		60	34	127	80	-	-			
112.00	109.73	16	14.4	26	35.3	4.11	61	35	129	81	-	-				

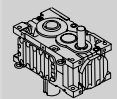






MC.PV..05, n ₁ = 1800 1/min							P _{TH}						20.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.10	253	15.6	425	1.81	*)	MC2PVSF05 MC2PVHF05 MC2PVHT05	64	*)	180	109	-	-	206	280	
8.00	8.00	225	16.2	394	2.77	3.52		67	*)	184	112	-	-			
9.00	8.87	203	16.8	366	4.23	6.4		70	*)	187	115	-	-			
10.00	9.78	184	17.3	343	1.58	*)		73	*)	190	118	-	-			
11.20	11.01	163	18.0	317	2.66	2.35		76	36	193	121	-	-			
12.50	12.52	144	18.6	287	1.93	*)		79	40	196	125	-	-			
14.00	14.10	128	19.5	268	2.54	1.17		82	42	199	128	-	-			
16.00	15.64	115	19.9	246	4.90	5.8		64	25	166	94	-	-			
18.00	17.24	104	20.0	225	6.4	5.9		67	27	168	96	-	-			
20.00	19.40	93	18.6	186	10.3	11.3		69	30	171	99	-	-			
22.50	22.58	80	15.4	134	14.5	1.54	MC3PVSF05 MC3PVHF05 MC3PVHT05	66	36	155	101	-	-	222	282	
25.00	25.41	71	17.3	134	13.7	1.54		68	38	157	103	-	-			
28.00	28.19	64	19.2	134	13.1	1.54		69	39	159	104	-	-			
31.50	32.53	55	19.9	120	13.1	2.68		71	41	161	107	-	-			
35.50	36.08	50	19.9	108	15.2	3.65		73	43	163	108	-	-			
40.00	40.62	44	18.4	89	19.1	5.2		74	44	164	110	-	-			
45.00	43.55	41	18.1	81	19.3	2.85		75	45	165	111	-	-			
50.00	48.31	37	20.0	81	18.8	2.88		77	47	167	112	-	-			
56.00	55.74	32	20.5	72	19.3	4.01		78	48	169	114	-	-			
63.00	61.84	29	20.2	64	22.0	5.0		80	50	170	115	-	-			
71.00	71.06	25	20.8	57	22.5	1.49		66	36	144	90	-	-			
80.00	78.83	23	20.4	51	25.5	2.43		67	37	145	91	-	-			
90.00	88.73	20	18.9	42	29.7	3.68		69	39	147	92	-	-			
100.00	96.36	19	18.9	38	30.6	3.36		69	39	148	93	-	-			
112.00	108.46	17	19.1	34	32.9	3.97	70	41	149	94	-	-				








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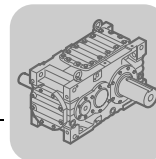


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

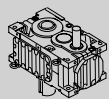


MC.PV..06, n ₁ = 1800 1/min								P _{TH}						25.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	264	18.0	511	4.79	*)	MC2PVSF06 MC2PVHF06 MC2PVHT06	76	*)	217	130	-	-	208	280		
8.00	7.89	228	20.5	504	1.10	*)		81	*)	223	136	-	-				
9.00	8.85	203	21.3	466	2.66	5.5		85	*)	227	140	-	-				
10.00	9.82	183	19.9	393	6.0	*)		88	41	230	143	-	-				
11.20	11.37	158	23.1	393	0.71	*)		93	45	235	148	-	-				
12.50	12.04	150	20.9	336	7.4	*)		95	47	237	150	-	-				
14.00	13.93	129	24.2	336	2.00	*)		99	51	241	154	-	-				
16.00	15.63	115	25.3	313	3.17	4.36		78	*)	201	114	-	-				
18.00	17.59	102	26.3	289	2.95	3.33		81	33	205	118	-	-				
20.00	19.91	90	24.2	236	13.8	11.8		84	37	208	121	-	-				
22.50	22.80	79	18.6	159	21.8	*)	MC3PVSF06 MC3PVHF06 MC3PVHT06	78	43	184	120	-	-	224	282		
25.00	26.39	68	21.5	159	20.7	*)		81	45	187	123	-	-				
28.00	29.61	61	24.1	159	19.4	*)		83	48	190	125	-	-				
31.50	32.33	56	23.9	145	20.5	*)		85	49	191	126	-	-				
35.50	36.28	50	26.1	141	20.0	*)		87	51	193	129	-	-				
40.00	41.07	44	23.9	114	26.1	0.167		89	53	195	131	-	-				
45.00	45.96	39	22.3	95	29.1	2.06		90	55	197	132	-	-				
50.00	51.58	35	25.1	95	28.0	2.06		92	56	199	134	-	-				
56.00	56.31	32	24.8	86	29.3	3.22		93	58	200	136	-	-				
63.00	63.20	28	26.5	82	29.9	3.77		95	59	202	137	-	-				
71.00	71.10	25	25.1	69	33.7	0.59	79	43	171	107	-	-					
80.00	79.80	23	26.7	66	34.6	1.11	80	44	173	108	-	-					
90.00	90.32	20	24.9	54	40.8	2.78	82	46	174	110	-	-					
100.00	96.73	19	26.0	53	40.0	2.17	82	47	175	111	-	-					
112.00	109.49	16	25.1	45	45.1	3.37	84	48	177	112	-	-					




MC.PV..07, n ₁ = 1800 1/min								P _{TH}						35.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	262	23.1	653	4.33	*)	MC2PVSF07 MC2PVHF07 MC2PVHT07	94	*)	267	160	-	-	210	280		
8.00	7.73	233	25.0	625	3.26	1.64		99	*)	273	166	-	-				
9.00	8.68	207	25.9	576	5.0	5.2		104	*)	278	171	-	-				
10.00	9.65	187	25.4	509	5.8	*)		108	*)	283	176	-	-				
11.20	10.86	166	27.9	497	2.74	0.63		113	54	287	180	-	-				
12.50	12.19	148	26.7	424	7.8	*)		117	58	292	185	-	-				
14.00	13.73	131	30.1	424	2.31	*)		121	62	296	189	-	-				
16.00	15.42	117	30.8	387	5.6	3.80		96	*)	247	140	-	-				
18.00	17.66	102	32.1	352	5.8	3.31		100	41	252	145	-	-				
20.00	20.25	89	33.3	318	9.7	7.6		104	45	256	149	-	-				
22.50	22.38	80	24.8	217	23.1	*)	MC3PVSF07 MC3PVHF07 MC3PVHT07	96	52	227	147	-	-	226	283		
25.00	25.20	71	27.9	217	21.8	*)		99	55	229	150	-	-				
28.00	28.31	64	31.4	217	20.0	*)		101	57	232	153	-	-				
31.50	31.86	57	31.7	195	21.0	1.59		104	60	235	155	-	-				
35.50	35.78	50	35.7	195	18.8	1.59		106	62	237	158	-	-				
40.00	41.02	44	33.2	158	26.0	4.61		109	65	240	161	-	-				
45.00	43.89	41	29.1	130	31.0	3.42		110	66	242	162	-	-				
50.00	49.30	37	32.7	130	29.4	3.42		112	69	244	164	-	-				
56.00	55.47	32	32.8	116	31.0	5.2		114	71	246	166	-	-				
63.00	62.31	29	36.6	115	29.6	5.3		116	73	248	169	-	-				
71.00	68.66	26	33.2	95	35.6	0.435	96	52	210	130	-	-					
80.00	77.12	23	36.9	94	34.3	0.57	98	54	212	132	-	-					
90.00	88.41	20	34.1	76	42.7	3.10	100	56	214	135	-	-					
100.00	99.48	18	32.0	63	47.5	3.44	102	58	216	136	-	-					
112.00	114.04	16	34.4	59	49.1	4.02	104	60	218	138	-	-					

Helical Gear Units MC...P Selection tables (detailed) MC.PV..



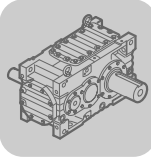
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MC.PV..08, n ₁ = 1800 1/min							P _{TH}						46.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.01	257	29.8	823	8.4	*)	MC2PVSF08 MC2PVHF08 MC2PVHT08	118	*)	333	200	-	-	212	280
8.00	7.89	228	33.6	823	3.85	*)		124	*)	340	207	-	-		
9.00	8.96	201	35.2	760	5.3	3.78		130	*)	347	214	-	-		
10.00	9.80	184	32.7	646	9.9	*)		135	*)	352	219	-	-		
11.20	11.03	163	36.9	646	4.94	*)		140	67	358	225	-	-		
12.50	12.49	144	34.7	538	11.9	*)		146	73	364	231	-	-		
14.00	14.06	128	39.1	538	6.7	*)		151	78	369	236	-	-		
16.00	15.97	113	41.8	506	6.6	3.25		120	*)	308	175	-	-		
18.00	17.76	101	43.2	470	6.7	2.09		124	51	313	180	-	-		
20.00	19.90	90	43.6	423	12.3	7.4		129	56	317	185	-	-		
22.50	21.70	83	35.5	320	21.3	*)	MC3PVSF08 MC3PVHF08 MC3PVHT08	118	64	279	181	-	-	228	283
25.00	24.43	74	39.9	320	19.6	*)		121	67	283	184	-	-		
28.00	27.74	65	45.4	320	17.3	*)		125	71	286	188	-	-		
31.50	31.14	58	44.1	277	19.8	1.20		128	74	290	191	-	-		
35.50	35.36	51	46.5	257	21.0	2.79		131	77	293	195	-	-		
40.00	39.60	45	43.3	214	27.9	6.3		134	80	296	198	-	-		
45.00	43.63	41	43.5	195	27.7	*)		136	82	299	200	-	-		
50.00	49.55	36	46.9	185	28.1	0.359		139	85	302	203	-	-		
56.00	55.61	32	47.9	168	28.6	2.46		141	87	304	206	-	-		
63.00	63.15	29	47.3	147	33.6	5.2		144	90	307	209	-	-		
71.00	69.09	26	48.3	137	33.6	*)		119	65	260	161	-	-		
80.00	78.46	23	47.7	119	38.9	1.69		121	67	262	164	-	-		
90.00	87.87	20	44.5	99	46.5	4.41		124	69	265	166	-	-		
100.00	97.27	19	45.7	92	47.0	3.65		125	71	267	168	-	-		
112.00	108.95	17	45.0	81	52	5.3	127	73	269	170	-	-			

MC.PV..09, n ₁ = 1800 1/min							65.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.91	260	37.9	1059	14.8	*)	MC2PVSF09 MC2PVHF09 MC2PVHT09	135	*)	386	231	-	-	214	280
8.00	7.99	225	43.8	1059	12.6	*)		144	*)	395	241	-	-		
9.00	8.97	201	48.0	1036	10.9	*)		151	*)	402	248	-	-		
10.00	9.53	189	41.5	841	16.6	*)		155	*)	406	252	-	-		
11.20	11.03	163	48.0	841	14.1	*)		163	*)	415	260	-	-		
12.50	11.77	153	43.5	715	18.3	*)		166	82	418	264	-	-		
14.00	13.61	132	50.3	715	15.8	*)		174	89	426	272	-	-		
16.00	15.27	118	56.5	715	12.6	*)		137	*)	355	201	-	-		
18.00	17.01	106	57.6	655	14.3	*)		142	*)	360	206	-	-		
20.00	19.26	93	59.5	597	16.3	*)		148	63	366	212	-	-		
22.50	21.63	83	44.9	406	29.5	*)	MC3PVSF09 MC3PVHF09 MC3PVHT09	139	75	331	214	-	-	230	283
25.00	25.02	72	51.9	406	27.3	*)		145	80	337	220	-	-		
28.00	28.08	64	58.3	406	25.0	*)		148	84	341	224	-	-		
31.50	30.88	58	56.3	357	28.1	0.442		151	87	344	227	-	-		
35.50	34.65	52	63.2	357	25.6	0.443		155	91	347	231	-	-		
40.00	39.22	46	58.8	293	34.3	5.2		159	94	351	235	-	-		
45.00	44.10	41	61.6	273	32.3	*)		162	98	355	238	-	-		
50.00	49.49	36	63.6	252	34.9	*)		165	101	358	241	-	-		
56.00	54.43	33	64.2	231	35.8	2.29		167	103	361	244	-	-		
63.00	61.08	29	64.0	205	40.8	5.3		170	106	364	247	-	-		
71.00	68.03	26	64.4	185	42.5	*)		141	77	308	191	-	-		
80.00	76.35	24	64.6	165	47.4	*)		144	79	311	194	-	-		
90.00	86.42	21	60.4	137	57	3.60		146	82	314	197	-	-		
100.00	93.94	19	64.2	134	55	1.70		148	84	316	199	-	-		
112.00	106.33	17	60.3	111	64	4.94	151	86	318	202	-	-			

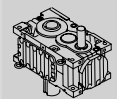






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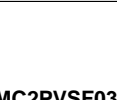






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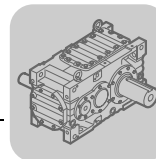
Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

10.3.2 MC.PV..., n₁ = 1500 1/min

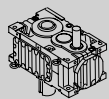




MC.PV..02, n₁ = 1500 1/min							P_{TH}						8.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}									
								P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C		40 °C		
7.10	7.07	212	7.2	166	*)	*)	MC2PVSF02 MC2PVHF02 MC2PVHT02	38	*)	93	55	-	-	200	280
8.00	8.18	183	7.6	150	*)	2.20		41	19	95	58	-	-		
9.00	9.18	163	7.4	131	*)	4.61		42	20	97	60	-	-		
10.00	9.83	153	7.9	130	*)	*)		43	21	98	61	-	-		
11.20	11.37	132	8.0	114	*)	2.87		45	23	100	63	-	-		
12.50	12.31	122	8.3	109	*)	*)		46	24	101	64	-	-		
14.00	14.24	105	8.0	91	1.21	3.70		48	26	103	66	-	-		
16.00	15.98	94	7.6	77	5.3	6.2		38	16	86	48	-	-		
18.00	17.88	84	7.6	69	6.5	6.4		40	18	87	50	-	-		
20.00	20.24	74	7.0	56	8.8	7.2		41	19	88	51	-	-		
22.50	22.30	67	8.4	62	3.71	2.41	38	22	80	52	-	-	216	281	
25.00	25.79	58	8.0	51	8.1	3.30	40	23	82	53	-	-			
28.00	28.95	52	7.4	42	10.3	3.37	41	24	83	54	-	-			
31.50	32.31	46	8.0	41	9.6	3.37	41	25	83	55	-	-			
35.50	36.27	41	7.5	34	11.6	3.42	42	25	84	56	-	-			
40.00	38.89	39	8.5	36	9.6	2.01	43	26	85	57	-	-			
45.00	44.97	33	8.1	29	12.0	3.07	44	27	86	58	-	-			
50.00	50.47	30	7.6	25	14.2	3.74	45	28	87	58	-	-			
56.00	56.34	27	8.1	23	13.9	3.75	45	28	87	59	-	-			
63.00	63.23	24	7.7	20	15.9	3.78	46	29	88	60	-	-			
71.00	71.20	21	8.1	19	16.0	2.11	38	21	75	46	-	-			
80.00	79.91	19	7.7	15.8	18.0	2.71	39	22	75	47	-	-			
90.00	90.45	17	7.1	12.9	20.6	2.72	40	23	76	48	-	-			
100.00	95.36	16	7.8	13.4	19.7	2.72	40	23	76	48	-	-			
112.00	107.94	14	7.2	10.9	22.3	2.73	40	24	77	49	-	-			


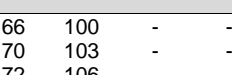
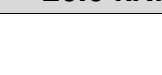


MC.PV..03, n₁ = 1500 1/min							P_{TH}						11.5 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}									
								P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C		40 °C		
7.10	7.29	206	9.3	207	5.7	1.76	MC2PVSF03 MC2PVHF03 MC2PVHT03	49	21	116	70	-	-	202	280
8.00	8.23	182	9.8	192	6.3	4.79		51	23	119	72	-	-		
9.00	9.28	162	10.0	175	7.2	6.9		53	26	121	75	-	-		
10.00	9.95	151	10.3	168	6.1	0.95		54	27	122	76	-	-		
11.20	11.23	134	10.7	154	7.0	4.77		56	29	124	78	-	-		
12.50	12.70	118	10.1	129	8.6	4.58		58	31	126	80	-	-		
14.00	14.32	105	11.5	130	7.5	4.32		60	33	128	82	-	-		
16.00	16.16	93	10.8	108	10.5	8.1		48	21	107	61	-	-		
18.00	17.91	84	10.9	98	11.4	8.0		50	22	109	62	-	-		
20.00	20.40	74	10.0	79	14.8	8.7		51	24	110	64	-	-		
22.50	22.65	66	11.3	82	11.8	2.90	48	27	100	65	-	-	218	281	
25.00	25.55	59	11.4	73	13.5	3.67	49	28	101	66	-	-			
28.00	28.83	52	10.7	61	16.8	4.81	50	30	103	67	-	-			
31.50	32.60	46	11.6	58	16.0	5.0	52	31	104	69	-	-			
35.50	36.78	41	10.8	48	19.4	5.3	53	32	105	70	-	-			
40.00	39.81	38	11.8	48	17.3	3.01	53	32	106	71	-	-			
45.00	44.91	33	11.7	42	19.7	3.86	54	34	107	72	-	-			
50.00	50.67	30	10.9	35	23.3	4.94	55	35	108	73	-	-			
56.00	57.29	26	11.7	33	22.9	5.2	56	35	109	74	-	-			
63.00	64.64	23	11.0	28	26.5	5.3	57	36	110	75	-	-			
71.00	71.62	21	11.8	27	26.0	3.58	48	27	93	58	-	-			
80.00	80.80	19	11.1	22	29.6	3.60	48	28	94	59	-	-			
90.00	92.02	16	10.2	18.1	30.7	3.61	49	28	95	60	-	-			
100.00	101.82	15	11.2	18.0	30.7	3.61	50	29	96	60	-	-			
112.00	115.96	13	10.3	14.6	30.7	3.62	51	30	96	61	-	-			

Helical Gear Units MC...P Selection tables (detailed) MC.PV..

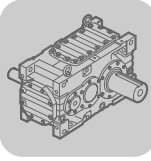


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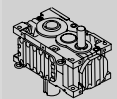


MC.PV..04, n ₁ = 1500 1/min							P _{TH}						15.5 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	211	11.8	268	6.0	2.95	MC2PVSF04 MC2PVHF04 MC2PVHT04	61	*)	146	87	-	-	204	280
8.00	8.01	187	12.3	248	7.3	5.3		63	29	149	90	-	-		
9.00	8.96	167	12.8	231	8.6	7.2		66	31	151	93	-	-		
10.00	9.95	151	13.2	215	6.0	2.39		68	34	154	96	-	-		
11.20	11.19	134	13.8	199	7.4	4.82		71	36	156	98	-	-		
12.50	12.72	118	14.2	181	6.4	1.68		73	39	159	101	-	-		
14.00	14.31	105	14.9	168	7.7	4.14		76	41	162	103	-	-		
16.00	16.00	94	14.9	150	11.8	7.5		60	26	135	76	-	-		
18.00	17.12	88	14.9	140	12.5	7.8		62	27	136	78	-	-		
20.00	19.25	78	14.2	119	15.4	10.6		64	29	138	80	-	-		
22.50	23.20	65	13.8	97	16.9	2.43	MC3PVSF04 MC3PVHF04 MC3PVHT04	60	34	124	80	-	-	220	281
25.00	26.10	57	15.5	97	15.9	2.43		61	35	126	82	-	-		
28.00	29.18	51	14.9	83	19.0	3.91		62	37	127	84	-	-		
31.50	33.39	45	16.0	78	18.4	4.39		64	38	129	85	-	-		
35.50	37.33	40	15.0	65	22.2	4.47		65	39	130	87	-	-		
40.00	40.28	37	14.3	58	23.3	0.477		66	40	131	87	-	-		
45.00	45.30	33	16.1	58	22.6	0.476		67	42	132	89	-	-		
50.00	50.64	30	14.9	48	26.8	2.08		69	43	134	90	-	-		
56.00	57.96	26	16.3	46	26.1	2.46		70	44	135	91	-	-		
63.00	64.79	23	15.0	38	30.7	3.77		71	45	136	92	-	-		
71.00	72.86	21	16.4	37	29.7	2.89		59	33	115	72	-	-		
80.00	81.44	18	15.0	30	34.6	4.08		60	34	116	73	-	-		
90.00	91.60	16	14.4	26	35.3	4.10		61	35	117	74	-	-		
100.00	97.56	15	14.8	25	35.3	4.10		61	36	118	74	-	-		
112.00	109.73	14	14.5	22	35.3	4.11	62	36	119	75	-	-			




MC.PV..05, n ₁ = 1500 1/min							P _{TH}						20.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	211	16.5	375	1.88	*)	MC2PVSF05 MC2PVHF05 MC2PVHT05	69	*)	166	100	-	-	206	280
8.00	8.00	188	17.2	347	2.86	3.63		72	*)	170	103	-	-		
9.00	8.87	169	17.7	322	4.45	6.7		75	36	172	106	-	-		
10.00	9.78	153	18.3	302	1.61	*)		77	38	175	108	-	-		
11.20	11.01	136	19.1	279	2.77	2.42		80	41	178	111	-	-		
12.50	12.52	120	18.7	242	4.55	*)		83	44	181	115	-	-		
14.00	14.10	106	20.6	236	2.84	1.45		86	46	184	117	-	-		
16.00	15.64	96	19.9	206	7.7	8.0		68	29	153	86	-	-		
18.00	17.24	87	20.1	188	8.6	8.1		70	31	155	89	-	-		
20.00	19.40	77	18.8	156	12.0	12.2		73	33	158	91	-	-		
22.50	22.58	66	15.5	112	16.5	2.20	MC3PVSF05 MC3PVHF05 MC3PVHT05	69	39	143	93	-	-	222	282
25.00	25.41	59	17.4	112	15.7	2.20		70	40	145	95	-	-		
28.00	28.19	53	19.3	112	15.1	2.20		72	42	147	96	-	-		
31.50	32.53	46	19.9	100	15.3	3.37		74	44	149	98	-	-		
35.50	36.08	42	20.0	90	17.4	4.32		75	45	150	100	-	-		
40.00	40.62	37	18.5	75	21.3	5.9		77	47	152	101	-	-		
45.00	43.55	34	18.1	68	21.7	3.59		78	48	153	102	-	-		
50.00	48.31	31	20.0	68	21.3	3.59		79	49	154	104	-	-		
56.00	55.74	27	20.5	60	22.0	4.74		80	51	156	105	-	-		
63.00	61.84	24	20.3	54	24.6	5.7		82	52	157	106	-	-		
71.00	71.06	21	20.7	48	25.4	2.04		68	38	133	83	-	-		
80.00	78.83	19	20.5	42	28.2	2.92		69	39	134	84	-	-		
90.00	88.73	17	19.0	35	32.6	4.18		70	40	136	85	-	-		
100.00	96.36	16	18.9	32	33.7	3.87		71	41	136	86	-	-		
112.00	108.46	14	19.2	29	36.0	4.46	72	42	138	87	-	-			

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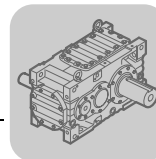


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

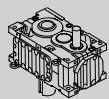


MC.PV..06, n ₁ = 1500 1/min							P _{TH}						25.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	220	19.0	449	5.1	*)	MC2PVSF06 MC2PVHF06 MC2PVHT06	82	*)	200	119	-	-	208	280
8.00	7.89	190	21.7	443	1.21	*)		87	*)	205	125	-	-		
9.00	8.85	169	22.5	410	2.77	5.8		91	43	209	128	-	-		
10.00	9.82	153	21.1	346	6.2	*)		94	46	212	132	-	-		
11.20	11.37	132	24.4	346	0.66	*)		98	50	217	136	-	-		
12.50	12.04	125	22.1	296	7.7	*)		100	52	219	138	-	-		
14.00	13.93	108	25.6	296	1.95	*)		104	56	223	142	-	-		
16.00	15.63	96	26.3	271	4.85	5.7		83	35	186	105	-	-		
18.00	17.59	85	26.3	241	8.4	7.2		86	38	189	108	-	-		
20.00	19.91	75	24.3	197	16.5	13.0		89	41	192	111	-	-		
22.50	22.80	66	18.5	133	24.7	*)	MC3PVSF06 MC3PVHF06 MC3PVHT06	82	46	170	110	-	-	224	282
25.00	26.39	57	21.4	133	23.8	*)		84	49	173	113	-	-		
28.00	29.61	51	24.1	133	22.6	*)		86	51	175	115	-	-		
31.50	32.33	46	23.9	121	23.6	*)		88	52	177	117	-	-		
35.50	36.28	41	26.2	118	23.1	*)		89	54	178	119	-	-		
40.00	41.07	37	24.2	96	29.1	0.50		91	56	180	120	-	-		
45.00	45.96	33	22.3	79	32.6	2.87		93	57	182	122	-	-		
50.00	51.58	29	25.1	79	31.6	2.87		94	59	184	124	-	-		
56.00	56.31	27	24.8	72	33.0	4.04		96	60	185	125	-	-		
63.00	63.20	24	26.7	69	33.5	4.52		97	62	187	127	-	-		
71.00	71.10	21	25.1	58	37.7	1.20	81	45	158	98	-	-			
80.00	79.80	19	26.9	55	38.5	1.64	82	47	160	100	-	-			
90.00	90.32	17	25.0	45	44.9	3.33	84	48	161	101	-	-			
100.00	96.73	16	26.0	44	44.5	2.75	84	49	162	102	-	-			
112.00	109.49	14	25.2	38	45.3	3.90	86	50	163	103	-	-			




MC.PV..07, n ₁ = 1500 1/min							P _{TH}						35.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	219	24.4	574	4.61	*)	MC2PVSF07 MC2PVHF07 MC2PVHT07	102	*)	246	147	-	-	210	280
8.00	7.73	194	26.4	551	3.38	1.70		106	*)	251	152	-	-		
9.00	8.68	173	27.3	507	5.4	5.6		111	52	256	157	-	-		
10.00	9.65	155	26.8	448	6.0	*)		115	56	260	161	-	-		
11.20	10.86	138	29.5	438	2.69	0.57		119	60	265	166	-	-		
12.50	12.19	123	28.3	374	8.2	*)		123	64	269	170	-	-		
14.00	13.73	109	31.8	374	2.39	*)		127	68	273	174	-	-		
16.00	15.42	97	32.6	341	5.7	3.93		102	43	228	129	-	-		
18.00	17.66	85	34.0	310	6.0	3.43		106	47	232	133	-	-		
20.00	20.25	74	33.7	268	15.0	9.8		110	51	236	137	-	-		
22.50	22.38	67	24.9	181	26.2	0.74	MC3PVSF07 MC3PVHF07 MC3PVHT07	100	56	209	135	-	-	226	283
25.00	25.20	60	28.0	181	25.0	0.74		103	59	212	138	-	-		
28.00	28.31	53	31.4	181	23.4	0.74		105	61	214	141	-	-		
31.50	31.86	47	31.7	162	24.6	2.60		107	64	217	143	-	-		
35.50	35.78	42	35.6	162	22.6	2.60		110	66	219	146	-	-		
40.00	41.02	37	33.4	133	29.7	5.5		112	69	222	148	-	-		
45.00	43.89	34	29.0	108	35.0	4.58		113	70	223	149	-	-		
50.00	49.30	30	32.6	108	33.6	4.58		115	72	225	152	-	-		
56.00	55.47	27	32.9	97	35.2	6.3		117	74	227	154	-	-		
63.00	62.31	24	36.8	96	33.6	6.4		119	76	229	156	-	-		
71.00	68.66	22	33.2	79	40.1	1.20	99	55	194	120	-	-			
80.00	77.12	19	37.1	78	38.7	1.27	101	57	196	122	-	-			
90.00	88.41	17	34.4	63	47.2	3.80	103	59	198	124	-	-			
100.00	99.48	15	32.0	52	52	4.16	104	60	200	126	-	-			
112.00	114.04	13	34.7	50	53	4.69	106	62	202	128	-	-			

Helical Gear Units MC...P Selection tables (detailed) MC.PV..



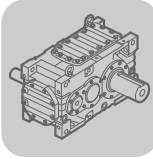
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MC.PV..08, n ₁ = 1500 1/min							P _{TH}						46.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.01	214	31.5	724	8.9	*)	MC2PVSF08 MC2PVHF08 MC2PVHT08	127	*)	307	184	-	-	212	280
8.00	7.89	190	35.5	724	4.04	*)		133	*)	313	190	-	-		
9.00	8.96	167	37.2	669	5.6	4.02		139	*)	320	197	-	-		
10.00	9.80	153	34.6	568	10.5	*)		143	70	324	201	-	-		
11.20	11.03	136	38.9	568	5.2	*)		149	76	330	207	-	-		
12.50	12.49	120	36.7	473	12.6	*)		154	81	335	212	-	-		
14.00	14.06	107	41.3	473	7.1	*)		159	86	340	217	-	-		
16.00	15.97	94	44.1	445	7.0	3.43		127	54	284	161	-	-		
18.00	17.76	84	45.7	414	6.9	2.12		131	58	288	165	-	-		
20.00	19.90	75	43.8	355	17.1	10.2		136	63	293	170	-	-		
22.50	21.70	69	37.4	281	22.5	*)	123	69	258	166	-	-	228	283	
25.00	24.43	61	42.1	281	20.7	*)	126	72	261	170	-	-			
28.00	27.74	54	46.3	272	19.9	*)	129	75	265	173	-	-			
31.50	31.14	48	46.5	244	21.0	1.31	132	78	268	176	-	-			
35.50	35.36	42	46.8	216	24.6	3.98	135	81	271	180	-	-			
40.00	39.60	38	43.5	179	31.8	7.5	138	84	274	182	-	-			
45.00	43.63	34	43.7	163	31.7	0.320	140	86	276	185	-	-			
50.00	49.55	30	47.2	155	32.1	1.51	143	89	279	188	-	-			
56.00	55.61	27	48.0	141	33.1	3.73	145	91	281	190	-	-			
63.00	63.15	24	47.6	123	38.1	6.4	148	94	284	193	-	-			
71.00	69.09	22	48.3	114	38.5	0.247	122	68	240	149	-	-			
80.00	78.46	19	48.1	100	43.4	2.54	125	71	243	151	-	-			
90.00	87.87	17	44.9	83	51	5.3	127	73	245	153	-	-			
100.00	97.27	15	45.7	77	52	4.62	128	74	246	155	-	-			
112.00	108.95	14	45.3	68	57	6.2	130	76	248	157	-	-			

MC.PV..09, n ₁ = 1500 1/min							P _{TH}						65.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.91	217	40.0	932	15.7	*)	MC2PVSF09 MC2PVHF09 MC2PVHT09	147	*)	355	212	-	-	214	280
8.00	7.99	188	46.2	932	13.3	*)		155	*)	364	221	-	-		
9.00	8.97	167	50.7	911	11.5	*)		162	*)	371	228	-	-		
10.00	9.53	157	43.8	740	17.5	*)		165	80	374	231	-	-		
11.20	11.03	136	50.7	740	14.9	*)		172	88	382	239	-	-		
12.50	11.77	127	46.0	629	19.4	*)		176	91	386	243	-	-		
14.00	13.61	110	53.1	629	16.7	*)		183	98	393	250	-	-		
16.00	15.27	98	59.6	629	13.3	*)		146	*)	327	185	-	-		
18.00	17.01	88	60.9	576	15.1	*)		150	66	332	190	-	-		
20.00	19.26	78	59.9	501	20.1	*)		156	71	338	195	-	-		
22.50	21.63	69	47.4	358	31.1	*)	146	82	306	197	-	-	230	283	
25.00	25.02	60	54.9	357	28.8	*)	150	86	311	202	-	-			
28.00	28.08	53	61.6	357	26.4	*)	154	90	314	206	-	-			
31.50	30.88	49	59.5	314	29.7	0.455	157	93	317	209	-	-			
35.50	34.65	43	63.4	298	30.3	1.90	160	96	321	213	-	-			
40.00	39.22	38	59.1	246	39.0	6.7	164	99	325	216	-	-			
45.00	44.10	34	61.6	228	37.5	*)	167	103	328	220	-	-			
50.00	49.49	30	64.0	211	39.9	1.31	170	105	331	223	-	-			
56.00	54.43	28	64.5	193	41.1	3.82	172	108	333	225	-	-			
63.00	61.08	25	64.6	172	46.0	6.8	175	110	336	228	-	-			
71.00	68.03	22	64.5	154	48.3	*)	145	81	285	176	-	-			
80.00	76.35	20	64.9	139	53	0.94	148	83	287	179	-	-			
90.00	86.42	17	60.4	114	63	4.80	150	86	290	182	-	-			
100.00	93.94	16	63.9	111	62	2.95	152	88	292	184	-	-			
112.00	106.33	14	60.5	93	71	6.1	154	90	294	186	-	-			

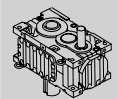


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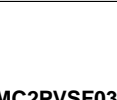


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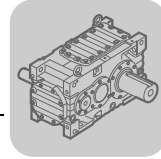
Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

10.3.3 MC.PV.., n₁ = 1200 1/min

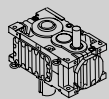


MC.PV..02, n ₁ = 1200 1/min							P _{TH}						8.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	170	7.8	142	*)	*)	MC2PVSF02 MC2PVHF02 MC2PVHT02	42	20	84	50	-	-	200	280
8.00	8.18	147	8.0	126	*)	2.73		44	22	86	52	-	-		
9.00	9.18	131	7.5	105	2.08	5.8		45	23	88	54	-	-		
10.00	9.83	122	8.4	110	*)	0.205		46	24	89	55	-	-		
11.20	11.37	106	8.0	91	1.22	4.43		48	26	90	57	-	-		
12.50	12.31	97	8.4	89	*)	1.04		49	27	91	58	-	-		
14.00	14.24	84	8.0	73	3.69	5.2		51	29	93	59	-	-		
16.00	15.98	75	7.6	62	7.4	7.2		41	19	78	44	-	-		
18.00	17.88	67	7.6	55	8.1	7.3		42	20	79	45	-	-		
20.00	20.24	59	7.0	45	10.2	7.9		43	21	80	46	-	-		
22.50	22.30	54	8.4	50	6.4	2.99	MC3PVSF02 MC3PVHF02 MC3PVHT02	40	23	73	47	-	-	216	281
25.00	25.79	47	8.0	41	9.6	3.30		41	25	74	48	-	-		
28.00	28.95	41	7.5	34	11.7	3.36		42	25	75	49	-	-		
31.50	32.31	37	8.1	33	11.2	3.37		43	26	76	50	-	-		
35.50	36.27	33	7.6	27	13.3	3.42		44	27	77	51	-	-		
40.00	38.89	31	8.6	29	11.2	2.50		44	27	77	51	-	-		
45.00	44.97	27	8.1	24	13.9	3.60		45	28	78	52	-	-		
50.00	50.47	24	7.7	20	16.0	3.74		46	29	79	53	-	-		
56.00	56.34	21	8.1	19	15.9	3.75		47	30	80	54	-	-		
63.00	63.23	19	7.7	16.0	17.9	3.78		47	30	80	54	-	-		
71.00	71.20	17	8.1	15.0	18.0	2.09		39	23	68	42	-	-		
80.00	79.91	15	7.8	12.8	20.1	2.71		40	23	69	43	-	-		
90.00	90.45	13	7.2	10.4	22.7	2.72		41	24	69	43	-	-		
100.00	95.36	13	7.8	10.8	21.9	2.72		41	24	70	44	-	-		
112.00	107.94	11	7.2	8.8	22.7	2.73	42	25	70	44	-	-			




MC.PV..03, n ₁ = 1200 1/min							11.5 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	165	10.0	177	6.1	1.86	MC2PVSF03 MC2PVHF03 MC2PVHT03	53	25	105	63	-	-	202	280
8.00	8.23	146	10.4	164	6.8	5.1		55	27	108	65	-	-		
9.00	9.28	129	10.7	149	7.8	7.4		57	29	110	67	-	-		
10.00	9.95	121	11.0	143	6.6	1.25		58	30	111	69	-	-		
11.20	11.23	107	11.5	132	7.4	4.99		60	32	113	71	-	-		
12.50	12.70	95	10.2	104	10.4	6.5		62	34	115	72	-	-		
14.00	14.32	84	11.7	105	9.3	6.3		63	36	117	74	-	-		
16.00	16.16	74	10.9	87	12.5	8.9		51	24	97	55	-	-		
18.00	17.91	67	10.9	79	13.5	8.8		53	25	99	56	-	-		
20.00	20.40	59	10.1	64	17.0	9.5		54	27	100	58	-	-		
22.50	22.65	53	11.3	65	14.2	3.61	MC3PVSF03 MC3PVHF03 MC3PVHT03	50	29	91	59	-	-	218	281
25.00	25.55	47	11.5	59	15.8	4.33		51	30	92	60	-	-		
28.00	28.83	42	10.8	49	19.3	5.2		53	32	93	61	-	-		
31.50	32.60	37	11.6	47	18.6	5.2		54	33	94	62	-	-		
35.50	36.78	33	10.9	39	22.1	5.3		55	34	96	63	-	-		
40.00	39.81	30	11.8	39	20.1	3.70		55	34	96	64	-	-		
45.00	44.91	27	11.8	34	22.5	4.51		56	35	97	65	-	-		
50.00	50.67	24	11.0	28	26.3	5.3		57	36	98	66	-	-		
56.00	57.29	21	11.7	27	26.1	5.3		58	37	99	67	-	-		
63.00	64.64	19	11.1	22	29.6	5.3		59	38	100	68	-	-		
71.00	71.62	17	11.8	21	29.4	3.58		49	28	85	52	-	-		
80.00	80.80	15	11.2	18.1	30.7	3.60		50	29	85	53	-	-		
90.00	92.02	13	10.3	14.7	30.7	3.61		51	30	86	54	-	-		
100.00	101.82	12	11.3	14.6	30.7	3.61		51	30	87	55	-	-		
112.00	115.96	10	10.3	11.7	30.7	3.62	52	31	88	56	-	-			

Helical Gear Units MC...P
Selection tables (detailed) MC.PV..



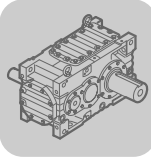
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MC.PV..04, n₁ = 1200 1/min							P_{TH}						15.5 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	168	12.7	230	6.4	3.15	MC2PVSF04 MC2PVHF04 MC2PVHT04	66	31	132	79	-	-	204	280
8.00	8.01	150	13.2	213	7.8	5.6		68	34	135	82	-	-		
9.00	8.96	134	13.6	197	9.4	7.7		71	36	137	84	-	-		
10.00	9.95	121	14.2	184	6.4	2.50		73	38	140	86	-	-		
11.20	11.19	107	14.7	170	8.0	5.2		75	41	142	89	-	-		
12.50	12.72	94	15.2	154	7.2	1.96		78	43	144	91	-	-		
14.00	14.31	84	15.9	143	8.6	4.56		80	45	147	94	-	-		
16.00	16.00	75	14.9	120	14.3	9.5		64	30	122	69	-	-		
18.00	17.12	70	14.9	112	15.1	9.7		65	31	123	70	-	-		
20.00	19.25	62	14.2	96	18.0	11.7		67	33	125	72	-	-		
22.50	23.20	52	13.8	78	19.7	3.33	MC3PVSF04 MC3PVHF04 MC3PVHT04	62	37	113	73	-	-	220	281
25.00	26.10	46	15.5	78	18.9	3.33		64	38	114	74	-	-		
28.00	29.18	41	14.9	67	21.9	4.35		65	39	116	76	-	-		
31.50	33.39	36	16.1	63	21.4	4.38		67	41	117	77	-	-		
35.50	37.33	32	15.0	52	25.5	4.47		68	42	118	79	-	-		
40.00	40.28	30	14.3	46	26.7	1.16		68	43	119	79	-	-		
45.00	45.30	26	16.1	46	26.0	1.16		70	44	120	81	-	-		
50.00	50.64	24	15.0	39	30.4	2.76		71	45	121	82	-	-		
56.00	57.96	21	16.4	37	29.6	3.08		72	46	123	83	-	-		
63.00	64.79	19	15.0	30	34.5	4.45		73	47	124	84	-	-		
71.00	72.86	16	16.6	30	33.5	3.51		61	35	105	65	-	-		
80.00	81.44	15	15.1	24	35.3	4.08		62	36	106	66	-	-		
90.00	91.60	13	14.6	21	35.3	4.10		63	37	107	67	-	-		
100.00	97.56	12	14.8	20	35.3	4.10		63	37	107	67	-	-		
112.00	109.73	11	14.6	17.4	35.3	4.11	64	38	108	68	-	-			

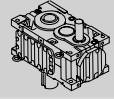


MC.PV..05, n₁ = 1200 1/min							P_{TH}						20.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	169	17.6	320	2.08	*)	MC2PVSF05 MC2PVHF05 MC2PVHT05	75	36	151	90	-	-	206	280
8.00	8.00	150	18.3	296	3.16	4.01		78	39	154	93	-	-		
9.00	8.87	135	18.9	275	4.79	7.2		80	41	156	96	-	-		
10.00	9.78	123	19.6	258	1.73	*)		83	43	159	98	-	-		
11.20	11.01	109	20.4	239	3.04	2.71		85	46	161	101	-	-		
12.50	12.52	96	18.9	195	7.8	4.23		88	49	164	104	-	-		
14.00	14.10	85	21.2	194	5.4	4.61		90	51	167	106	-	-		
16.00	15.64	77	20.1	166	9.8	10.5		73	33	139	78	-	-		
18.00	17.24	70	20.2	151	10.8	10.7		75	35	141	80	-	-		
20.00	19.40	62	18.8	125	14.5	13.4		77	37	143	82	-	-		
22.50	22.58	53	15.4	89	19.1	3.12	MC3PVSF05 MC3PVHF05 MC3PVHT05	72	42	130	84	-	-	222	282
25.00	25.41	47	17.4	89	18.5	3.12		74	44	132	86	-	-		
28.00	28.19	43	19.3	89	17.9	3.12		75	45	133	87	-	-		
31.50	32.53	37	19.9	80	18.4	4.32		77	47	135	89	-	-		
35.50	36.08	33	20.1	73	20.2	5.2		78	48	137	91	-	-		
40.00	40.62	30	18.7	60	24.3	6.7		79	49	138	92	-	-		
45.00	43.55	28	18.1	54	24.9	4.55		80	50	139	93	-	-		
50.00	48.31	25	20.0	54	24.6	4.55		81	51	140	94	-	-		
56.00	55.74	22	20.5	48	25.4	5.7		83	53	142	96	-	-		
63.00	61.84	19	20.5	43	27.9	6.6		84	54	143	97	-	-		
71.00	71.06	17	20.7	38	29.1	2.74		70	40	121	75	-	-		
80.00	78.83	15	20.7	34	31.8	3.56		71	41	122	76	-	-		
90.00	88.73	14	19.2	28	36.4	4.85		72	42	123	77	-	-		
100.00	96.36	12	18.9	26	37.8	4.55		73	43	124	78	-	-		
112.00	108.46	11	19.3	23	40.1	5.1	74	44	125	79	-	-			




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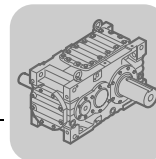


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

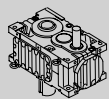





MC.PV..06, n ₁ = 1200 1/min							P _{TH}						25.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.82	176	20.3	385	5.4	*	MC2PVSF06 MC2PVHF06 MC2PVHT06	90	42	181	108	-	-	208	280
8.00	7.89	152	23.2	380	1.17	*		94	46	186	112	-	-		
9.00	8.85	136	24.1	351	3.03	6.3		97	50	190	116	-	-		
10.00	9.82	122	22.5	296	6.5	*		100	53	193	119	-	-		
11.20	11.37	106	26.1	296	0.60	*		104	57	197	123	-	-		
12.50	12.04	100	23.6	253	8.2	*		106	58	198	125	-	-		
14.00	13.93	86	27.3	252	2.45	*		109	62	202	129	-	-		
16.00	15.63	77	26.4	218	11.6	9.1		88	41	168	95	-	-		
18.00	17.59	68	26.6	195	14.0	10.2		91	43	171	98	-	-		
20.00	19.91	60	24.5	159	19.7	14.2		94	46	174	101	-	-		
22.50	22.80	53	18.5	106	28.5	*	MC3PVSF06 MC3PVHF06 MC3PVHT06	86	50	155	100	-	-	224	282
25.00	26.39	45	21.4	106	27.7	*		88	52	157	103	-	-		
28.00	29.61	41	24.0	106	26.6	*		90	54	159	104	-	-		
31.50	32.33	37	23.9	97	27.7	*		91	55	161	106	-	-		
35.50	36.28	33	26.4	95	27.1	*		93	57	162	108	-	-		
40.00	41.07	29	24.4	78	33.2	0.98		94	59	164	109	-	-		
45.00	45.96	26	22.3	63	37.2	3.94		96	60	166	111	-	-		
50.00	51.58	23	25.1	63	36.3	3.94		97	62	167	113	-	-		
56.00	56.31	21	24.8	58	37.9	5.1		98	63	168	114	-	-		
63.00	63.20	19	26.9	56	38.3	5.5		100	64	170	115	-	-		
71.00	71.10	17	25.1	46	42.9	1.97	83	48	144	89	-	-			
80.00	79.80	15	27.1	44	43.6	2.33	85	49	145	91	-	-			
90.00	90.32	13	25.2	36	45.3	4.05	86	50	147	92	-	-			
100.00	96.73	12	26.0	35	45.3	3.51	87	51	147	93	-	-			
112.00	109.49	11	25.4	30	45.3	4.61	88	52	149	94	-	-			




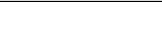


MC.PV..07, n ₁ = 1200 1/min							P _{TH}						35.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.86	175	26.2	492	4.83	*	MC2PVSF07 MC2PVHF07 MC2PVHT07	110	52	223	133	-	-	210	280
8.00	7.73	155	28.2	471	3.59	1.81		115	56	228	137	-	-		
9.00	8.68	138	29.2	433	5.8	6.0		119	60	232	142	-	-		
10.00	9.65	124	28.7	384	6.4	*		123	64	236	146	-	-		
11.20	10.86	110	31.6	375	2.94	0.64		127	68	240	150	-	-		
12.50	12.19	98	30.2	319	9.0	*		131	72	244	154	-	-		
14.00	13.73	87	34.0	319	2.78	*		134	75	248	158	-	-		
16.00	15.42	78	34.8	291	6.3	4.27		108	49	207	116	-	-		
18.00	17.66	68	36.4	265	6.3	3.64		112	53	211	120	-	-		
20.00	20.25	59	33.9	216	19.2	13.0		116	57	215	124	-	-		
22.50	22.38	54	24.8	145	30.5	2.08	MC3PVSF07 MC3PVHF07 MC3PVHT07	105	61	190	123	-	-	226	283
25.00	25.20	48	27.9	145	29.5	2.08		107	64	192	125	-	-		
28.00	28.31	42	31.4	145	28.0	2.08		110	66	195	128	-	-		
31.50	31.86	38	31.7	130	29.3	3.92		112	68	197	130	-	-		
35.50	35.78	34	35.6	130	27.5	3.92		114	70	199	132	-	-		
40.00	41.02	29	33.6	107	34.4	6.7		116	72	202	135	-	-		
45.00	43.89	27	29.0	86	40.1	6.0		117	74	203	136	-	-		
50.00	49.30	24	32.6	86	38.9	6.0		119	75	205	138	-	-		
56.00	55.47	22	32.9	77	40.7	7.8		121	77	207	140	-	-		
63.00	62.31	19	36.9	77	39.2	7.8		123	79	209	141	-	-		
71.00	68.66	17	33.2	63	45.9	2.20	102	58	177	109	-	-			
80.00	77.12	16	37.3	63	44.6	2.20	104	60	178	111	-	-			
90.00	88.41	14	34.6	51	53	4.72	106	62	180	113	-	-			
100.00	99.48	12	32.0	42	53	5.1	107	63	182	114	-	-			
112.00	114.04	11	35.0	40	53	5.6	109	65	183	116	-	-			

Helical Gear Units MC...P Selection tables (detailed) MC.PV..



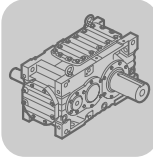
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MC.PV..08, $n_1 = 1200$ 1/min							P_{TH}						46.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C		40 °C		
7.10	7.01	171	33.6	619	9.6	*)	MC2PVSF08 MC2PVHF08 MC2PVHT08	138	65	278	166	-	-	212	280
8.00	7.89	152	37.9	619	4.41	*)		144	71	284	172	-	-		
9.00	8.96	134	39.8	572	6.0	4.26		149	76	290	178	-	-		
10.00	9.80	122	36.9	486	11.3	*)		153	80	294	182	-	-		
11.20	11.03	109	41.6	486	5.7	*)		158	85	299	187	-	-		
12.50	12.49	96	39.2	404	13.6	*)		163	90	304	192	-	-		
14.00	14.06	85	44.1	404	7.7	*)		168	95	309	197	-	-		
16.00	15.97	75	47.2	381	7.5	3.70		136	63	258	146	-	-		
18.00	17.76	68	47.4	344	11.0	4.07		139	66	262	149	-	-		
20.00	19.90	60	44.2	286	21.0	13.7		143	70	266	153	-	-		
22.50	21.70	55	37.4	225	27.0	*)	129	75	234	151	-	-	228	283	
25.00	24.43	49	42.1	225	25.4	*)	132	78	237	154	-	-			
28.00	27.74	43	46.5	219	24.5	0.139	135	81	240	157	-	-			
31.50	31.14	39	47.0	197	25.4	2.76	138	84	243	160	-	-			
35.50	35.36	34	47.0	173	29.6	5.6	140	86	246	163	-	-			
40.00	39.60	30	43.9	145	36.8	9.1	143	89	249	166	-	-			
45.00	43.63	28	44.1	132	36.8	1.85	145	91	251	168	-	-			
50.00	49.55	24	47.4	125	37.7	3.15	147	93	254	170	-	-			
56.00	55.61	22	48.1	113	38.8	5.4	150	96	256	173	-	-			
63.00	63.15	19	47.9	99	43.8	8.0	152	98	258	175	-	-			
71.00	69.09	17	48.5	92	44.6	1.48	126	72	218	135	-	-			
80.00	78.46	15	48.3	80	49.8	3.80	129	75	221	137	-	-			
90.00	87.87	14	45.2	67	58	6.5	130	76	223	139	-	-			
100.00	97.27	12	45.7	61	59	5.9	132	78	224	141	-	-			
112.00	108.95	11	45.7	55	64	7.4	134	80	226	143	-	-			

MC.PV..09, $n_1 = 1200$ 1/min							65.0 kNm								
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C		40 °C		
7.10	6.91	174	42.7	797	16.8	*)	MC2PVSF09 MC2PVHF09 MC2PVHT09	159	*)	322	191	-	-	214	280
8.00	7.99	150	49.4	797	14.2	*)		167	83	330	200	-	-		
9.00	8.97	134	54.2	779	12.4	*)		173	89	336	206	-	-		
10.00	9.53	126	46.8	633	18.7	*)		176	92	339	209	-	-		
11.20	11.03	109	54.2	633	15.9	*)		183	99	347	217	-	-		
12.50	11.77	102	49.1	538	20.7	*)		186	102	350	220	-	-		
14.00	13.61	88	56.8	538	17.9	*)		193	108	357	227	-	-		
16.00	15.27	79	63.7	538	14.3	*)		155	71	297	167	-	-		
18.00	17.01	71	64.2	486	17.1	*)		160	75	302	171	-	-		
20.00	19.26	62	60.2	402	25.1	*)		165	80	307	177	-	-		
22.50	21.63	55	50.8	306	33.2	*)	153	89	278	179	-	-	230	283	
25.00	25.02	48	58.7	306	30.8	*)	157	93	282	184	-	-			
28.00	28.08	43	63.3	294	30.7	*)	161	96	286	187	-	-			
31.50	30.88	39	63.5	268	31.8	0.50	163	99	289	190	-	-			
35.50	34.65	35	63.9	241	36.0	3.66	166	102	292	193	-	-			
40.00	39.22	31	59.6	198	45.1	8.5	169	105	295	196	-	-			
45.00	44.10	27	61.6	182	44.3	1.09	172	108	298	199	-	-			
50.00	49.49	24	64.3	169	46.7	3.36	175	111	301	202	-	-			
56.00	54.43	22	64.5	154	48.3	6.0	177	113	303	205	-	-			
63.00	61.08	20	64.9	139	53	8.8	180	115	306	207	-	-			
71.00	68.03	18	64.6	124	56	*)	150	86	259	160	-	-			
80.00	76.35	16	65.5	112	61	2.31	152	88	261	163	-	-			
90.00	86.42	14	60.2	91	72	6.4	155	90	264	165	-	-			
100.00	93.94	13	64.0	89	70	4.44	156	92	266	167	-	-			
112.00	106.33	11	60.5	74	80	7.6	158	94	268	169	-	-			

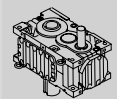


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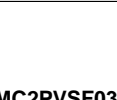


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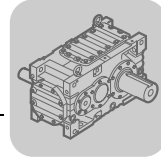
Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

10.3.4 MC.PV..., n₁ = 1000 1/min

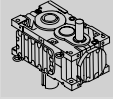


MC.PV..02, n ₁ = 1000 1/min							P _{TH}						8.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	141	8.2	125	*)	*)	MC2PVSF02 MC2PVHF02 MC2PVHT02	44	22	78	46	-	-	200	280
8.00	8.18	122	8.0	105	*)	4.03		46	24	80	48	-	-		
9.00	9.18	109	7.5	88	3.86	6.8		48	26	81	50	-	-		
10.00	9.83	102	8.4	93	*)	1.45		48	26	82	50	-	-		
11.20	11.37	88	8.0	76	3.25	5.6		50	28	84	52	-	-		
12.50	12.31	81	8.4	74	1.08	2.43		51	29	85	53	-	-		
14.00	14.24	70	8.0	61	5.9	6.3		53	31	86	55	-	-		
16.00	15.98	63	7.6	52	8.5	7.8		43	21	72	40	-	-		
18.00	17.88	56	7.7	46	9.2	7.9		44	22	73	42	-	-		
20.00	20.24	49	7.1	38	11.4	8.4		45	23	74	43	-	-		
22.50	22.30	45	8.5	42	8.5	3.22	MC3PVSF02 MC3PVHF02 MC3PVHT02	42	25	68	44	-	-	216	281
25.00	25.79	39	8.1	34	10.9	3.30		43	26	69	45	-	-		
28.00	28.95	35	7.6	29	13.0	3.36		44	27	70	46	-	-		
31.50	32.31	31	8.1	27	12.6	3.37		44	27	70	46	-	-		
35.50	36.27	28	7.6	23	14.7	3.42		45	28	71	47	-	-		
40.00	38.89	26	8.6	24	12.7	2.95		45	29	72	48	-	-		
45.00	44.97	22	8.1	20	15.5	3.70		46	30	72	48	-	-		
50.00	50.47	20	7.7	16.7	17.5	3.74		47	30	73	49	-	-		
56.00	56.34	18	8.1	15.8	17.5	3.75		48	31	74	50	-	-		
63.00	63.23	16	7.8	13.5	19.6	3.78		48	31	74	50	-	-		
71.00	71.20	14	8.1	12.5	19.9	2.09		40	24	63	39	-	-		
80.00	79.91	13	7.8	10.7	22.0	2.70		41	24	64	40	-	-		
90.00	90.45	11	7.2	8.7	22.7	2.72		42	25	64	40	-	-		
100.00	95.36	10	7.9	9.1	22.7	2.72		42	25	65	41	-	-		
112.00	107.94	9.3	7.3	7.4	22.7	2.73	42	26	65	41	-	-			


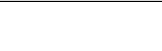

MC.PV..03, n ₁ = 1000 1/min							11.5 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	137	10.6	156	6.4	1.84	MC2PVSF03 MC2PVHF03 MC2PVHT03	56	28	97	58	-	-	202	280
8.00	8.23	122	11.1	145	7.1	5.2		58	30	100	60	-	-		
9.00	9.28	108	10.7	124	9.4	8.9		60	32	101	62	-	-		
10.00	9.95	100	11.7	126	6.9	1.20		61	33	103	63	-	-		
11.20	11.23	89	11.6	111	8.9	6.6		62	35	104	65	-	-		
12.50	12.70	79	10.3	87	12.1	8.1		64	37	106	67	-	-		
14.00	14.32	70	11.7	88	11.2	7.9		66	38	108	69	-	-		
16.00	16.16	62	11.0	73	14.4	9.6		54	26	90	51	-	-		
18.00	17.91	56	11.0	66	15.4	9.5		55	27	91	52	-	-		
20.00	20.40	49	10.2	54	18.9	10.2		56	29	93	54	-	-		
22.50	22.65	44	11.3	54	16.3	4.23	MC3PVSF03 MC3PVHF03 MC3PVHT03	52	31	84	54	-	-	218	281
25.00	25.55	39	11.6	50	17.8	4.91		53	32	85	55	-	-		
28.00	28.83	35	10.8	41	21.4	5.2		54	33	86	57	-	-		
31.50	32.60	31	11.6	39	21.0	5.2		55	34	88	58	-	-		
35.50	36.78	27	11.0	32	24.4	5.3		56	35	89	59	-	-		
40.00	39.81	25	11.8	32	22.6	4.30		57	36	89	59	-	-		
45.00	44.91	22	11.8	29	25.0	5.1		58	37	90	60	-	-		
50.00	50.67	20	11.0	24	28.8	5.3		58	38	91	61	-	-		
56.00	57.29	17	11.7	22	28.9	5.3		59	38	92	62	-	-		
63.00	64.64	15	11.2	19	30.7	5.3		60	39	93	63	-	-		
71.00	71.62	14	11.8	17.9	30.7	3.58		50	29	78	49	-	-		
80.00	80.80	12	11.2	15.2	30.7	3.60		51	30	79	49	-	-		
90.00	92.02	11	10.4	12.3	30.7	3.61		52	31	80	50	-	-		
100.00	101.82	9.8	11.5	12.3	30.7	3.61		52	31	81	51	-	-		
112.00	115.96	8.6	10.5	9.9	30.7	3.62	53	32	81	51	-	-			

Helical Gear Units MC...P Selection tables (detailed) MC.PV..



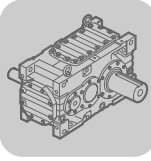
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MC.PV..04, n ₁ = 1000 1/min							P _{TH}						15.5 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	140	13.3	202	6.9	3.38	MC2PVSF04 MC2PVHF04 MC2PVHT04	70	35	122	73	-	-	204	280
8.00	8.01	125	13.9	187	8.3	6.0		72	38	125	75	-	-		
9.00	8.96	112	14.5	174	9.6	8.1		74	40	127	78	-	-		
10.00	9.95	101	14.9	161	7.1	2.84		76	42	129	80	-	-		
11.20	11.19	89	15.5	149	8.7	5.6		79	44	131	82	-	-		
12.50	12.72	79	15.2	128	11.6	4.18		81	46	134	84	-	-		
14.00	14.31	70	16.1	121	11.8	6.2		83	48	136	86	-	-		
16.00	16.00	63	14.9	100	16.4	11.0		67	33	113	64	-	-		
18.00	17.12	58	14.9	94	17.3	11.3		68	34	114	65	-	-		
20.00	19.25	52	14.3	80	20.3	12.6		70	35	116	67	-	-		
22.50	23.20	43	13.8	65	22.2	4.12	MC3PVSF04 MC3PVHF04 MC3PVHT04	65	39	104	67	-	-	220	281
25.00	26.10	38	15.5	65	21.5	4.12		66	40	106	69	-	-		
28.00	29.18	34	15.0	56	24.6	4.35		67	41	107	70	-	-		
31.50	33.39	30	16.2	53	23.9	4.38		68	43	109	72	-	-		
35.50	37.33	27	15.0	44	28.3	4.47		70	44	110	73	-	-		
40.00	40.28	25	14.3	39	29.6	1.75		70	44	110	73	-	-		
45.00	45.30	22	16.1	39	29.1	1.75		71	45	112	75	-	-		
50.00	50.64	20	15.0	32	33.4	3.33		72	46	113	76	-	-		
56.00	57.96	17	16.5	31	32.7	3.65		73	48	114	77	-	-		
63.00	64.79	15	15.0	25	35.3	5.1		74	48	115	78	-	-		
71.00	72.86	14	16.6	25	35.3	3.95		62	36	97	60	-	-		
80.00	81.44	12	15.0	20	35.3	4.08		63	37	98	61	-	-		
90.00	91.60	11	14.7	17.4	35.3	4.10		64	38	99	62	-	-		
100.00	97.56	10	14.8	16.5	35.3	4.10		64	39	99	62	-	-		
112.00	109.73	9.1	14.8	14.7	35.3	4.11	65	39	100	63	-	-			

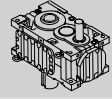
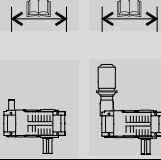

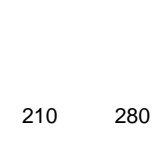
MC.PV..05, n ₁ = 1000 1/min							P _{TH}						20.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	141	18.6	282	2.09	*)	MC2PVSF05 MC2PVHF05 MC2PVHT05	79	40	139	83	-	-	206	280
8.00	8.00	125	19.4	260	3.39	4.32		82	43	142	86	-	-		
9.00	8.87	113	19.8	241	5.5	7.9		85	45	145	88	-	-		
10.00	9.78	102	20.7	228	1.79	*)		87	47	147	90	-	-		
11.20	11.01	91	21.1	206	4.42	4.52		89	50	149	93	-	-		
12.50	12.52	80	19.0	163	9.6	7.0		92	52	152	96	-	-		
14.00	14.10	71	21.2	162	8.4	7.2		94	55	155	98	-	-		
16.00	15.64	64	20.2	139	11.7	12.5		76	37	128	72	-	-		
18.00	17.24	58	20.2	126	12.9	12.8		78	39	130	74	-	-		
20.00	19.40	52	19.0	105	16.4	14.4		80	41	132	76	-	-		
22.50	22.58	44	15.4	74	21.4	3.93	MC3PVSF05 MC3PVHF05 MC3PVHT05	74	44	121	78	-	-	222	282
25.00	25.41	39	17.4	74	20.8	3.93		76	46	122	79	-	-		
28.00	28.19	35	19.3	74	20.4	3.93		77	47	124	81	-	-		
31.50	32.53	31	19.9	66	20.9	5.1		79	49	125	83	-	-		
35.50	36.08	28	20.2	61	22.7	5.9		80	50	127	84	-	-		
40.00	40.62	25	18.8	50	26.8	7.5		81	52	128	85	-	-		
45.00	43.55	23	18.1	45	27.7	5.4		82	52	129	86	-	-		
50.00	48.31	21	20.0	45	27.5	5.4		83	53	130	87	-	-		
56.00	55.74	18	20.5	40	28.4	6.5		85	55	131	89	-	-		
63.00	61.84	16	20.6	36	30.9	7.4		86	56	132	90	-	-		
71.00	71.06	14	20.8	32	32.3	3.34		72	42	112	70	-	-		
80.00	78.83	13	20.8	29	35.0	4.13		73	43	113	71	-	-		
90.00	88.73	11	19.3	24	39.7	5.4		74	44	114	72	-	-		
100.00	96.36	10	18.9	21	41.3	5.1		75	45	115	72	-	-		
112.00	108.46	9.2	19.5	20	41.3	5.6	75	46	116	73	-	-			

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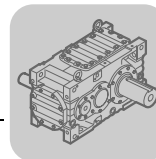
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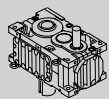
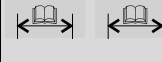




Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC.PV..06, n ₁ = 1000 1/min							P _{TH}						25.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{RA} [kN]	F _{RE} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.82	147	21.5	339	5.6	*	MC2PVSF06 MC2PVHF06 MC2PVHT06	95	47	168	99	-	-	208	280	
8.00	7.89	127	24.5	334	1.30	*		99	52	172	104	-	-			
9.00	8.85	113	25.5	309	3.11	6.5		103	55	175	107	-	-			
10.00	9.82	102	23.8	260	7.0	*		105	57	178	110	-	-			
11.20	11.37	88	27.2	257	1.94	*		109	61	182	114	-	-			
12.50	12.04	83	24.9	223	8.9	*		110	63	184	115	-	-			
14.00	13.93	72	27.3	211	8.2	3.85		114	66	187	119	-	-			
16.00	15.63	64	26.6	183	14.9	11.8		92	45	156	87	-	-			
18.00	17.59	57	26.7	163	16.8	12.7		95	47	158	90	-	-			
20.00	19.91	50	24.7	133	22.6	15.3		98	50	161	93	-	-			
22.50	22.80	44	18.5	88	31.7	*	MC3PVSF06 MC3PVHF06 MC3PVHT06	88	53	143	92	-	-	224	282	
25.00	26.39	38	21.4	88	31.0	*		91	55	146	95	-	-			
28.00	29.61	34	24.1	88	30.1	*		92	57	147	97	-	-			
31.50	32.33	31	23.9	81	31.3	*		94	58	149	98	-	-			
35.50	36.28	28	26.6	80	30.5	*		95	60	150	100	-	-			
40.00	41.07	24	24.6	65	36.7	1.39		97	61	152	101	-	-			
45.00	45.96	22	22.3	53	41.1	4.87		98	63	154	103	-	-			
50.00	51.58	19	25.1	53	40.5	4.87		100	64	155	104	-	-			
56.00	56.31	18	24.8	48	42.1	6.0		101	65	156	105	-	-			
63.00	63.20	16	27.0	47	42.4	6.4		102	66	157	107	-	-			
71.00	71.10	14	25.1	38	45.3	2.63		85	50	133	83	-	-			
80.00	79.80	13	27.3	37	45.3	2.94		87	51	135	84	-	-			
90.00	90.32	11	25.4	31	45.3	4.66		88	52	136	85	-	-			
100.00	96.73	10	26.0	29	45.3	4.17		89	53	137	86	-	-			
112.00	109.49	9.1	25.6	25	45.3	5.2	90	54	138	87	-	-				
MC.PV..07, n ₁ = 1000 1/min							P _{TH}						35.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{RA} [kN]	F _{RE} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.86	146	27.7	433	5.0	*	MC2PVSF07 MC2PVHF07 MC2PVHT07	117	58	206	122	-	-	210	280	
8.00	7.73	129	29.8	414	3.84	1.94		122	63	211	127	-	-			
9.00	8.68	115	30.8	382	6.1	6.3		125	67	215	131	-	-			
10.00	9.65	104	30.2	337	7.0	*		129	70	219	135	-	-			
11.20	10.86	92	33.4	330	3.05	0.64		133	74	223	138	-	-			
12.50	12.19	82	31.9	281	9.3	*		136	77	226	142	-	-			
14.00	13.73	73	35.7	279	3.61	*		140	81	230	146	-	-			
16.00	15.42	65	36.5	254	7.6	4.90		113	55	191	107	-	-			
18.00	17.66	57	36.8	224	12.2	6.1		117	58	195	111	-	-			
20.00	20.25	49	34.1	181	22.5	15.5		120	62	199	115	-	-			
22.50	22.38	45	24.9	121	34.1	3.15	MC3PVSF07 MC3PVHF07 MC3PVHT07	109	65	176	113	-	-	226	283	
25.00	25.20	40	28.0	121	33.2	3.15		111	67	178	116	-	-			
28.00	28.31	35	31.4	121	31.8	3.15		113	69	181	118	-	-			
31.50	31.86	31	31.9	109	33.0	4.91		115	71	183	120	-	-			
35.50	35.78	28	35.8	109	31.3	4.92		117	73	185	122	-	-			
40.00	41.02	24	33.9	90	38.4	7.7		119	75	187	125	-	-			
45.00	43.89	23	29.0	72	44.6	7.3		120	76	188	126	-	-			
50.00	49.30	20	32.6	72	43.5	7.3		122	78	190	128	-	-			
56.00	55.47	18	32.9	64	45.5	9.1		124	80	192	129	-	-			
63.00	62.31	16	36.9	64	44.1	9.1		125	81	194	131	-	-			
71.00	68.66	15	33.2	53	51	3.06		105	61	164	101	-	-			
80.00	77.12	13	37.3	53	49.8	3.06		106	62	165	103	-	-			
90.00	88.41	11	34.8	43	53	5.5		108	64	167	104	-	-			
100.00	99.48	10	32.0	35	53	6.0		109	65	168	106	-	-			
112.00	114.04	8.8	35.3	34	53	6.3	111	67	170	108	-	-				

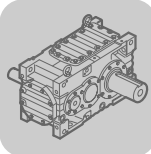
Helical Gear Units MC...P
Selection tables (detailed) MC.PV..



MC.PV..08, n ₁ = 1000 1/min							P _{TH}				46.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	7.01	143	35.6	546	10	*	MC2PVSF08 MC2PVHF08 MC2PVHT08	147	74	257	153	-	-
8.00	7.89	127	40.1	546	4.54	*		152	79	263	158	-	-
9.00	8.96	112	42.0	504	6.3	4.50		157	84	268	164	-	-
10.00	9.80	102	39.1	428	11.8	*		161	88	272	168	-	-
11.20	11.03	91	44.0	428	5.8	*		165	92	277	173	-	-
12.50	12.49	80	41.4	356	14.4	*		170	97	282	177	-	-
14.00	14.06	71	46.6	356	8.2	*		174	101	286	182	-	-
16.00	15.97	63	47.4	319	13.9	6.9		142	69	239	134	-	-
18.00	17.76	56	47.5	287	17.8	7.4		145	72	242	138	-	-
20.00	19.90	50	44.5	241	24.4	16.6		149	76	246	142	-	-
22.50	21.70	46	37.3	187	31.0	0.94	MC3PVSF08 MC3PVHF08 MC3PVHT08	133	79	217	139	-	-
25.00	24.43	41	42.1	187	29.5	0.94		136	82	220	142	-	-
28.00	27.74	36	46.8	183	28.4	1.51		139	85	223	145	-	-
31.50	31.14	32	47.1	164	29.6	4.23		142	88	225	148	-	-
35.50	35.36	28	47.4	146	33.7	6.9		144	90	228	151	-	-
40.00	39.60	25	44.4	122	40.9	10.4		147	93	231	153	-	-
45.00	43.63	23	43.7	109	42.0	3.53		148	94	233	155	-	-
50.00	49.55	20	47.8	105	42.2	4.42		151	97	235	158	-	-
56.00	55.61	18	48.3	94	43.8	6.8		153	99	237	160	-	-
63.00	63.15	16	48.3	83	48.8	9.3		155	101	240	162	-	-
71.00	69.09	14	48.7	77	49.9	2.56	129	75	202	125	-	-	
80.00	78.46	13	48.6	67	55	4.84	132	77	205	127	-	-	
90.00	87.87	11	45.5	56	63	7.6	133	79	206	129	-	-	
100.00	97.27	10	45.7	51	65	7.0	135	81	208	131	-	-	
112.00	108.95	9.2	46.1	46	67	7.6	136	82	210	132	-	-	

MC.PV..09, n ₁ = 1000 1/min							P _{TH}				65.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.91	145	45.1	702	17.7	*	MC2PVSF09 MC2PVHF09 MC2PVHT09	169	85	297	176	-	-
8.00	7.99	125	52.2	702	15.0	*		177	92	305	184	-	-
9.00	8.97	112	57.3	686	13.1	*		182	97	311	190	-	-
10.00	9.53	105	49.5	558	19.7	*		185	100	314	193	-	-
11.20	11.03	91	57.2	558	16.8	*		192	107	321	200	-	-
12.50	11.77	85	51.9	474	21.8	*		194	110	324	203	-	-
14.00	13.61	73	60.1	474	18.8	*		201	116	330	209	-	-
16.00	15.27	65	64.3	452	18.7	*		163	78	275	154	-	-
18.00	17.01	59	64.6	407	21.1	*		167	82	279	158	-	-
20.00	19.26	52	60.4	337	29.5	4.75		172	87	284	163	-	-
22.50	21.63	46	51.1	256	37.7	*	MC3PVSF09 MC3PVHF09 MC3PVHT09	158	94	257	165	-	-
25.00	25.02	40	59.0	256	35.4	*		162	98	262	170	-	-
28.00	28.08	36	63.7	247	35.4	*		166	101	265	173	-	-
31.50	30.88	32	64.4	227	36.2	1.82		168	104	267	176	-	-
35.50	34.65	29	64.1	201	41.4	5.3		171	107	270	179	-	-
40.00	39.22	26	59.7	165	51	10.2		174	110	274	182	-	-
45.00	44.10	23	61.5	152	50	3.02		176	112	276	185	-	-
50.00	49.49	20	64.9	143	52	4.91		179	115	279	187	-	-
56.00	54.43	18	64.5	129	55	7.8		181	117	281	189	-	-
63.00	61.08	16	65.7	117	59	10.3		183	119	284	192	-	-
71.00	68.03	15	64.5	103	63	1.39	153	89	240	148	-	-	
80.00	76.35	13	65.9	94	67	3.54	156	91	242	151	-	-	
90.00	86.42	12	60.2	76	79	7.8	158	94	245	153	-	-	
100.00	93.94	11	64.0	74	77	5.7	159	95	246	154	-	-	
112.00	106.33	9.4	60.5	62	80	8.9	161	97	248	157	-	-	

10



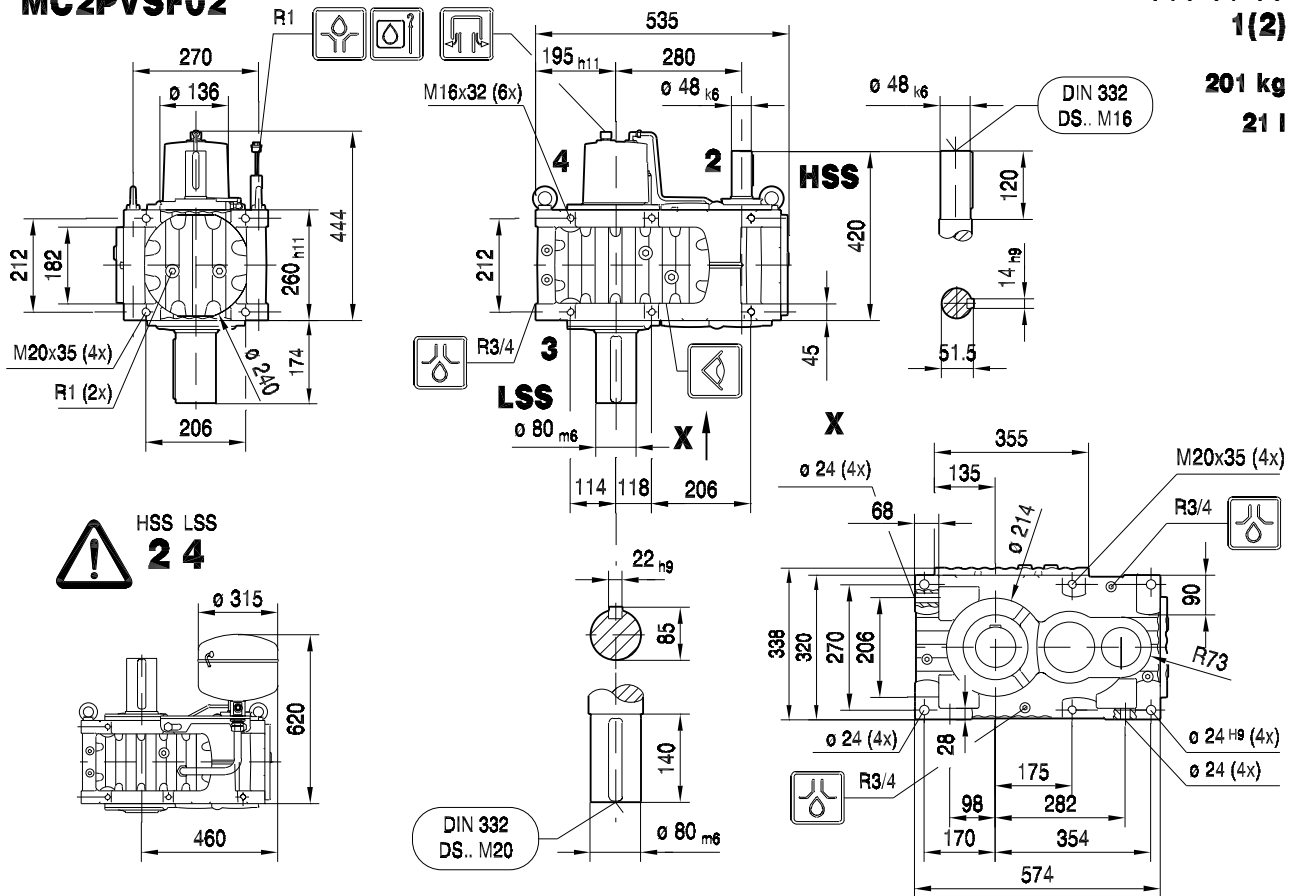
Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

10.3.5 MC.PV.. [mm]

MC2PVSF02

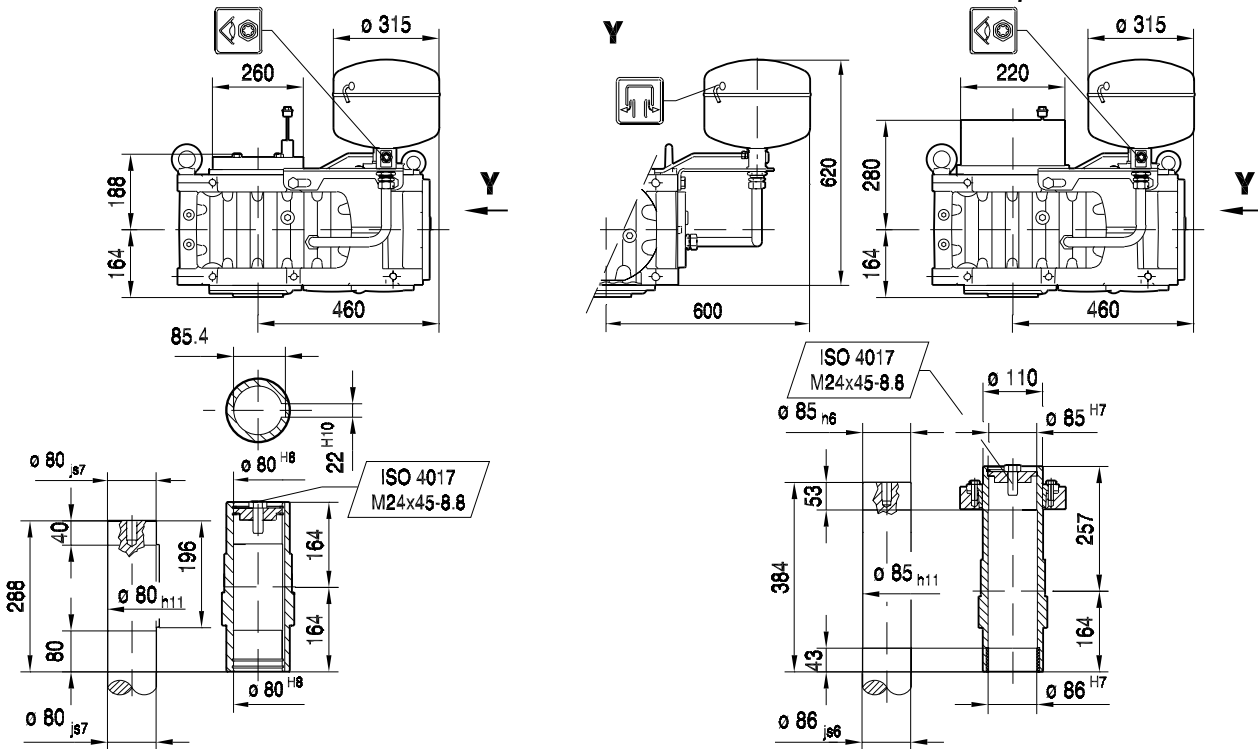
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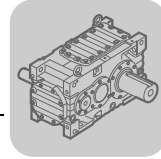


MC2PVHF02

MC2PVHF02 /SD

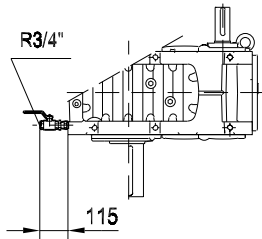


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

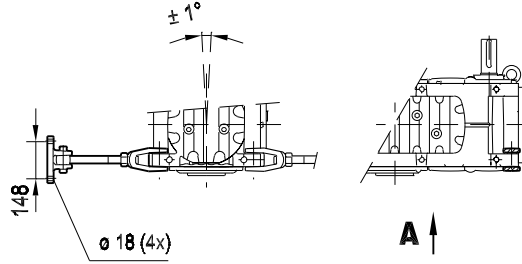


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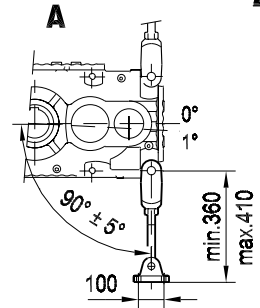
MC2PV..02
/ODV



MC2PVH T 02

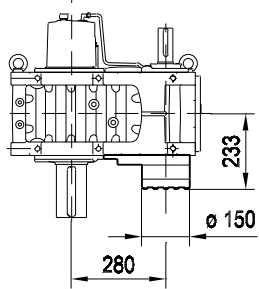


47 065 00 03
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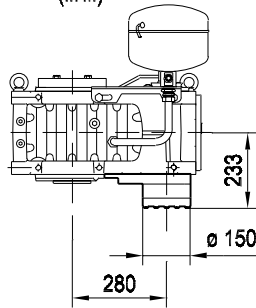


/BS

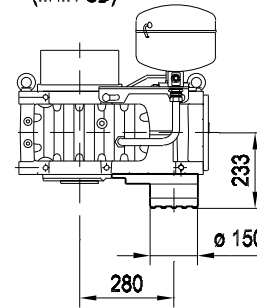
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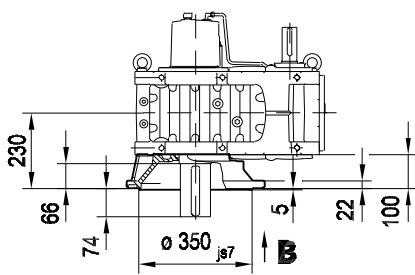


(..H.. / SD)

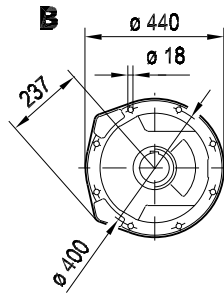
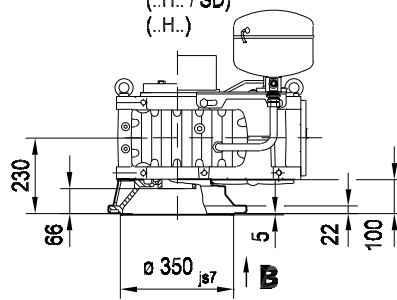


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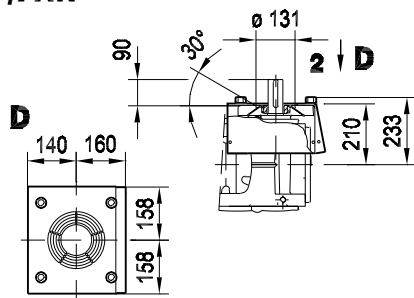


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 (..H..)

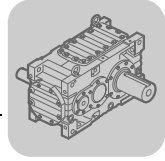


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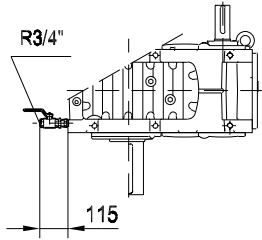


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

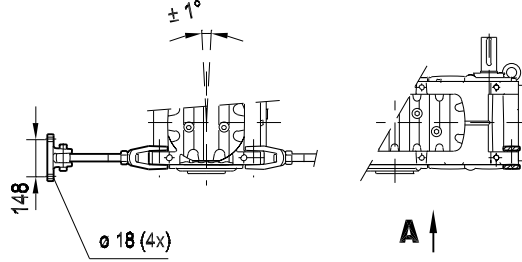


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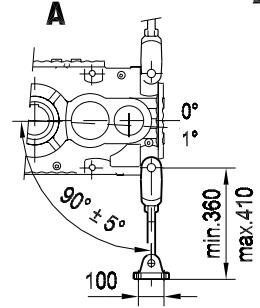
MC2PV..03
/ODV



MC2PVH T 03

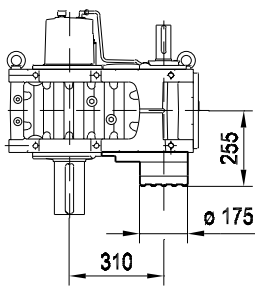


47 066 00 03
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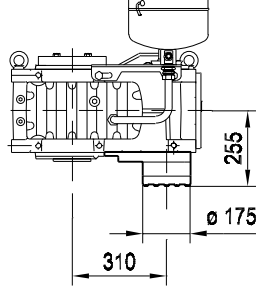


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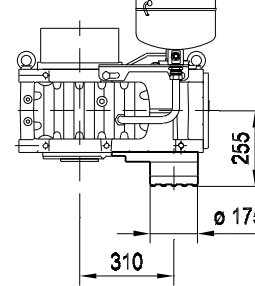
(..S..)



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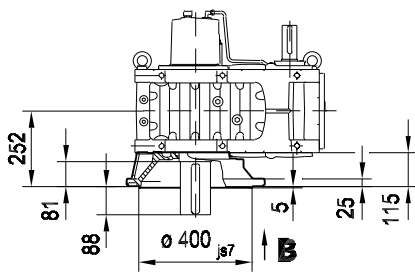


(..H.. / SD)

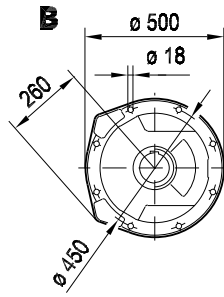
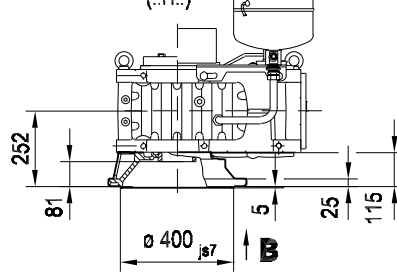


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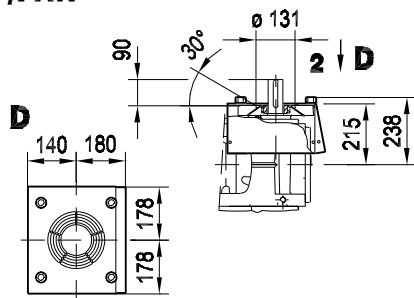


(..H.. / SD)
 (..H..)

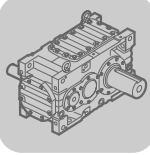


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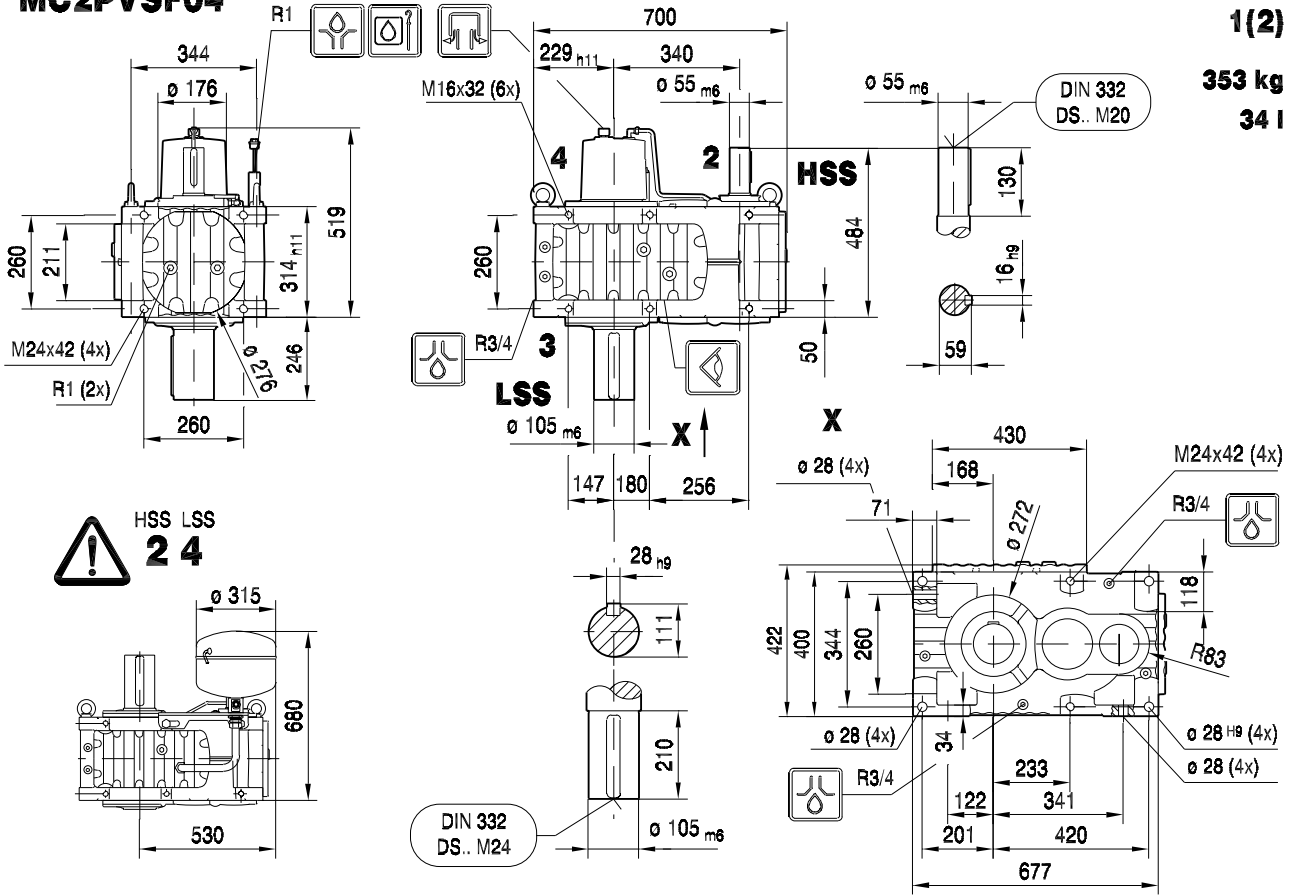


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Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC2PVSF04

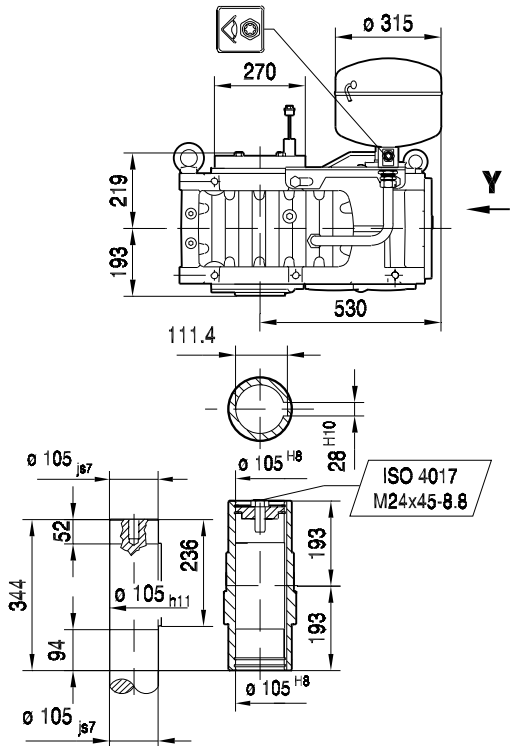


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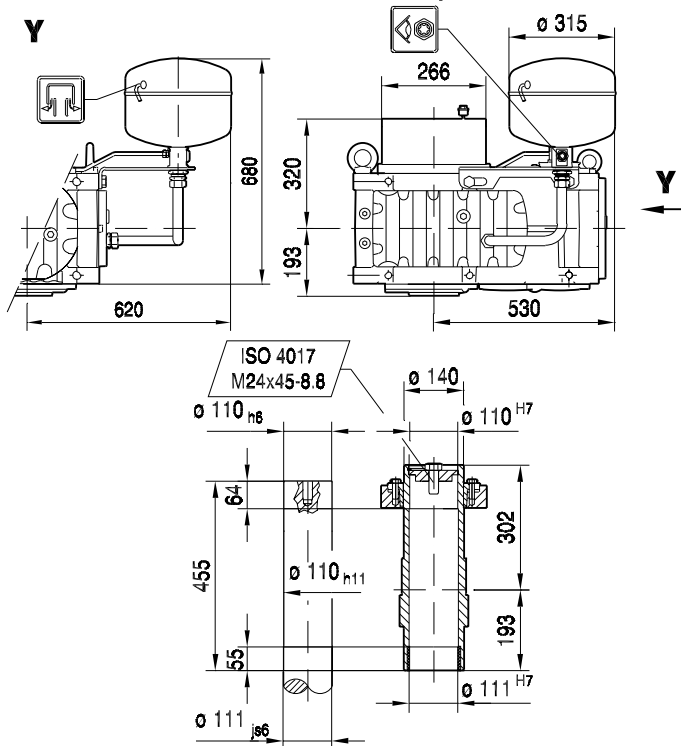


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MC2PVHF04

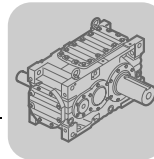


MC2PVHF04 /SD



Helical Gear Units MC...P

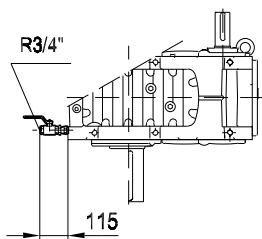
Selection tables (detailed) MC.PV..



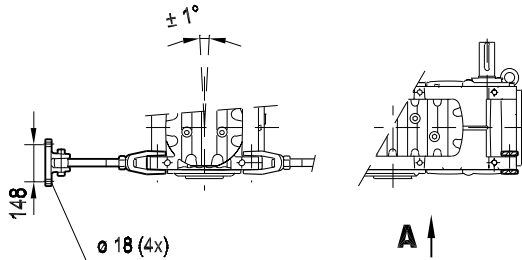
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MC2PV..04

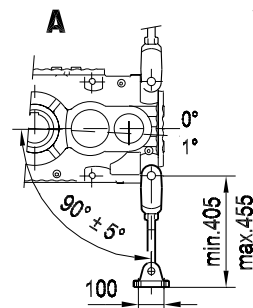
/ODV



MC2PVH T 04

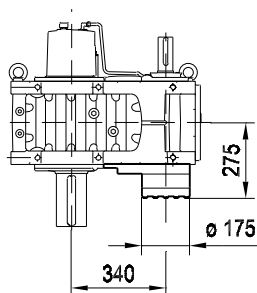


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2(2)

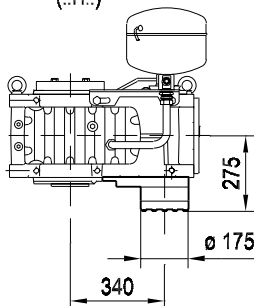


/BS

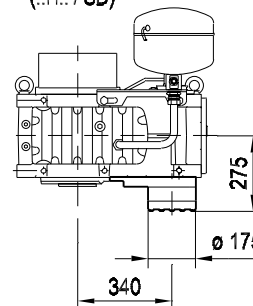
(..S..)



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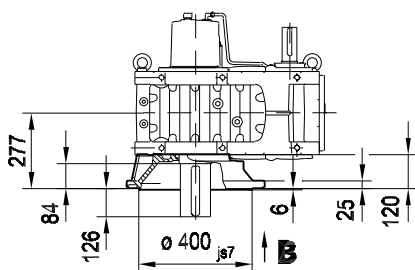


(..H.. / SD)

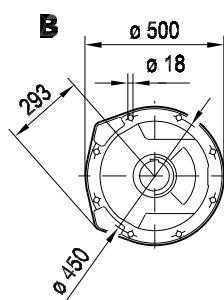
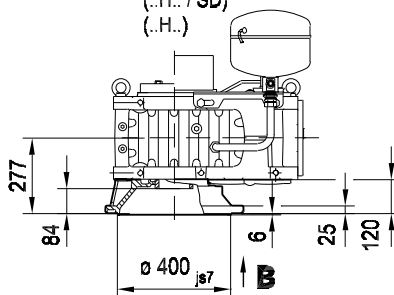


/MF

(..S..)

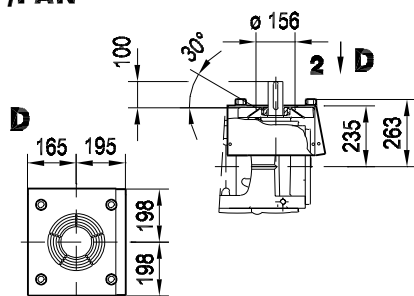


(..H.. / SD)
(..H..)

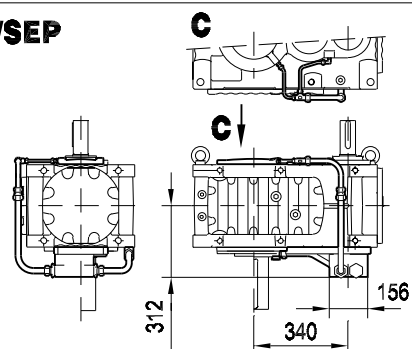


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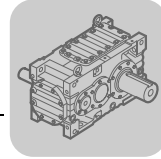
/FAN



/SEP

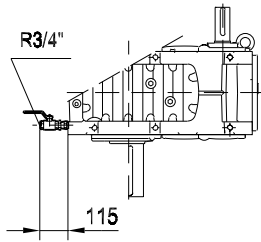


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

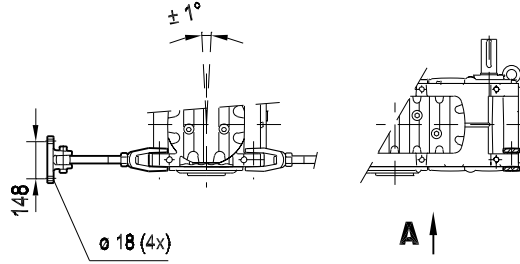


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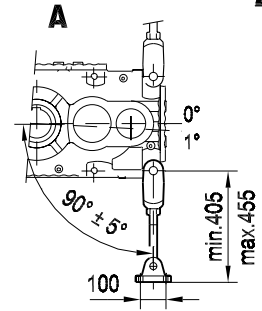
MC2PV..05
/ODV



MC2PVH T 05

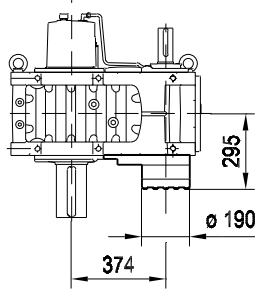


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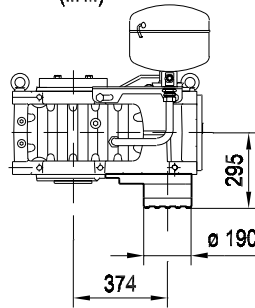


/BS

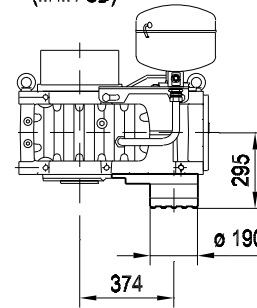
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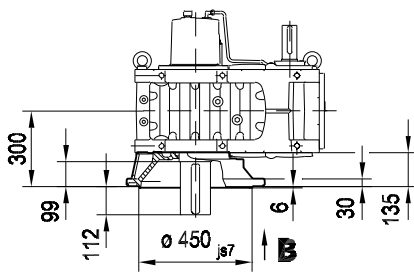


(..H.. / SD)

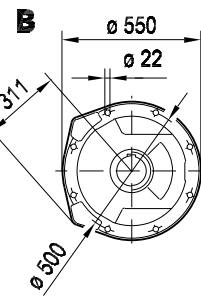
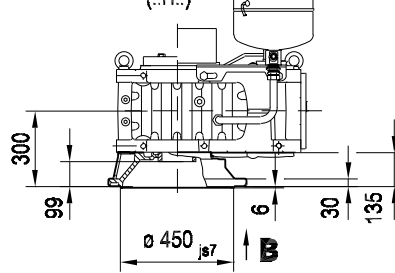


/MF

(..S..)

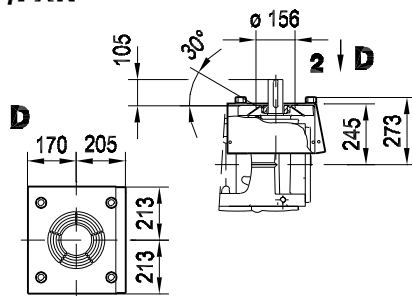


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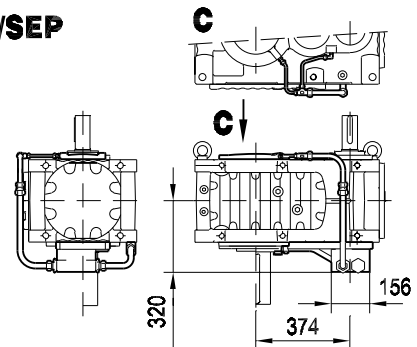


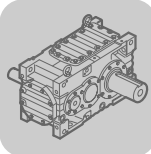
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/FAN



/SEP



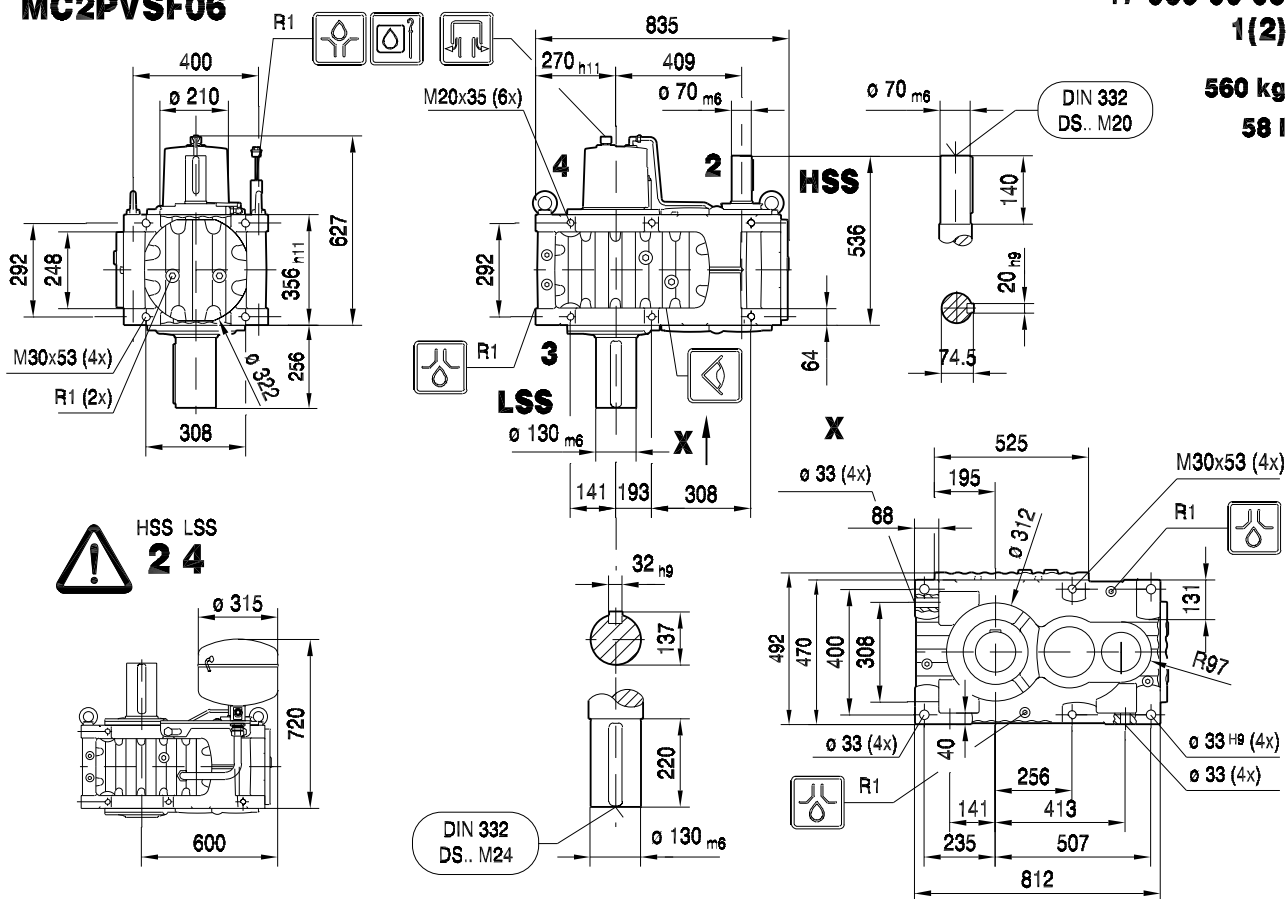


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC2PVSF06

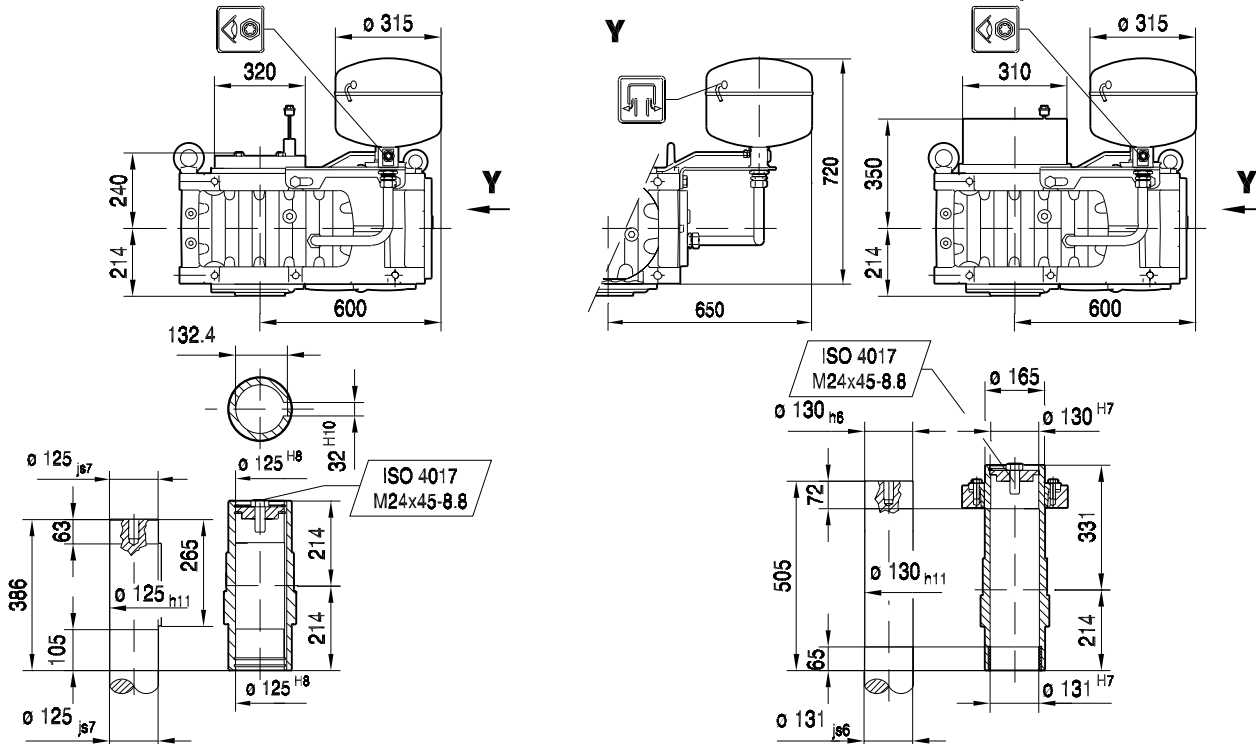
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560 kg
58 l



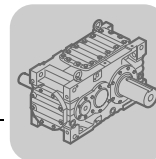
MC2PVHF06

MC2PVHF06 /SD



Helical Gear Units MC...P

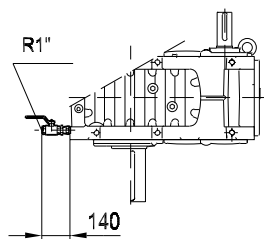
Selection tables (detailed) MC.PV..



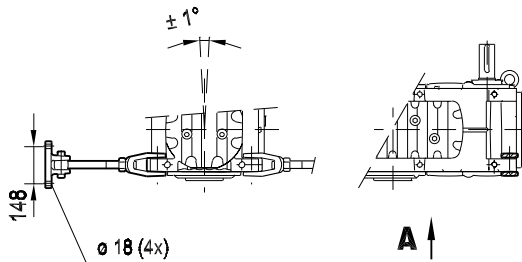
10

MC2PV..06

/ODV

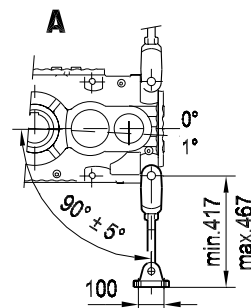


MC2PVH T 06



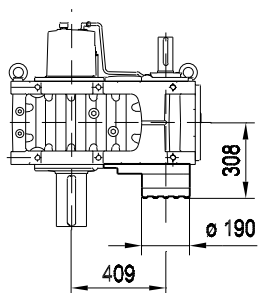
47 069 00 03

2(2)

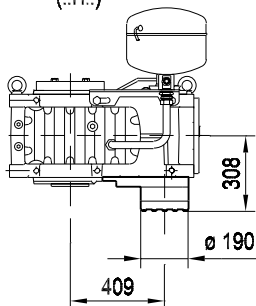


/BS

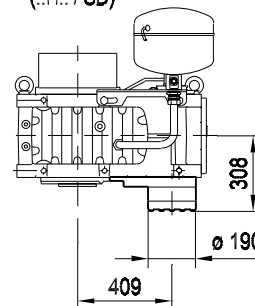
(..S..)



(..H..)

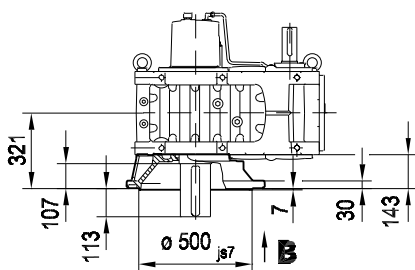


(..H.. / SD)

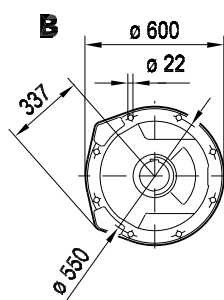
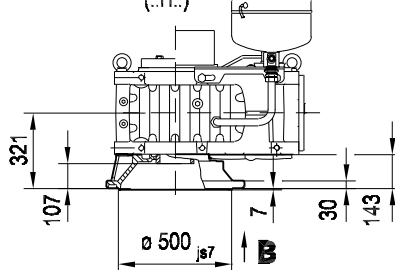


/MF

(..S..)

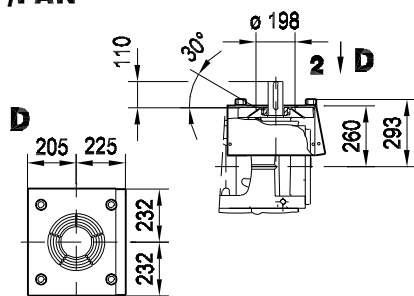


(..H.. / SD)
(..H..)

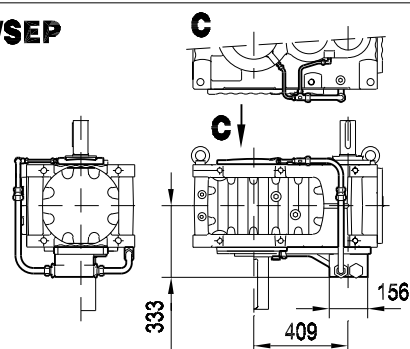


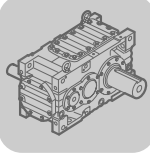
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/FAN



/SEP



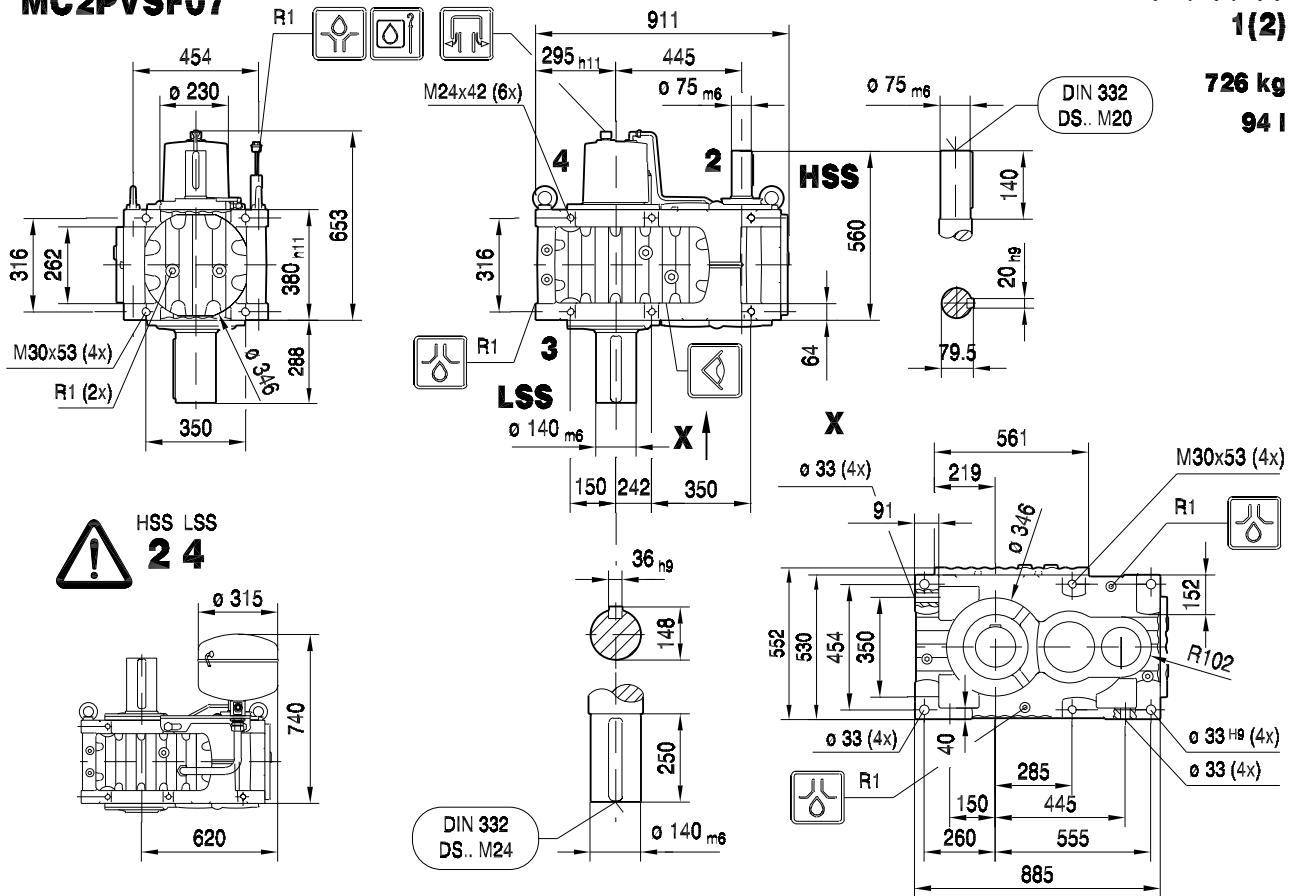


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC2PVSF07

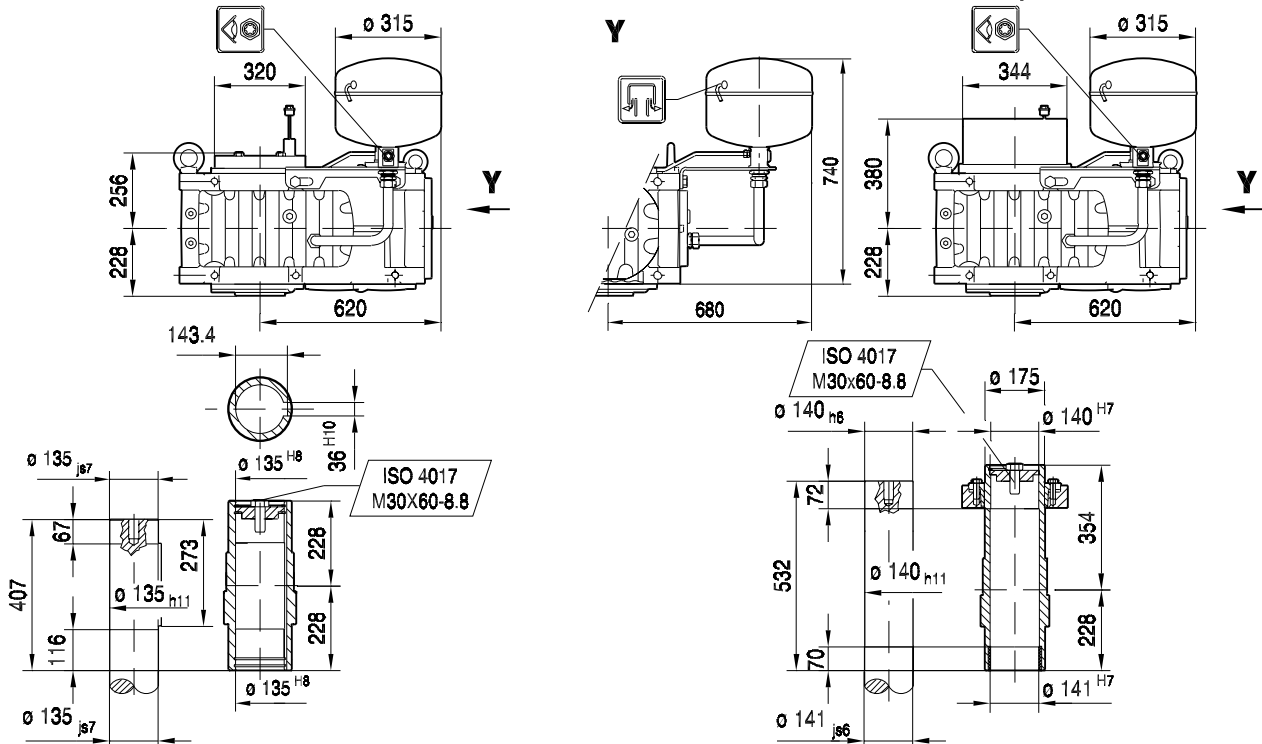
47 070 00 03
1(2)

726 kg
94 l

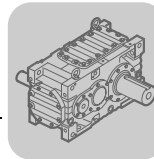


MC2PVHF07

MC2PVHF07 /SD

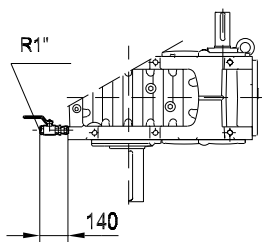


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

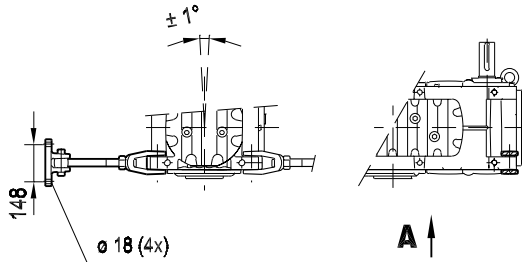


10

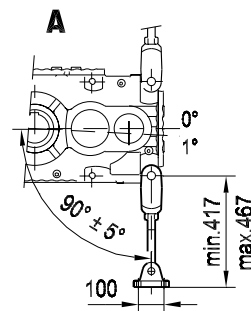
MC2PV..07
/ODV



MC2PVH T 07

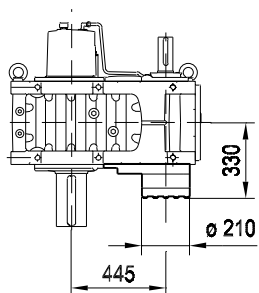


47 070 00 03
2(2)

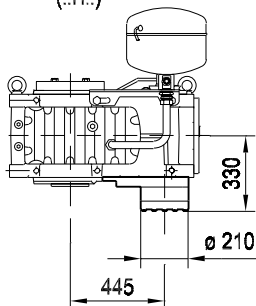


/BS

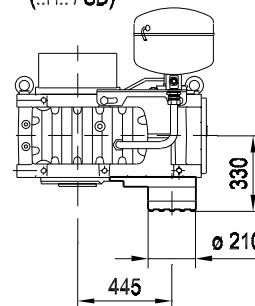
(..S..)



(..H..)

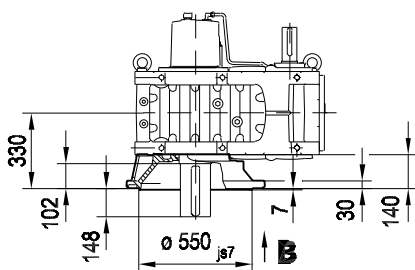


(..H.. / SD)

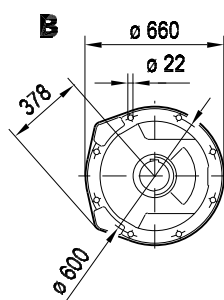
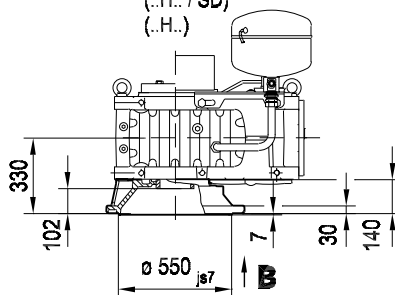


/MF

(..S..)

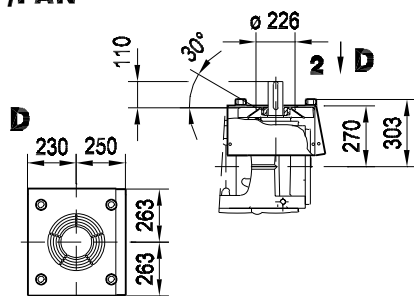


(..H.. / SD)
 (..H..)

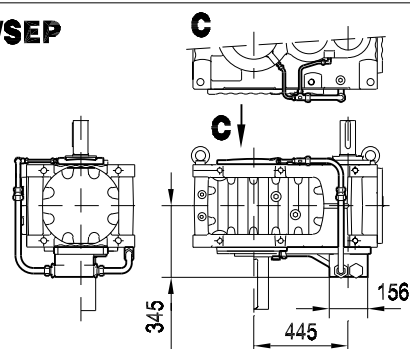


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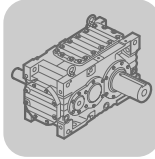
/FAN



/SEP



10

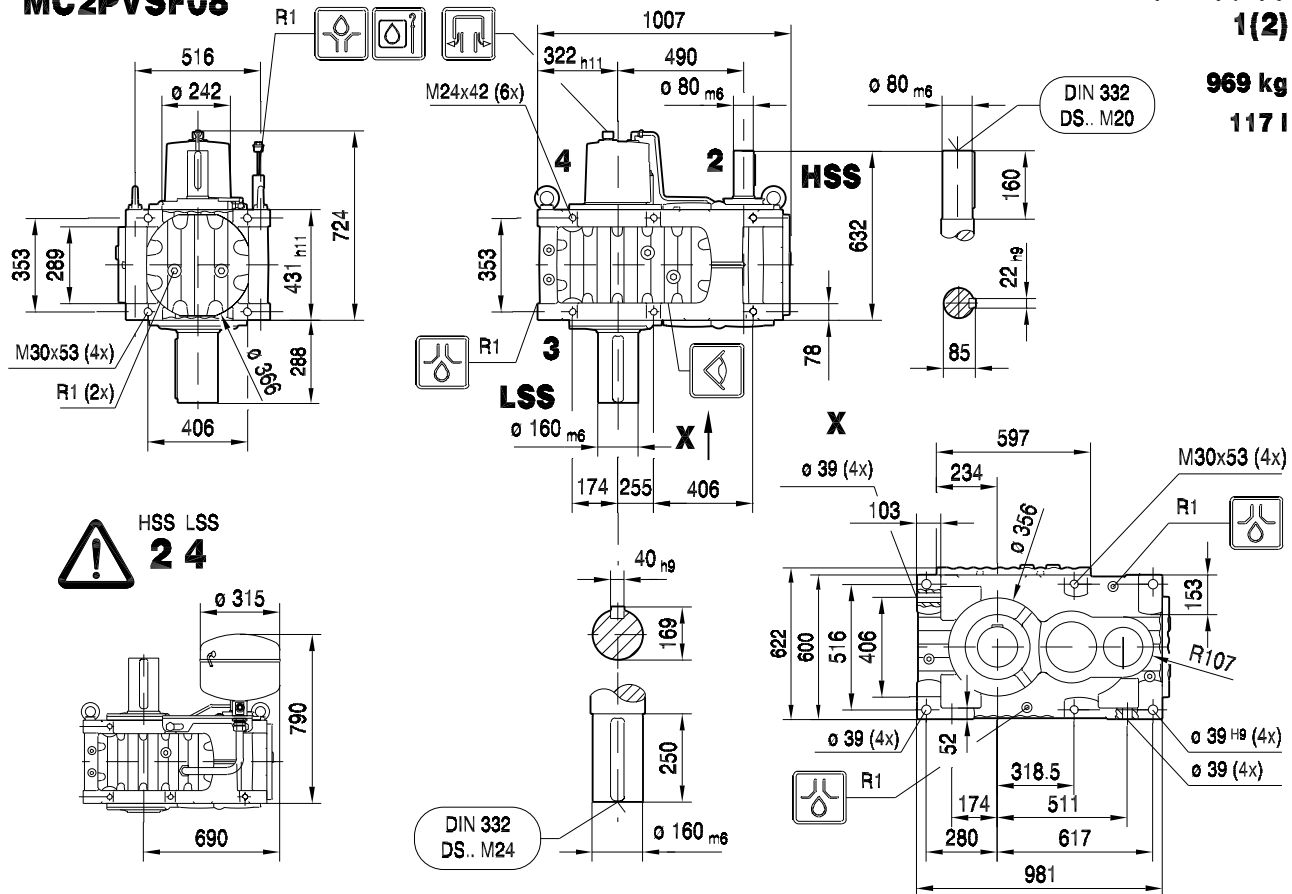


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC2PVSF08

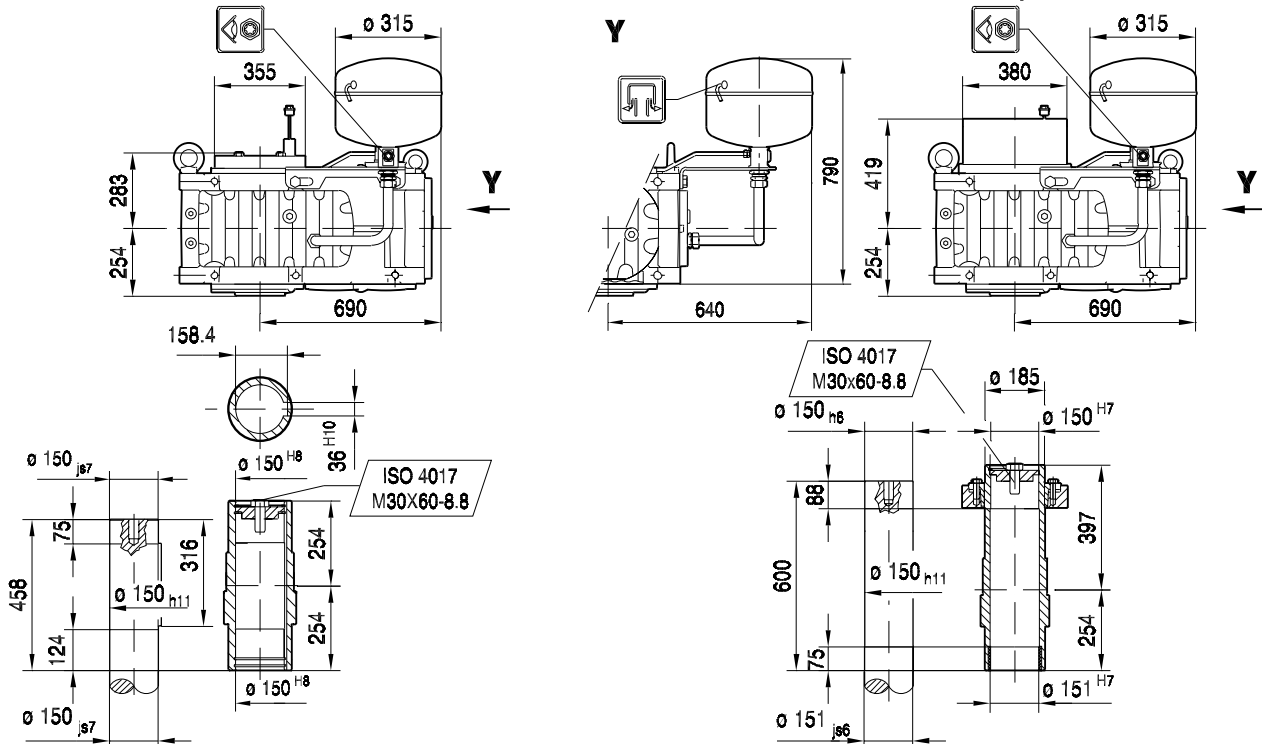
47 071 00 03
1(2)

969 kg
117 l



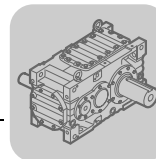
MC2PVHF08

MC2PVHF08 /SD



Helical Gear Units MC...P

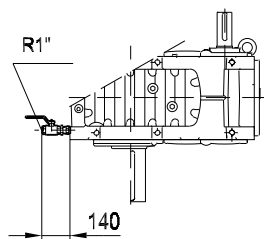
Selection tables (detailed) MC.PV..



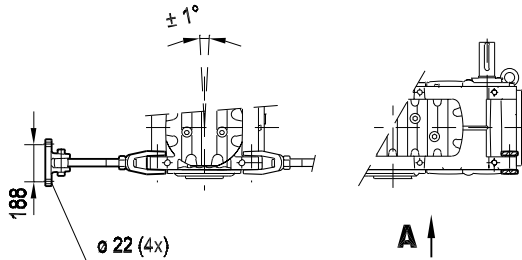
10

MC2PV..08

/ODV

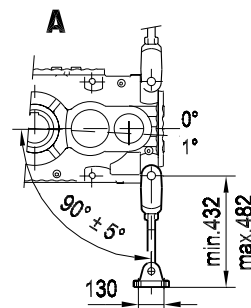


MC2PVH T 08



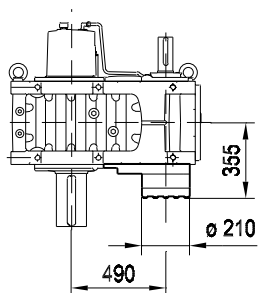
47 071 00 03

2(2)

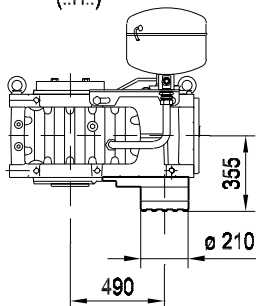


/BS

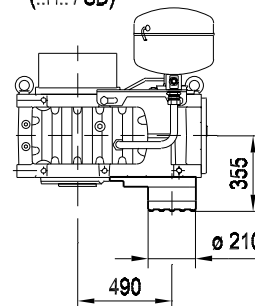
(..S..)



(..H..)

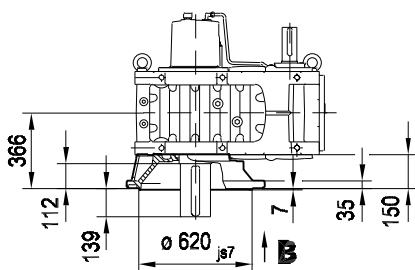


(..H.. / SD)

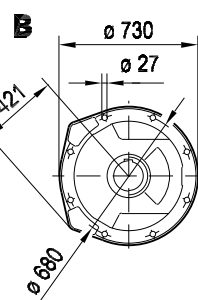
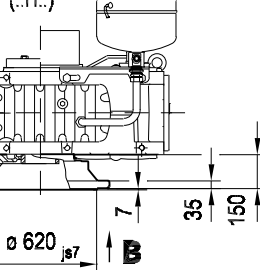


/MF

(..S..)

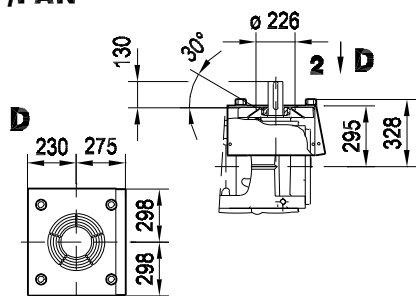


(..H.. / SD)

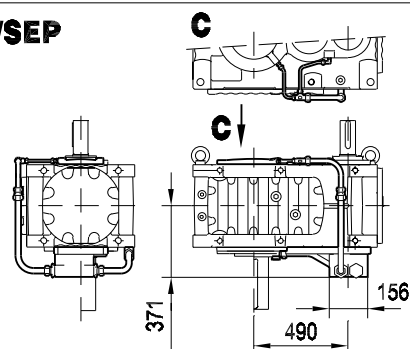


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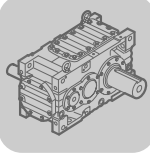
/FAN



/SEP



10

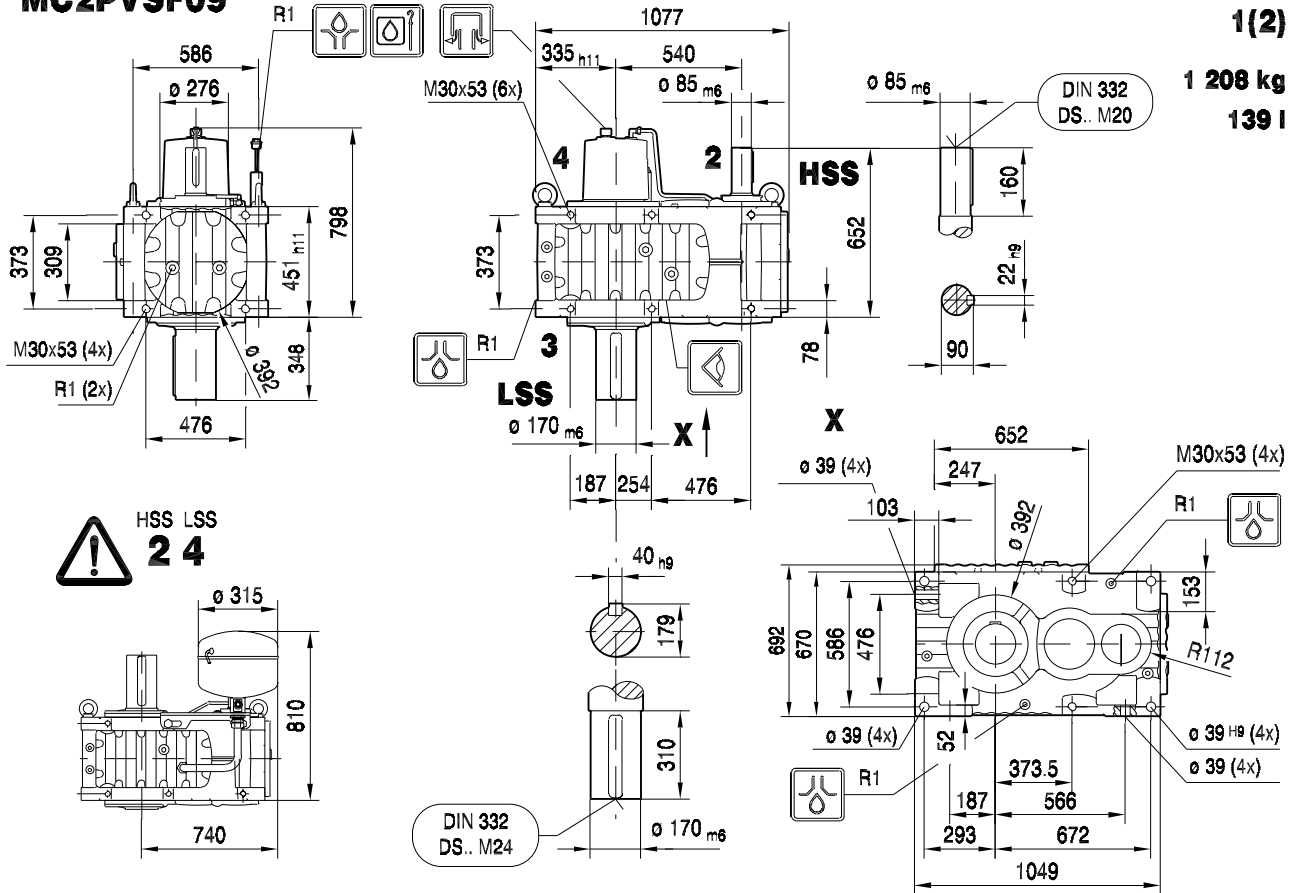


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC2PVSF09

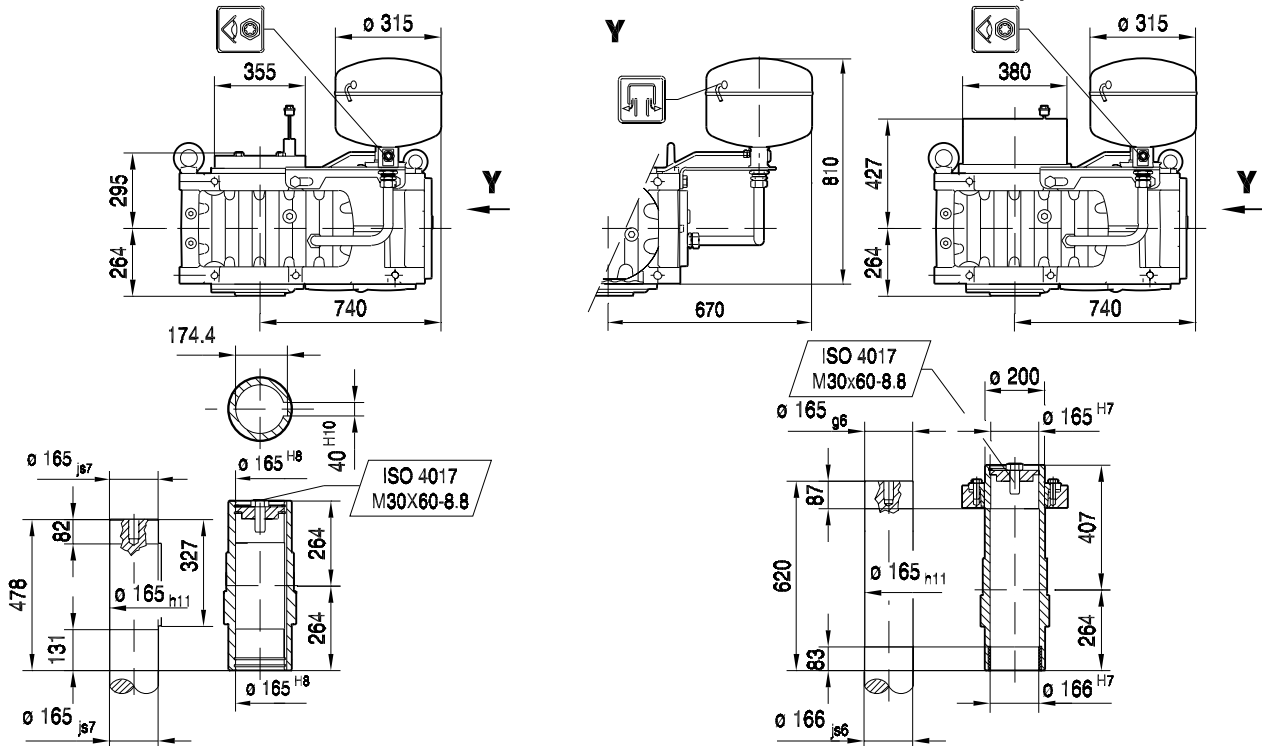
47 072 00 03
1 (2)

1 208 kg
139 l



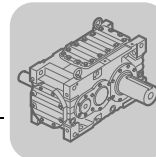
MC2PVHF09

MC2PVHF09 /SD



Helical Gear Units MC...P

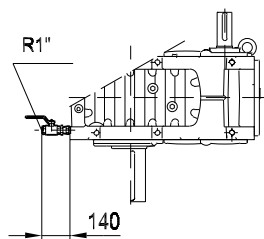
Selection tables (detailed) MC.PV..



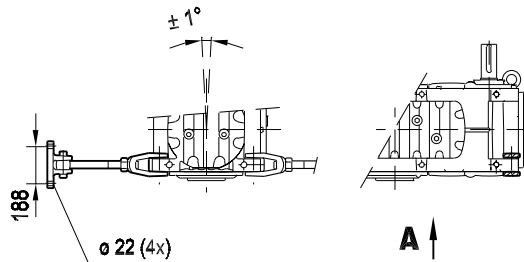
10

MC2PV..09

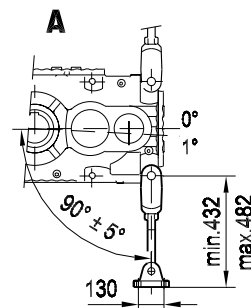
/ODV



MC2PVH T 09

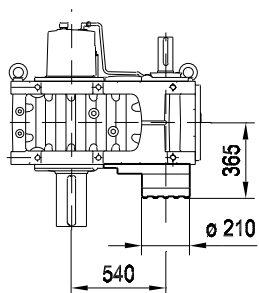


47 072 00 03
2(2)

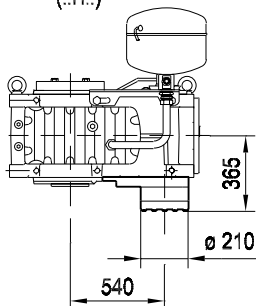


/BS

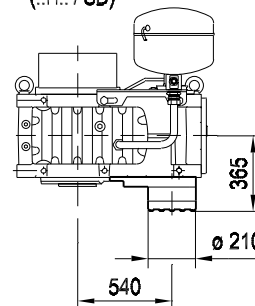
(..S..)



(..H..)

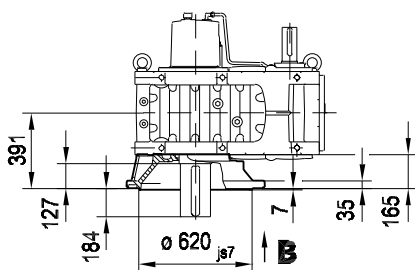


(..H.. / SD)

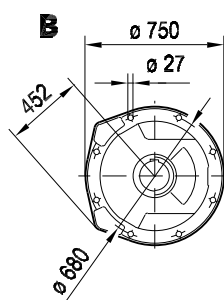
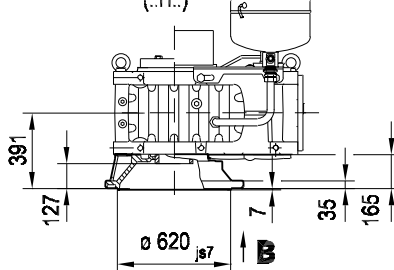


/MF

(..S..)

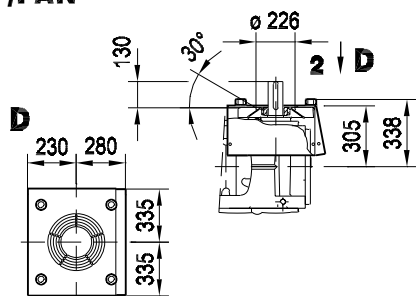


(..H.. / SD)
(..H..)

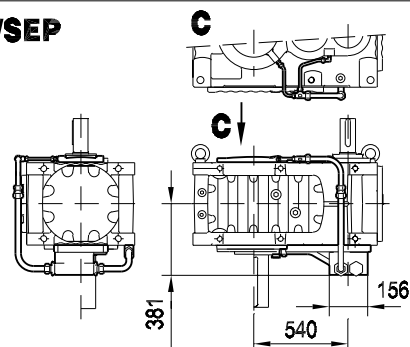


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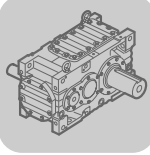
/FAN



/SEP



10

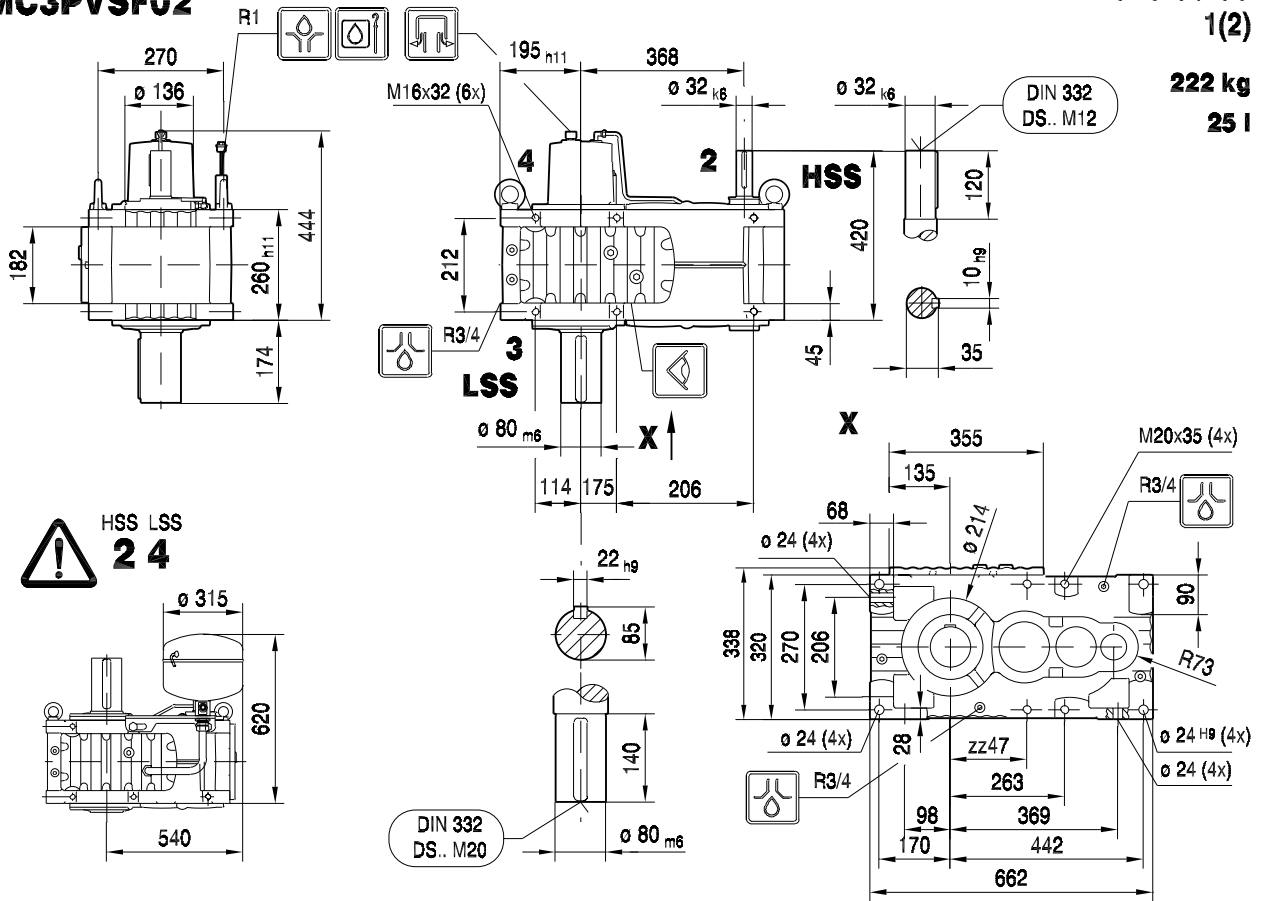


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC3PVSF02

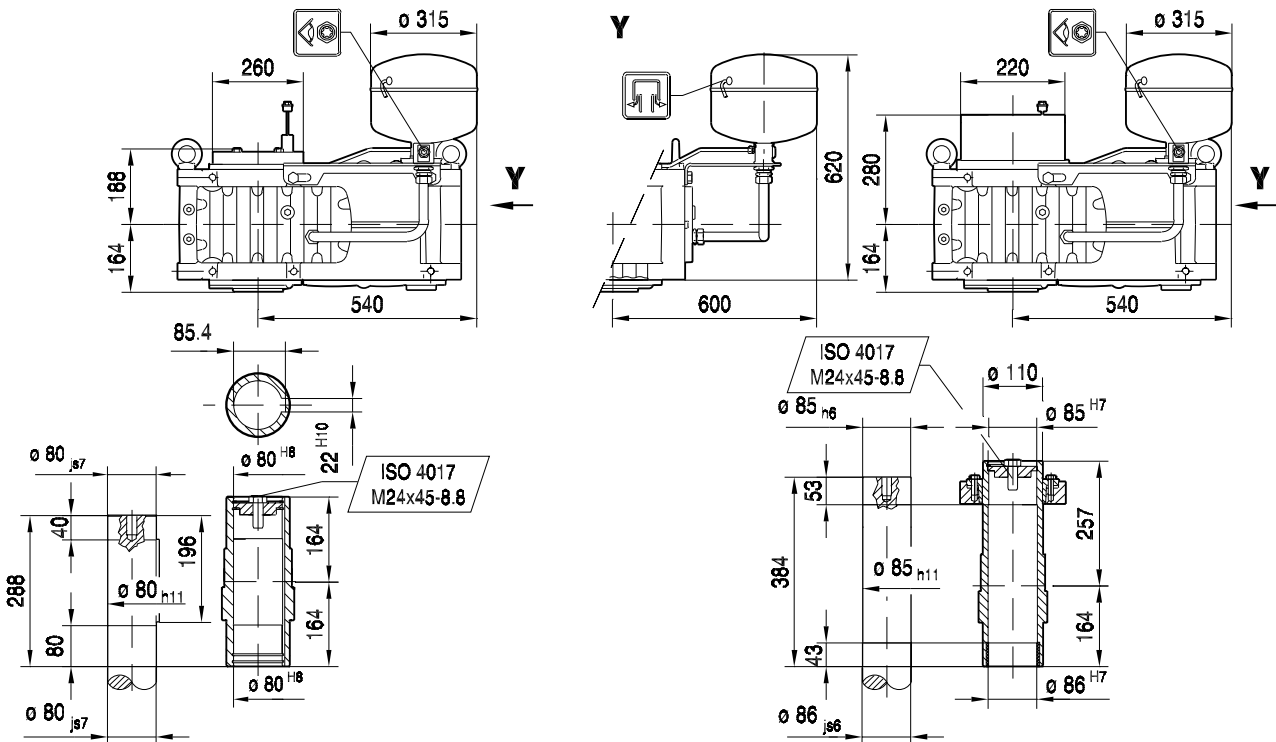
47 073 00 03
1(2)

222 kg
25 l

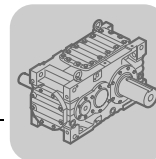


MC3PVHF02

MC3PVHF02 /SD

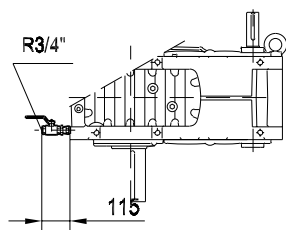


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

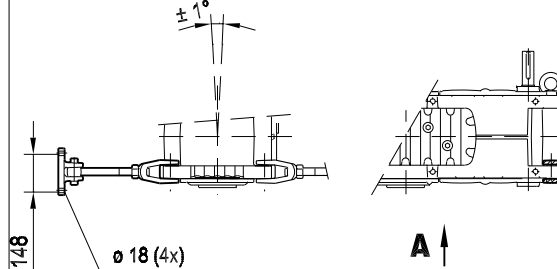


10

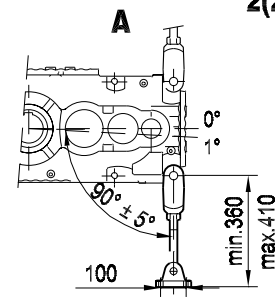
MC3PV..02
/ODV



MC3PVHT 03

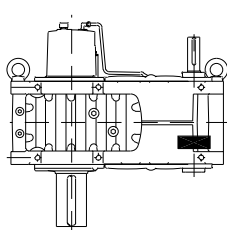


47 073 00 03
2(2)

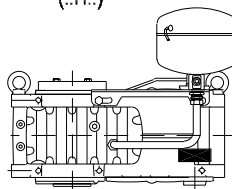


/BS

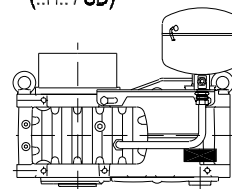
(..S..)



(..H..)

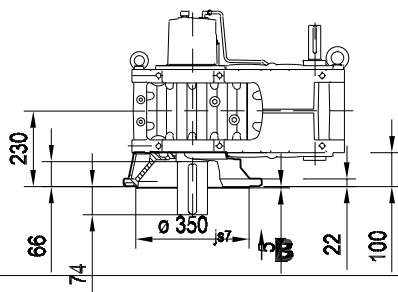


(..H.. / SD)

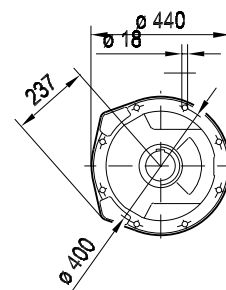
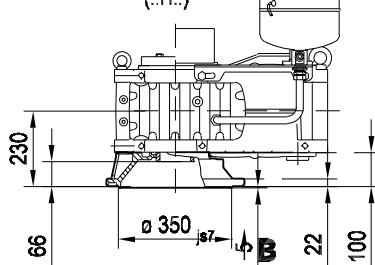


/MF

(..S..)

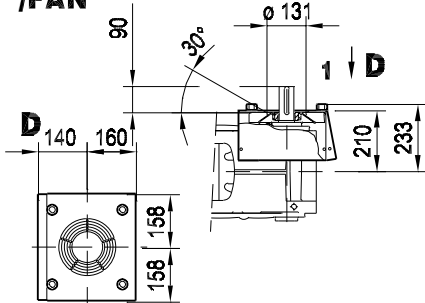


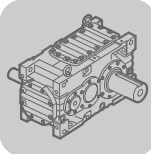
(..H.. / SD)
 (..H..)



10

/FAN



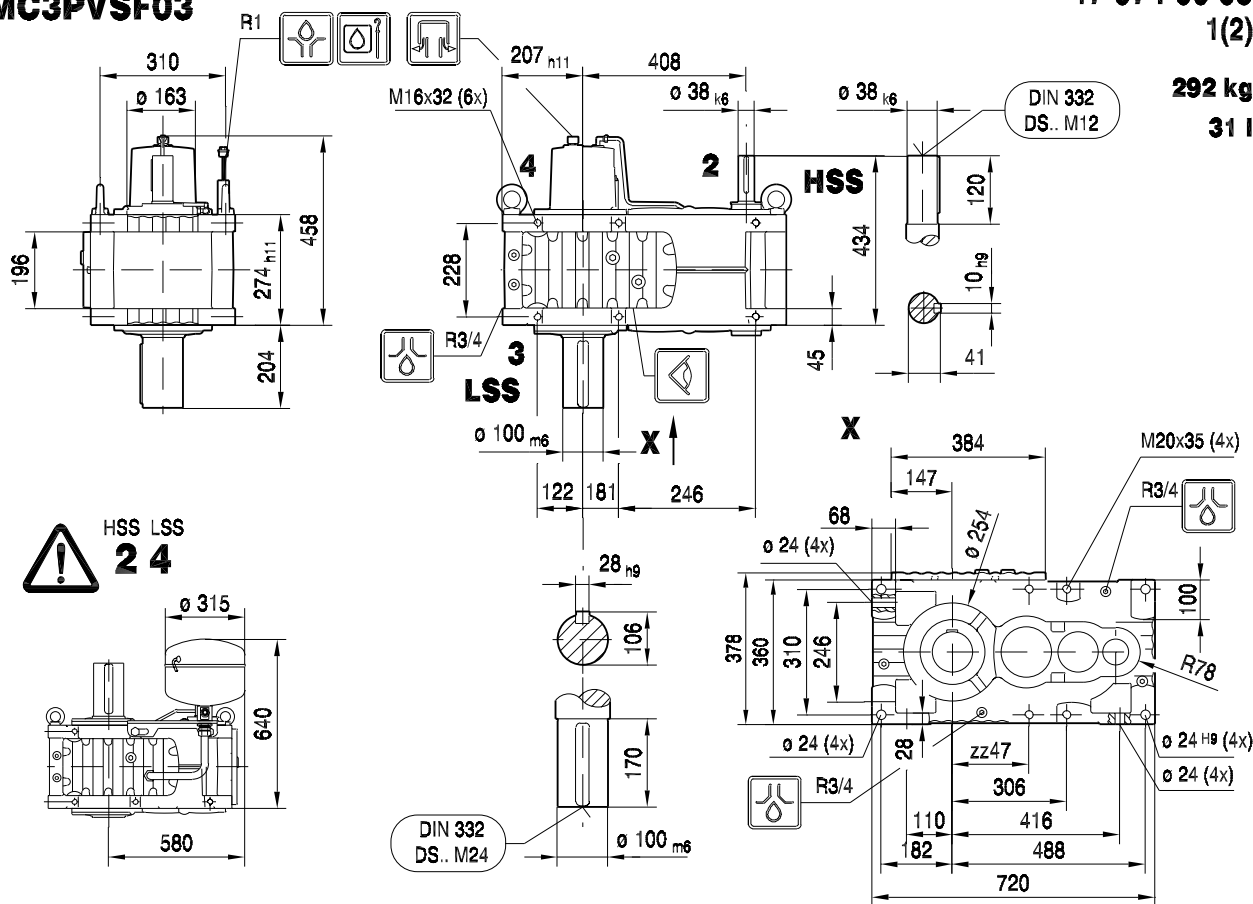


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC3PVSF03

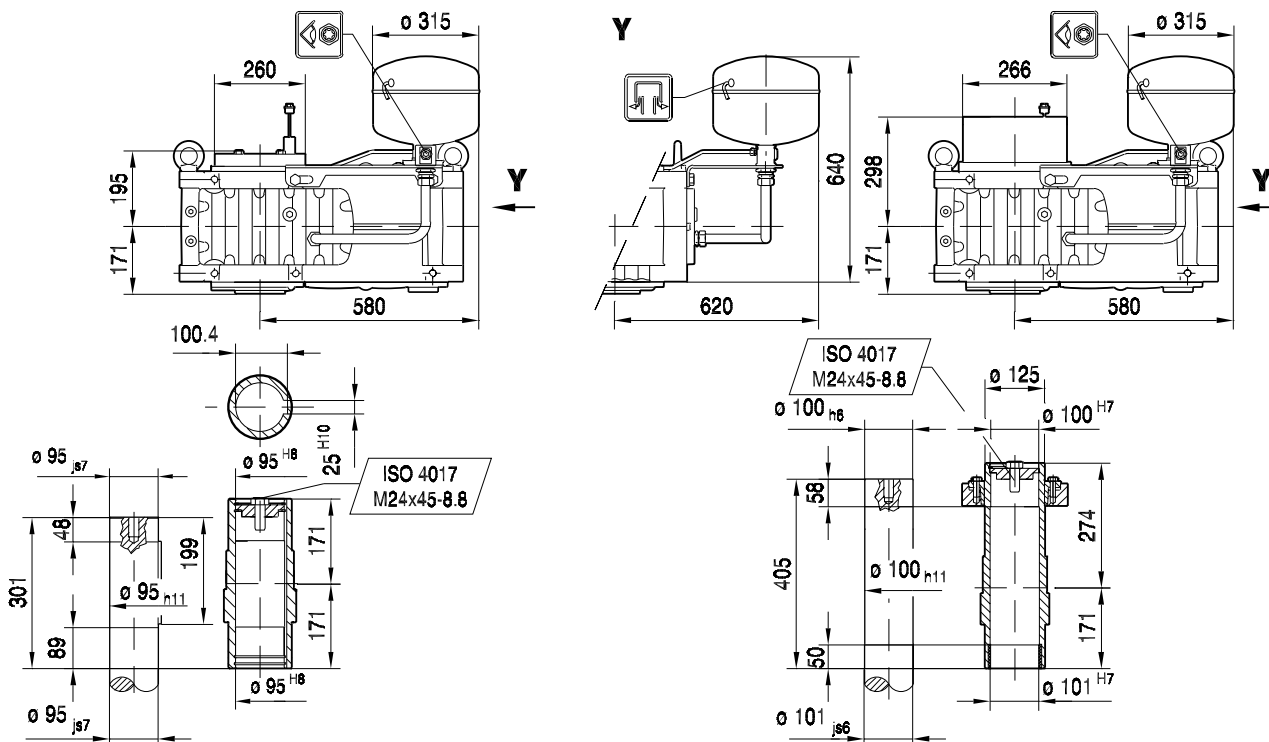
47 074 00 03
1(2)

292 kg
31 l

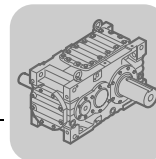


MC3PVHF03

MC3PVHF03 /SD

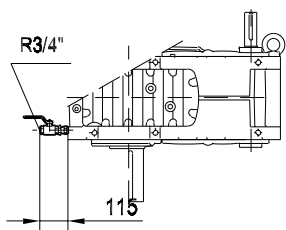


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

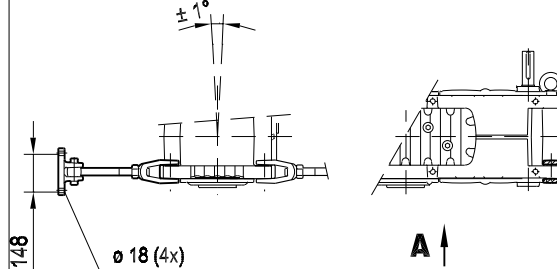


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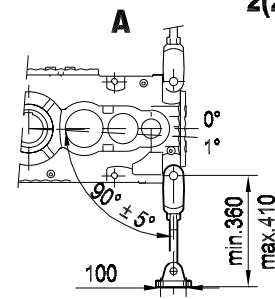
MC3PV..03
/ODV



MC3PVHT 03

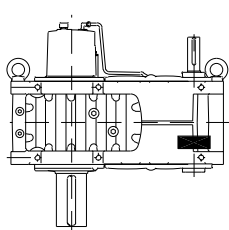


47 074 00 03
2(2)

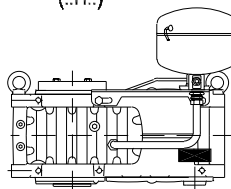


/BS

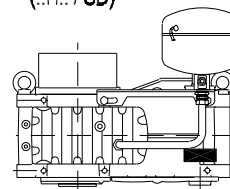
(..S..)



(..H..)

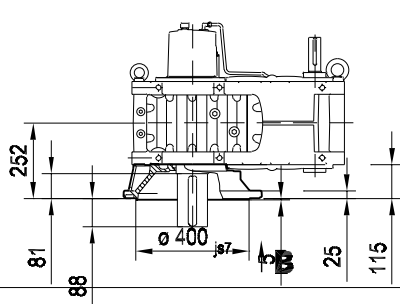


(..H.. / SD)

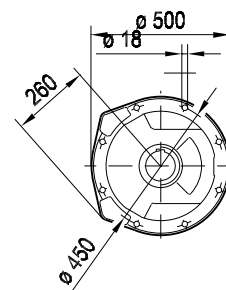
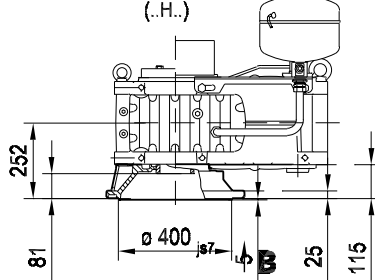


/MF

(..S..)

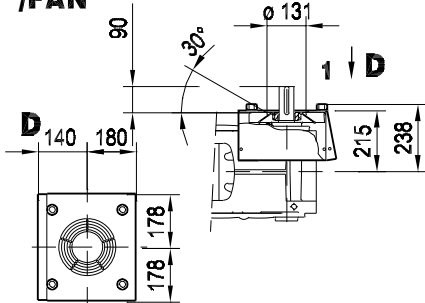


(..H.. / SD)
 (..H..)

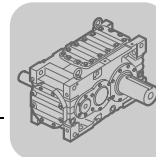


10

/FAN

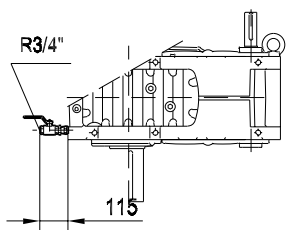


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

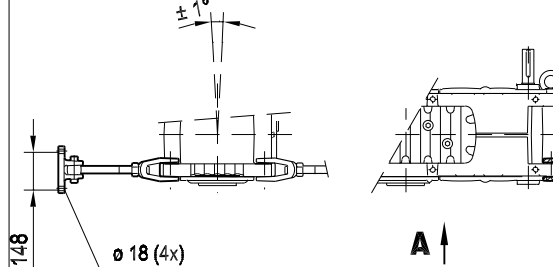


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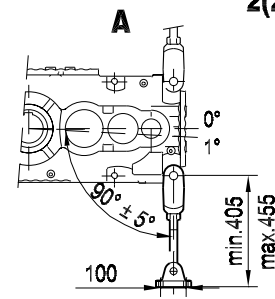
MC3PV..04
/ODV



MC3PVHT 04

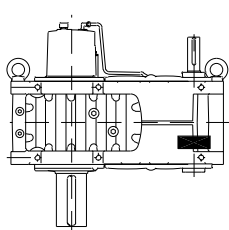


47 075 00 03
2(2)

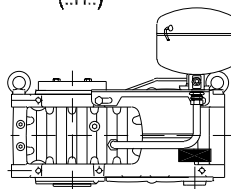


/BS

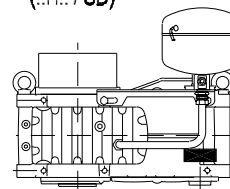
(..S..)



(..H..)

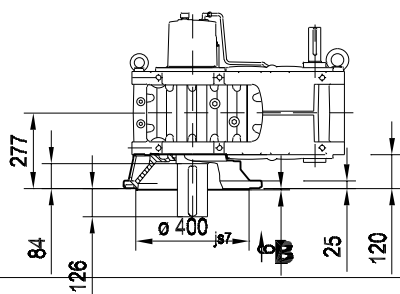


(..H.. / SD)

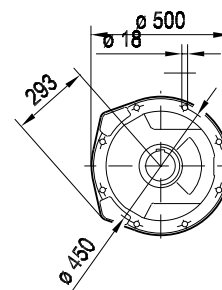
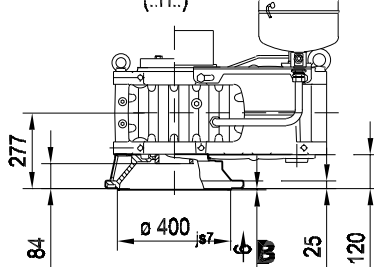


/MF

(..S..)

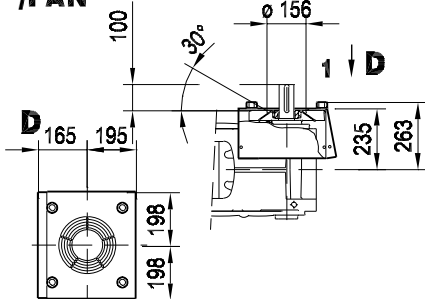


(..H.. / SD)
 (..H..)

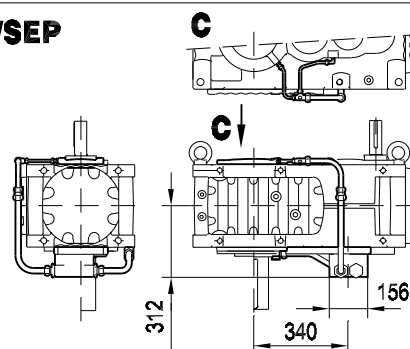


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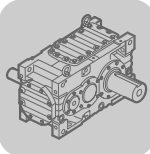
/FAN



/SEP



10

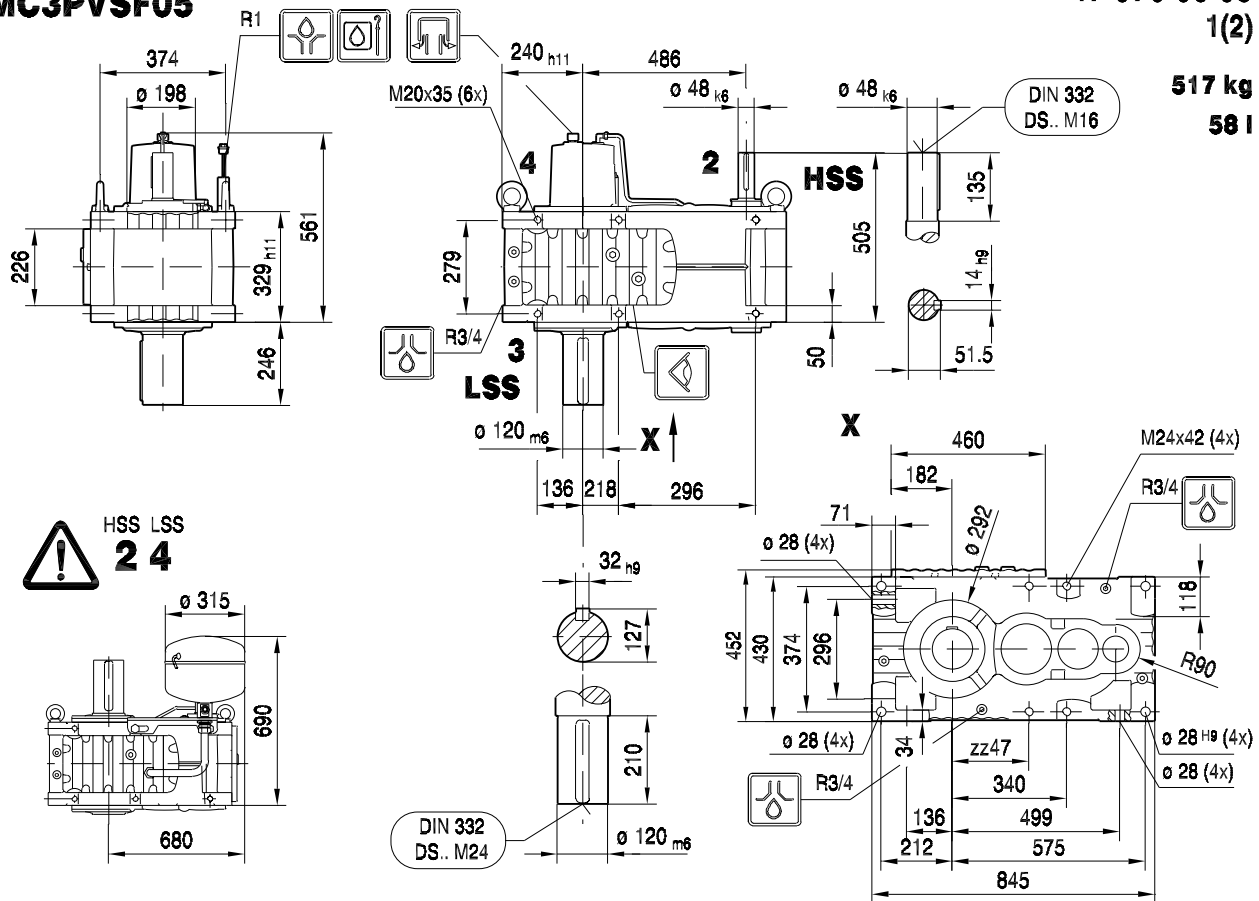


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC3PVSF05

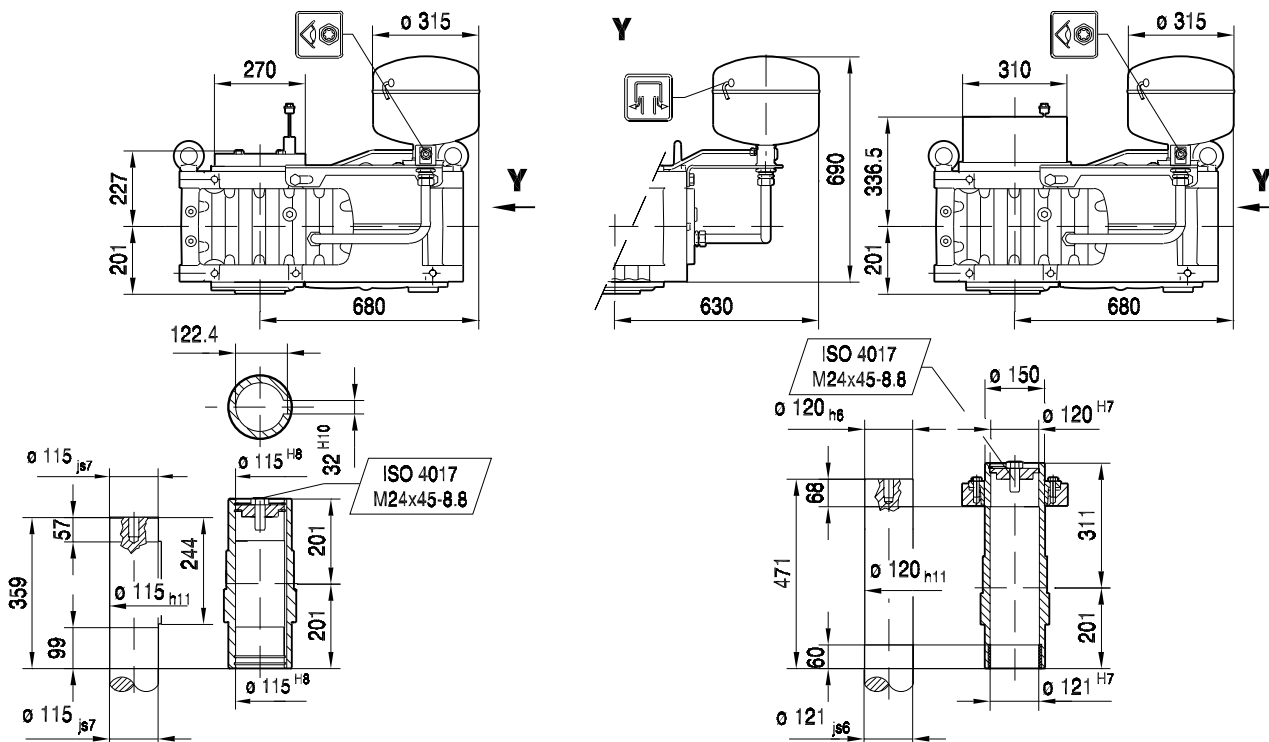
47 076 00 03
1(2)

517 kg
58 l

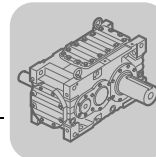


MC3PVHF05

MC3PVHF05 /SD

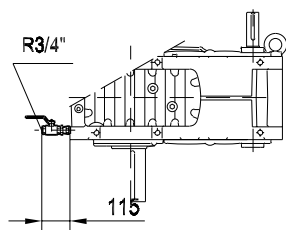


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

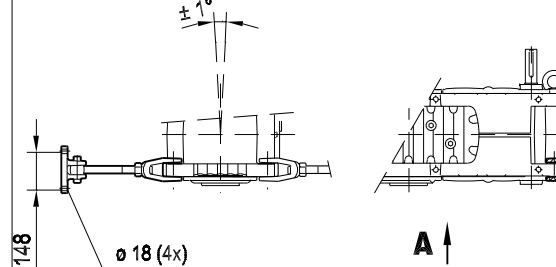


10

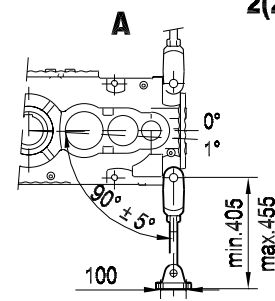
MC3PV..05
/ODV



MC3PVHT 05

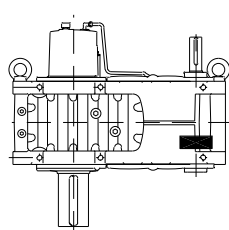


47 076 00 03
2(2)

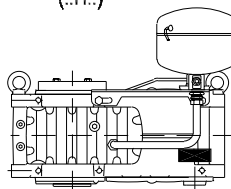


/BS

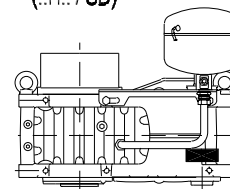
(..S..)



(..H..)

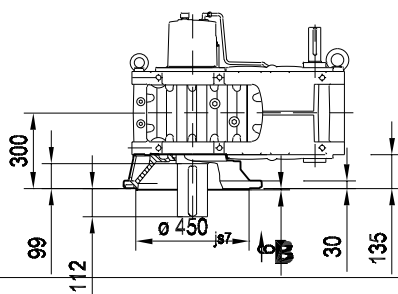


(..H.. / SD)

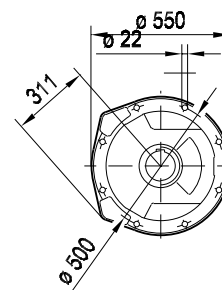
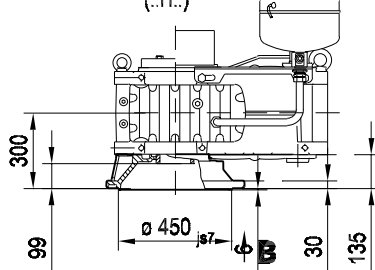


/MF

(..S..)

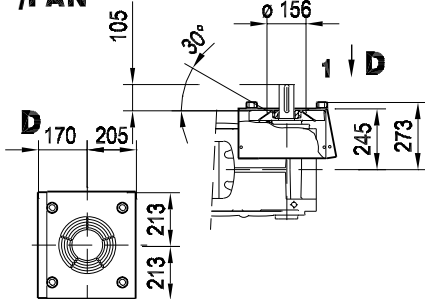


(..H.. / SD)
 (..H..)

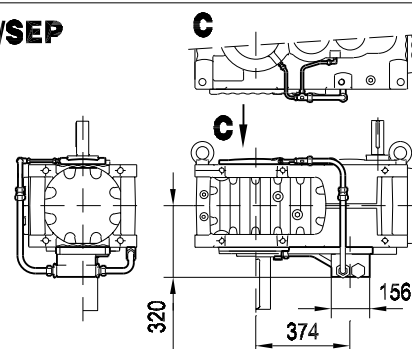


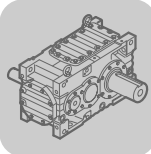
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/FAN



/SEP





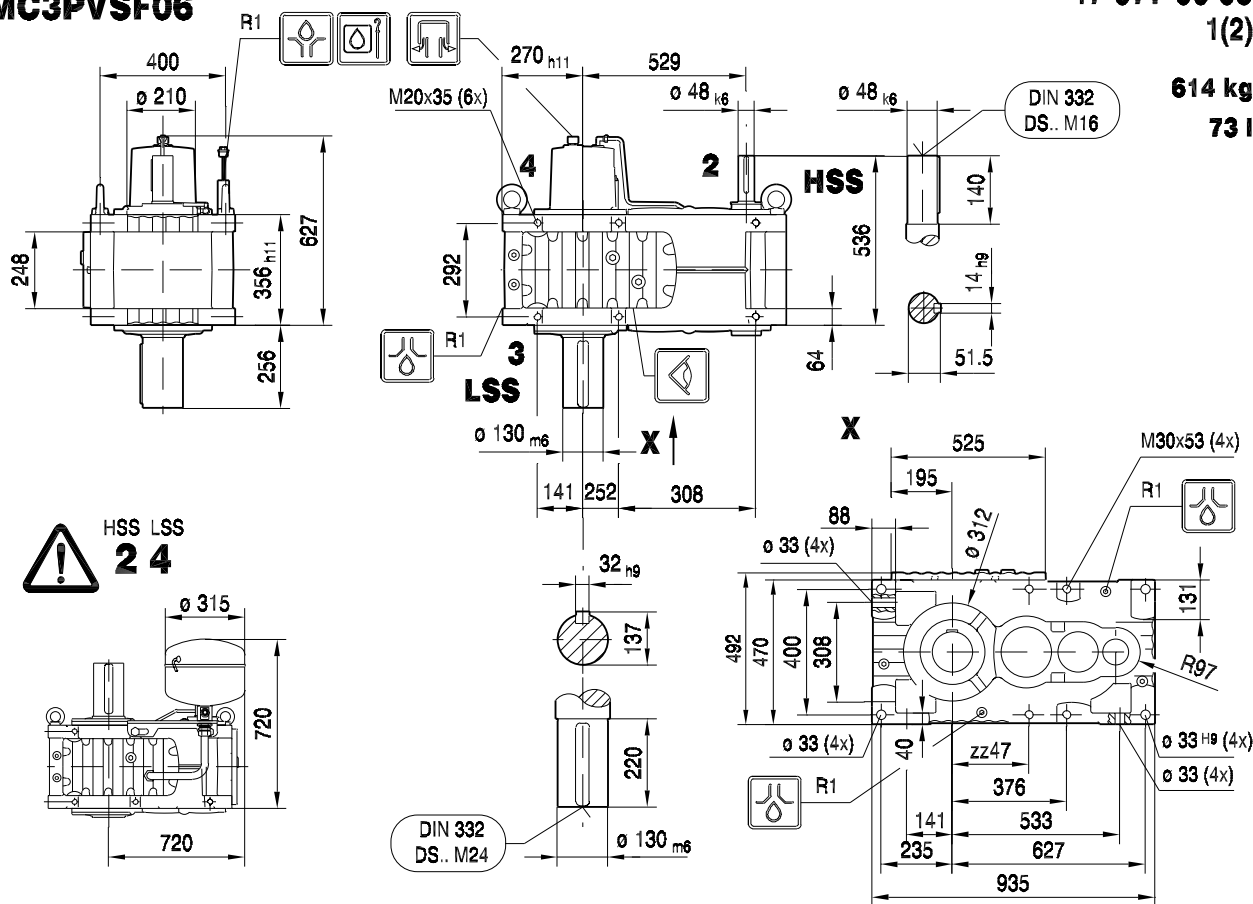
Helical Gear Units MC...P

Selection tables (detailed) MC.PV..

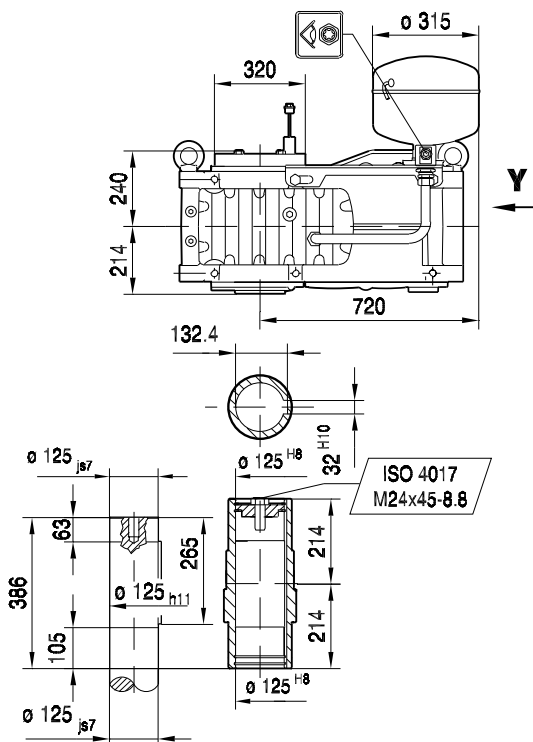
47 077 00 03
1(2)

614 kg
73 l

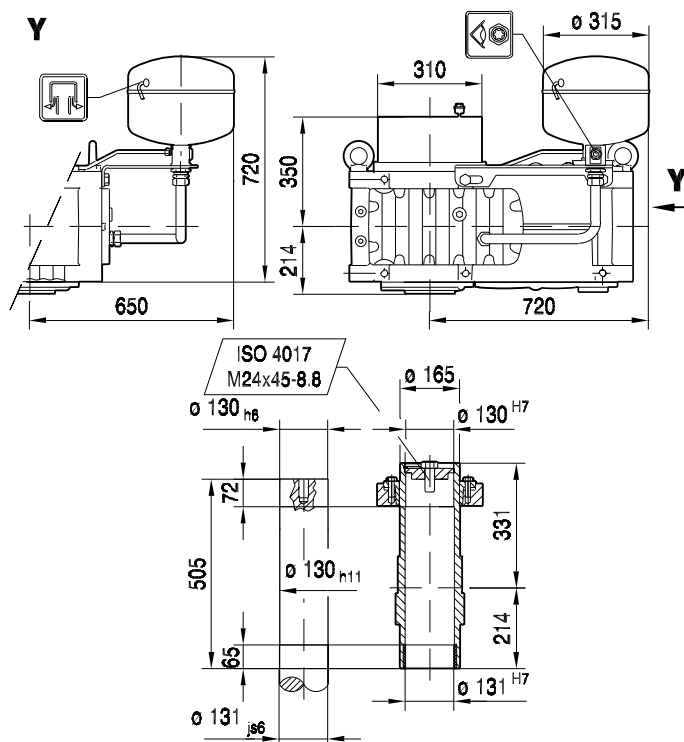
MC3PVSF06



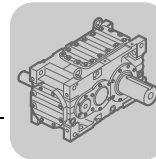
MC3PVHF06



MC3PVHF06 /SD

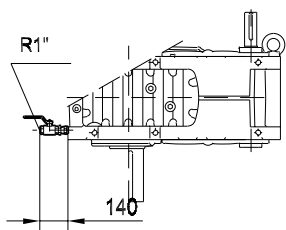


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

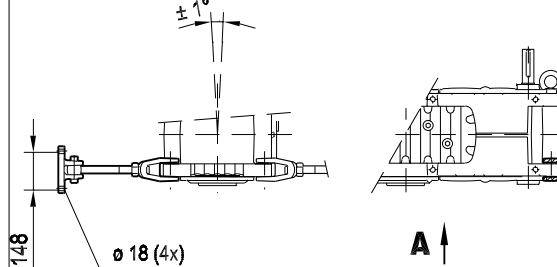


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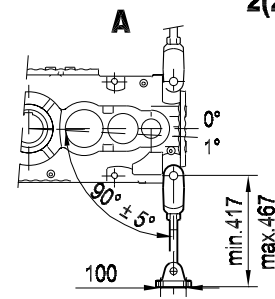
MC3PV..06
/ODV



MC3PVHT 06

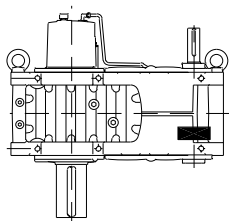


47 077 00 03
2(2)

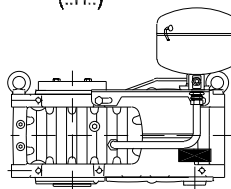


/BS

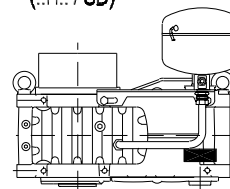
(..S..)



(..H..)

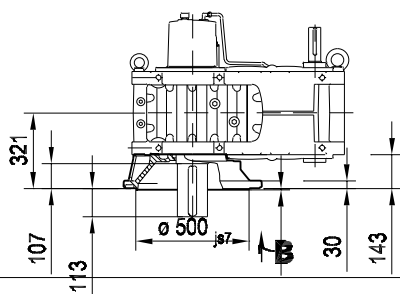


(..H.. / SD)

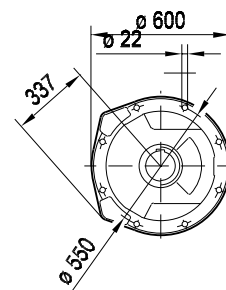
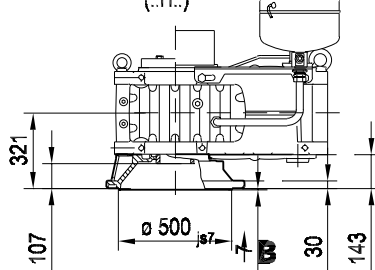


/MF

(..S..)

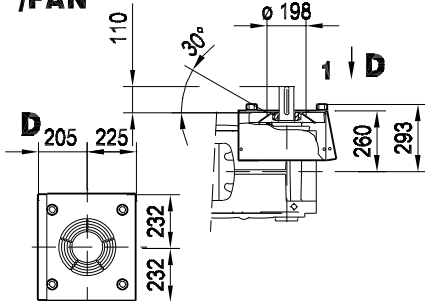


(..H.. / SD)
 (..H..)

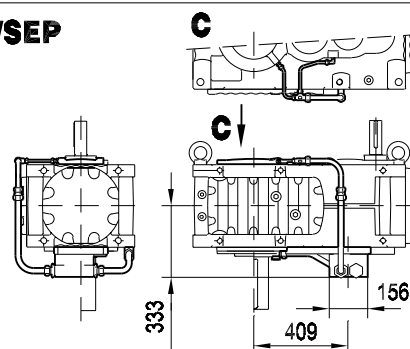


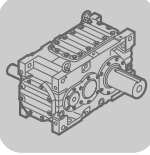
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/FAN



/SEP



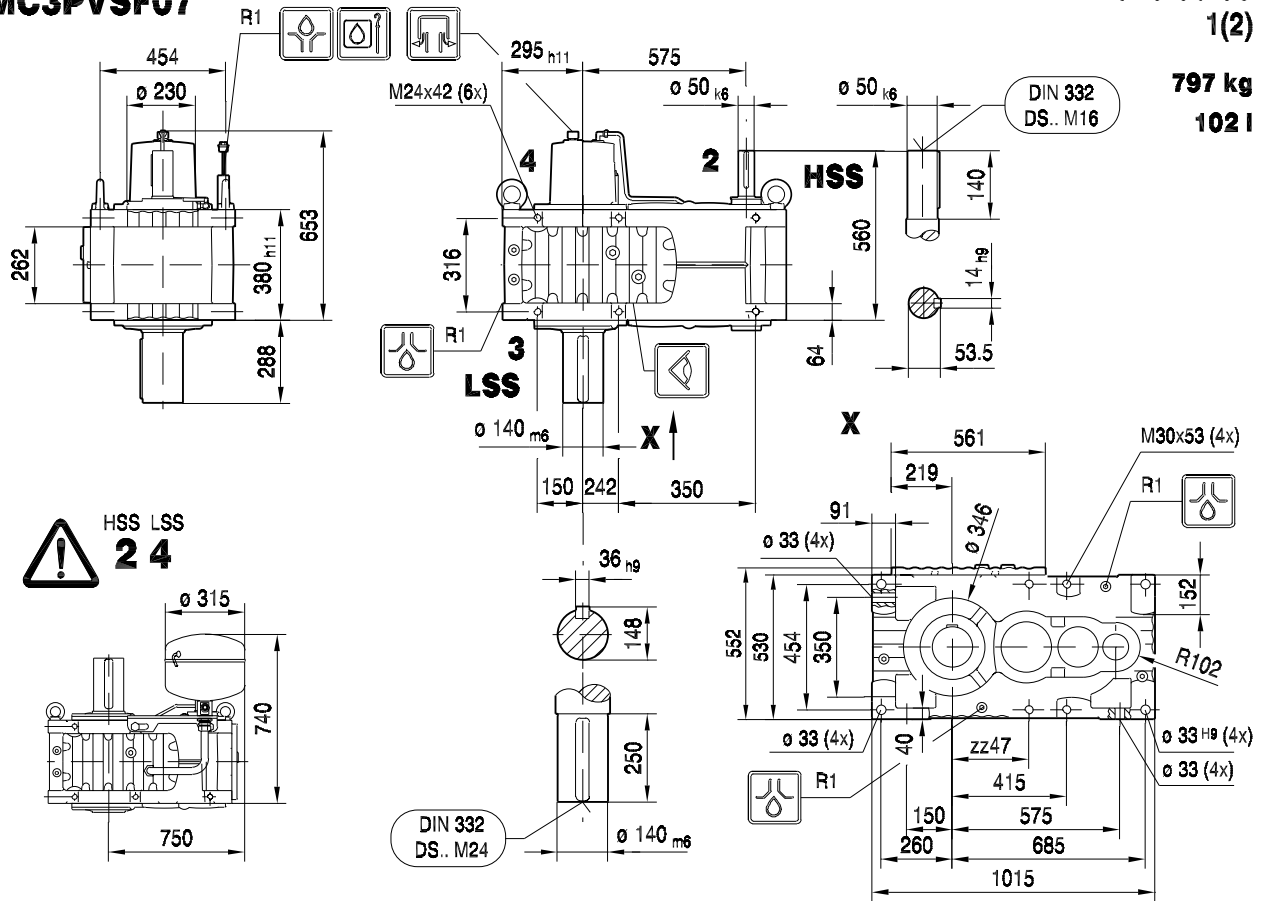


Helical Gear Units MC...P
Selection tables (detailed) MC.PV..

MC3PVSF07

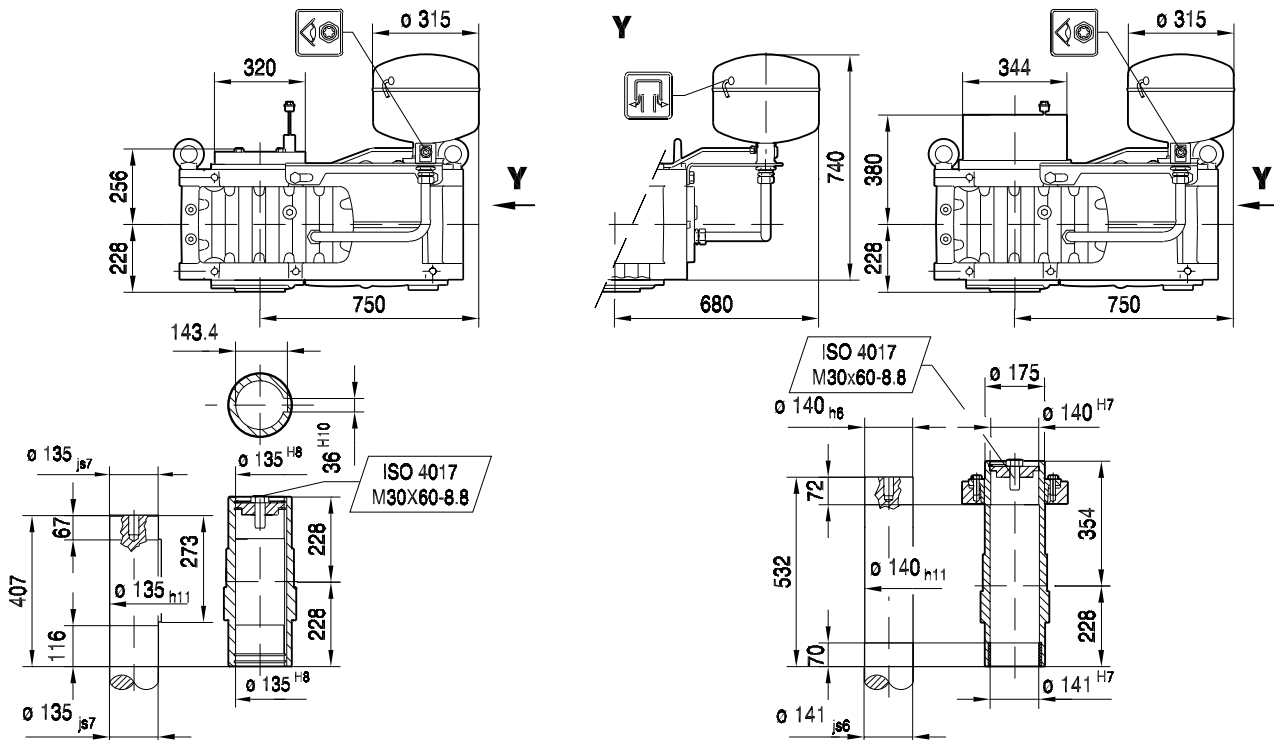
47 078 00 03
1(2)

797 kg
102 l

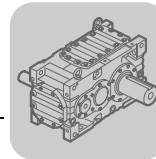


MC3PVHF07

MC3PVHF07 /SD

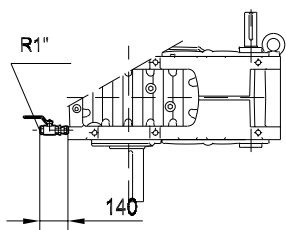


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

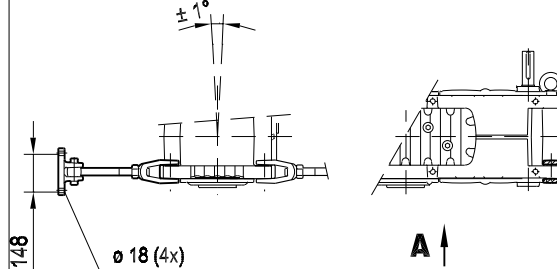


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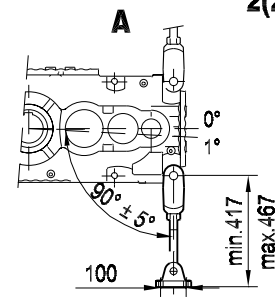
MC3PV..07
/ODV



MC3PVHT 07

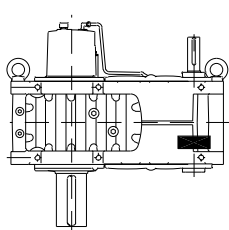


47 078 00 03
2(2)

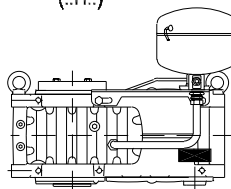


/BS

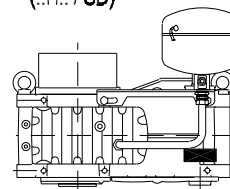
(..S..)



(..H..)

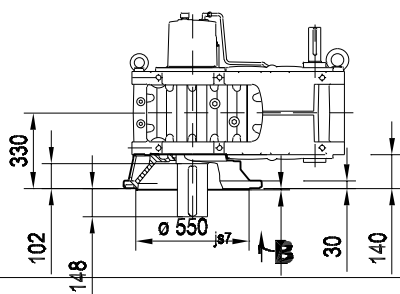


(..H.. / SD)



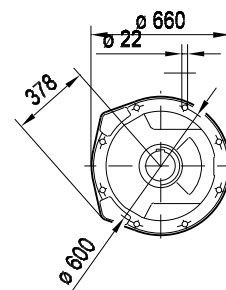
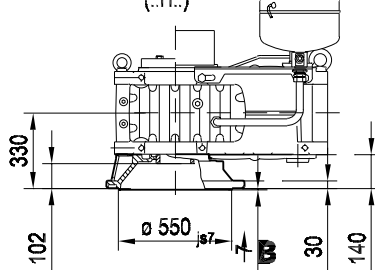
/MF

(..S..)



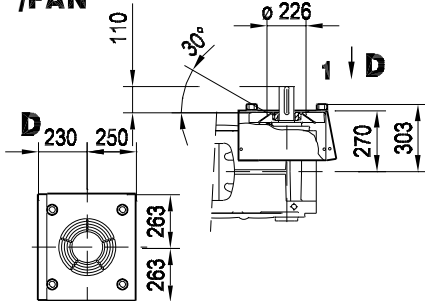
(..H.. / SD)

(..H..)

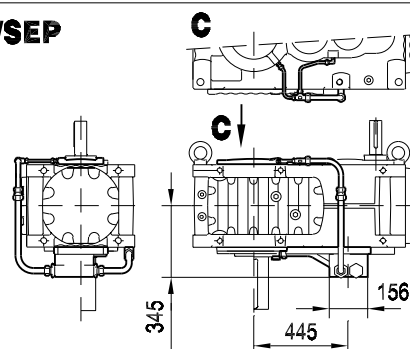


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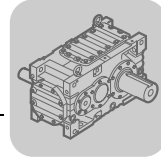
/FAN



/SEP

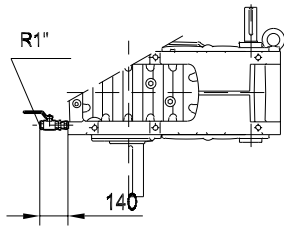


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

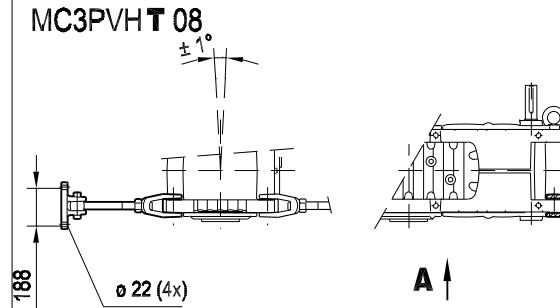


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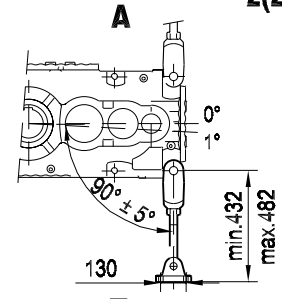
MC3PV..08
/ODV



MC3PVHT 08

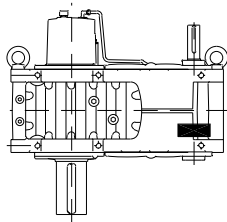


47 079 00 03
2(2)

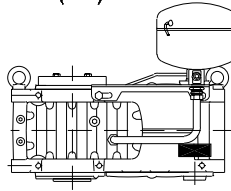


/BS

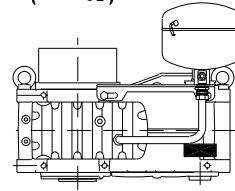
(..S..)



(..H..)

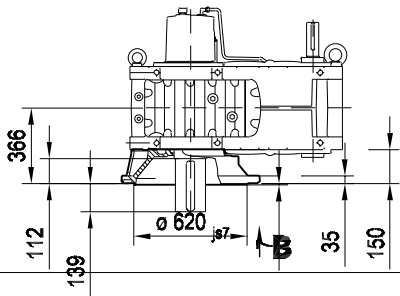


(..H.. / SD)

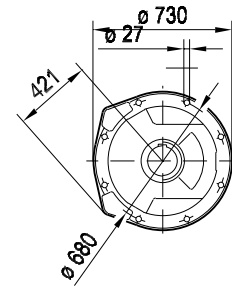
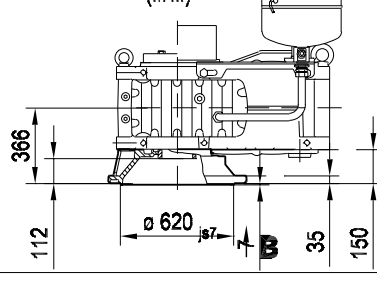


/MF

(..S..)

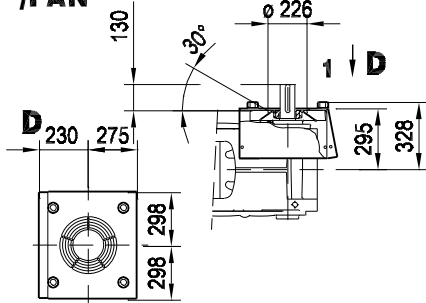


(..H.. / SD)
 (..H..)

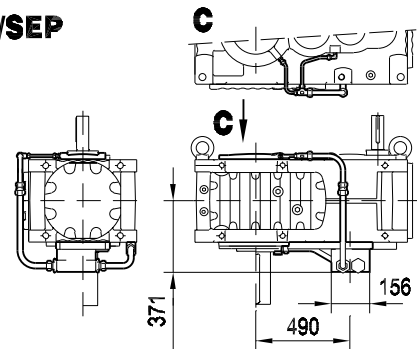


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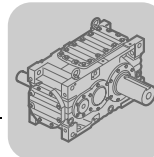
/FAN



/SEP

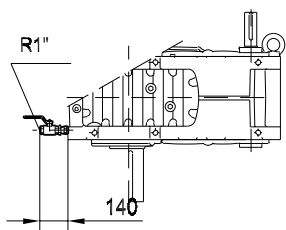


Helical Gear Units MC...P
 Selection tables (detailed) MC.PV..

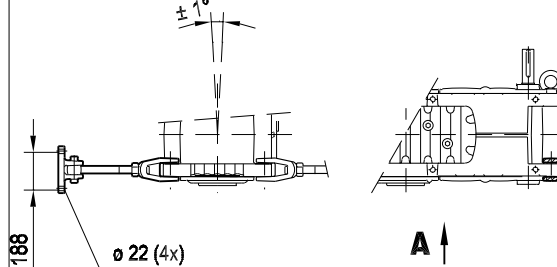


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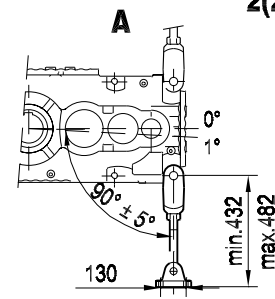
MC3PV..09
/ODV



MC3PVHT 09

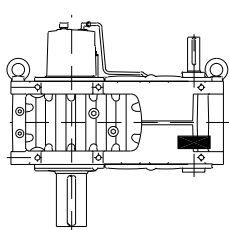


47 080 00 03
2(2)

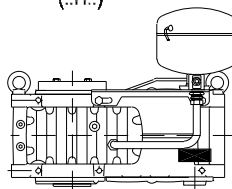


/BS

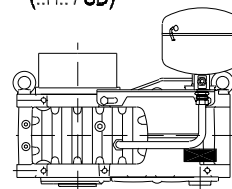
(..S..)



(..H..)

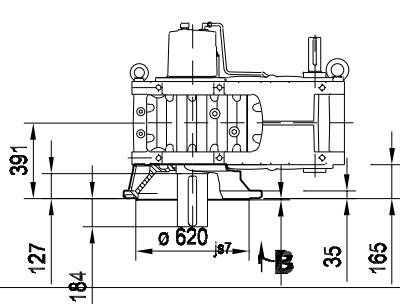


(..H.. / SD)

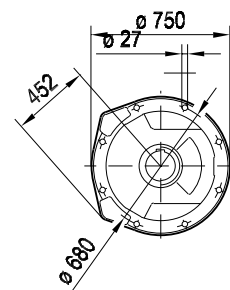
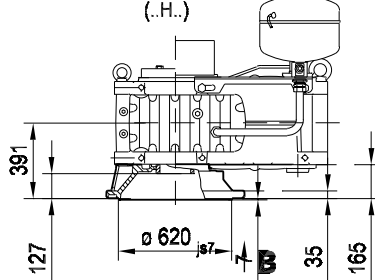


/MF

(..S..)

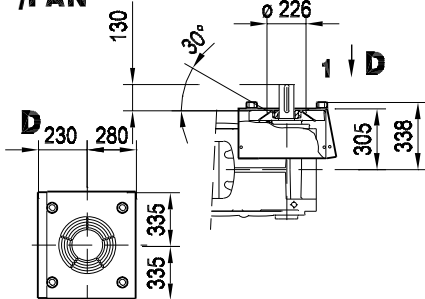


(..H.. / SD)
 (..H..)

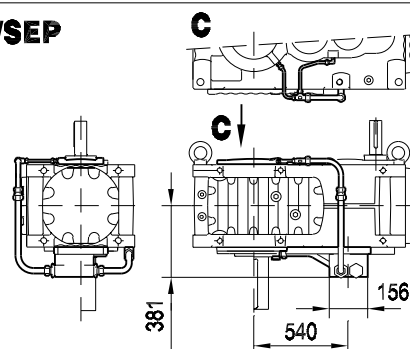


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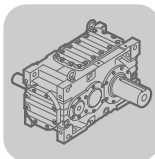
/FAN



/SEP



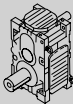


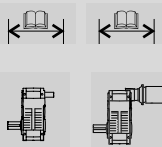


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

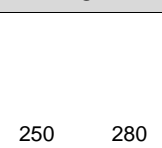




Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

10.4 Selection tables (detailed) MC.PE..

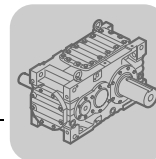
10.4.1 MC.PE..., n₁ = 1800 1/min.

MC.PE..02, n ₁ = 1800 1/min							P _{TH}						8.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	7.07	255	6.9	189	*)	*)	MC2PESF02 MC2PEHF02 MC2PEHT02	36	*)	100	60	129	81	248	280
8.00	8.18	220	7.1	170	*)	2.15		38	*)	103	63	131	84		
9.00	9.18	196	7.4	156	*)	3.68		40	18	105	65	133	85		
10.00	9.83	183	7.5	148	*)	*)		41	19	106	66	134	86		
11.20	11.37	158	8.0	136	*)	1.78		43	21	108	68	136	89		
12.50	12.31	146	7.9	124	*)	*)		44	22	109	69	137	90		
14.00	14.24	126	8.0	109	*)	2.45		46	24	111	71	139	92		
16.00	15.98	113	7.5	91	3.45	5.3		36	14	93	53	117	70		
18.00	17.88	101	7.5	82	4.59	5.6		38	16	94	54	119	71		
20.00	20.24	89	7.0	67	7.8	6.7		39	17	96	56	120	73		
22.50	22.30	81	8.3	73	1.68	1.96	MC3PESF02 MC3PEHF02 MC3PEHT02	37	20	87	56	108	72	264	281
25.00	25.79	70	7.9	60	6.5	3.13		38	21	88	58	110	74		
28.00	28.95	62	7.4	50	9.0	3.37		39	22	89	59	111	75		
31.50	32.31	56	8.0	49	8.4	3.38		40	23	90	60	112	76		
35.50	36.27	50	7.5	41	10.4	3.42		41	24	91	61	113	77		
40.00	38.89	46	8.5	43	8.2	1.62		41	25	92	61	113	77		
45.00	44.97	40	8.1	35	10.6	2.66		42	26	93	62	115	78		
50.00	50.47	36	7.5	29	12.8	3.45		43	27	94	63	115	79		
56.00	56.34	32	8.1	28	12.4	3.61		44	27	95	64	116	80		
63.00	63.23	28	7.6	24	14.4	3.78		45	28	95	65	117	81		
71.00	71.20	25	8.1	22	14.4	2.12		37	20	81	50	100	63		
80.00	79.91	23	7.7	19	16.4	2.71		38	21	82	51	100	64		
90.00	90.45	20	7.1	15.3	18.9	2.72	39	22	82	52	101	65			
100.00	95.36	19	7.7	15.9	18.0	2.72	39	22	83	52	101	65			
112.00	107.94	17	7.1	13.0	20.5	2.73	40	23	83	53	102	66			

MC.PE..03, n ₁ = 1800 1/min							P _{TH}						11.5 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	7.29	247	8.8	235	5.5	1.73	MC2PESF03 MC2PEHF03 MC2PEHT03	45	*)	126	76	161	102	250	280
8.00	8.23	219	9.3	219	5.9	4.44		47	*)	129	79	164	105		
9.00	9.28	194	9.5	198	6.9	6.6		50	22	131	81	166	107		
10.00	9.95	181	9.8	191	5.8	0.90		51	24	133	83	168	108		
11.20	11.23	160	10.1	175	6.6	4.53		53	26	135	85	170	111		
12.50	12.70	142	10.1	154	7.1	2.48		55	28	137	87	172	113		
14.00	14.32	126	10.9	148	7.1	4.05		57	30	139	89	174	115		
16.00	16.16	111	10.8	129	8.9	7.1		45	18	116	66	147	87		
18.00	17.91	100	10.8	117	9.8	7.4		47	19	118	68	148	89		
20.00	20.40	88	9.9	95	13.1	8.1		49	21	120	70	150	91		
22.50	22.65	79	11.3	98	9.9	2.35	MC3PESF03 MC3PEHF03 MC3PEHT03	46	25	108	70	135	90	266	281
25.00	25.55	70	11.4	87	11.7	3.16		47	26	110	72	137	91		
28.00	28.83	62	10.6	72	14.9	4.30		49	28	111	73	138	93		
31.50	32.60	55	11.5	69	14.0	4.53		50	29	112	74	139	94		
35.50	36.78	49	10.7	57	17.4	5.3		51	30	114	76	140	95		
40.00	39.81	45	11.8	58	15.1	2.47		52	31	115	76	141	96		
45.00	44.91	40	11.6	51	17.6	3.37		53	32	116	78	142	97		
50.00	50.67	36	10.8	42	21.1	4.44		54	33	117	79	144	98		
56.00	57.29	31	11.7	40	20.4	4.65		55	34	118	80	145	99		
63.00	64.64	28	10.9	33	24.1	5.4		56	35	119	81	146	100		
71.00	71.62	25	11.8	32	23.3	3.30		46	25	101	63	124	79		
80.00	80.80	22	11.0	27	27.1	3.60		47	26	102	64	125	80		
90.00	92.02	20	10.1	22	30.7	3.61	48	27	103	65	126	81			
100.00	101.82	18	11.1	21	30.3	3.61	49	28	103	65	127	81			
112.00	115.96	16	10.2	17.3	30.7	3.62	50	29	104	66	127	82			

Helical Gear Units MC...P

Selection tables (detailed) MC.PE..



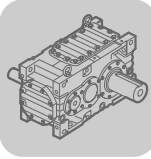
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MC.PE..04, n₁ = 1800 1/min							P_{TH}						15.5 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	7.12	253	11.2	305	5.7	2.77	MC2PESF04 MC2PEHF04 MC2PEHT04	56	*)	158	95	202	128	252	280		
8.00	8.01	225	11.7	282	6.9	5.0		59	*)	161	98	206	131				
9.00	8.96	201	12.1	262	8.1	6.8		62	27	164	101	209	134				
10.00	9.95	181	12.5	243	5.8	2.31		64	30	167	104	211	136				
11.20	11.19	161	13.0	226	7.1	4.59		67	32	170	107	214	139				
12.50	12.72	141	13.5	206	6.0	1.56		70	35	173	110	217	142				
14.00	14.31	126	14.1	191	7.3	3.92		72	37	175	112	219	145				
16.00	16.00	113	14.4	174	9.9	6.6		57	22	146	83	184	110				
18.00	17.12	105	14.7	166	10.1	6.3		58	24	147	84	186	111				
20.00	19.25	94	14.1	142	13.5	9.4		60	26	150	87	188	113				
22.50	23.20	78	13.8	117	14.6	1.70	MC3PESF04 MC3PEHF04 MC3PEHT04	57	31	134	87	168	112	268	281		
25.00	26.10	69	15.6	117	13.6	1.70		59	33	136	89	169	113				
28.00	29.18	62	14.9	100	16.7	3.23		60	34	138	91	171	115				
31.50	33.39	54	15.9	93	16.1	3.84		62	36	139	92	173	117				
35.50	37.33	48	14.9	78	19.8	4.47		63	37	141	94	174	118				
40.00	40.28	45	14.3	70	20.8	*)		64	38	142	95	175	119				
45.00	45.30	40	16.0	69	20.0	*)		65	40	143	96	176	120				
50.00	50.64	36	14.9	58	24.1	1.55		67	41	144	97	178	122				
56.00	57.96	31	16.2	55	23.4	1.97		68	42	146	99	179	123				
63.00	64.79	28	15.0	45	27.7	3.25		69	43	147	100	180	124				
71.00	72.86	25	16.3	44	26.8	2.43		57	32	125	78	153	98				
80.00	81.44	22	15.0	36	31.5	3.62		58	33	126	79	154	99				
90.00	91.60	20	14.3	31	35.1	4.10		59	34	127	80	156	100				
100.00	97.56	18	14.8	30	34.9	3.70		60	34	127	80	156	100				
112.00	109.73	16	14.4	26	35.3	4.11	61	35	129	81	157	101					

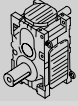
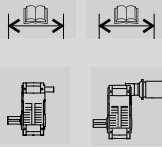

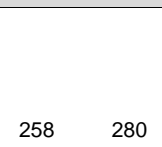
MC.PE..05, n₁ = 1800 1/min							P_{TH}						20.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	7.10	253	15.6	425	1.81	*)	MC2PESF05 MC2PEHF05 MC2PEHT05	64	*)	180	109	231	146	254	280		
8.00	8.00	225	16.2	394	2.77	3.52		67	*)	184	112	234	149				
9.00	8.87	203	16.8	366	4.23	6.4		70	*)	187	115	237	152				
10.00	9.78	184	17.3	343	1.58	*)		73	*)	190	118	240	155				
11.20	11.01	163	18.0	317	2.66	2.35		76	36	193	121	243	158				
12.50	12.52	144	18.6	287	1.93	*)		79	40	196	125	247	162				
14.00	14.10	128	19.5	268	2.54	1.17		82	42	199	128	250	165				
16.00	15.64	115	19.9	246	4.90	5.8		64	25	166	94	210	124				
18.00	17.24	104	20.0	225	6.4	5.9		67	27	168	96	212	127				
20.00	19.40	93	18.6	186	10.3	11.3		69	30	171	99	214	129				
22.50	22.58	80	15.4	134	14.5	1.54	MC3PESF05 MC3PEHF05 MC3PEHT05	66	36	155	101	194	129	270	282		
25.00	25.41	71	17.3	134	13.7	1.54		68	38	157	103	196	131				
28.00	28.19	64	19.2	134	13.1	1.54		69	39	159	104	197	133				
31.50	32.53	55	19.9	120	13.1	2.68		71	41	161	107	199	135				
35.50	36.08	50	19.9	108	15.2	3.65		73	43	163	108	201	136				
40.00	40.62	44	18.4	89	19.1	5.2		74	44	164	110	203	138				
45.00	43.55	41	18.1	81	19.3	2.85		75	45	165	111	204	139				
50.00	48.31	37	20.0	81	18.8	2.88		77	47	167	112	205	140				
56.00	55.74	32	20.5	72	19.3	4.01		78	48	169	114	207	142				
63.00	61.84	29	20.2	64	22.0	5.0		80	50	170	115	208	143				
71.00	71.06	25	20.8	57	22.5	1.49		66	36	144	90	177	113				
80.00	78.83	23	20.4	51	25.5	2.43		67	37	145	91	179	114				
90.00	88.73	20	18.9	42	29.7	3.68		69	39	147	92	180	115				
100.00	96.36	19	18.9	38	30.6	3.36		69	39	148	93	181	116				
112.00	108.46	17	19.1	34	32.9	3.97	70	41	149	94	182	117					

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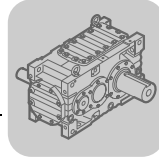


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC.PE..06, n ₁ = 1800 1/min								P _{TH}						25.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
		[1/min]	[kNm]	[kW]	[kN]	[kN]										
7.10	6.82	264	18.0	511	4.79	*)	MC2PESF06 MC2PEHF06 MC2PEHT06	76	*)	217	130	278	175	256	280	
8.00	7.89	228	20.5	504	1.10	*)		81	*)	223	136	284	181			
9.00	8.85	203	21.3	466	2.66	5.5		85	*)	227	140	288	185			
10.00	9.82	183	19.9	393	6.0	*)		88	41	230	143	292	188			
11.20	11.37	158	23.1	393	0.71	*)		93	45	235	148	296	193			
12.50	12.04	150	20.9	336	7.4	*)		95	47	237	150	298	195			
14.00	13.93	129	24.2	336	2.00	*)		99	51	241	154	303	199			
16.00	15.63	115	25.3	313	3.17	4.36		78	*)	201	114	254	151			
18.00	17.59	102	26.3	289	2.95	3.33		81	33	205	118	258	154			
20.00	19.91	90	24.2	236	13.8	11.8		84	37	208	121	261	158			
22.50	22.80	79	18.6	159	21.8	*)	MC3PESF06 MC3PEHF06 MC3PEHT06	78	43	184	120	230	153	272	282	
25.00	26.39	68	21.5	159	20.7	*)		81	45	187	123	233	156			
28.00	29.61	61	24.1	159	19.4	*)		83	48	190	125	235	158			
31.50	32.33	56	23.9	145	20.5	*)		85	49	191	126	237	160			
35.50	36.28	50	26.1	141	20.0	*)		87	51	193	129	239	162			
40.00	41.07	44	23.9	114	26.1	0.167		89	53	195	131	241	164			
45.00	45.96	39	22.3	95	29.1	2.06		90	55	197	132	243	166			
50.00	51.58	35	25.1	95	28.0	2.06		92	56	199	134	244	168			
56.00	56.31	32	24.8	86	29.3	3.22		93	58	200	136	246	169			
63.00	63.20	28	26.5	82	29.9	3.77		95	59	202	137	247	171			
71.00	71.10	25	25.1	69	33.7	0.59		79	43	171	107	211	134			
80.00	79.80	23	26.7	66	34.6	1.11		80	44	173	108	212	135			
90.00	90.32	20	24.9	54	40.8	2.78		82	46	174	110	214	137			
100.00	96.73	19	26.0	53	40.0	2.17		82	47	175	111	215	138			
112.00	109.49	16	25.1	45	45.1	3.37	84	48	177	112	216	139				
MC.PE..07, n ₁ = 1800 1/min								P _{TH}						35.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
		[1/min]	[kNm]	[kW]	[kN]	[kN]										
7.10	6.86	262	23.1	653	4.33	*)	MC2PESF07 MC2PEHF07 MC2PEHT07	94	*)	267	160	343	216	258	280	
8.00	7.73	233	25.0	625	3.26	1.64		99	*)	273	166	348	221			
9.00	8.68	207	25.9	576	5.0	5.2		104	*)	278	171	353	226			
10.00	9.65	187	25.4	509	5.8	*)		108	*)	283	176	358	231			
11.20	10.86	166	27.9	497	2.74	0.63		113	54	287	180	363	236			
12.50	12.19	148	26.7	424	7.8	*)		117	58	292	185	367	240			
14.00	13.73	131	30.1	424	2.31	*)		121	62	296	189	372	244			
16.00	15.42	117	30.8	387	5.6	3.80		96	*)	247	140	312	185			
18.00	17.66	102	32.1	352	5.8	3.31		100	41	252	145	317	190			
20.00	20.25	89	33.3	318	9.7	7.6		104	45	256	149	321	194			
22.50	22.38	80	24.8	217	23.1	*)	MC3PESF07 MC3PEHF07 MC3PEHT07	96	52	227	147	282	188	274	283	
25.00	25.20	71	27.9	217	21.8	*)		99	55	229	150	285	191			
28.00	28.31	64	31.4	217	20.0	*)		101	57	232	153	288	194			
31.50	31.86	57	31.7	195	21.0	1.59		104	60	235	155	291	196			
35.50	35.78	50	35.7	195	18.8	1.59		106	62	237	158	293	199			
40.00	41.02	44	33.2	158	26.0	4.61		109	65	240	161	296	202			
45.00	43.89	41	29.1	130	31.0	3.42		110	66	242	162	298	203			
50.00	49.30	37	32.7	130	29.4	3.42		112	69	244	164	300	205			
56.00	55.47	32	32.8	116	31.0	5.2		114	71	246	166	302	208			
63.00	62.31	29	36.6	115	29.6	5.3		116	73	248	169	304	210			
71.00	68.66	26	33.2	95	35.6	0.435		96	52	210	130	259	164			
80.00	77.12	23	36.9	94	34.3	0.57		98	54	212	132	260	166			
90.00	88.41	20	34.1	76	42.7	3.10		100	56	214	135	263	168			
100.00	99.48	18	32.0	63	47.5	3.44		102	58	216	136	264	170			
112.00	114.04	16	34.4	59	49.1	4.02	104	60	218	138	266	172				

Helical Gear Units MC...P

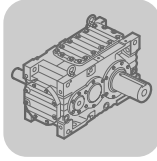
Selection tables (detailed) MC.PE..



MC.PE..08, n₁ = 1800 1/min							P_{TH}						46.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	7.01	257	29.8	823	8.4	*)	MC2PESF08 MC2PEHF08 MC2PEHT08	118	*)	333	200	427	269	260	280
8.00	7.89	228	33.6	823	3.85	*)		124	*)	340	207	433	276		
9.00	8.96	201	35.2	760	5.3	3.78		130	*)	347	214	440	283		
10.00	9.80	184	32.7	646	9.9	*)		135	*)	352	219	445	287		
11.20	11.03	163	36.9	646	4.94	*)		140	67	358	225	451	293		
12.50	12.49	144	34.7	538	11.9	*)		146	73	364	231	457	299		
14.00	14.06	128	39.1	538	6.7	*)		151	78	369	236	462	305		
16.00	15.97	113	41.8	506	6.6	3.25		120	*)	308	175	389	231		
18.00	17.76	101	43.2	470	6.7	2.09		124	51	313	180	394	236		
20.00	19.90	90	43.6	423	12.3	7.4		129	56	317	185	398	241		
22.50	21.70	83	35.5	320	21.3	*)	MC3PESF08 MC3PEHF08 MC3PEHT08	118	64	279	181	348	231	276	283
25.00	24.43	74	39.9	320	19.6	*)		121	67	283	184	352	235		
28.00	27.74	65	45.4	320	17.3	*)		125	71	286	188	356	239		
31.50	31.14	58	44.1	277	19.8	1.20		128	74	290	191	359	242		
35.50	35.36	51	46.5	257	21.0	2.79		131	77	293	195	362	246		
40.00	39.60	45	43.3	214	27.9	6.3		134	80	296	198	365	248		
45.00	43.63	41	43.5	195	27.7	*)		136	82	299	200	368	251		
50.00	49.55	36	46.9	185	28.1	0.359		139	85	302	203	371	254		
56.00	55.61	32	47.9	168	28.6	2.46		141	87	304	206	374	257		
63.00	63.15	29	47.3	147	33.6	5.2		144	90	307	209	376	259		
71.00	69.09	26	48.3	137	33.6	*)		119	65	260	161	320	203		
80.00	78.46	23	47.7	119	38.9	1.69		121	67	262	164	322	206		
90.00	87.87	20	44.5	99	46.5	4.41		124	69	265	166	325	208		
100.00	97.27	19	45.7	92	47.0	3.65		125	71	267	168	327	210		
112.00	108.95	17	45.0	81	52	5.3	127	73	269	170	329	212			

MC.PE..09, n₁ = 1800 1/min							P_{TH}						65.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	6.91	260	37.9	1059	14.8	*)	MC2PESF09 MC2PEHF09 MC2PEHT09	135	*)	386	231	494	311	262	280
8.00	7.99	225	43.8	1059	12.6	*)		144	*)	395	241	503	320		
9.00	8.97	201	48.0	1036	10.9	*)		151	*)	402	248	511	328		
10.00	9.53	189	41.5	841	16.6	*)		155	*)	406	252	514	331		
11.20	11.03	163	48.0	841	14.1	*)		163	*)	415	260	523	340		
12.50	11.77	153	43.5	715	18.3	*)		166	82	418	264	527	344		
14.00	13.61	132	50.3	715	15.8	*)		174	89	426	272	534	351		
16.00	15.27	118	56.5	715	12.6	*)		137	*)	355	201	449	266		
18.00	17.01	106	57.6	655	14.3	*)		142	*)	360	206	454	271		
20.00	19.26	93	59.5	597	16.3	*)		148	63	366	212	460	277		
22.50	21.63	83	44.9	406	29.5	*)	MC3PESF09 MC3PEHF09 MC3PEHT09	139	75	331	214	413	275	278	283
25.00	25.02	72	51.9	406	27.3	*)		145	80	337	220	419	280		
28.00	28.08	64	58.3	406	25.0	*)		148	84	341	224	423	284		
31.50	30.88	58	56.3	357	28.1	0.442		151	87	344	227	426	287		
35.50	34.65	52	63.2	357	25.6	0.443		155	91	347	231	430	291		
40.00	39.22	46	58.8	293	34.3	5.2		159	94	351	235	433	295		
45.00	44.10	41	61.6	273	32.3	*)		162	98	355	238	437	298		
50.00	49.49	36	63.6	252	34.9	*)		165	101	358	241	440	302		
56.00	54.43	33	64.2	231	35.8	2.29		167	103	361	244	443	304		
63.00	61.08	29	64.0	205	40.8	5.3		170	106	364	247	446	307		
71.00	68.03	26	64.4	185	42.5	*)		141	77	308	191	379	241		
80.00	76.35	24	64.6	165	47.4	*)		144	79	311	194	382	243		
90.00	86.42	21	60.4	137	57	3.60		146	82	314	197	385	246		
100.00	93.94	19	64.2	134	55	1.70		148	84	316	199	387	248		
112.00	106.33	17	60.3	111	64	4.94	151	86	318	202	390	251			

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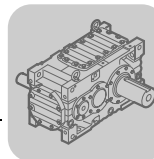


Helical Gear Units MC...P Selection tables (detailed) MC.PE..

10.4.2 MC.PE..., n₁ = 1500 1/min

MC.PE..02, n ₁ = 1500 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	212	7.2	166	*	*	MC2PESF02 MC2PEHF02 MC2PEHT02	38	*	93	55	119	75	248	280		
8.00	8.18	183	7.6	150	*	2.20		41	19	95	58	121	77				
9.00	9.18	163	7.4	131	*	4.61		42	20	97	60	123	79				
10.00	9.83	153	7.9	130	*	*		43	21	98	61	124	80				
11.20	11.37	132	8.0	114	*	2.87		45	23	100	63	126	82				
12.50	12.31	122	8.3	109	*	*		46	24	101	64	127	83				
14.00	14.24	105	8.0	91	1.21	3.70		48	26	103	66	129	85				
16.00	15.98	94	7.6	77	5.3	6.2		38	16	86	48	108	64				
18.00	17.88	84	7.6	69	6.5	6.4		40	18	87	50	109	65				
20.00	20.24	74	7.0	56	8.8	7.2		41	19	88	51	111	67				
22.50	22.30	67	8.4	62	3.71	2.41	MC3PESF02 MC3PEHF02 MC3PEHT02	38	22	80	52	100	67	264	281		
25.00	25.79	58	8.0	51	8.1	3.30		40	23	82	53	102	68				
28.00	28.95	52	7.4	42	10.3	3.37		41	24	83	54	102	69				
31.50	32.31	46	8.0	41	9.6	3.37		41	25	83	55	103	70				
35.50	36.27	41	7.5	34	11.6	3.42		42	25	84	56	104	71				
40.00	38.89	39	8.5	36	9.6	2.01		43	26	85	57	105	71				
45.00	44.97	33	8.1	29	12.0	3.07		44	27	86	58	106	72				
50.00	50.47	30	7.6	25	14.2	3.74		45	28	87	58	107	73				
56.00	56.34	27	8.1	23	13.9	3.75		45	28	87	59	107	74				
63.00	63.23	24	7.7	20	15.9	3.78		46	29	88	60	108	75				
71.00	71.20	21	8.1	19	16.0	2.11		38	21	75	46	92	58				
80.00	79.91	19	7.7	15.8	18.0	2.71		39	22	75	47	93	59				
90.00	90.45	17	7.1	12.9	20.6	2.72		40	23	76	48	93	60				
100.00	95.36	16	7.8	13.4	19.7	2.72		40	23	76	48	94	60				
112.00	107.94	14	7.2	10.9	22.3	2.73	40	24	77	49	94	61					
MC.PE..03, n ₁ = 1500 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	206	9.3	207	5.7	1.76	MC2PESF03 MC2PEHF03 MC2PEHT03	49	21	116	70	149	94	250	280		
8.00	8.23	182	9.8	192	6.3	4.79		51	23	119	72	151	96				
9.00	9.28	162	10.0	175	7.2	6.9		53	26	121	75	153	98				
10.00	9.95	151	10.3	168	6.1	0.95		54	27	122	76	155	100				
11.20	11.23	134	10.7	154	7.0	4.77		56	29	124	78	157	102				
12.50	12.70	118	10.1	129	8.6	4.58		58	31	126	80	159	104				
14.00	14.32	105	11.5	130	7.5	4.32		60	33	128	82	161	106				
16.00	16.16	93	10.8	108	10.5	8.1		48	21	107	61	135	80				
18.00	17.91	84	10.9	98	11.4	8.0		50	22	109	62	137	82				
20.00	20.40	74	10.0	79	14.8	8.7		51	24	110	64	139	84				
22.50	22.65	66	11.3	82	11.8	2.90	MC3PESF03 MC3PEHF03 MC3PEHT03	48	27	100	65	125	83	266	281		
25.00	25.55	59	11.4	73	13.5	3.67		49	28	101	66	126	84				
28.00	28.83	52	10.7	61	16.8	4.81		50	30	103	67	127	86				
31.50	32.60	46	11.6	58	16.0	5.0		52	31	104	69	129	87				
35.50	36.78	41	10.8	48	19.4	5.3		53	32	105	70	130	88				
40.00	39.81	38	11.8	48	17.3	3.01		53	32	106	71	131	89				
45.00	44.91	33	11.7	42	19.7	3.86		54	34	107	72	132	90				
50.00	50.67	30	10.9	35	23.3	4.94		55	35	108	73	133	91				
56.00	57.29	26	11.7	33	22.9	5.2		56	35	109	74	134	92				
63.00	64.64	23	11.0	28	26.5	5.3		57	36	110	75	135	93				
71.00	71.62	21	11.8	27	26.0	3.58		48	27	93	58	115	73				
80.00	80.80	19	11.1	22	29.6	3.60		48	28	94	59	115	74				
90.00	92.02	16	10.2	18.1	30.7	3.61		49	28	95	60	116	74				
100.00	101.82	15	11.2	18.0	30.7	3.61		50	29	96	60	117	75				
112.00	115.96	13	10.3	14.6	30.7	3.62	51	30	96	61	118	76					

Helical Gear Units MC...P Selection tables (detailed) MC.PE..



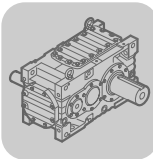
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MC.PE..04, n₁ = 1500 1/min							P_{TH}						15.5 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	7.12	211	11.8	268	6.0	2.95	MC2PESF04 MC2PEHF04 MC2PEHT04	61	*)	146	87	187	118	252	280
8.00	8.01	187	12.3	248	7.3	5.3		63	29	149	90	190	120		
9.00	8.96	167	12.8	231	8.6	7.2		66	31	151	93	192	123		
10.00	9.95	151	13.2	215	6.0	2.39		68	34	154	96	195	126		
11.20	11.19	134	13.8	199	7.4	4.82		71	36	156	98	197	128		
12.50	12.72	118	14.2	181	6.4	1.68		73	39	159	101	200	131		
14.00	14.31	105	14.9	168	7.7	4.14		76	41	162	103	203	133		
16.00	16.00	94	14.9	150	11.8	7.5		60	26	135	76	170	101		
18.00	17.12	88	14.9	140	12.5	7.8		62	27	136	78	171	102		
20.00	19.25	78	14.2	119	15.4	10.6		64	29	138	80	174	104		
22.50	23.20	65	13.8	97	16.9	2.43	MC3PESF04 MC3PEHF04 MC3PEHT04	60	34	124	80	155	103	268	281
25.00	26.10	57	15.5	97	15.9	2.43		61	35	126	82	156	105		
28.00	29.18	51	14.9	83	19.0	3.91		62	37	127	84	158	106		
31.50	33.39	45	16.0	78	18.4	4.39		64	38	129	85	159	108		
35.50	37.33	40	15.0	65	22.2	4.47		65	39	130	87	161	109		
40.00	40.28	37	14.3	58	23.3	0.477		66	40	131	87	162	110		
45.00	45.30	33	16.1	58	22.6	0.476		67	42	132	89	163	111		
50.00	50.64	30	14.9	48	26.8	2.08		69	43	134	90	164	112		
56.00	57.96	26	16.3	46	26.1	2.46		70	44	135	91	166	114		
63.00	64.79	23	15.0	38	30.7	3.77		71	45	136	92	167	115		
71.00	72.86	21	16.4	37	29.7	2.89		59	33	115	72	142	90		
80.00	81.44	18	15.0	30	34.6	4.08		60	34	116	73	143	91		
90.00	91.60	16	14.4	26	35.3	4.10		61	35	117	74	144	92		
100.00	97.56	15	14.8	25	35.3	4.10	61	36	118	74	144	93			
112.00	109.73	14	14.5	22	35.3	4.11	62	36	119	75	145	94			

MC.PE..05, n₁ = 1500 1/min							P_{TH}						20.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	7.10	211	16.5	375	1.88	*)	MC2PESF05 MC2PEHF05 MC2PEHT05	69	*)	166	100	213	134	254	280
8.00	8.00	188	17.2	347	2.86	3.63		72	*)	170	103	216	137		
9.00	8.87	169	17.7	322	4.45	6.7		75	36	172	106	219	140		
10.00	9.78	153	18.3	302	1.61	*)		77	38	175	108	222	143		
11.20	11.01	136	19.1	279	2.77	2.42		80	41	178	111	225	146		
12.50	12.52	120	18.7	242	4.55	*)		83	44	181	115	228	149		
14.00	14.10	106	20.6	236	2.84	1.45		86	46	184	117	231	152		
16.00	15.64	96	19.9	206	7.7	8.0		68	29	153	86	193	115		
18.00	17.24	87	20.1	188	8.6	8.1		70	31	155	89	196	117		
20.00	19.40	77	18.8	156	12.0	12.2		73	33	158	91	198	119		
22.50	22.58	66	15.5	112	16.5	2.20	MC3PESF05 MC3PEHF05 MC3PEHT05	69	39	143	93	179	119	270	282
25.00	25.41	59	17.4	112	15.7	2.20		70	40	145	95	181	121		
28.00	28.19	53	19.3	112	15.1	2.20		72	42	147	96	182	122		
31.50	32.53	46	19.9	100	15.3	3.37		74	44	149	98	184	124		
35.50	36.08	42	20.0	90	17.4	4.32		75	45	150	100	186	126		
40.00	40.62	37	18.5	75	21.3	5.9		77	47	152	101	187	127		
45.00	43.55	34	18.1	68	21.7	3.59		78	48	153	102	188	128		
50.00	48.31	31	20.0	68	21.3	3.59		79	49	154	104	190	130		
56.00	55.74	27	20.5	60	22.0	4.74		80	51	156	105	191	131		
63.00	61.84	24	20.3	54	24.6	5.7		82	52	157	106	192	133		
71.00	71.06	21	20.7	48	25.4	2.04		68	38	133	83	164	104		
80.00	78.83	19	20.5	42	28.2	2.92		69	39	134	84	165	105		
90.00	88.73	17	19.0	35	32.6	4.18		70	40	136	85	166	106		
100.00	96.36	16	18.9	32	33.7	3.87		71	41	136	86	167	107		
112.00	108.46	14	19.2	29	36.0	4.46		72	42	138	87	168	108		

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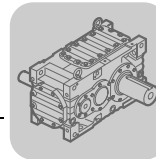


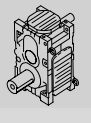





Helical Gear Units MC...P
Selection tables (detailed) MC.PE..




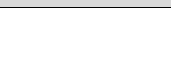


MC.PE..06, n ₁ = 1500 1/min							P _{TH}						25.0 kNm			
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
		[1/min]	[kNm]	[kW]	[kN]	[kN]										
7.10	6.82	220	19.0	449	5.1	*	MC2PESF06 MC2PEHF06 MC2PEHT06	82	*)	200	119	257	161	256	280	
8.00	7.89	190	21.7	443	1.21	*)		87	*)	205	125	262	166			
9.00	8.85	169	22.5	410	2.77	5.8		91	43	209	128	266	170			
10.00	9.82	153	21.1	346	6.2	*)		94	46	212	132	269	173			
11.20	11.37	132	24.4	346	0.66	*)		98	50	217	136	274	178			
12.50	12.04	125	22.1	296	7.7	*)		100	52	219	138	275	179			
14.00	13.93	108	25.6	296	1.95	*)		104	56	223	142	279	184			
16.00	15.63	96	26.3	271	4.85	5.7		83	35	186	105	235	139			
18.00	17.59	85	26.3	241	8.4	7.2		86	38	189	108	238	142			
20.00	19.91	75	24.3	197	16.5	13.0		89	41	192	111	241	145			
22.50	22.80	66	18.5	133	24.7	*)	MC3PESF06 MC3PEHF06 MC3PEHT06	82	46	170	110	212	141	272	282	
25.00	26.39	57	21.4	133	23.8	*)		84	49	173	113	215	144			
28.00	29.61	51	24.1	133	22.6	*)		86	51	175	115	217	146			
31.50	32.33	46	23.9	121	23.6	*)		88	52	177	117	219	148			
35.50	36.28	41	26.2	118	23.1	*)		89	54	178	119	221	149			
40.00	41.07	37	24.2	96	29.1	0.50		91	56	180	120	223	151			
45.00	45.96	33	22.3	79	32.6	2.87		93	57	182	122	224	153			
50.00	51.58	29	25.1	79	31.6	2.87		94	59	184	124	226	155			
56.00	56.31	27	24.8	72	33.0	4.04		96	60	185	125	227	156			
63.00	63.20	24	26.7	69	33.5	4.52		97	62	187	127	229	158			
71.00	71.10	21	25.1	58	37.7	1.20	81	45	158	98	195	124				
80.00	79.80	19	26.9	55	38.5	1.64	82	47	160	100	196	125				
90.00	90.32	17	25.0	45	44.9	3.33	84	48	161	101	198	126				
100.00	96.73	16	26.0	44	44.5	2.75	84	49	162	102	198	127				
112.00	109.49	14	25.2	38	45.3	3.90	86	50	163	103	200	129				

MC.PE..07, n ₁ = 1500 1/min							P _{TH}						35.0 kNm			
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
		[1/min]	[kNm]	[kW]	[kN]	[kN]										
7.10	6.86	219	24.4	574	4.61	*)	MC2PESF07 MC2PEHF07 MC2PEHT07	102	*)	246	147	316	198	258	280	
8.00	7.73	194	26.4	551	3.38	1.70		106	*)	251	152	321	203			
9.00	8.68	173	27.3	507	5.4	5.6		111	52	256	157	326	208			
10.00	9.65	155	26.8	448	6.0	*)		115	56	260	161	330	212			
11.20	10.86	138	29.5	438	2.69	0.57		119	60	265	166	335	217			
12.50	12.19	123	28.3	374	8.2	*)		123	64	269	170	339	221			
14.00	13.73	109	31.8	374	2.39	*)		127	68	273	174	343	225			
16.00	15.42	97	32.6	341	5.7	3.93		102	43	228	129	288	170			
18.00	17.66	85	34.0	310	6.0	3.43		106	47	232	133	293	175			
20.00	20.25	74	33.7	268	15.0	9.8		110	51	236	137	297	179			
22.50	22.38	67	24.9	181	26.2	0.74	MC3PESF07 MC3PEHF07 MC3PEHT07	100	56	209	135	261	173	274	283	
25.00	25.20	60	28.0	181	25.0	0.74		103	59	212	138	264	176			
28.00	28.31	53	31.4	181	23.4	0.74		105	61	214	141	266	179			
31.50	31.86	47	31.7	162	24.6	2.60		107	64	217	143	269	181			
35.50	35.78	42	35.6	162	22.6	2.60		110	66	219	146	271	184			
40.00	41.02	37	33.4	133	29.7	5.5		112	69	222	148	274	186			
45.00	43.89	34	29.0	108	35.0	4.58		113	70	223	149	275	188			
50.00	49.30	30	32.6	108	33.6	4.58		115	72	225	152	277	190			
56.00	55.47	27	32.9	97	35.2	6.3		117	74	227	154	279	192			
63.00	62.31	24	36.8	96	33.6	6.4		119	76	229	156	281	194			
71.00	68.66	22	33.2	79	40.1	1.20	99	55	194	120	239	151				
80.00	77.12	19	37.1	78	38.7	1.27	101	57	196	122	241	153				
90.00	88.41	17	34.4	63	47.2	3.80	103	59	198	124	243	155				
100.00	99.48	15	32.0	52	52	4.16	104	60	200	126	245	157				
112.00	114.04	13	34.7	50	53	4.69	106	62	202	128	246	159				

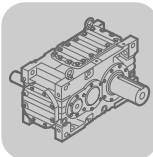
Helical Gear Units MC...P
Selection tables (detailed) MC.PE..



MC.PE..08, $n_1 = 1500$ 1/min							P_{TH}						46.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C						
7.10	7.01	214	31.5	724	8.9	*)	MC2PESF08 MC2PEHF08 MC2PEHT08	127	*)	307	184	394	247	260	280
8.00	7.89	190	35.5	724	4.04	*)		133	*)	313	190	400	254		
9.00	8.96	167	37.2	669	5.6	4.02		139	*)	320	197	406	260		
10.00	9.80	153	34.6	568	10.5	*)		143	70	324	201	411	265		
11.20	11.03	136	38.9	568	5.2	*)		149	76	330	207	416	270		
12.50	12.49	120	36.7	473	12.6	*)		154	81	335	212	422	276		
14.00	14.06	107	41.3	473	7.1	*)		159	86	340	217	427	281		
16.00	15.97	94	44.1	445	7.0	3.43		127	54	284	161	359	213		
18.00	17.76	84	45.7	414	6.9	2.12		131	58	288	165	363	217		
20.00	19.90	75	43.8	355	17.1	10.2		136	63	293	170	368	222		
22.50	21.70	69	37.4	281	22.5	*)	MC3PESF08 MC3PEHF08 MC3PEHT08	123	69	258	166	322	213	276	283
25.00	24.43	61	42.1	281	20.7	*)		126	72	261	170	325	217		
28.00	27.74	54	46.3	272	19.9	*)		129	75	265	173	329	220		
31.50	31.14	48	46.5	244	21.0	1.31		132	78	268	176	332	223		
35.50	35.36	42	46.8	216	24.6	3.98		135	81	271	180	335	227		
40.00	39.60	38	43.5	179	31.8	7.5		138	84	274	182	338	229		
45.00	43.63	34	43.7	163	31.7	0.320		140	86	276	185	340	232		
50.00	49.55	30	47.2	155	32.1	1.51		143	89	279	188	343	235		
56.00	55.61	27	48.0	141	33.1	3.73		145	91	281	190	345	237		
63.00	63.15	24	47.6	123	38.1	6.4		148	94	284	193	348	240		
71.00	69.09	22	48.3	114	38.5	0.247	122	68	240	149	296	187			
80.00	78.46	19	48.1	100	43.4	2.54	125	71	243	151	298	190			
90.00	87.87	17	44.9	83	51	5.3	127	73	245	153	300	192			
100.00	97.27	15	45.7	77	52	4.62	128	74	246	155	302	194			
112.00	108.95	14	45.3	68	57	6.2	130	76	248	157	304	196			







MC.PE..09, $n_1 = 1500$ 1/min							P_{TH}						65.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C						
7.10	6.91	217	40.0	932	15.7	*)	MC2PESF09 MC2PEHF09 MC2PEHT09	147	*)	355	212	455	286	262	280
8.00	7.99	188	46.2	932	13.3	*)		155	*)	364	221	464	295		
9.00	8.97	167	50.7	911	11.5	*)		162	*)	371	228	471	302		
10.00	9.53	157	43.8	740	17.5	*)		165	80	374	231	475	305		
11.20	11.03	136	50.7	740	14.9	*)		172	88	382	239	483	313		
12.50	11.77	127	46.0	629	19.4	*)		176	91	386	243	486	317		
14.00	13.61	110	53.1	629	16.7	*)		183	98	393	250	493	324		
16.00	15.27	98	59.6	629	13.3	*)		146	*)	327	185	414	245		
18.00	17.01	88	60.9	576	15.1	*)		150	66	332	190	419	250		
20.00	19.26	78	59.9	501	20.1	*)		156	71	338	195	425	255		
22.50	21.63	69	47.4	358	31.1	*)	MC3PESF09 MC3PEHF09 MC3PEHT09	146	82	306	197	382	253	278	283
25.00	25.02	60	54.9	357	28.8	*)		150	86	311	202	387	258		
28.00	28.08	53	61.6	357	26.4	*)		154	90	314	206	391	262		
31.50	30.88	49	59.5	314	29.7	0.455		157	93	317	209	394	265		
35.50	34.65	43	63.4	298	30.3	1.90		160	96	321	213	397	269		
40.00	39.22	38	59.1	246	39.0	6.7		164	99	325	216	401	272		
45.00	44.10	34	61.6	228	37.5	*)		167	103	328	220	404	275		
50.00	49.49	30	64.0	211	39.9	1.31		170	105	331	223	407	278		
56.00	54.43	28	64.5	193	41.1	3.82		172	108	333	225	409	281		
63.00	61.08	25	64.6	172	46.0	6.8		175	110	336	228	412	284		
71.00	68.03	22	64.5	154	48.3	*)	145	81	285	176	351	222			
80.00	76.35	20	64.9	139	53	0.94	148	83	287	179	353	225			
90.00	86.42	17	60.4	114	63	4.80	150	86	290	182	356	228			
100.00	93.94	16	63.9	111	62	2.95	152	88	292	184	358	229			
112.00	106.33	14	60.5	93	71	6.1	154	90	294	186	360	232			

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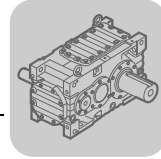


Helical Gear Units MC...P Selection tables (detailed) MC.PE..

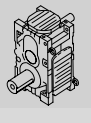
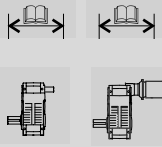
10.4.3 MC.PE..., n₁ = 1200 1/min


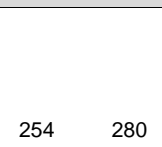
MC.PE..02, n ₁ = 1200 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.07	170	7.8	142	*	*	MC2PESF02 MC2PEHF02 MC2PEHT02	42	20	84	50	108	67	248	280		
8.00	8.18	147	8.0	126	*	2.73		44	22	86	52	110	70				
9.00	9.18	131	7.5	105	2.08	5.8		45	23	88	54	111	71				
10.00	9.83	122	8.4	110	*	0.205		46	24	89	55	112	72				
11.20	11.37	106	8.0	91	1.22	4.43		48	26	90	57	114	74				
12.50	12.31	97	8.4	89	*	1.04		49	27	91	58	115	75				
14.00	14.24	84	8.0	73	3.69	5.2		51	29	93	59	117	77				
16.00	15.98	75	7.6	62	7.4	7.2		41	19	78	44	98	58				
18.00	17.88	67	7.6	55	8.1	7.3		42	20	79	45	99	59				
20.00	20.24	59	7.0	45	10.2	7.9		43	21	80	46	101	61				
22.50	22.30	54	8.4	50	6.4	2.99	MC3PESF02 MC3PEHF02 MC3PEHT02	40	23	73	47	91	60	264	281		
25.00	25.79	47	8.0	41	9.6	3.30		41	25	74	48	92	62				
28.00	28.95	41	7.5	34	11.7	3.36		42	25	75	49	93	63				
31.50	32.31	37	8.1	33	11.2	3.37		43	26	76	50	94	63				
35.50	36.27	33	7.6	27	13.3	3.42		44	27	77	51	95	64				
40.00	38.89	31	8.6	29	11.2	2.50		44	27	77	51	95	65				
45.00	44.97	27	8.1	24	13.9	3.60		45	28	78	52	96	66				
50.00	50.47	24	7.7	20	16.0	3.74		46	29	79	53	97	66				
56.00	56.34	21	8.1	19	15.9	3.75		47	30	80	54	98	67				
63.00	63.23	19	7.7	16.0	17.9	3.78		47	30	80	54	98	68				
71.00	71.20	17	8.1	15.0	18.0	2.09		39	23	68	42	84	53				
80.00	79.91	15	7.8	12.8	20.1	2.71		40	23	69	43	84	54				
90.00	90.45	13	7.2	10.4	22.7	2.72		41	24	69	43	85	54				
100.00	95.36	13	7.8	10.8	21.9	2.72		41	24	70	44	85	55				
112.00	107.94	11	7.2	8.8	22.7	2.73	42	25	70	44	86	55					
MC.PE..03, n ₁ = 1200 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	165	10.0	177	6.1	1.86	MC2PESF03 MC2PEHF03 MC2PEHT03	53	25	105	63	135	85	250	280		
8.00	8.23	146	10.4	164	6.8	5.1		55	27	108	65	137	87				
9.00	9.28	129	10.7	149	7.8	7.4		57	29	110	67	139	89				
10.00	9.95	121	11.0	143	6.6	1.25		58	30	111	69	141	90				
11.20	11.23	107	11.5	132	7.4	4.99		60	32	113	71	143	92				
12.50	12.70	95	10.2	104	10.4	6.5		62	34	115	72	144	94				
14.00	14.32	84	11.7	105	9.3	6.3		63	36	117	74	146	96				
16.00	16.16	74	10.9	87	12.5	8.9		51	24	97	55	123	73				
18.00	17.91	67	10.9	79	13.5	8.8		53	25	99	56	124	74				
20.00	20.40	59	10.1	64	17.0	9.5		54	27	100	58	126	76				
22.50	22.65	53	11.3	65	14.2	3.61	MC3PESF03 MC3PEHF03 MC3PEHT03	50	29	91	59	113	75	266	281		
25.00	25.55	47	11.5	59	15.8	4.33		51	30	92	60	115	77				
28.00	28.83	42	10.8	49	19.3	5.2		53	32	93	61	116	78				
31.50	32.60	37	11.6	47	18.6	5.2		54	33	94	62	117	79				
35.50	36.78	33	10.9	39	22.1	5.3		55	34	96	63	118	80				
40.00	39.81	30	11.8	39	20.1	3.70		55	34	96	64	119	81				
45.00	44.91	27	11.8	34	22.5	4.51		56	35	97	65	120	82				
50.00	50.67	24	11.0	28	26.3	5.3		57	36	98	66	121	83				
56.00	57.29	21	11.7	27	26.1	5.3		58	37	99	67	122	84				
63.00	64.64	19	11.1	22	29.6	5.3		59	38	100	68	123	84				
71.00	71.62	17	11.8	21	29.4	3.58		49	28	85	52	104	66				
80.00	80.80	15	11.2	18.1	30.7	3.60		50	29	85	53	105	67				
90.00	92.02	13	10.3	14.7	30.7	3.61		51	30	86	54	106	68				
100.00	101.82	12	11.3	14.6	30.7	3.61		51	30	87	55	107	68				
112.00	115.96	10	10.3	11.7	30.7	3.62	52	31	88	56	107	69					

Helical Gear Units MC...P Selection tables (detailed) MC.PE..



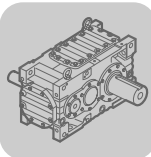
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MC.PE..04, n ₁ = 1200 1/min							P _{TH}						15.5 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.12	168	12.7	230	6.4	3.15	MC2PESF04 MC2PEHF04 MC2PEHT04	66	31	132	79	170	106	252	280	
8.00	8.01	150	13.2	213	7.8	5.6		68	34	135	82	172	109			
9.00	8.96	134	13.6	197	9.4	7.7		71	36	137	84	175	112			
10.00	9.95	121	14.2	184	6.4	2.50		73	38	140	86	177	114			
11.20	11.19	107	14.7	170	8.0	5.2		75	41	142	89	179	116			
12.50	12.72	94	15.2	154	7.2	1.96		78	43	144	91	182	119			
14.00	14.31	84	15.9	143	8.6	4.56		80	45	147	94	184	121			
16.00	16.00	75	14.9	120	14.3	9.5		64	30	122	69	155	91			
18.00	17.12	70	14.9	112	15.1	9.7		65	31	123	70	156	93			
20.00	19.25	62	14.2	96	18.0	11.7		67	33	125	72	158	95			
22.50	23.20	52	13.8	78	19.7	3.33	MC3PESF04 MC3PEHF04 MC3PEHT04	62	37	113	73	141	93	268	281	
25.00	26.10	46	15.5	78	18.9	3.33		64	38	114	74	142	95			
28.00	29.18	41	14.9	67	21.9	4.35		65	39	116	76	144	96			
31.50	33.39	36	16.1	63	21.4	4.38		67	41	117	77	145	98			
35.50	37.33	32	15.0	52	25.5	4.47		68	42	118	79	146	99			
40.00	40.28	30	14.3	46	26.7	1.16		68	43	119	79	147	100			
45.00	45.30	26	16.1	46	26.0	1.16		70	44	120	81	148	101			
50.00	50.64	24	15.0	39	30.4	2.76		71	45	121	82	149	102			
56.00	57.96	21	16.4	37	29.6	3.08		72	46	123	83	151	103			
63.00	64.79	19	15.0	30	34.5	4.45		73	47	124	84	152	104			
71.00	72.86	16	16.6	30	33.5	3.51		61	35	105	65	129	82			
80.00	81.44	15	15.1	24	35.3	4.08		62	36	106	66	130	83			
90.00	91.60	13	14.6	21	35.3	4.10		63	37	107	67	131	84			
100.00	97.56	12	14.8	20	35.3	4.10		63	37	107	67	131	84			
112.00	109.73	11	14.6	17.4	35.3	4.11	64	38	108	68	132	85				

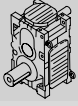






MC.PE..05, n ₁ = 1200 1/min							P _{TH}						20.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.10	169	17.6	320	2.08	*)	MC2PESF05 MC2PEHF05 MC2PEHT05	75	36	151	90	193	121	254	280	
8.00	8.00	150	18.3	296	3.16	4.01		78	39	154	93	196	124			
9.00	8.87	135	18.9	275	4.79	7.2		80	41	156	96	199	127			
10.00	9.78	123	19.6	258	1.73	*)		83	43	159	98	201	129			
11.20	11.01	109	20.4	239	3.04	2.71		85	46	161	101	204	132			
12.50	12.52	96	18.9	195	7.8	4.23		88	49	164	104	207	135			
14.00	14.10	85	21.2	194	5.4	4.61		90	51	167	106	210	138			
16.00	15.64	77	20.1	166	9.8	10.5		73	33	139	78	176	104			
18.00	17.24	70	20.2	151	10.8	10.7		75	35	141	80	178	106			
20.00	19.40	62	18.8	125	14.5	13.4		77	37	143	82	180	108			
22.50	22.58	53	15.4	89	19.1	3.12	MC3PESF05 MC3PEHF05 MC3PEHT05	72	42	130	84	163	108	270	282	
25.00	25.41	47	17.4	89	18.5	3.12		74	44	132	86	164	110			
28.00	28.19	43	19.3	89	17.9	3.12		75	45	133	87	166	111			
31.50	32.53	37	19.9	80	18.4	4.32		77	47	135	89	168	113			
35.50	36.08	33	20.1	73	20.2	5.2		78	48	137	91	169	114			
40.00	40.62	30	18.7	60	24.3	6.7		79	49	138	92	170	116			
45.00	43.55	28	18.1	54	24.9	4.55		80	50	139	93	171	117			
50.00	48.31	25	20.0	54	24.6	4.55		81	51	140	94	173	118			
56.00	55.74	22	20.5	48	25.4	5.7		83	53	142	96	174	119			
63.00	61.84	19	20.5	43	27.9	6.6		84	54	143	97	175	121			
71.00	71.06	17	20.7	38	29.1	2.74		70	40	121	75	149	95			
80.00	78.83	15	20.7	34	31.8	3.56		71	41	122	76	150	96			
90.00	88.73	14	19.2	28	36.4	4.85		72	42	123	77	151	97			
100.00	96.36	12	18.9	26	37.8	4.55		73	43	124	78	152	97			
112.00	108.46	11	19.3	23	40.1	5.1		74	44	125	79	153	99			








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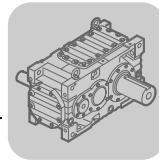
Helical Gear Units MC...P Selection tables (detailed) MC.PE..

MC.PE..06, n ₁ = 1200 1/min								P _{TH}						25.0 kNm			
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	6.82	176	20.3	385	5.4	*	MC2PESF06 MC2PEHF06 MC2PEHT06	90	42	181	108	233	146	256	280		
8.00	7.89	152	23.2	380	1.17	*		94	46	186	112	238	150				
9.00	8.85	136	24.1	351	3.03	6.3		97	50	190	116	241	154				
10.00	9.82	122	22.5	296	6.5	*		100	53	193	119	244	157				
11.20	11.37	106	26.1	296	0.60	*		104	57	197	123	249	161				
12.50	12.04	100	23.6	253	8.2	*		106	58	198	125	250	163				
14.00	13.93	86	27.3	252	2.45	*		109	62	202	129	254	167				
16.00	15.63	77	26.4	218	11.6	9.1		88	41	168	95	213	126				
18.00	17.59	68	26.6	195	14.0	10.2		91	43	171	98	216	129				
20.00	19.91	60	24.5	159	19.7	14.2		94	46	174	101	219	132				
22.50	22.80	53	18.5	106	28.5	*	MC3PESF06 MC3PEHF06 MC3PEHT06	86	50	155	100	193	128	272	282		
25.00	26.39	45	21.4	106	27.7	*		88	52	157	103	196	131				
28.00	29.61	41	24.0	106	26.6	*		90	54	159	104	198	133				
31.50	32.33	37	23.9	97	27.7	*		91	55	161	106	199	134				
35.50	36.28	33	26.4	95	27.1	*		93	57	162	108	201	136				
40.00	41.07	29	24.4	78	33.2	0.98		94	59	164	109	203	138				
45.00	45.96	26	22.3	63	37.2	3.94		96	60	166	111	204	139				
50.00	51.58	23	25.1	63	36.3	3.94		97	62	167	113	206	141				
56.00	56.31	21	24.8	58	37.9	5.1		98	63	168	114	207	142				
63.00	63.20	19	26.9	56	38.3	5.5		100	64	170	115	208	143				
71.00	71.10	17	25.1	46	42.9	1.97		83	48	144	89	177	112				
80.00	79.80	15	27.1	44	43.6	2.33		85	49	145	91	179	114				
90.00	90.32	13	25.2	36	45.3	4.05		86	50	147	92	180	115				
100.00	96.73	12	26.0	35	45.3	3.51		87	51	147	93	181	116				
112.00	109.49	11	25.4	30	45.3	4.61	88	52	149	94	182	117					

MC.PE..07, n ₁ = 1200 1/min								P _{TH}						35.0 kNm			
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	6.86	175	26.2	492	4.83	*	MC2PESF07 MC2PEHF07 MC2PEHT07	110	52	223	133	287	179	258	280		
8.00	7.73	155	28.2	471	3.59	1.81		115	56	228	137	292	184				
9.00	8.68	138	29.2	433	5.8	6.0		119	60	232	142	296	189				
10.00	9.65	124	28.7	384	6.4	*		123	64	236	146	300	192				
11.20	10.86	110	31.6	375	2.94	0.64		127	68	240	150	304	197				
12.50	12.19	98	30.2	319	9.0	*		131	72	244	154	308	201				
14.00	13.73	87	34.0	319	2.78	*		134	75	248	158	312	204				
16.00	15.42	78	34.8	291	6.3	4.27		108	49	207	116	262	154				
18.00	17.66	68	36.4	265	6.3	3.64		112	53	211	120	266	158				
20.00	20.25	59	33.9	216	19.2	13.0		116	57	215	124	270	162				
22.50	22.38	54	24.8	145	30.5	2.08	MC3PESF07 MC3PEHF07 MC3PEHT07	105	61	190	123	237	157	274	283		
25.00	25.20	48	27.9	145	29.5	2.08		107	64	192	125	240	160				
28.00	28.31	42	31.4	145	28.0	2.08		110	66	195	128	242	162				
31.50	31.86	38	31.7	130	29.3	3.92		112	68	197	130	245	165				
35.50	35.78	34	35.6	130	27.5	3.92		114	70	199	132	247	167				
40.00	41.02	29	33.6	107	34.4	6.7		116	72	202	135	249	169				
45.00	43.89	27	29.0	86	40.1	6.0		117	74	203	136	250	170				
50.00	49.30	24	32.6	86	38.9	6.0		119	75	205	138	252	172				
56.00	55.47	22	32.9	77	40.7	7.8		121	77	207	140	254	174				
63.00	62.31	19	36.9	77	39.2	7.8		123	79	209	141	256	176				
71.00	68.66	17	33.2	63	45.9	2.20		102	58	177	109	218	138				
80.00	77.12	16	37.3	63	44.6	2.20		104	60	178	111	219	139				
90.00	88.41	14	34.6	51	53	4.72		106	62	180	113	221	141				
100.00	99.48	12	32.0	42	53	5.1		107	63	182	114	223	143				
112.00	114.04	11	35.0	40	53	5.6	109	65	183	116	224	144					

Helical Gear Units MC...P

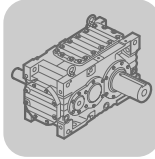
Selection tables (detailed) MC.PE..



MC.PE..08, n ₁ = 1200 1/min							P _{TH}						46.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	7.01	171	33.6	619	9.6	*	MC2PESF08 MC2PEHF08 MC2PEHT08	138	65	278	166	357	224	260	280		
8.00	7.89	152	37.9	619	4.41	*		144	71	284	172	363	230				
9.00	8.96	134	39.8	572	6.0	4.26		149	76	290	178	369	236				
10.00	9.80	122	36.9	486	11.3	*		153	80	294	182	373	240				
11.20	11.03	109	41.6	486	5.7	*		158	85	299	187	378	245				
12.50	12.49	96	39.2	404	13.6	*		163	90	304	192	383	250				
14.00	14.06	85	44.1	404	7.7	*		168	95	309	197	388	255				
16.00	15.97	75	47.2	381	7.5	3.70		136	63	258	146	326	193				
18.00	17.76	68	47.4	344	11.0	4.07		139	66	262	149	330	197				
20.00	19.90	60	44.2	286	21.0	13.7		143	70	266	153	334	201				
22.50	21.70	55	37.4	225	27.0	*	MC3PESF08 MC3PEHF08 MC3PEHT08	129	75	234	151	293	194	276	283		
25.00	24.43	49	42.1	225	25.4	*		132	78	237	154	296	197				
28.00	27.74	43	46.5	219	24.5	0.139		135	81	240	157	299	200				
31.50	31.14	39	47.0	197	25.4	2.76		138	84	243	160	302	203				
35.50	35.36	34	47.0	173	29.6	5.6		140	86	246	163	305	206				
40.00	39.60	30	43.9	145	36.8	9.1		143	89	249	166	307	209				
45.00	43.63	28	44.1	132	36.8	1.85		145	91	251	168	309	211				
50.00	49.55	24	47.4	125	37.7	3.15		147	93	254	170	312	213				
56.00	55.61	22	48.1	113	38.8	5.4		150	96	256	173	314	216				
63.00	63.15	19	47.9	99	43.8	8.0		152	98	258	175	317	218				
71.00	69.09	17	48.5	92	44.6	1.48		126	72	218	135	269	170				
80.00	78.46	15	48.3	80	49.8	3.80		129	75	221	137	271	173				
90.00	87.87	14	45.2	67	58	6.5		130	76	223	139	273	174				
100.00	97.27	12	45.7	61	59	5.9		132	78	224	141	275	176				
112.00	108.95	11	45.7	55	64	7.4		134	80	226	143	277	178				




MC.PE..09, n ₁ = 1200 1/min							P _{TH}						65.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	6.91	174	42.7	797	16.8	*	MC2PESF09 MC2PEHF09 MC2PEHT09	159	*)	322	191	413	259	262	280		
8.00	7.99	150	49.4	797	14.2	*		167	83	330	200	422	267				
9.00	8.97	134	54.2	779	12.4	*		173	89	336	206	428	273				
10.00	9.53	126	46.8	633	18.7	*		176	92	339	209	431	276				
11.20	11.03	109	54.2	633	15.9	*		183	99	347	217	438	284				
12.50	11.77	102	49.1	538	20.7	*		186	102	350	220	442	287				
14.00	13.61	88	56.8	538	17.9	*		193	108	357	227	449	294				
16.00	15.27	79	63.7	538	14.3	*		155	71	297	167	376	222				
18.00	17.01	71	64.2	486	17.1	*		160	75	302	171	381	226				
20.00	19.26	62	60.2	402	25.1	*		165	80	307	177	386	232				
22.50	21.63	55	50.8	306	33.2	*	MC3PESF09 MC3PEHF09 MC3PEHT09	153	89	278	179	347	230	278	283		
25.00	25.02	48	58.7	306	30.8	*		157	93	282	184	352	234				
28.00	28.08	43	63.3	294	30.7	*		161	96	286	187	355	238				
31.50	30.88	39	63.5	268	31.8	0.50		163	99	289	190	358	241				
35.50	34.65	35	63.9	241	36.0	3.66		166	102	292	193	361	244				
40.00	39.22	31	59.6	198	45.1	8.5		169	105	295	196	365	247				
45.00	44.10	27	61.6	182	44.3	1.09		172	108	298	199	368	250				
50.00	49.49	24	64.3	169	46.7	3.36		175	111	301	202	370	253				
56.00	54.43	22	64.5	154	48.3	6.0		177	113	303	205	373	255				
63.00	61.08	20	64.9	139	53	8.8		180	115	306	207	375	258				
71.00	68.03	18	64.6	124	56	*		150	86	259	160	319	202				
80.00	76.35	16	65.5	112	61	2.31		152	88	261	163	322	204				
90.00	86.42	14	60.2	91	72	6.4		155	90	264	165	324	207				
100.00	93.94	13	64.0	89	70	4.44		156	92	266	167	326	208				
112.00	106.33	11	60.5	74	80	7.6		158	94	268	169	328	211				




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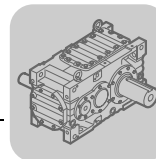
Helical Gear Units MC...P Selection tables (detailed) MC.PE..

10.4.4 MC.PE..., n₁ = 1000 1/min

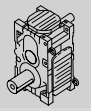













MC.PE..02, n ₁ = 1000 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	7.07	141	8.2	125	*	*	MC2PESF02 MC2PEHF02 MC2PEHT02	44	22	78	46	100	62	248	280		
8.00	8.18	122	8.0	105	*	4.03		46	24	80	48	102	64				
9.00	9.18	109	7.5	88	3.86	6.8		48	26	81	50	103	66				
10.00	9.83	102	8.4	93	*	1.45		48	26	82	50	104	67				
11.20	11.37	88	8.0	76	3.25	5.6		50	28	84	52	106	68				
12.50	12.31	81	8.4	74	1.08	2.43		51	29	85	53	107	69				
14.00	14.24	70	8.0	61	5.9	6.3		53	31	86	55	108	71				
16.00	15.98	63	7.6	52	8.5	7.8		43	21	72	40	91	54				
18.00	17.88	56	7.7	46	9.2	7.9		44	22	73	42	92	55				
20.00	20.24	49	7.1	38	11.4	8.4		45	23	74	43	93	56				
22.50	22.30	45	8.5	42	8.5	3.22	MC3PESF02 MC3PEHF02 MC3PEHT02	42	25	68	44	84	56	264	281		
25.00	25.79	39	8.1	34	10.9	3.30		43	26	69	45	86	57				
28.00	28.95	35	7.6	29	13.0	3.36		44	27	70	46	86	58				
31.50	32.31	31	8.1	27	12.6	3.37		44	27	70	46	87	59				
35.50	36.27	28	7.6	23	14.7	3.42		45	28	71	47	88	59				
40.00	38.89	26	8.6	24	12.7	2.95		45	29	72	48	88	60				
45.00	44.97	22	8.1	20	15.5	3.70		46	30	72	48	89	61				
50.00	50.47	20	7.7	16.7	17.5	3.74		47	30	73	49	90	62				
56.00	56.34	18	8.1	15.8	17.5	3.75		48	31	74	50	91	62				
63.00	63.23	16	7.8	13.5	19.6	3.78		48	31	74	50	91	63				
71.00	71.20	14	8.1	12.5	19.9	2.09		40	24	63	39	78	49				
80.00	79.91	13	7.8	10.7	22.0	2.70		41	24	64	40	78	50				
90.00	90.45	11	7.2	8.7	22.7	2.72		42	25	64	40	79	50				
100.00	95.36	10	7.9	9.1	22.7	2.72		42	25	65	41	79	51				
112.00	107.94	9.3	7.3	7.4	22.7	2.73		42	26	65	41	80	51				

MC.PE..03, n ₁ = 1000 1/min							P _{TH}						11.5 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	7.29	137	10.6	156	6.4	1.84	MC2PESF03 MC2PEHF03 MC2PEHT03	56	28	97	58	125	78	250	280		
8.00	8.23	122	11.1	145	7.1	5.2		58	30	100	60	127	80				
9.00	9.28	108	10.7	124	9.4	8.9		60	32	101	62	129	82				
10.00	9.95	100	11.7	126	6.9	1.20		61	33	103	63	130	84				
11.20	11.23	89	11.6	111	8.9	6.6		62	35	104	65	132	85				
12.50	12.70	79	10.3	87	12.1	8.1		64	37	106	67	134	87				
14.00	14.32	70	11.7	88	11.2	7.9		66	38	108	69	136	89				
16.00	16.16	62	11.0	73	14.4	9.6		54	26	90	51	114	67				
18.00	17.91	56	11.0	66	15.4	9.5		55	27	91	52	115	69				
20.00	20.40	49	10.2	54	18.9	10.2		56	29	93	54	117	70				
22.50	22.65	44	11.3	54	16.3	4.23	MC3PESF03 MC3PEHF03 MC3PEHT03	52	31	84	54	105	70	266	281		
25.00	25.55	39	11.6	50	17.8	4.91		53	32	85	55	106	71				
28.00	28.83	35	10.8	41	21.4	5.2		54	33	86	57	107	72				
31.50	32.60	31	11.6	39	21.0	5.2		55	34	88	58	109	73				
35.50	36.78	27	11.0	32	24.4	5.3		56	35	89	59	110	74				
40.00	39.81	25	11.8	32	22.6	4.30		57	36	89	59	110	75				
45.00	44.91	22	11.8	29	25.0	5.1		58	37	90	60	111	76				
50.00	50.67	20	11.0	24	28.8	5.3		58	38	91	61	112	77				
56.00	57.29	17	11.7	22	28.9	5.3		59	38	92	62	113	77				
63.00	64.64	15	11.2	19	30.7	5.3		60	39	93	63	114	78				
71.00	71.62	14	11.8	17.9	30.7	3.58		50	29	78	49	97	61				
80.00	80.80	12	11.2	15.2	30.7	3.60		51	30	79	49	97	62				
90.00	92.02	11	10.4	12.3	30.7	3.61		52	31	80	50	98	63				
100.00	101.82	9.8	11.5	12.3	30.7	3.61		52	31	81	51	99	63				
112.00	115.96	8.6	10.5	9.9	30.7	3.62		53	32	81	51	100	64				

Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

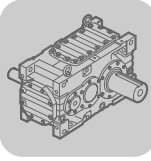


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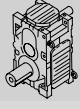





MC.PE..04, n₁ = 1000 1/min							P_{TH}						15.5 kNm		
i_N	i_{ex}	n₂	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								P_{TH[20]}	P_{TH[40]}	P_{TH[20]}	P_{TH[40]}	P_{TH[20]}	P_{TH[40]}		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C						
7.10	7.12	140	13.3	202	6.9	3.38	MC2PESF04 MC2PEHF04 MC2PEHT04	70	35	122	73	157	98	252	280
8.00	8.01	125	13.9	187	8.3	6.0		72	38	125	75	159	101		
9.00	8.96	112	14.5	174	9.6	8.1		74	40	127	78	162	103		
10.00	9.95	101	14.9	161	7.1	2.84		76	42	129	80	164	105		
11.20	11.19	89	15.5	149	8.7	5.6		79	44	131	82	166	107		
12.50	12.72	79	15.2	128	11.6	4.18		81	46	134	84	169	110		
14.00	14.31	70	16.1	121	11.8	6.2		83	48	136	86	171	112		
16.00	16.00	63	14.9	100	16.4	11.0		67	33	113	64	143	84		
18.00	17.12	58	14.9	94	17.3	11.3		68	34	114	65	144	86		
20.00	19.25	52	14.3	80	20.3	12.6		70	35	116	67	146	87		
22.50	23.20	43	13.8	65	22.2	4.12	MC3PESF04 MC3PEHF04 MC3PEHT04	65	39	104	67	130	87	268	281
25.00	26.10	38	15.5	65	21.5	4.12		66	40	106	69	132	88		
28.00	29.18	34	15.0	56	24.6	4.35		67	41	107	70	133	89		
31.50	33.39	30	16.2	53	23.9	4.38		68	43	109	72	135	91		
35.50	37.33	27	15.0	44	28.3	4.47		70	44	110	73	136	92		
40.00	40.28	25	14.3	39	29.6	1.75		70	44	110	73	136	93		
45.00	45.30	22	16.1	39	29.1	1.75		71	45	112	75	138	94		
50.00	50.64	20	15.0	32	33.4	3.33		72	46	113	76	139	95		
56.00	57.96	17	16.5	31	32.7	3.65		73	48	114	77	140	96		
63.00	64.79	15	15.0	25	35.3	5.1		74	48	115	78	141	97		
71.00	72.86	14	16.6	25	35.3	3.95		62	36	97	60	120	76		
80.00	81.44	12	15.0	20	35.3	4.08		63	37	98	61	121	77		
90.00	91.60	11	14.7	17.4	35.3	4.10		64	38	99	62	122	78		
100.00	97.56	10	14.8	16.5	35.3	4.10		64	39	99	62	122	78		
112.00	109.73	9.1	14.8	14.7	35.3	4.11	65	39	100	63	123	79			
MC.PE..05, n₁ = 1000 1/min							P_{TH}						20.0 kNm		
i_N	i_{ex}	n₂	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								P_{TH[20]}	P_{TH[40]}	P_{TH[20]}	P_{TH[40]}	P_{TH[20]}	P_{TH[40]}		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C						
7.10	7.10	141	18.6	282	2.09	*	MC2PESF05 MC2PEHF05 MC2PEHT05	79	40	139	83	179	112	254	280
8.00	8.00	125	19.4	260	3.39	4.32		82	43	142	86	182	115		
9.00	8.87	113	19.8	241	5.5	7.9		85	45	145	88	184	117		
10.00	9.78	102	20.7	228	1.79	*		87	47	147	90	186	120		
11.20	11.01	91	21.1	206	4.42	4.52		89	50	149	93	189	122		
12.50	12.52	80	19.0	163	9.6	7.0		92	52	152	96	192	125		
14.00	14.10	71	21.2	162	8.4	7.2		94	55	155	98	194	127		
16.00	15.64	64	20.2	139	11.7	12.5		76	37	128	72	163	96		
18.00	17.24	58	20.2	126	12.9	12.8		78	39	130	74	165	98		
20.00	19.40	52	19.0	105	16.4	14.4		80	41	132	76	167	100		
22.50	22.58	44	15.4	74	21.4	3.93	MC3PESF05 MC3PEHF05 MC3PEHT05	74	44	121	78	151	100	270	282
25.00	25.41	39	17.4	74	20.8	3.93		76	46	122	79	152	101		
28.00	28.19	35	19.3	74	20.4	3.93		77	47	124	81	154	103		
31.50	32.53	31	19.9	66	20.9	5.1		79	49	125	83	155	105		
35.50	36.08	28	20.2	61	22.7	5.9		80	50	127	84	157	106		
40.00	40.62	25	18.8	50	26.8	7.5		81	52	128	85	158	107		
45.00	43.55	23	18.1	45	27.7	5.4		82	52	129	86	159	108		
50.00	48.31	21	20.0	45	27.5	5.4		83	53	130	87	160	109		
56.00	55.74	18	20.5	40	28.4	6.5		85	55	131	89	162	111		
63.00	61.84	16	20.6	36	30.9	7.4		86	56	132	90	163	112		
71.00	71.06	14	20.8	32	32.3	3.34		72	42	112	70	138	88		
80.00	78.83	13	20.8	29	35.0	4.13		73	43	113	71	139	89		
90.00	88.73	11	19.3	24	39.7	5.4		74	44	114	72	140	90		
100.00	96.36	10	18.9	21	41.3	5.1		75	45	115	72	141	90		
112.00	108.46	9.2	19.5	20	41.3	5.6	75	46	116	73	142	91			

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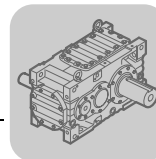
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Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC.PE..06, n ₁ = 1000 1/min							P _{TH}						25.0 kNm					
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}				
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C			
		[1/min]	[kNm]	[kW]	[kN]	[kN]												
7.10	6.82	147	21.5	339	5.6	*	MC2PESF06 MC2PEHF06 MC2PEHT06	95	47	168	99	216	134	256	280			
8.00	7.89	127	24.5	334	1.30	*		99	52	172	104	220	139					
9.00	8.85	113	25.5	309	3.11	6.5		103	55	175	107	223	142					
10.00	9.82	102	23.8	260	7.0	*		105	57	178	110	226	145					
11.20	11.37	88	27.2	257	1.94	*		109	61	182	114	230	149					
12.50	12.04	83	24.9	223	8.9	*		110	63	184	115	232	151					
14.00	13.93	72	27.3	211	8.2	3.85		114	66	187	119	235	154					
16.00	15.63	64	26.6	183	14.9	11.8		92	45	156	87	197	116					
18.00	17.59	57	26.7	163	16.8	12.7		95	47	158	90	200	119					
20.00	19.91	50	24.7	133	22.6	15.3		98	50	161	93	203	122					
22.50	22.80	44	18.5	88	31.7	*	MC3PESF06 MC3PEHF06 MC3PEHT06	88	53	143	92	179	119	272	282			
25.00	26.39	38	21.4	88	31.0	*		91	55	146	95	181	121					
28.00	29.61	34	24.1	88	30.1	*		92	57	147	97	183	123					
31.50	32.33	31	23.9	81	31.3	*		94	58	149	98	184	124					
35.50	36.28	28	26.6	80	30.5	*		95	60	150	100	186	126					
40.00	41.07	24	24.6	65	36.7	1.39		97	61	152	101	188	127					
45.00	45.96	22	22.3	53	41.1	4.87		98	63	154	103	189	129					
50.00	51.58	19	25.1	53	40.5	4.87		100	64	155	104	191	130					
56.00	56.31	18	24.8	48	42.1	6.0		101	65	156	105	192	132					
63.00	63.20	16	27.0	47	42.4	6.4		102	66	157	107	193	133					
71.00	71.10	14	25.1	38	45.3	2.63		85	50	133	83	164	104					
80.00	79.80	13	27.3	37	45.3	2.94		87	51	135	84	166	105					
90.00	90.32	11	25.4	31	45.3	4.66		88	52	136	85	167	107					
100.00	96.73	10	26.0	29	45.3	4.17		89	53	137	86	168	107					
112.00	109.49	9.1	25.6	25	45.3	5.2		90	54	138	87	169	108					
MC.PE..07, n ₁ = 1000 1/min							P _{TH}						35.0 kNm					
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}				
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C			
		[1/min]	[kNm]	[kW]	[kN]	[kN]												
7.10	6.86	146	27.7	433	5.0	*	MC2PESF07 MC2PEHF07 MC2PEHT07	117	58	206	122	265	166	258	280			
8.00	7.73	129	29.8	414	3.84	1.94		122	63	211	127	270	170					
9.00	8.68	115	30.8	382	6.1	6.3		125	67	215	131	274	174					
10.00	9.65	104	30.2	337	7.0	*		129	70	219	135	278	178					
11.20	10.86	92	33.4	330	3.05	0.64		133	74	223	138	282	182					
12.50	12.19	82	31.9	281	9.3	*		136	77	226	142	285	185					
14.00	13.73	73	35.7	279	3.61	*		140	81	230	146	289	189					
16.00	15.42	65	36.5	254	7.6	4.90		113	55	191	107	242	143					
18.00	17.66	57	36.8	224	12.2	6.1		117	58	195	111	246	146					
20.00	20.25	49	34.1	181	22.5	15.5		120	62	199	115	250	150					
22.50	22.38	45	24.9	121	34.1	3.15	MC3PESF07 MC3PEHF07 MC3PEHT07	109	65	176	113	220	146	274	283			
25.00	25.20	40	28.0	121	33.2	3.15		111	67	178	116	222	148					
28.00	28.31	35	31.4	121	31.8	3.15		113	69	181	118	225	150					
31.50	31.86	31	31.9	109	33.0	4.91		115	71	183	120	227	152					
35.50	35.78	28	35.8	109	31.3	4.92		117	73	185	122	229	155					
40.00	41.02	24	33.9	90	38.4	7.7		119	75	187	125	231	157					
45.00	43.89	23	29.0	72	44.6	7.3		120	76	188	126	232	158					
50.00	49.30	20	32.6	72	43.5	7.3		122	78	190	128	234	160					
56.00	55.47	18	32.9	64	45.5	9.1		124	80	192	129	236	162					
63.00	62.31	16	36.9	64	44.1	9.1		125	81	194	131	238	163					
71.00	68.66	15	33.2	53	51	3.06		105	61	164	101	202	128					
80.00	77.12	13	37.3	53	49.8	3.06		106	62	165	103	203	129					
90.00	88.41	11	34.8	43	53	5.5		108	64	167	104	205	131					
100.00	99.48	10	32.0	35	53	6.0		109	65	168	106	207	132					
112.00	114.04	8.8	35.3	34	53	6.3		111	67	170	108	208	134					

Helical Gear Units MC...P Selection tables (detailed) MC.PE..

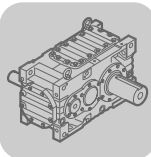


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MC.PE..08, n₁ = 1000 1/min							P_{TH}						46.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	7.01	143	35.6	546	10	*	MC2PESF08 MC2PEHF08 MC2PEHT08	147	74	257	153	331	207	260	280		
8.00	7.89	127	40.1	546	4.54	*		152	79	263	158	336	212				
9.00	8.96	112	42.0	504	6.3	4.50		157	84	268	164	342	218				
10.00	9.80	102	39.1	428	11.8	*		161	88	272	168	346	222				
11.20	11.03	91	44.0	428	5.8	*		165	92	277	173	350	226				
12.50	12.49	80	41.4	356	14.4	*		170	97	282	177	355	231				
14.00	14.06	71	46.6	356	8.2	*		174	101	286	182	360	236				
16.00	15.97	63	47.4	319	13.9	6.9		142	69	239	134	302	178				
18.00	17.76	56	47.5	287	17.8	7.4		145	72	242	138	306	182				
20.00	19.90	50	44.5	241	24.4	16.6		149	76	246	142	310	186				
22.50	21.70	46	37.3	187	31.0	0.94	MC3PESF08 MC3PEHF08 MC3PEHT08	133	79	217	139	271	179	276	283		
25.00	24.43	41	42.1	187	29.5	0.94		136	82	220	142	274	182				
28.00	27.74	36	46.8	183	28.4	1.51		139	85	223	145	277	185				
31.50	31.14	32	47.1	164	29.6	4.23		142	88	225	148	280	188				
35.50	35.36	28	47.4	146	33.7	6.9		144	90	228	151	283	191				
40.00	39.60	25	44.4	122	40.9	10.4		147	93	231	153	285	193				
45.00	43.63	23	43.7	109	42.0	3.53		148	94	233	155	287	195				
50.00	49.55	20	47.8	105	42.2	4.42		151	97	235	158	289	198				
56.00	55.61	18	48.3	94	43.8	6.8		153	99	237	160	292	200				
63.00	63.15	16	48.3	83	48.8	9.3		155	101	240	162	294	202				
71.00	69.09	14	48.7	77	49.9	2.56		129	75	202	125	250	158				
80.00	78.46	13	48.6	67	55	4.84		132	77	205	127	252	160				
90.00	87.87	11	45.5	56	63	7.6		133	79	206	129	254	162				
100.00	97.27	10	45.7	51	65	7.0		135	81	208	131	255	163				
112.00	108.95	9.2	46.1	46	67	7.6	136	82	210	132	257	165					
MC.PE..09, n₁ = 1000 1/min							P_{TH}						65.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	6.91	145	45.1	702	17.7	*	MC2PESF09 MC2PEHF09 MC2PEHT09	169	85	297	176	383	239	262	280		
8.00	7.99	125	52.2	702	15.0	*		177	92	305	184	390	247				
9.00	8.97	112	57.3	686	13.1	*		182	97	311	190	396	252				
10.00	9.53	105	49.5	558	19.7	*		185	100	314	193	399	255				
11.20	11.03	91	57.2	558	16.8	*		192	107	321	200	406	262				
12.50	11.77	85	51.9	474	21.8	*		194	110	324	203	409	265				
14.00	13.61	73	60.1	474	18.8	*		201	116	330	209	416	272				
16.00	15.27	65	64.3	452	18.7	*		163	78	275	154	349	205				
18.00	17.01	59	64.6	407	21.1	*		167	82	279	158	353	209				
20.00	19.26	52	60.4	337	29.5	4.75		172	87	284	163	358	214				
22.50	21.63	46	51.1	256	37.7	*	MC3PESF09 MC3PEHF09 MC3PEHT09	158	94	257	165	322	213	278	283		
25.00	25.02	40	59.0	256	35.4	*		162	98	262	170	326	217				
28.00	28.08	36	63.7	247	35.4	*		166	101	265	173	329	220				
31.50	30.88	32	64.4	227	36.2	1.82		168	104	267	176	332	223				
35.50	34.65	29	64.1	201	41.4	5.3		171	107	270	179	335	226				
40.00	39.22	26	59.7	165	51	10.2		174	110	274	182	338	229				
45.00	44.10	23	61.5	152	50	3.02		176	112	276	185	341	232				
50.00	49.49	20	64.9	143	52	4.91		179	115	279	187	344	235				
56.00	54.43	18	64.5	129	55	7.8		181	117	281	189	346	237				
63.00	61.08	16	65.7	117	59	10.3		183	119	284	192	348	239				
71.00	68.03	15	64.5	103	63	1.39		153	89	240	148	296	187				
80.00	76.35	13	65.9	94	67	3.54		156	91	242	151	298	189				
90.00	86.42	12	60.2	76	79	7.8		158	94	245	153	301	192				
100.00	93.94	11	64.0	74	77	5.7		159	95	246	154	302	193				
112.00	106.33	9.4	60.5	62	80	8.9	161	97	248	157	304	195					

10

10



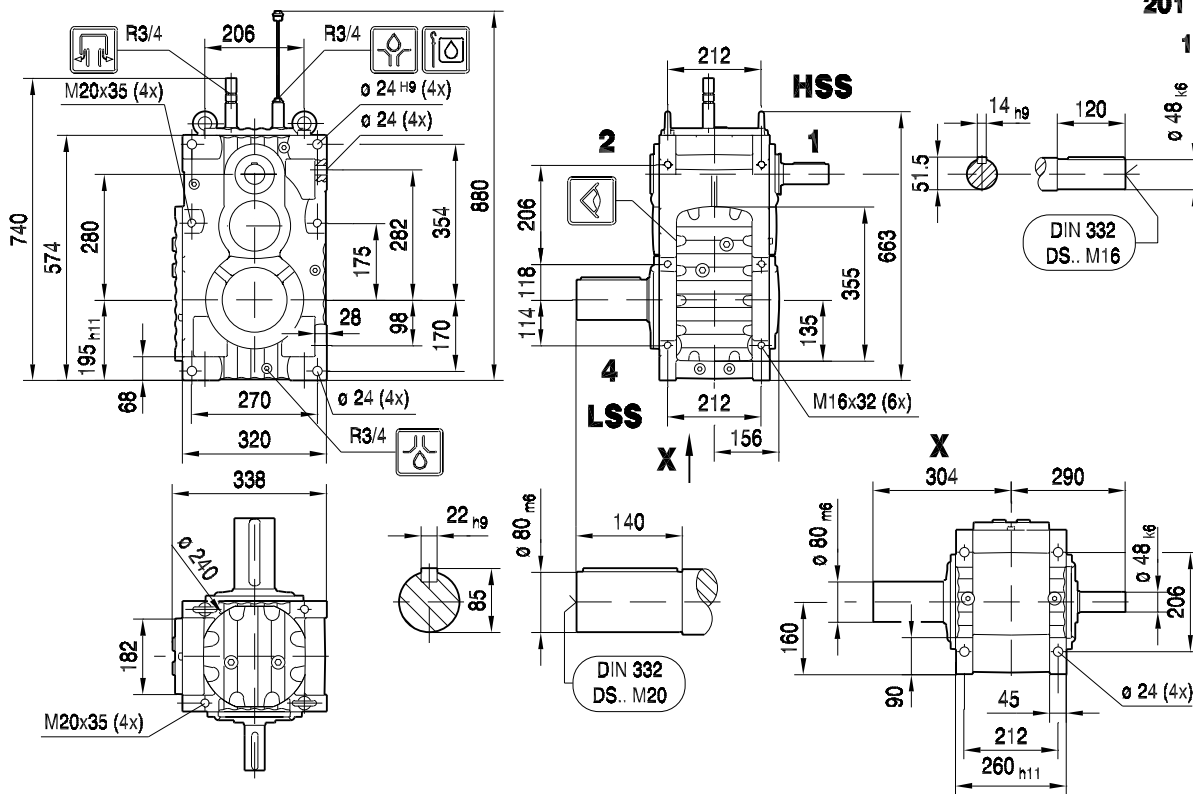
Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

10.4.5 MC.PE.. [mm]

MC2PESF02

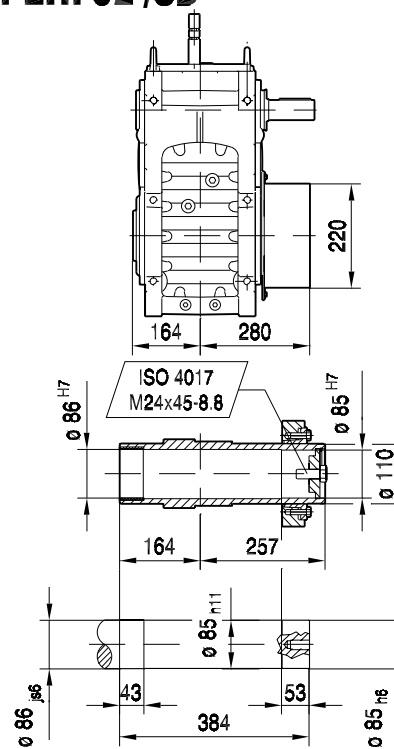
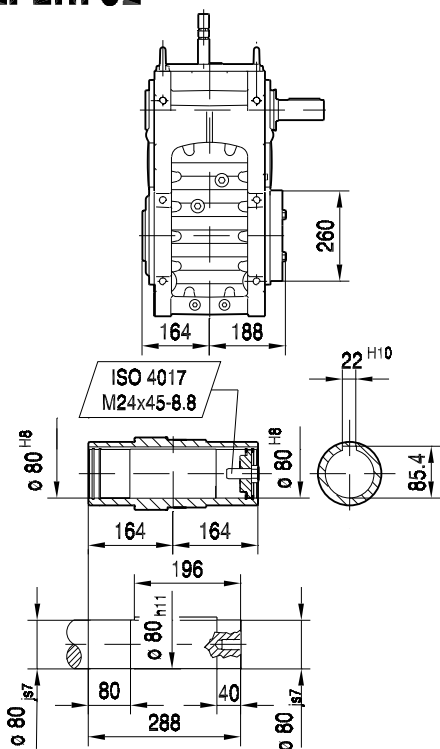
47 097 00 03
1(2)

201 kg
18 l



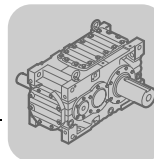
MC2PEHF02

MC2PEHF02 /SD



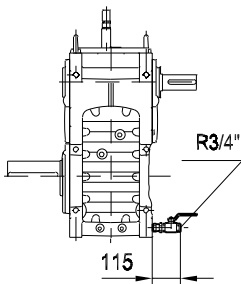
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

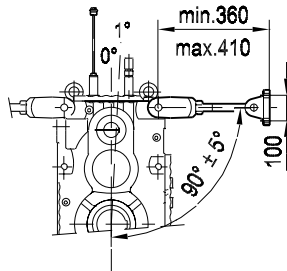
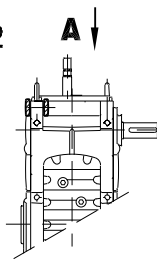


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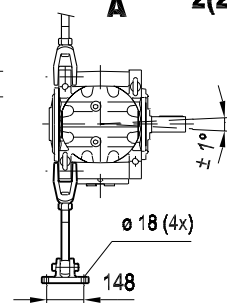
MC2PE..02 /ODV



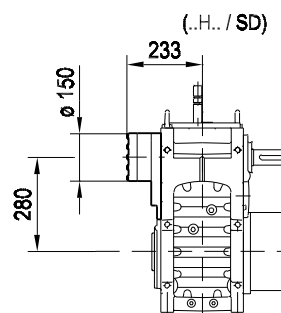
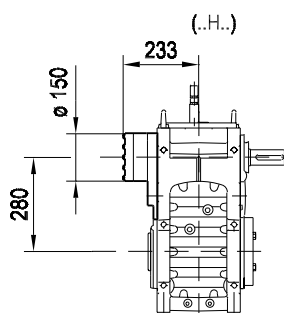
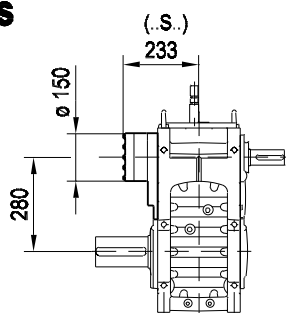
MC2PEH T02



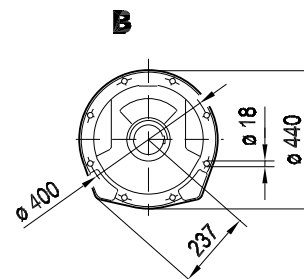
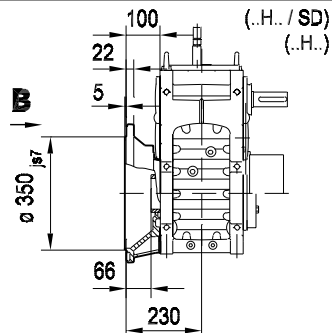
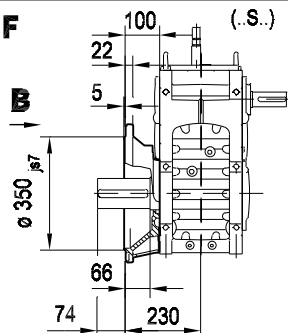
47 097 00 03 2(2)



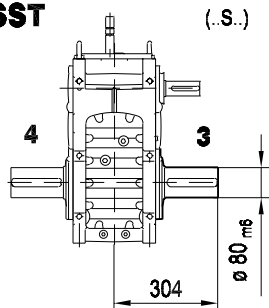
/BS



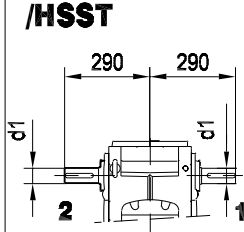
/MF



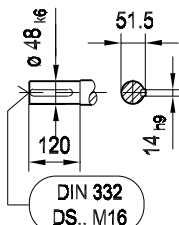
/LSST



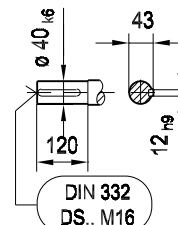
/HSST



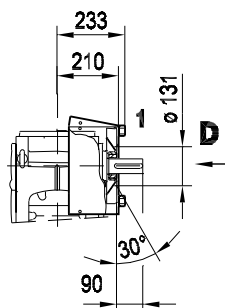
$i = 7.1-11.2$
 $\varnothing d1 = \varnothing 48_{k6}$



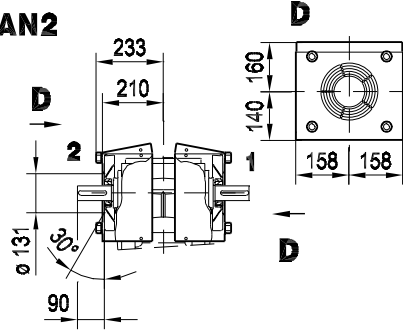
$i = 12.5-20$
 $\varnothing d1 = \varnothing 40_{k6}$



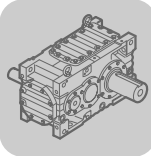
/FAN



/FAN2



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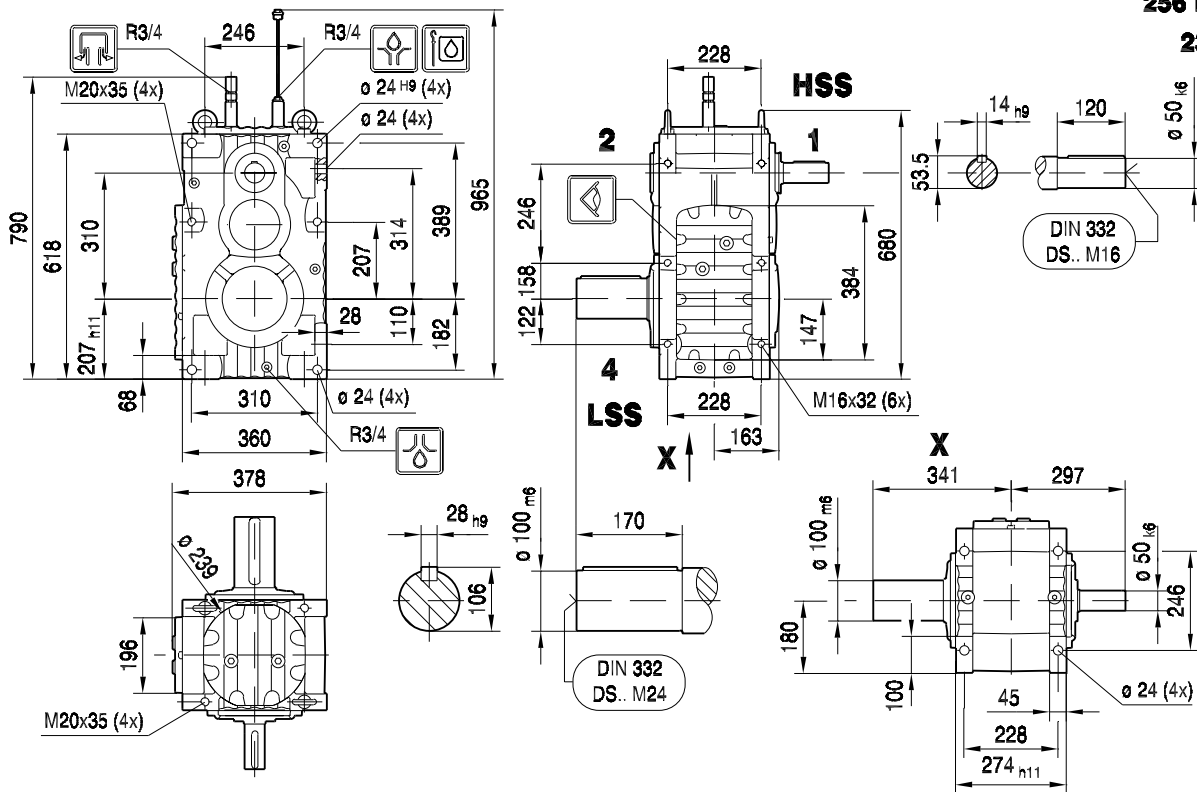


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF03

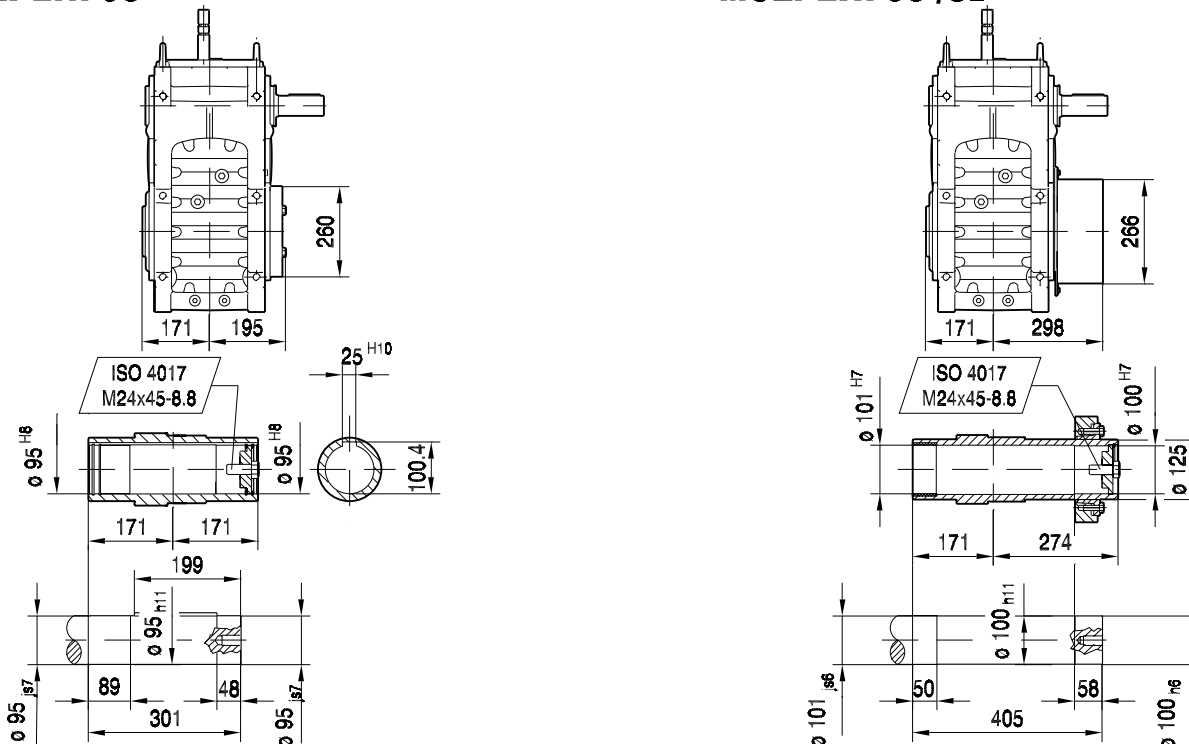
47 098 00 03
1(2)

256 kg
23 l

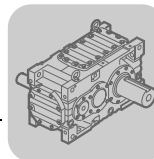


MC2PEHF03

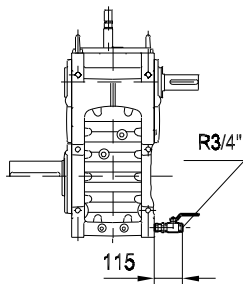
MC2PEHF03 /SD



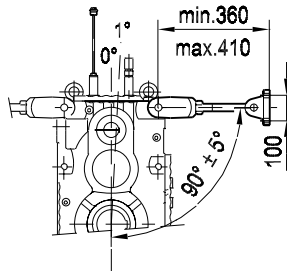
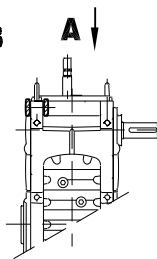
Helical Gear Units MC...P
 Selection tables (detailed) MC.PE..



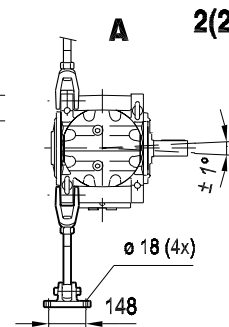
MC2PE..03
/ODV



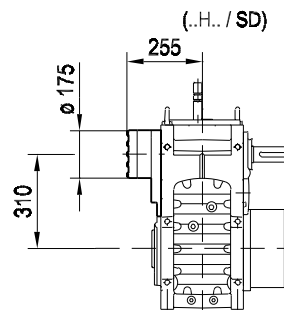
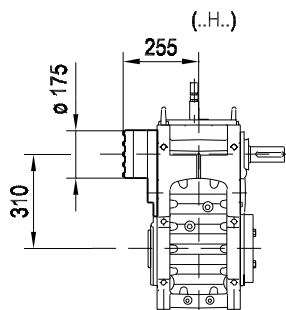
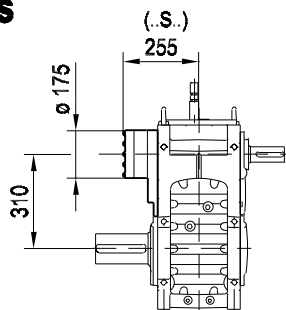
MC2PEH T 03



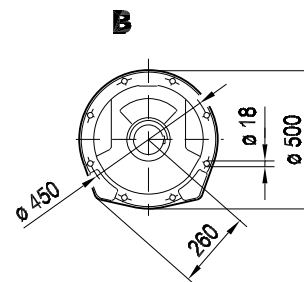
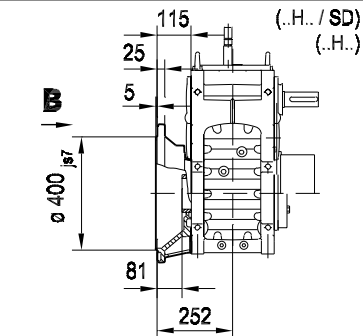
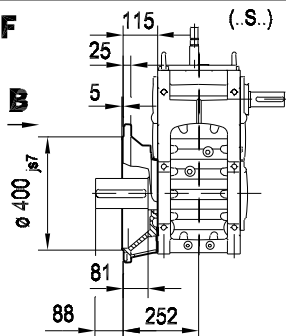
47 098 00 03
2(2)



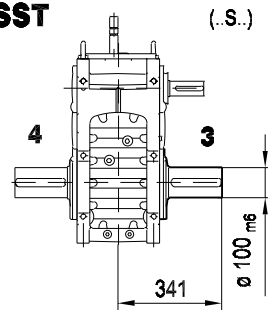
/BS



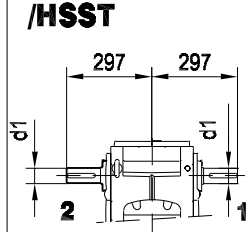
/MF



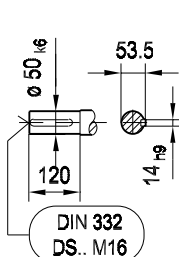
/LSST



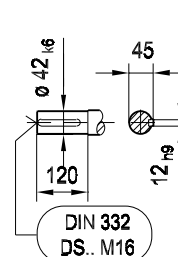
/HSST



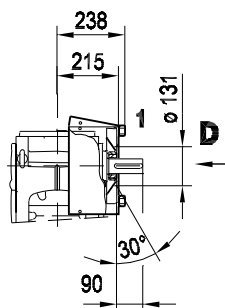
i = 7.1-11.2
 $\phi d1 = \phi 50_{k6}$



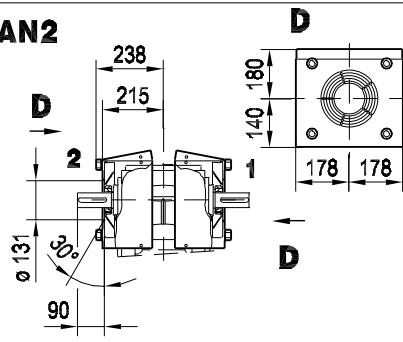
i = 12.5-20
 $\phi d1 = \phi 42_{k6}$



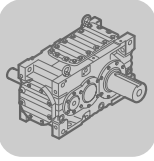
/FAN



/FAN2



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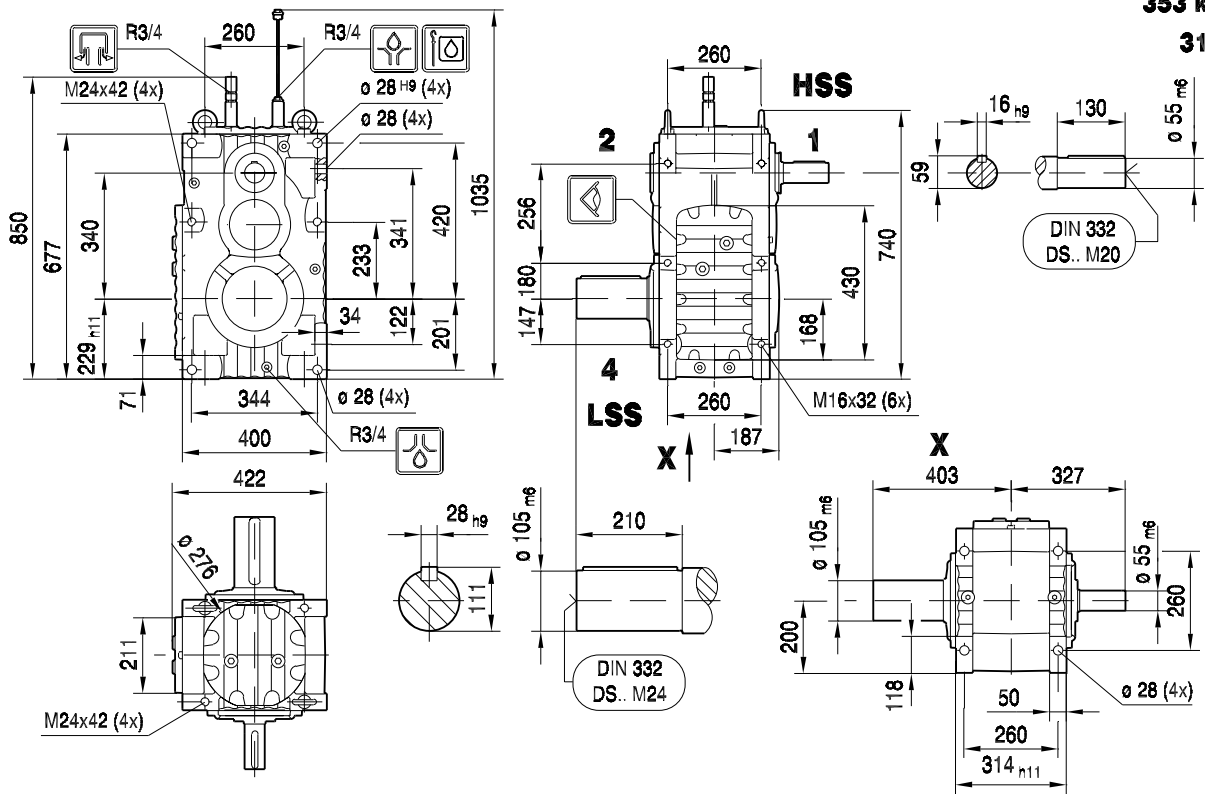


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF04

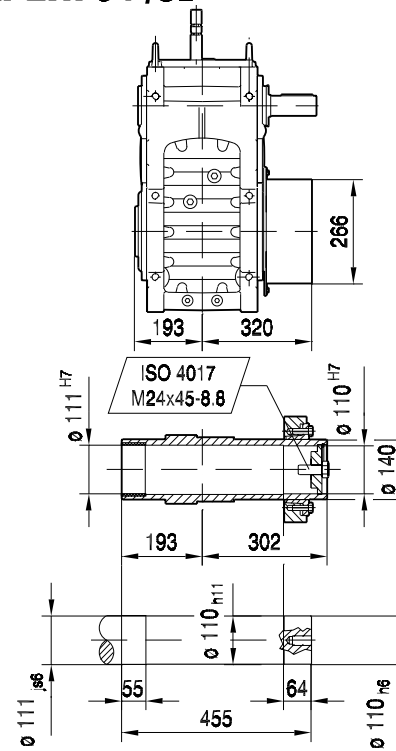
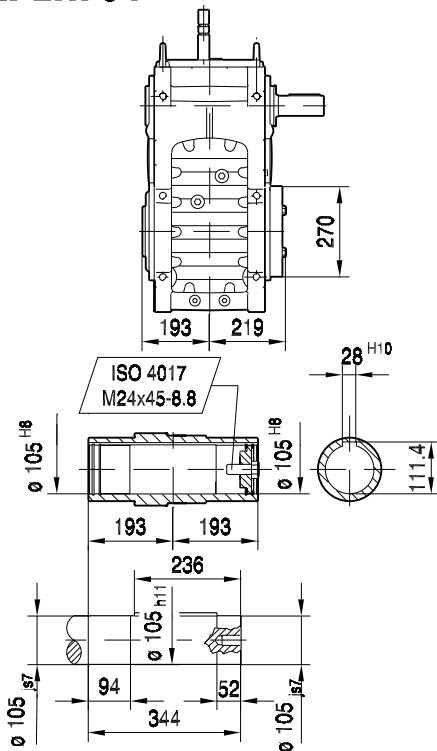
47 099 00 03
1(2)

353 kg
31 l

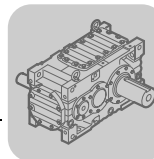


MC2PEHF04

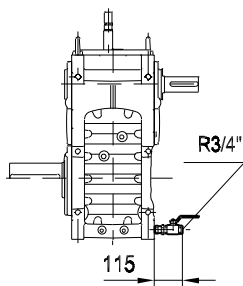
MC2PEHF04 /SD



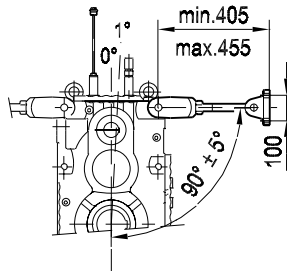
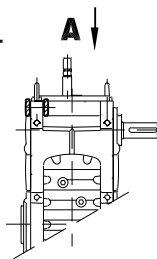
Helical Gear Units MC...P
 Selection tables (detailed) MC.PE..



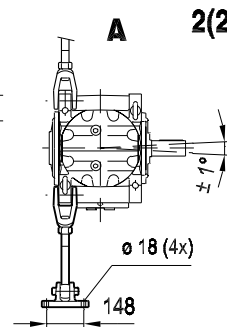
MC2PE..04
 /ODV



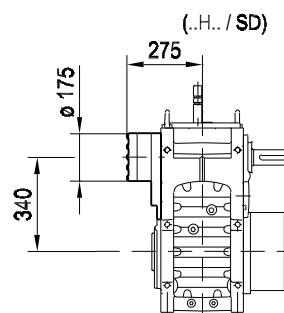
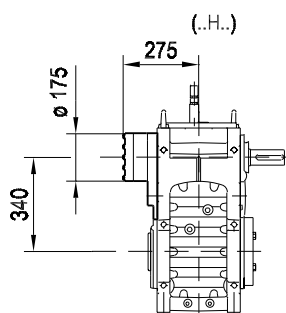
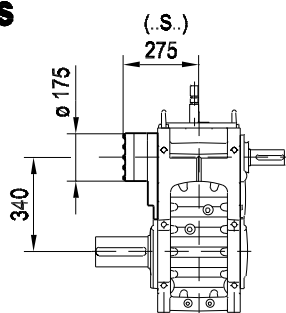
MC2PEH T04



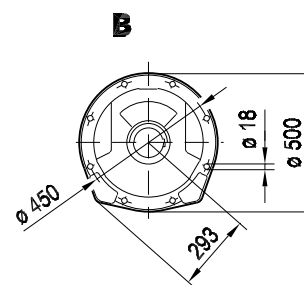
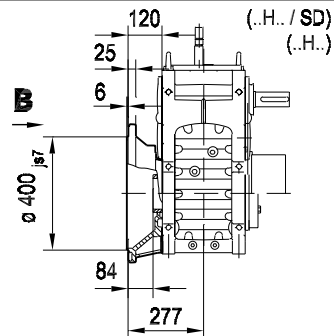
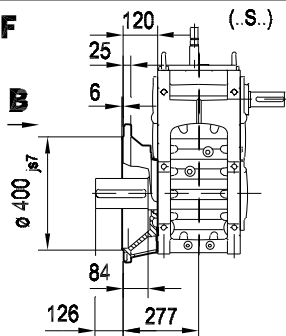
47 099 00 03
 2(2)



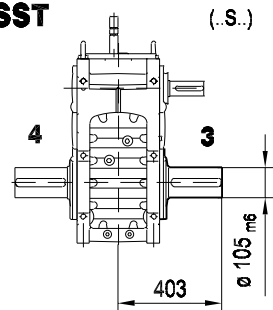
/BS



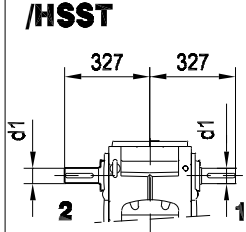
/MF



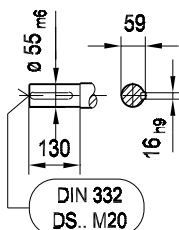
/LSST



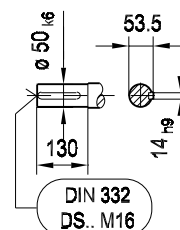
/HSST



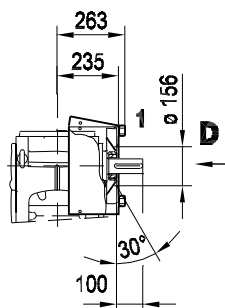
i = 7.1-11.2
 ø d1 = ø 55 m6



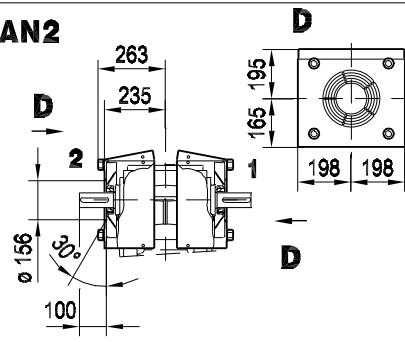
i = 12.5-20
 ø d1 = ø 50 k6



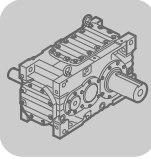
/FAN



/FAN2



10

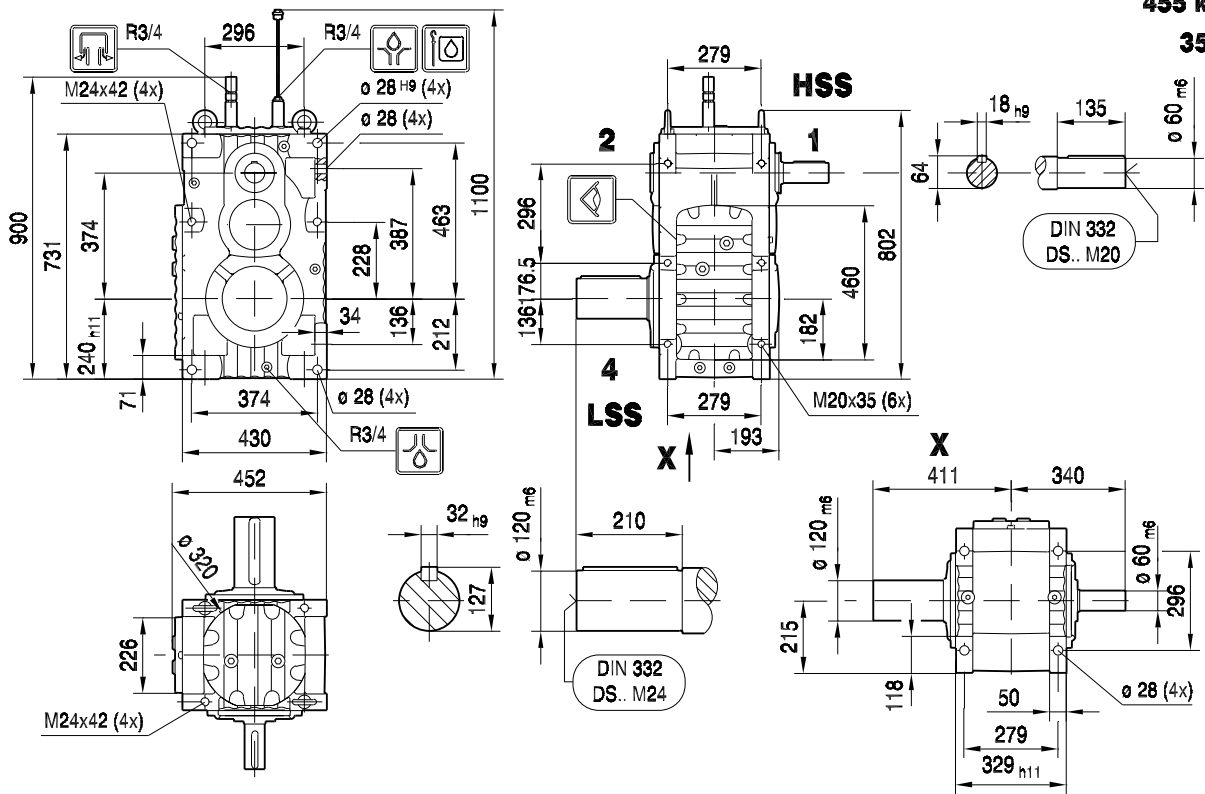


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF05

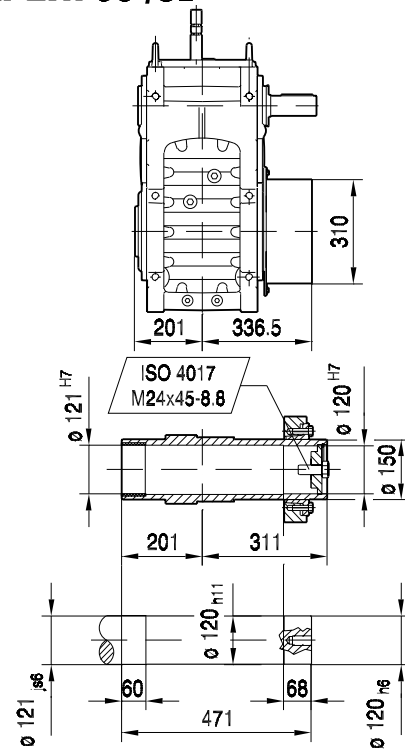
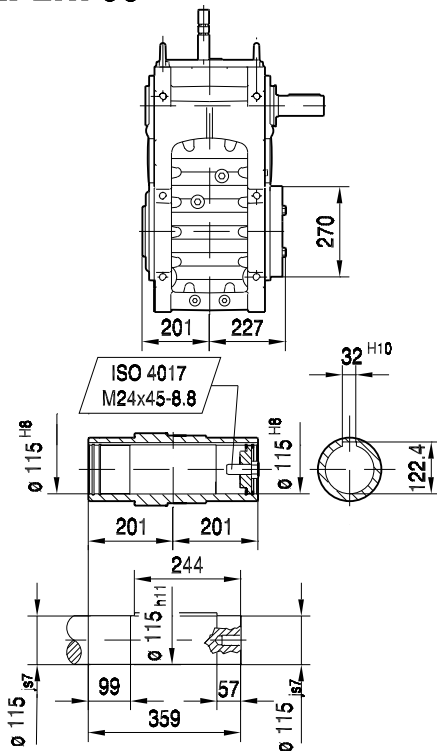
47 100 00 03
1(2)

455 kg
35 l

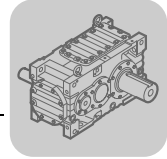


MC2PEHF05

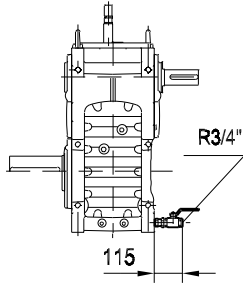
MC2PEHF05 /SD



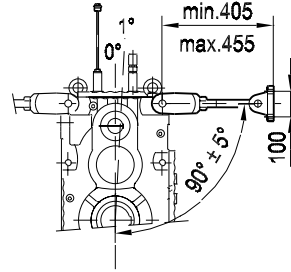
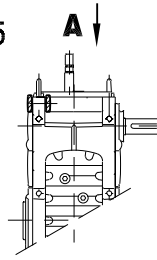
Helical Gear Units MC...P
 Selection tables (detailed) MC.PE..



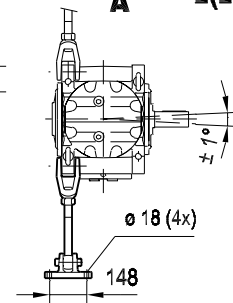
MC2PE..05
/ODV



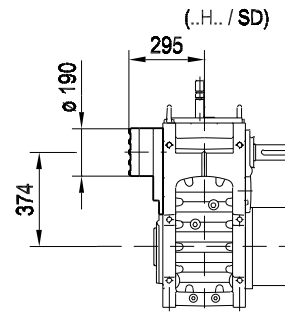
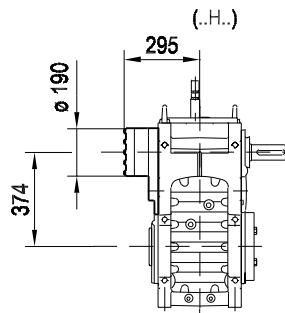
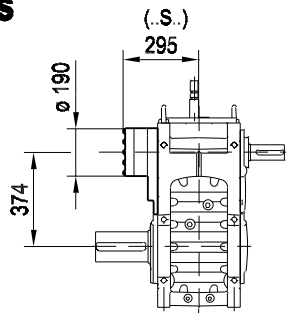
MC2PEH T05



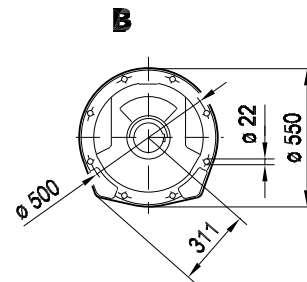
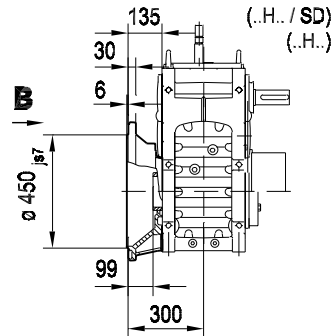
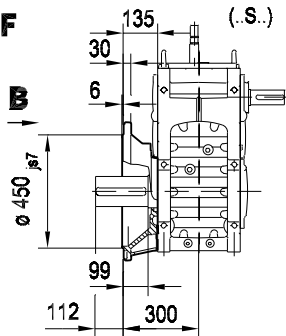
47 100 00 03
2(2)



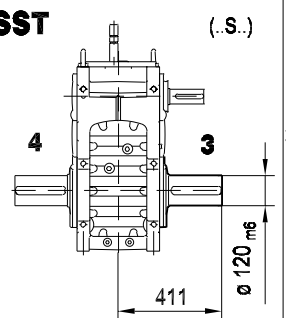
/BS



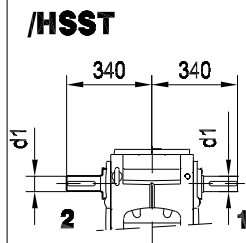
/MF



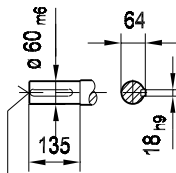
/LSST



/HSST

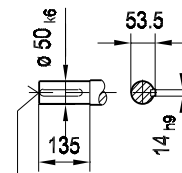


i = 7.1-11.2
 ø d1 = ø 60 m6



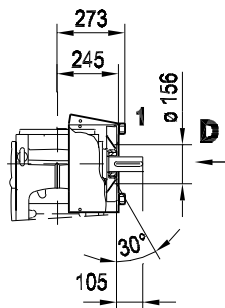
DIN 332
 DS.. M20

i = 12.5-20
 ø d1 = ø 50 k6

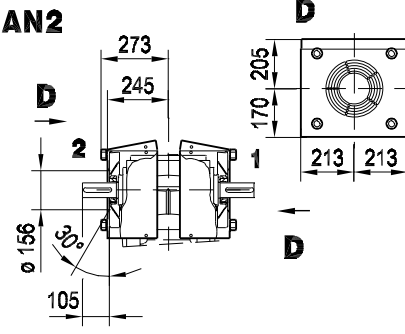


DIN 332
 DS.. M16

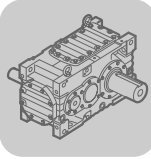
/FAN



/FAN2



10

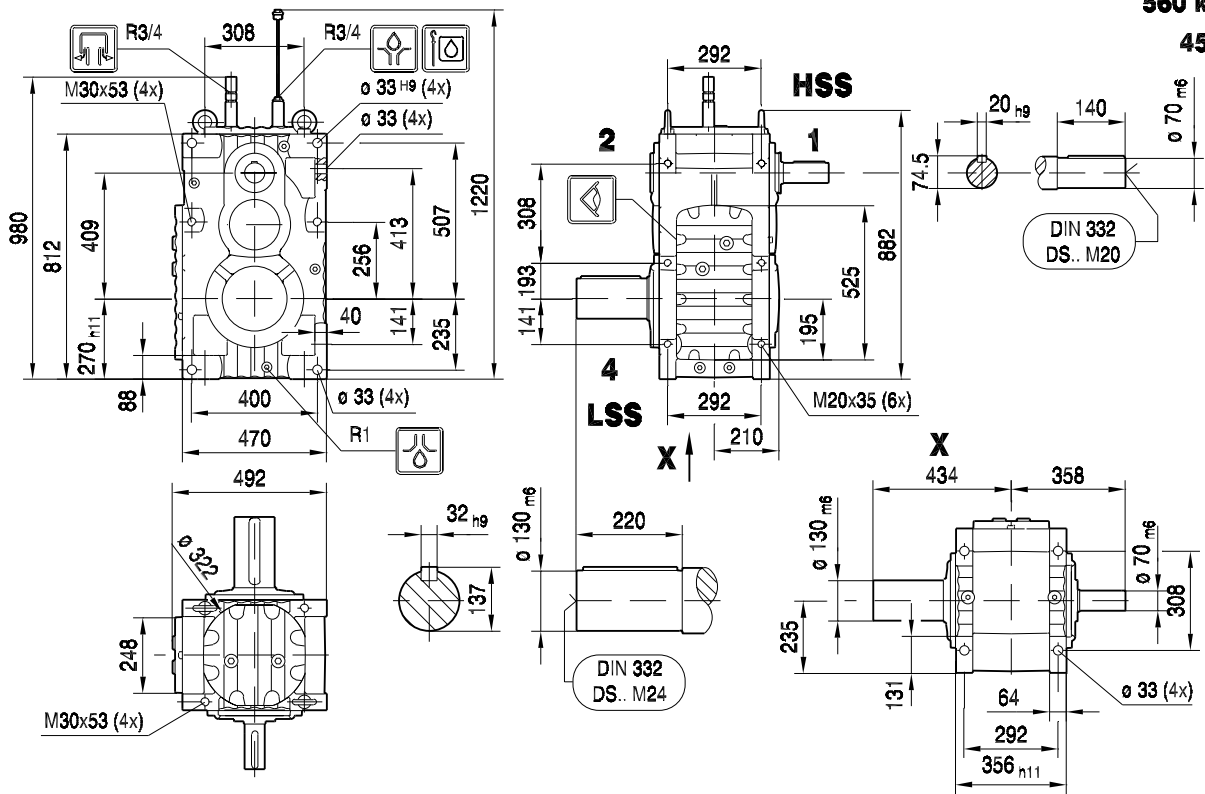


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF06

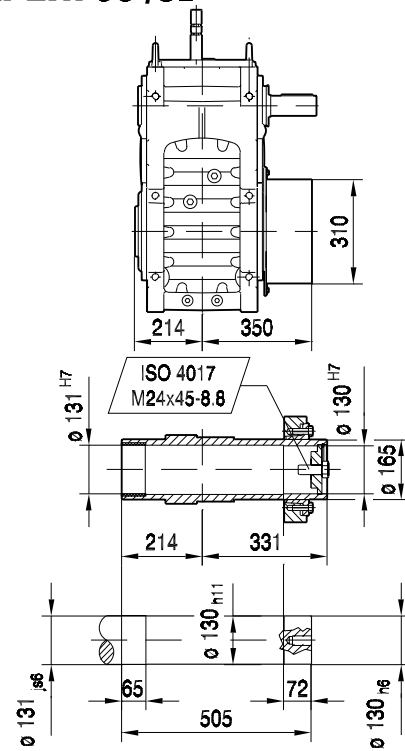
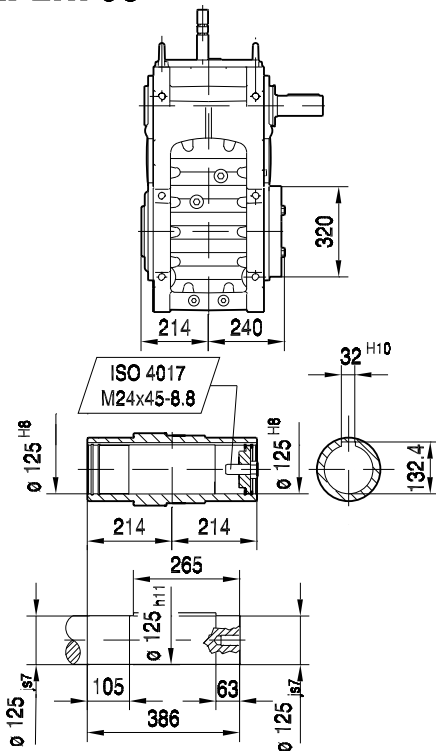
47 101 00 03
1(2)

560 kg
45 l

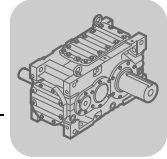


MC2PEHF06

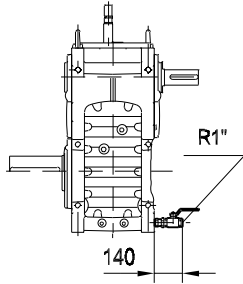
MC2PEHF06 /SD



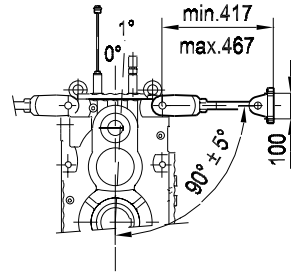
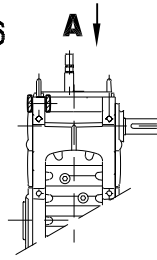
Helical Gear Units MC...P
 Selection tables (detailed) MC.PE..



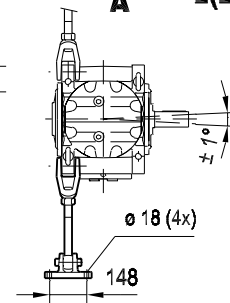
MC2PE..06
 /ODV



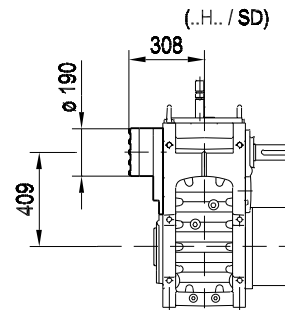
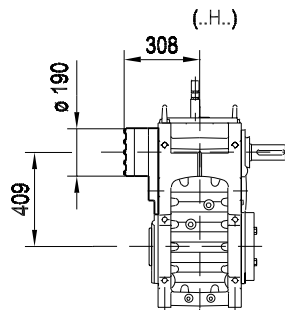
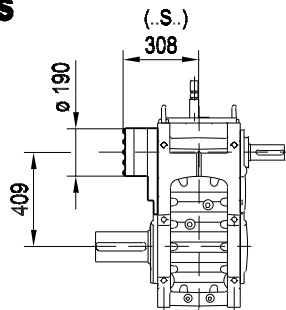
MC2PEH T 06



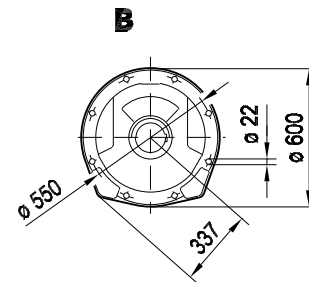
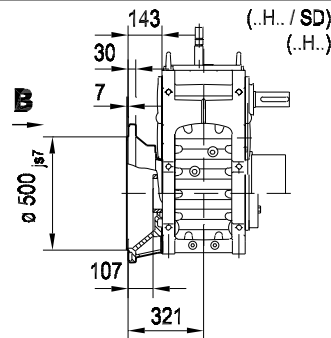
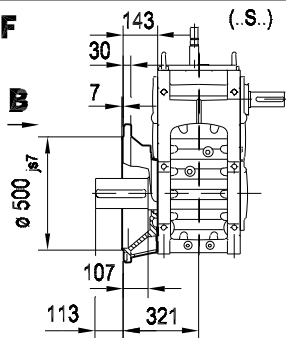
47 101 00 03
 2(2)



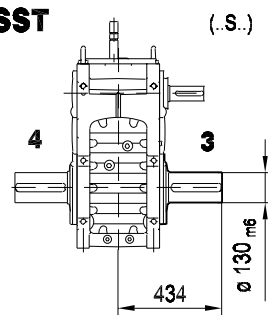
/BS



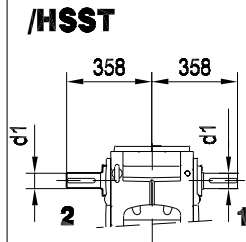
/MF



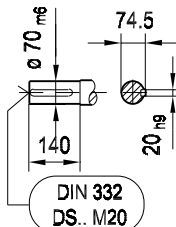
/LSST



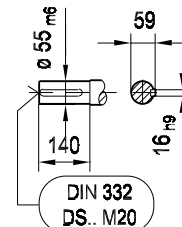
/HSST



i = 7.1-11.2
 ø d1 = ø 70 m6

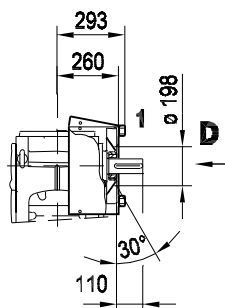


i = 12.5-20
 ø d1 = ø 55 m6

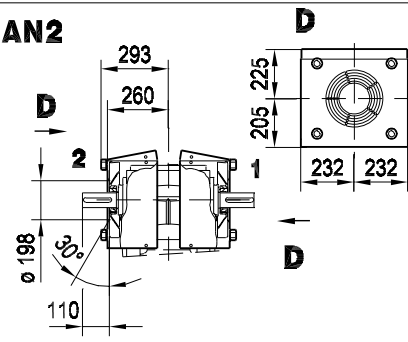


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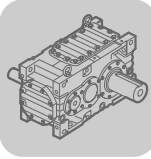
/FAN



/FAN2



10

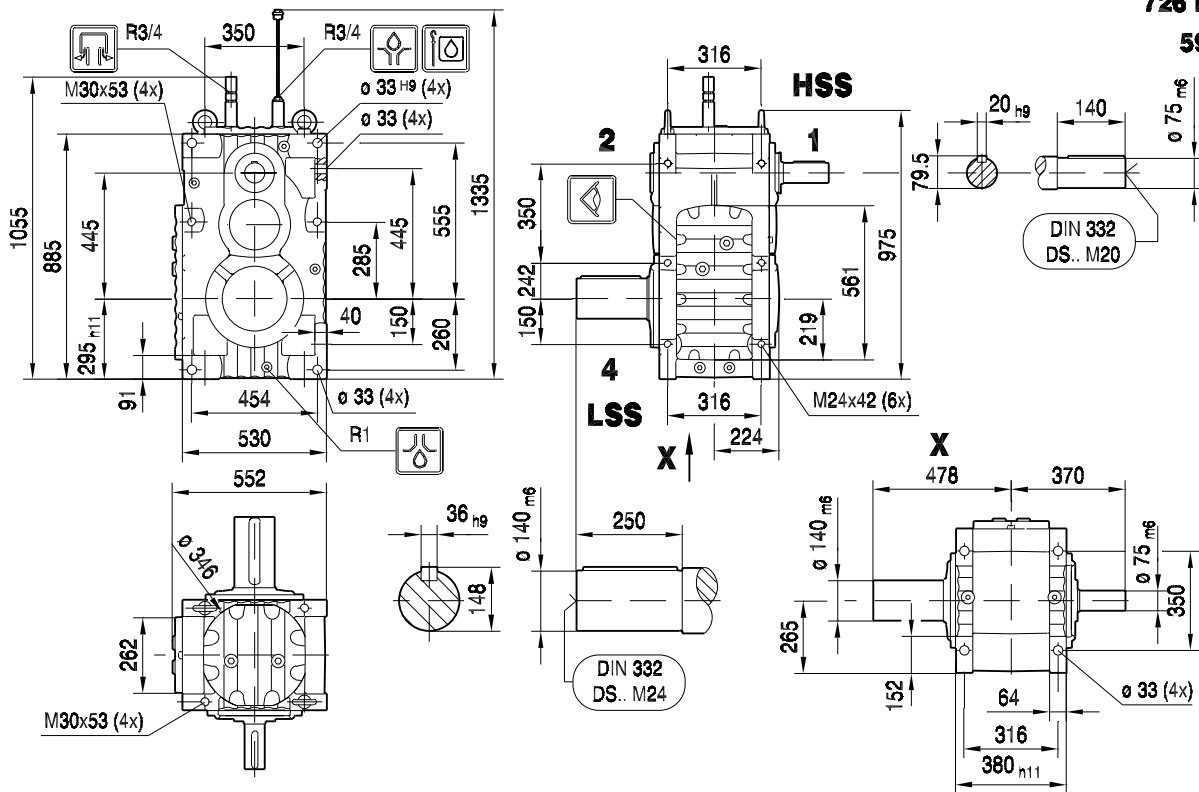


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF07

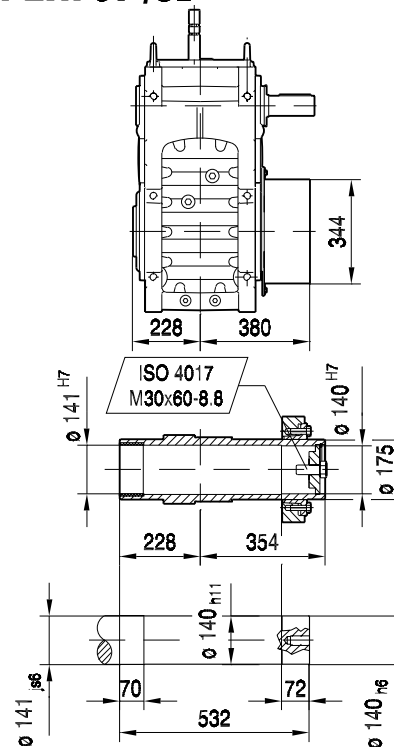
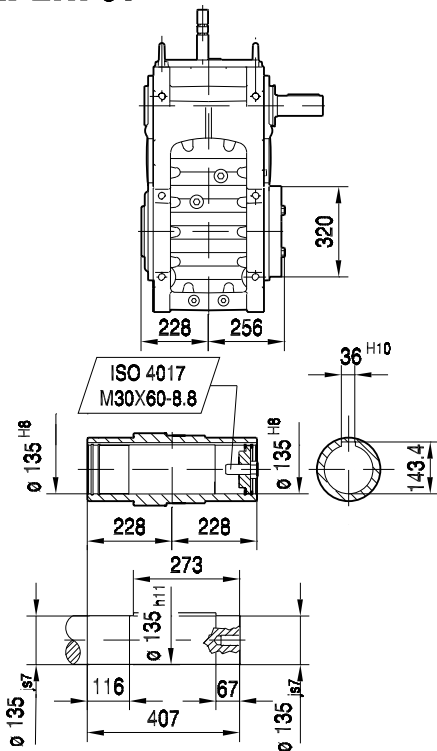
47 102 00 03
1(2)

726 kg
59 l



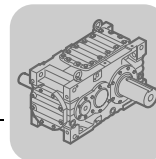
MC2PEHF07

MC2PEHF07 /SD



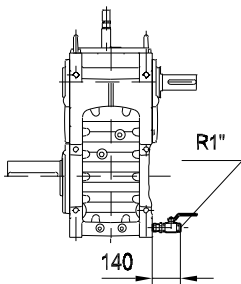
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

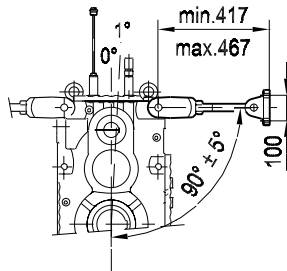
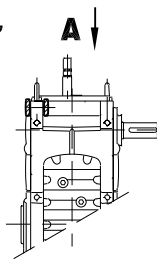


MC2PE..07

/ODV

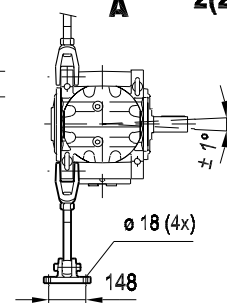


MC2PEH T07

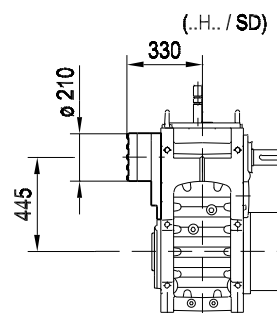
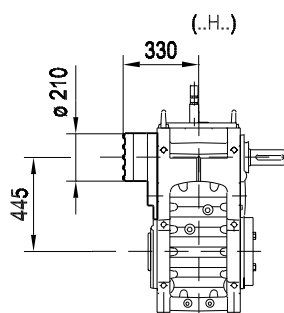
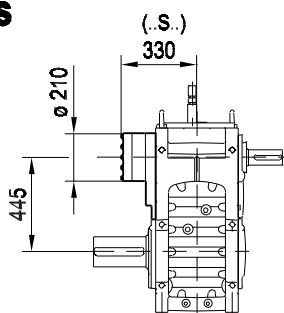


47 102 00 03

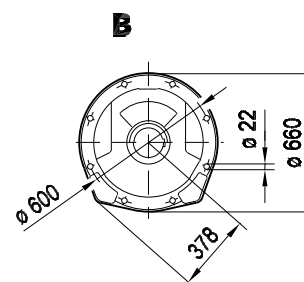
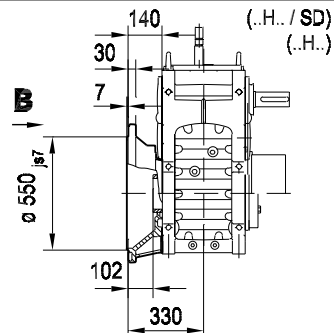
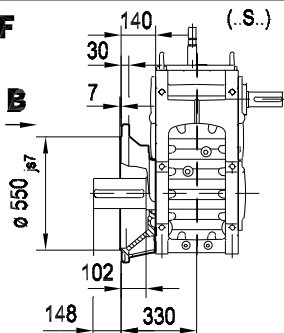
2(2)



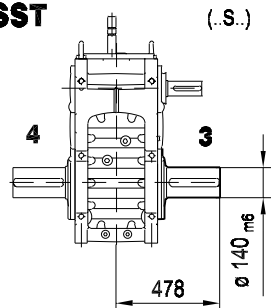
/BS



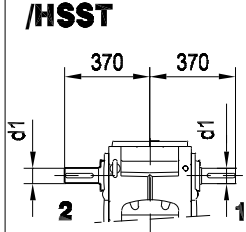
/MF



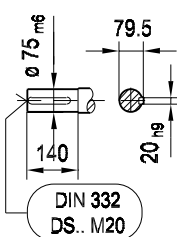
/LSST



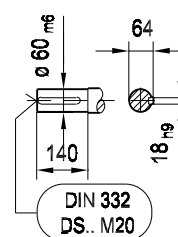
/HSST



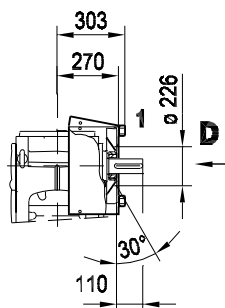
i = 7.1-11.2
ø d1 = ø 75 m6



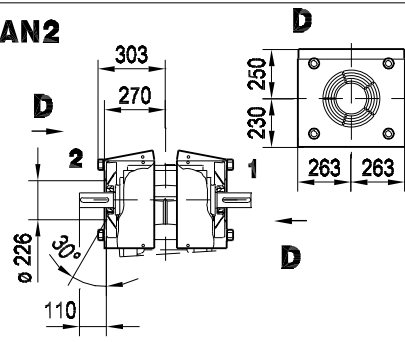
i = 12.5-20
ø d1 = ø 60 m6



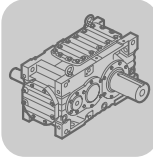
/FAN



/FAN2



10

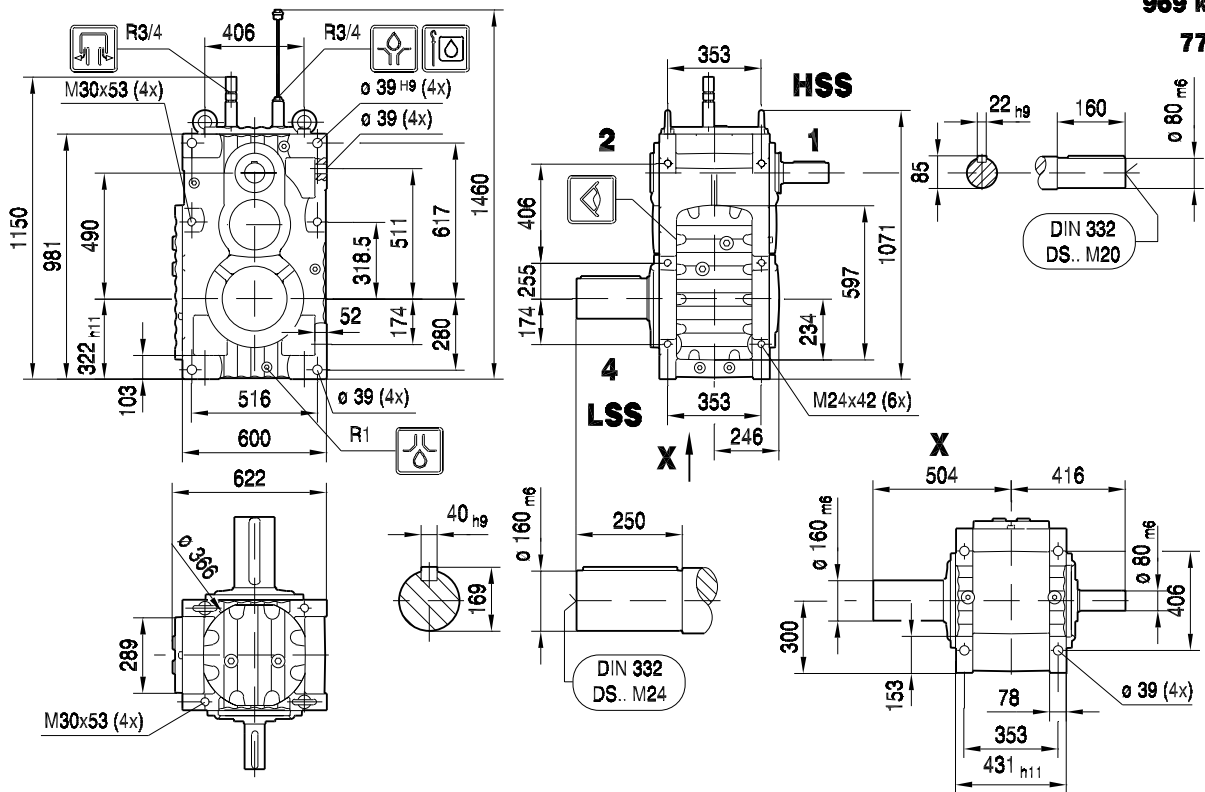


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF08

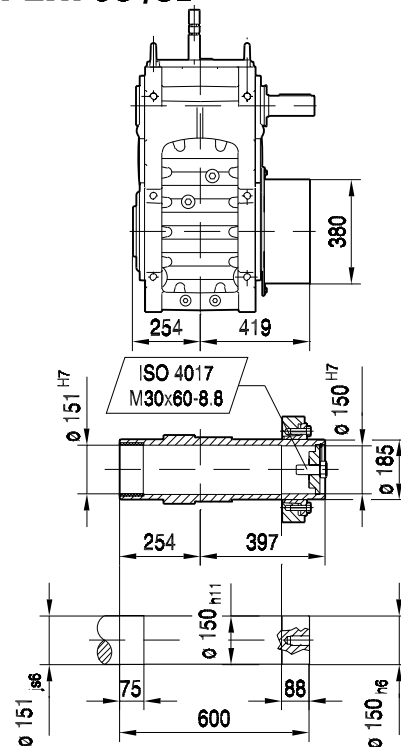
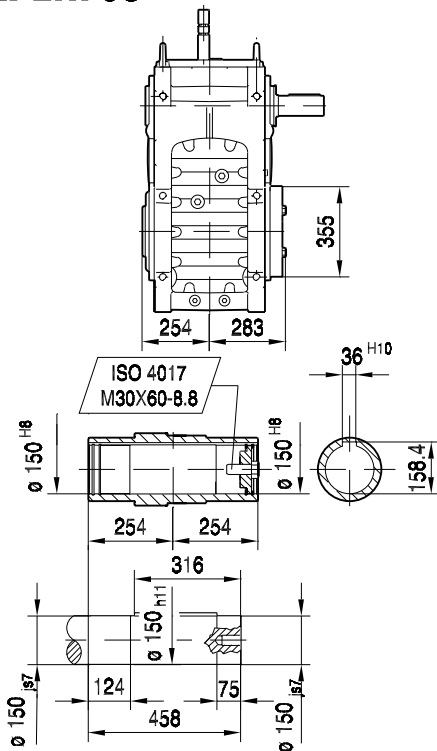
47 103 00 03
1(2)

969 kg
77 l



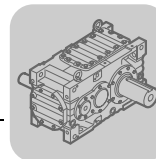
MC2PEHF08

MC2PEHF08 /SD



Helical Gear Units MC...P

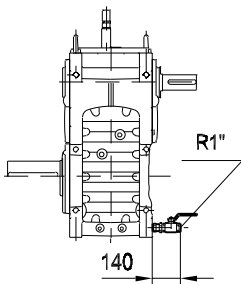
Selection tables (detailed) MC.PE..



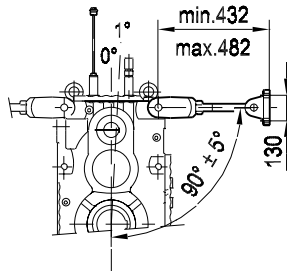
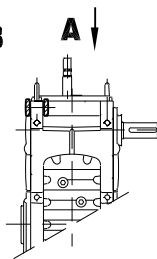
10

MC2PE..08

/ODV

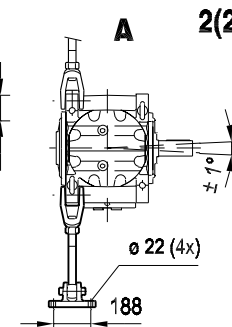


MC2PEH T 08

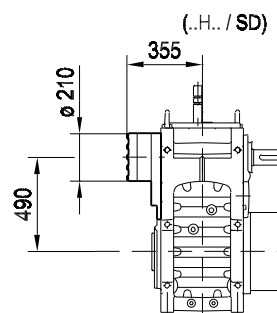
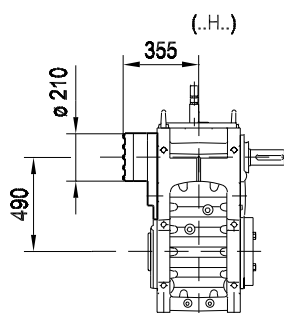
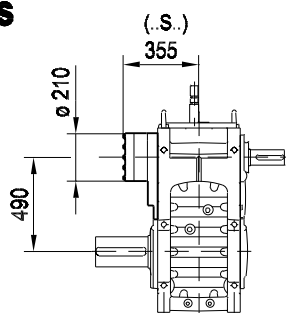


47 103 00 03

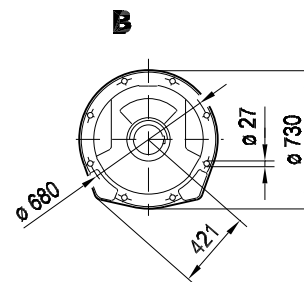
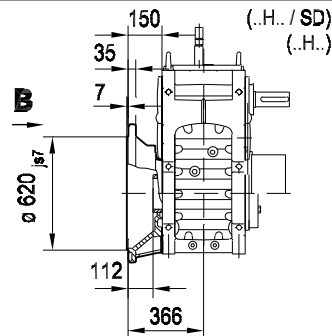
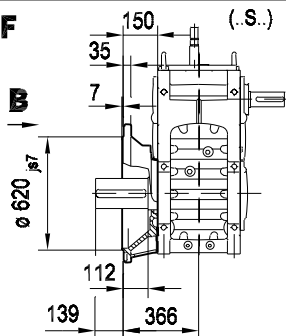
2(2)



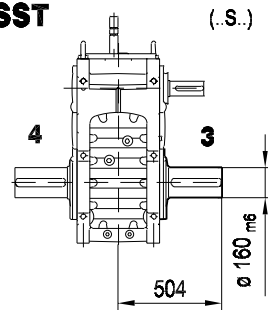
/BS



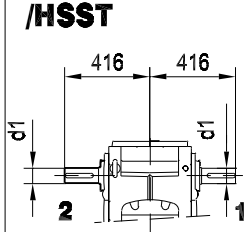
/MF



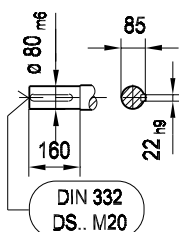
/LSST



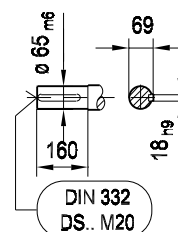
/HSST



$i = 7.1-11.2$
 $\varnothing d1 = \varnothing 80 m6$

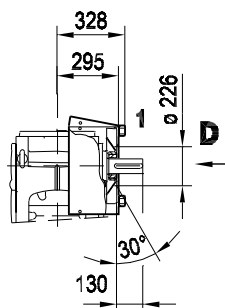


$i = 12.5-20$
 $\varnothing d1 = \varnothing 65 m6$

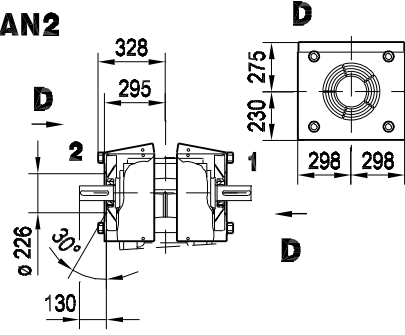


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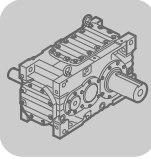
/FAN



/FAN2



10

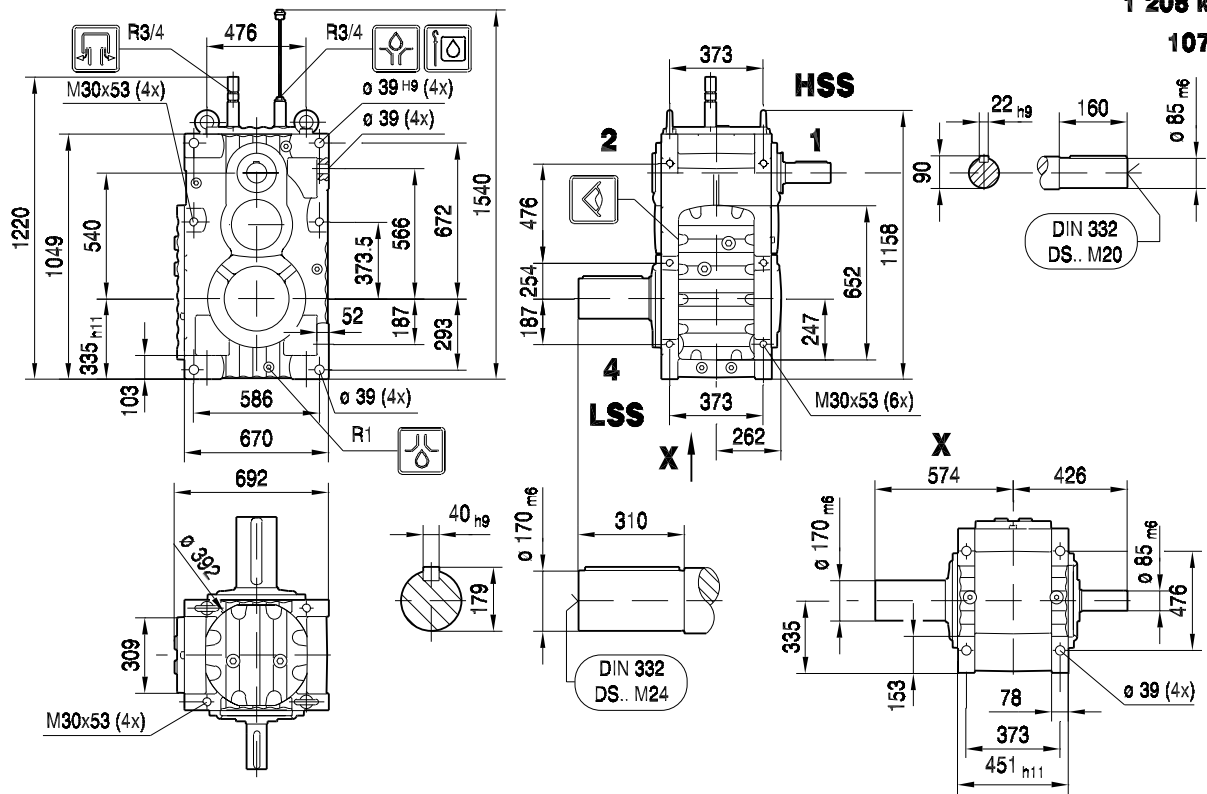


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC2PESF09

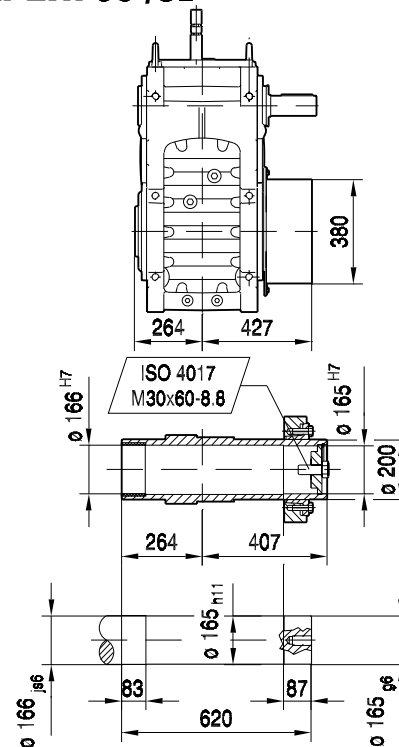
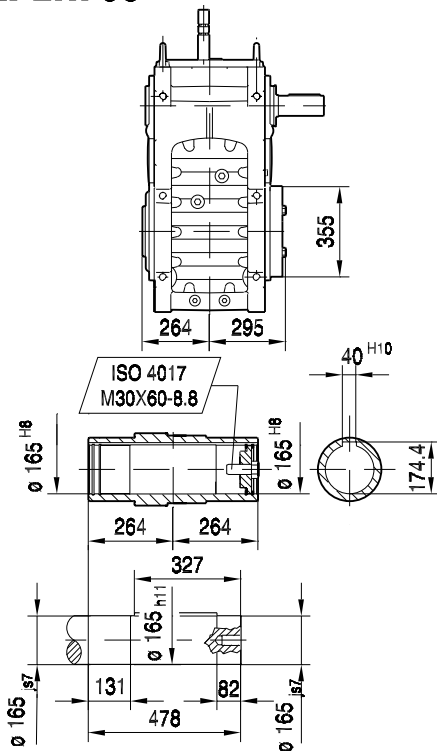
47 104 00 03
1(2)

1 208 kg
107 l



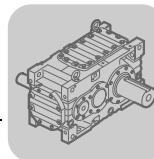
MC2PEHF09

MC2PEHF09 /SD



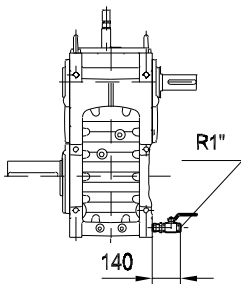
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

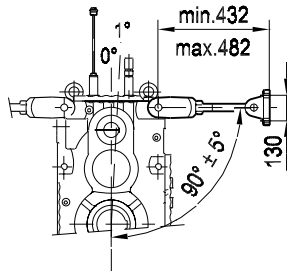
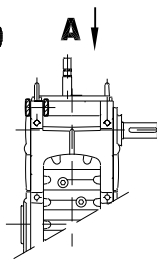


MC2PE..09

/ODV

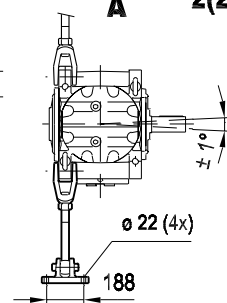


MC2PEH T 09

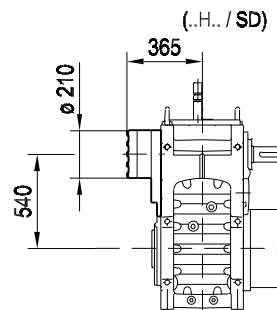
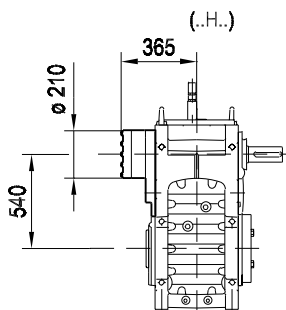
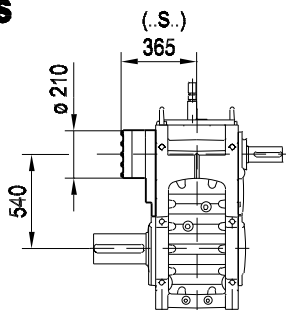


47 104 00 03

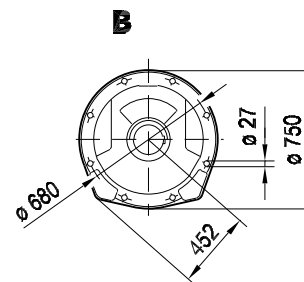
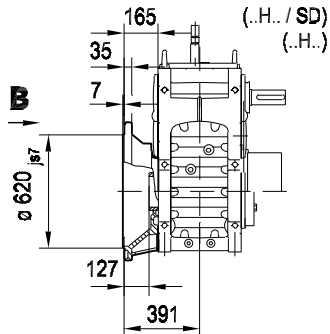
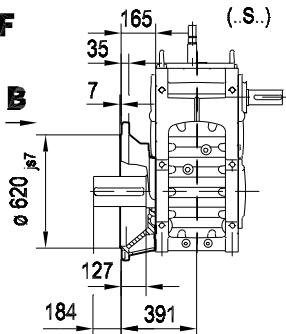
2(2)



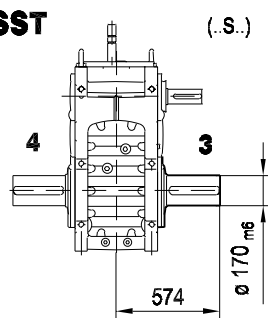
/BS



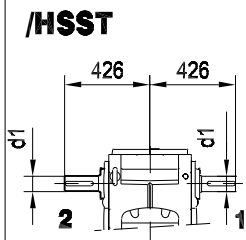
/MF



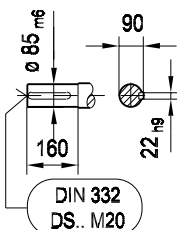
/LSST



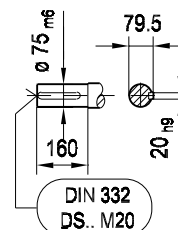
/HSST



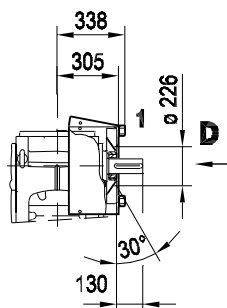
$i = 7.1-11.2$
 $\phi d1 = \phi 85 m6$



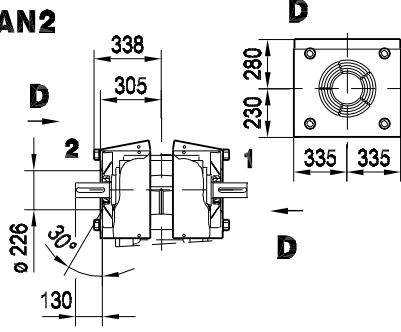
$i = 12.5-20$
 $\phi d1 = \phi 75 m6$



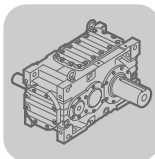
/FAN



/FAN2



10

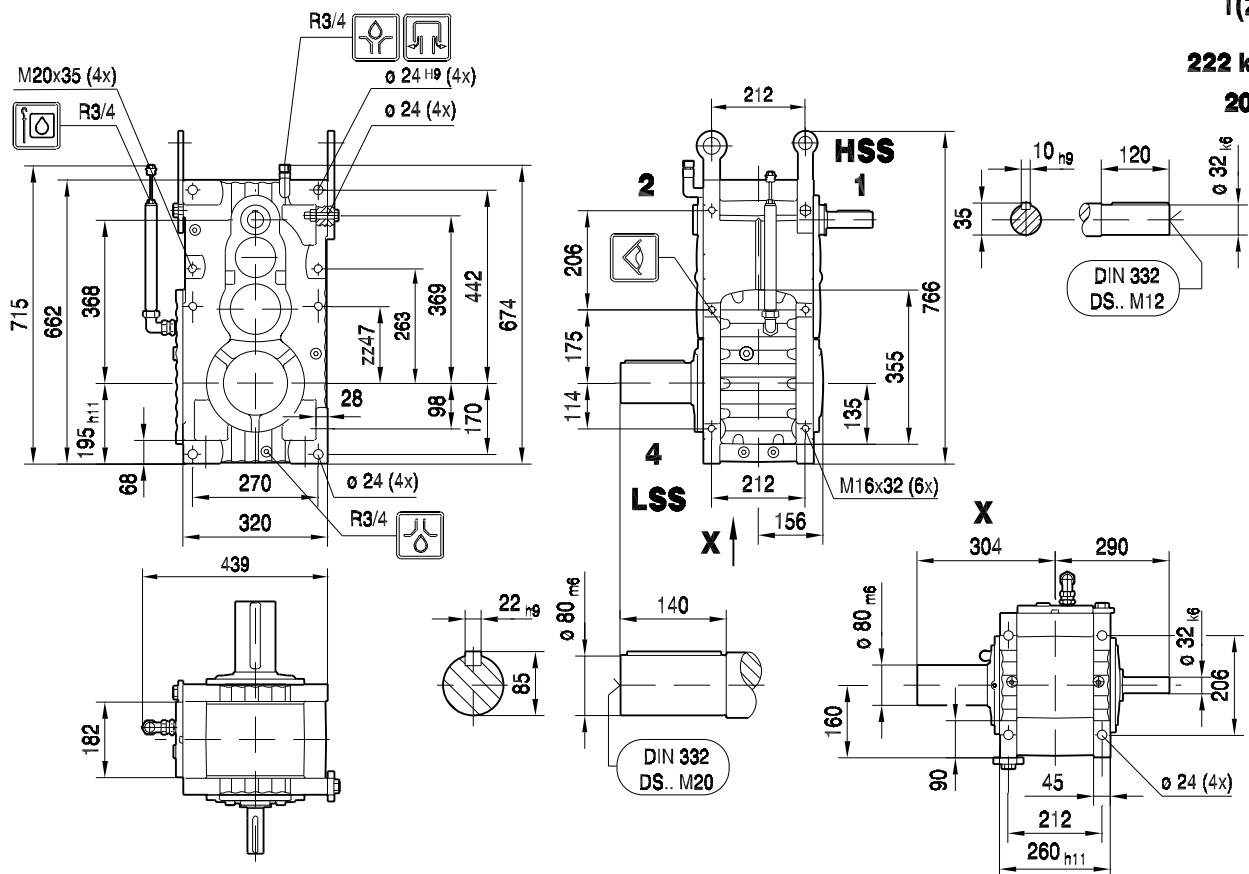


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF02

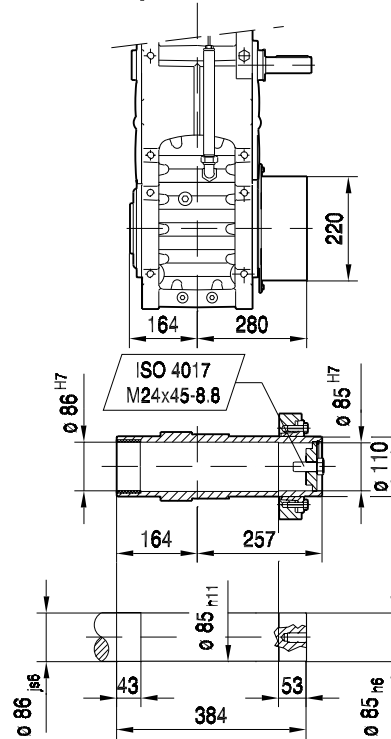
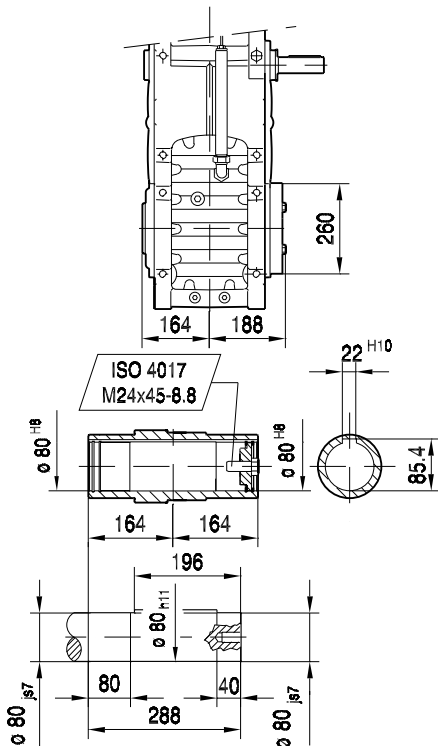
47 105 00 03
1(2)

222 kg
20 l



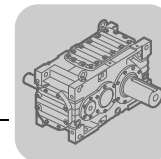
MC3PEHF02

MC3PEHF02 /SD



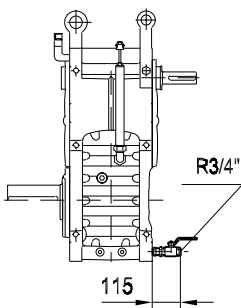
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

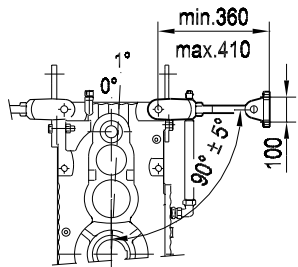
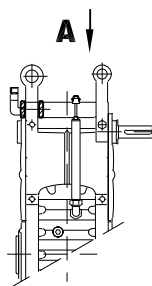


MC3PE..02

/ODV

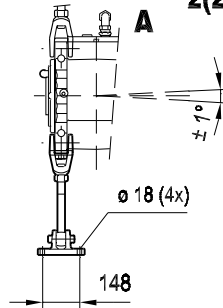


MC3PEHT 03



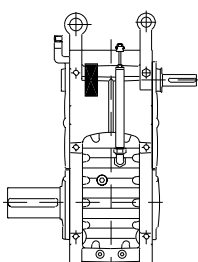
47 105 00 03

2(2)

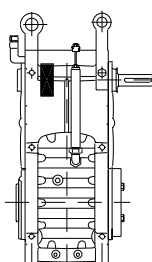


/BS

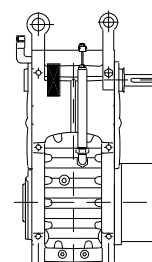
(.S.)



(.H.)

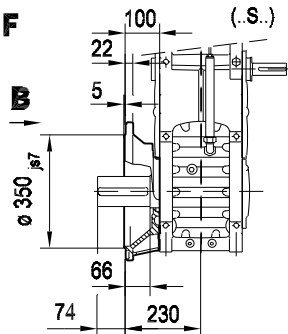


(.H.. / SD)

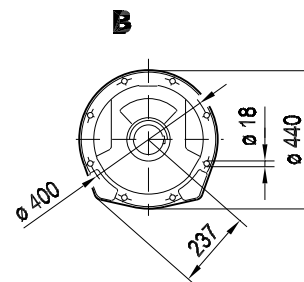
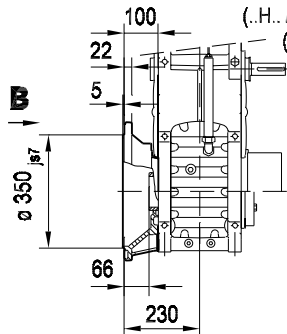


/MF

(.S.)

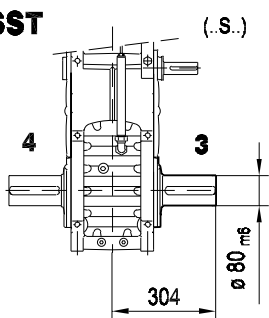


(.H.. / SD)



/LSST

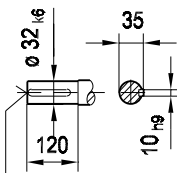
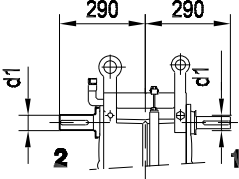
(.S.)



/HSST

i = 22.5-35.5

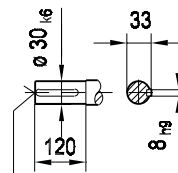
ø d1 = ø 32 k6



DIN 332 DS.. M12

i = 40-63

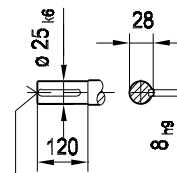
ø d1 = ø 30 k6



DIN 332 DS.. M10

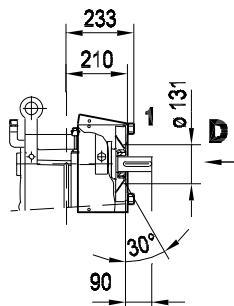
i = 71-112

ø d1 = ø 25 k6

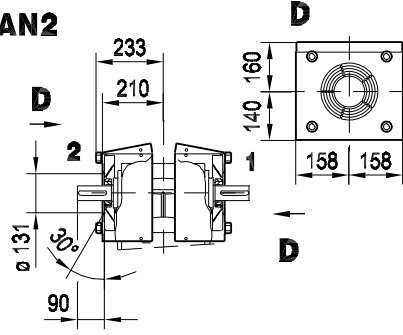


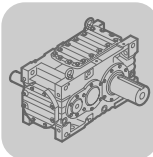
DIN 332 DS.. M10

/FAN



/FAN2



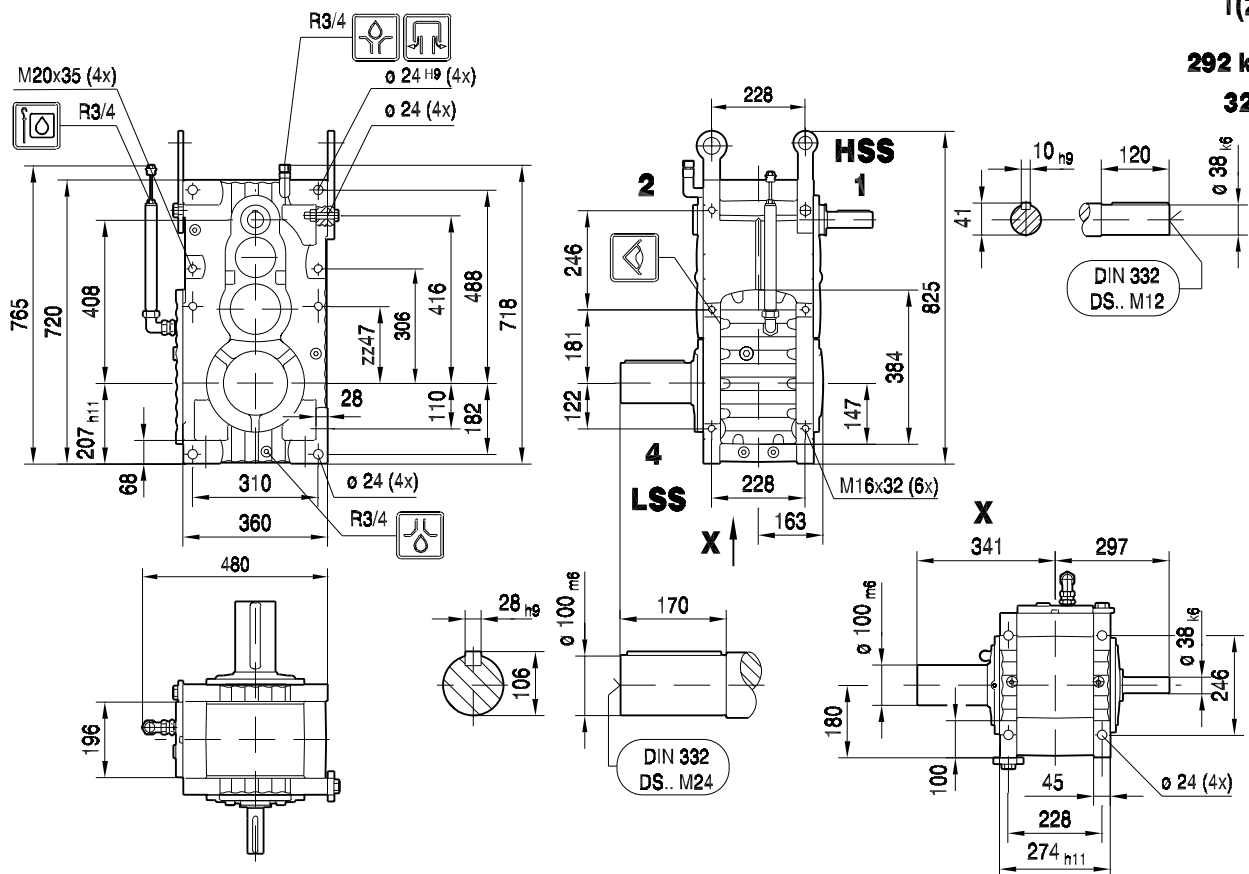


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PESF03

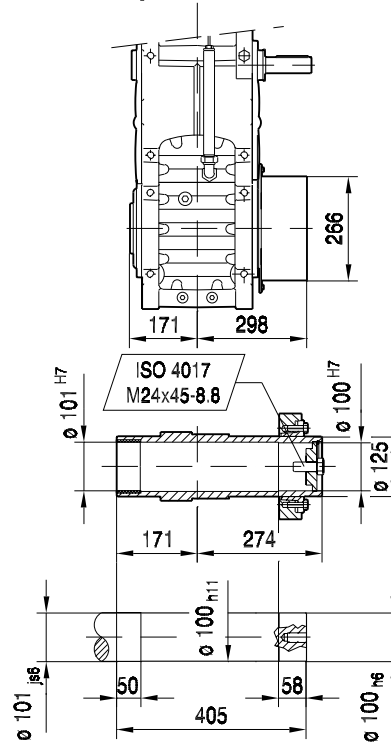
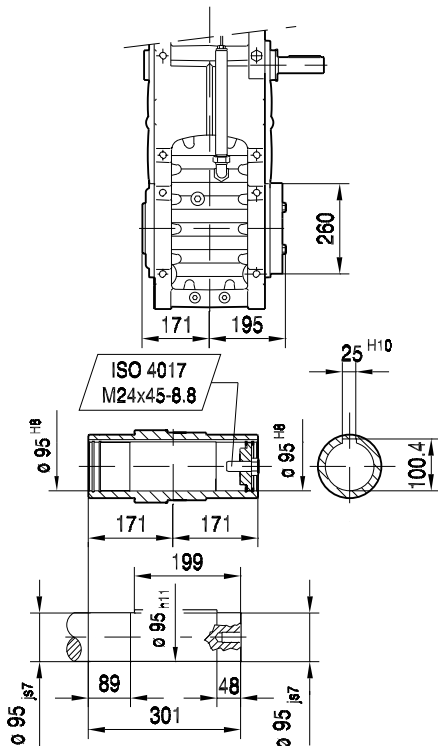
47 106 00 03
1(2)

292 kg
32 l



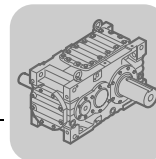
MC3PEHF03

MC3PEHF03 /SD



Helical Gear Units MC...P

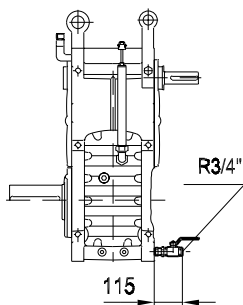
Selection tables (detailed) MC.PE..



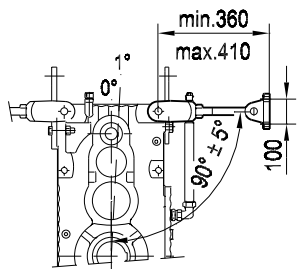
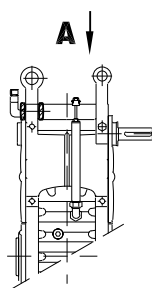
10

MC3PE..03

/ODV

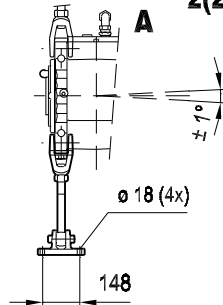


MC3PEHT 03



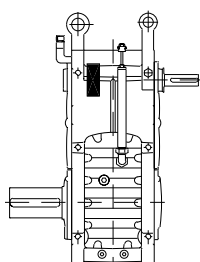
47 106 00 03

2(2)

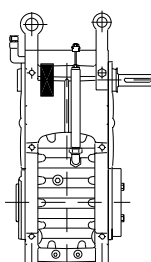


/BS

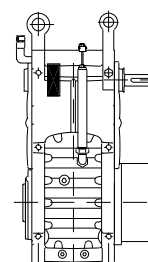
(..S..)



(..H..)

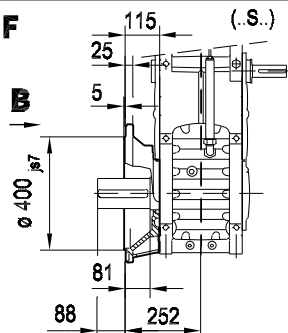


(..H.. / SD)

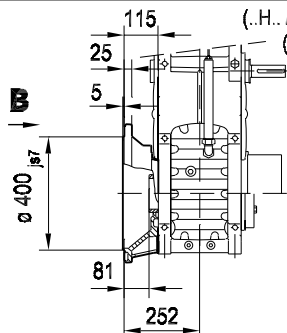


/MF

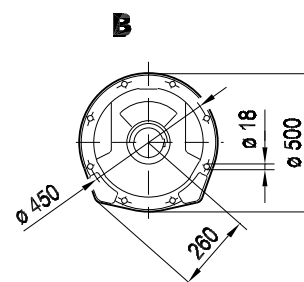
(..S..)



(..H.. / SD)

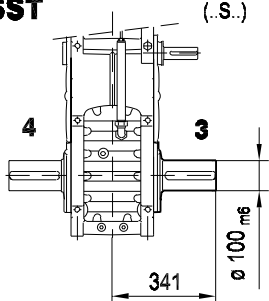


(..H..)



/LSST

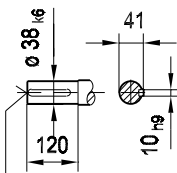
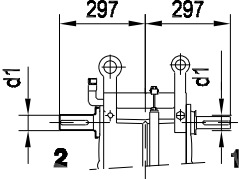
(..S..)



/HSST

i = 22.5-35.5

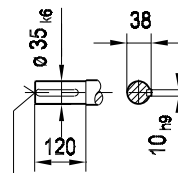
Ø d1 = Ø 38 k6



DIN 332 DS.. M12

i = 40-63

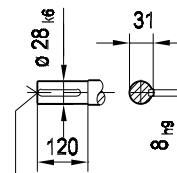
Ø d1 = Ø 35 k6



DIN 332 DS.. M12

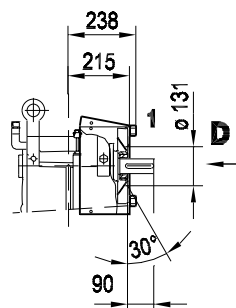
i = 71-112

Ø d1 = Ø 28 k6

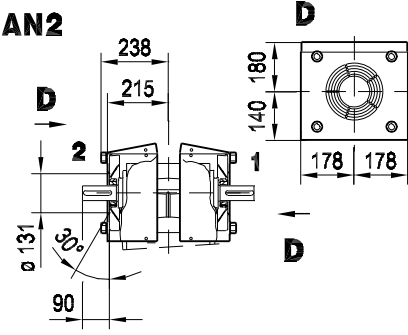


DIN 332 DS.. M10

/FAN

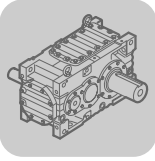


/FAN2



10

10

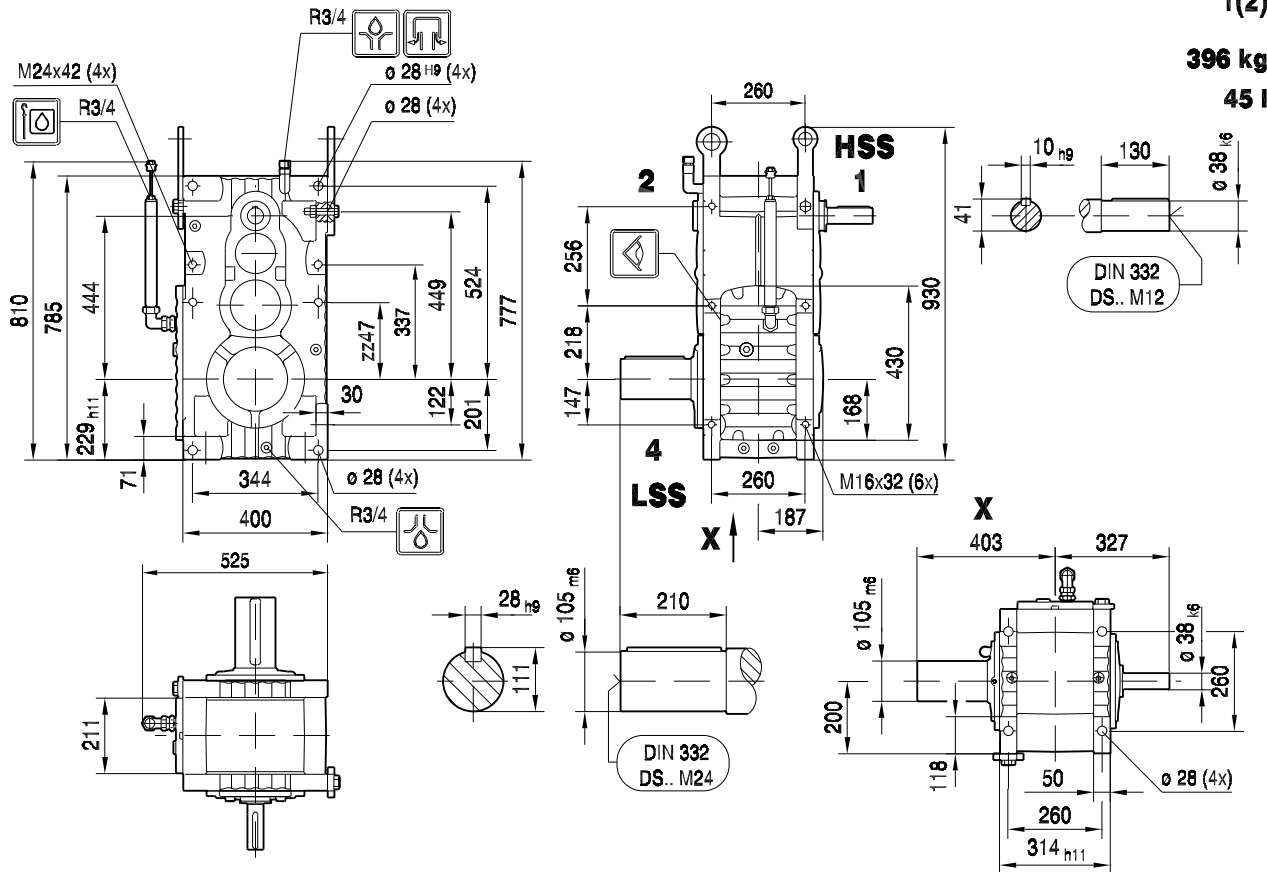


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF04

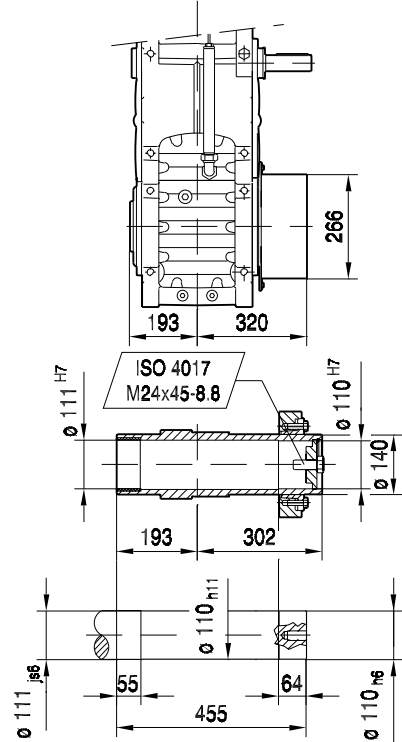
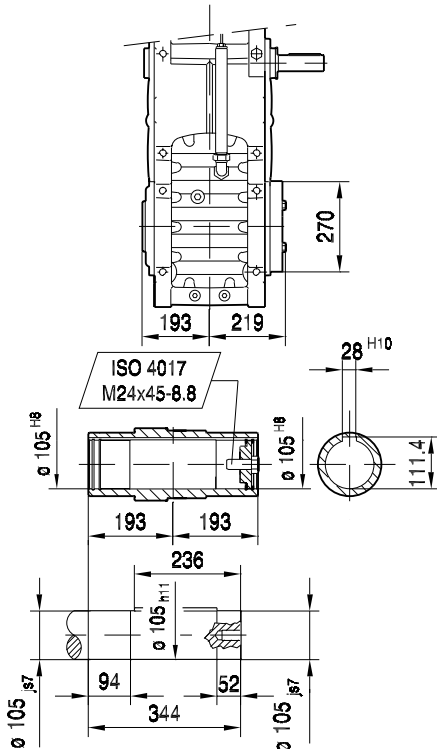
47 107 00 03
1(2)

396 kg
45 l



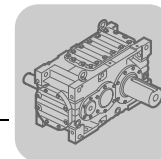
MC3PEHF04

MC3PEHF04 /SD



Helical Gear Units MC...P

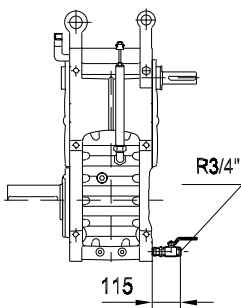
Selection tables (detailed) MC.PE..



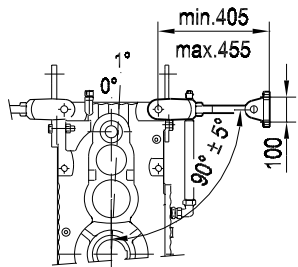
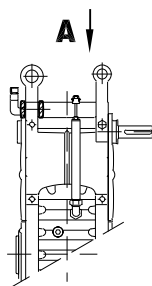
10

MC3PE..04

/ODV

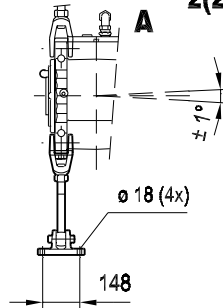


MC3PEHT 04



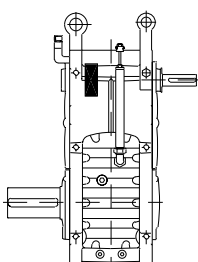
47 107 00 03

2(2)

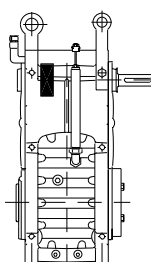


/BS

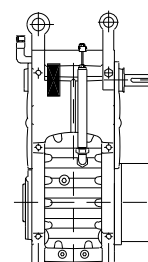
(..S..)



(..H..)

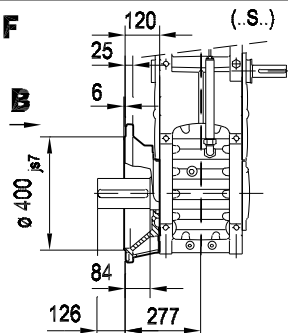


(..H.. / SD)



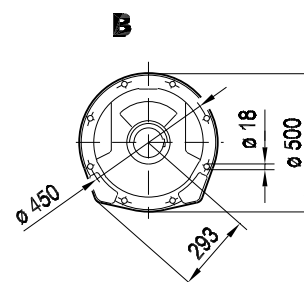
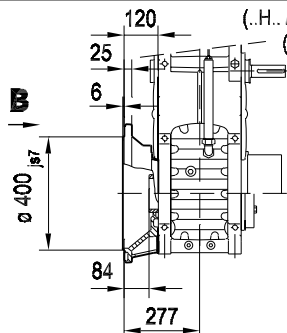
/MF

(..S..)



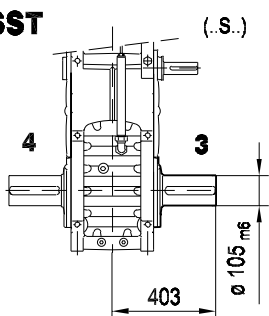
(..H.. / SD)

(..H..)



/LSST

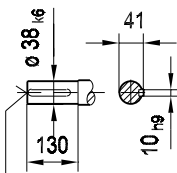
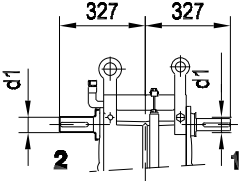
(..S..)



/HSST

i = 22.5-35.5

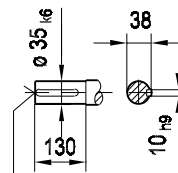
Ø d1 = Ø 38 k6



DIN 332 DS.. M12

i = 40-63

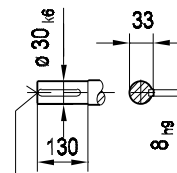
Ø d1 = Ø 35 k6



DIN 332 DS.. M12

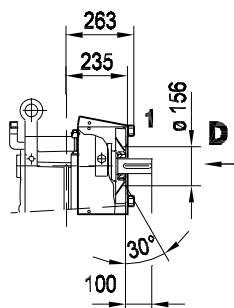
i = 71-112

Ø d1 = Ø 30 k6

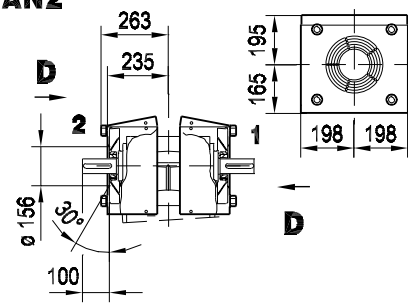


DIN 332 DS.. M10

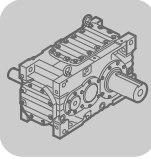
/FAN



/FAN2



10

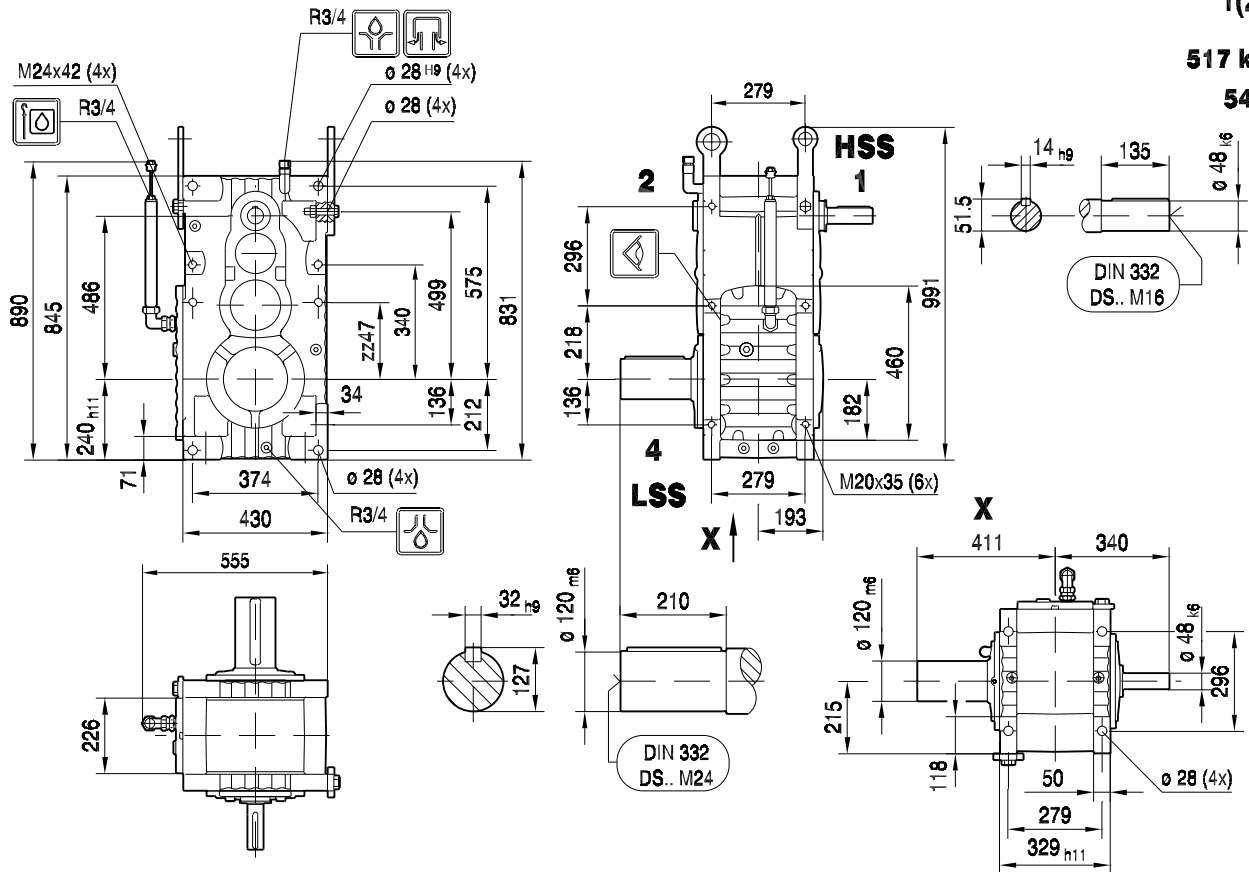


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF05

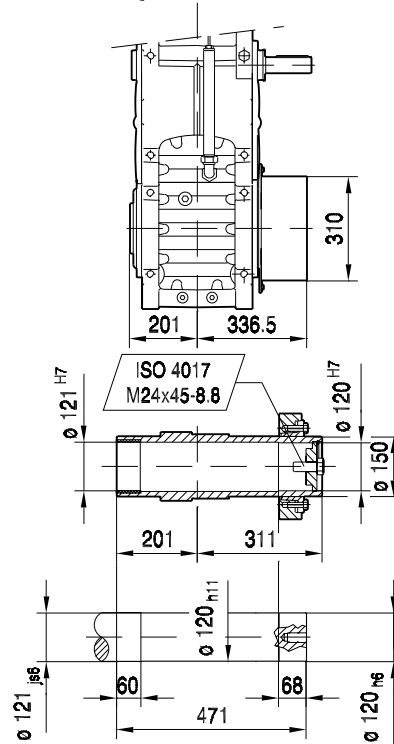
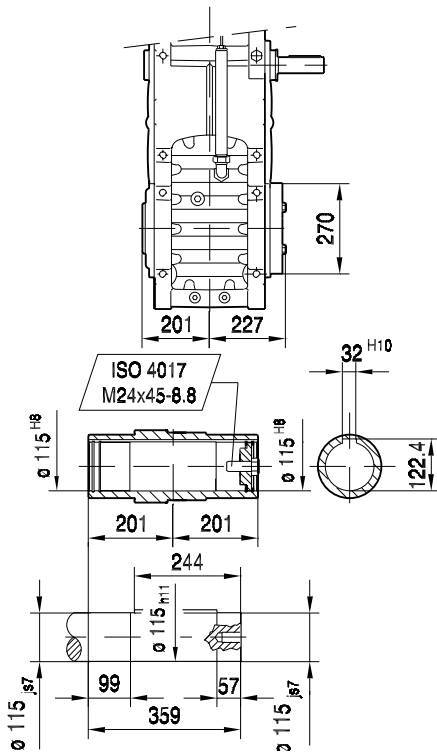
47 108 00 03
1(2)

517 kg
54 l



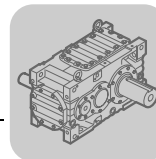
MC3PEHF05

MC3PEHF05 /SD



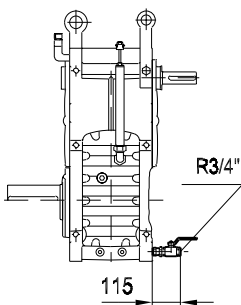
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

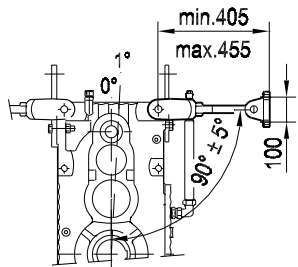
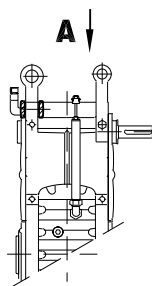


MC3PE..05

/ODV

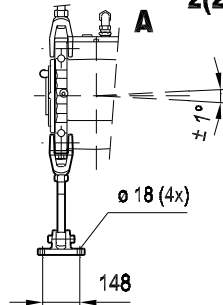


MC3PEHT 05



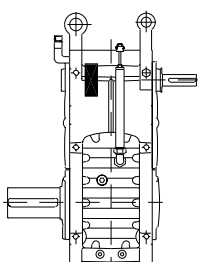
47 108 00 03

2(2)

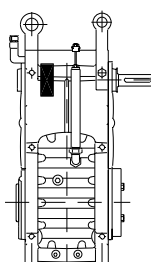


/BS

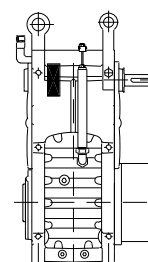
(..S.)



(..H..)

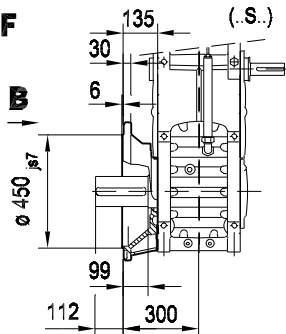


(..H.. / SD)

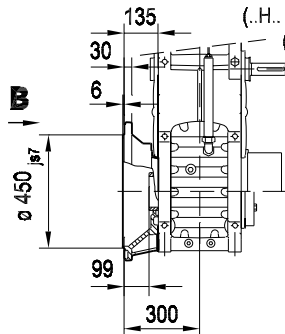


/MF

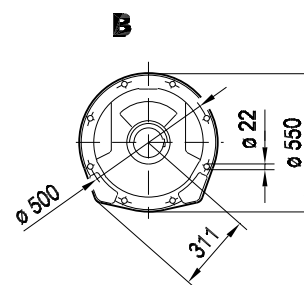
(..S.)



(..H.. / SD)

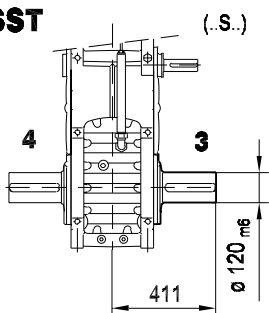


(..H..)



/LSST

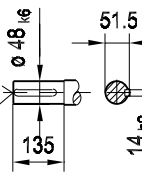
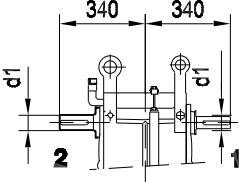
(..S.)



/HSST

i = 22.5-40

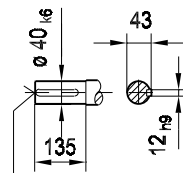
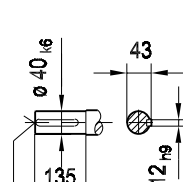
ø d1 = ø 48 k6



DIN 332 DS.. M16

i = 45-63

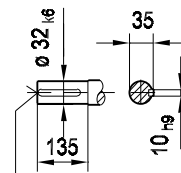
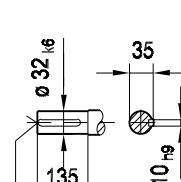
ø d1 = ø 40 k6



DIN 332 DS.. M16

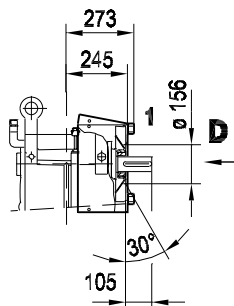
i = 71-112

ø d1 = ø 32 k6

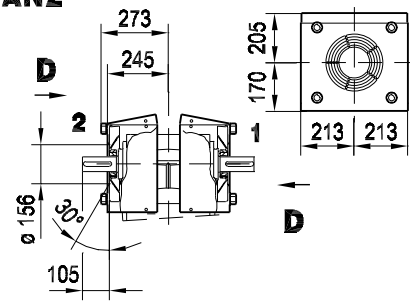


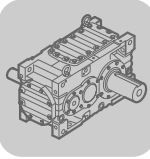
DIN 332 DS.. M12

/FAN



/FAN2



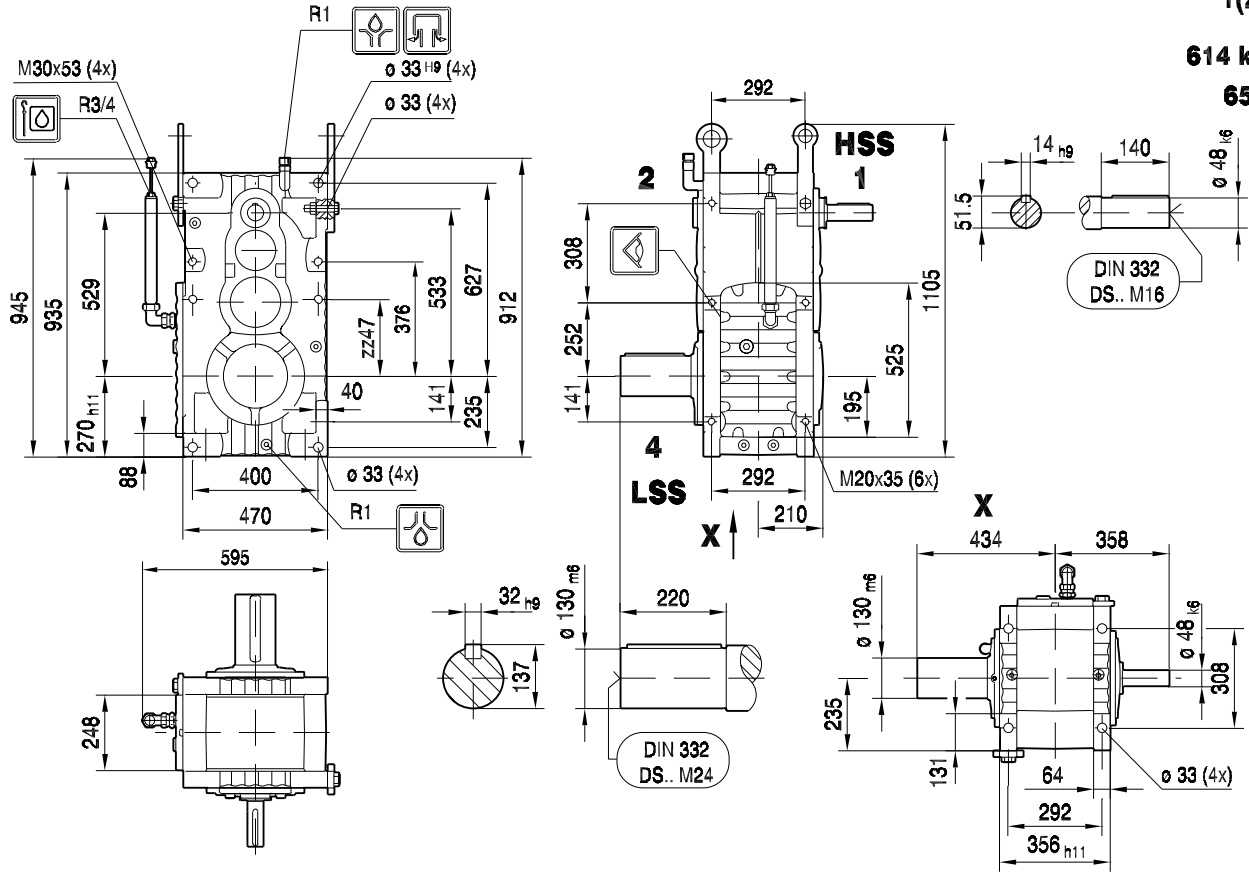


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF06

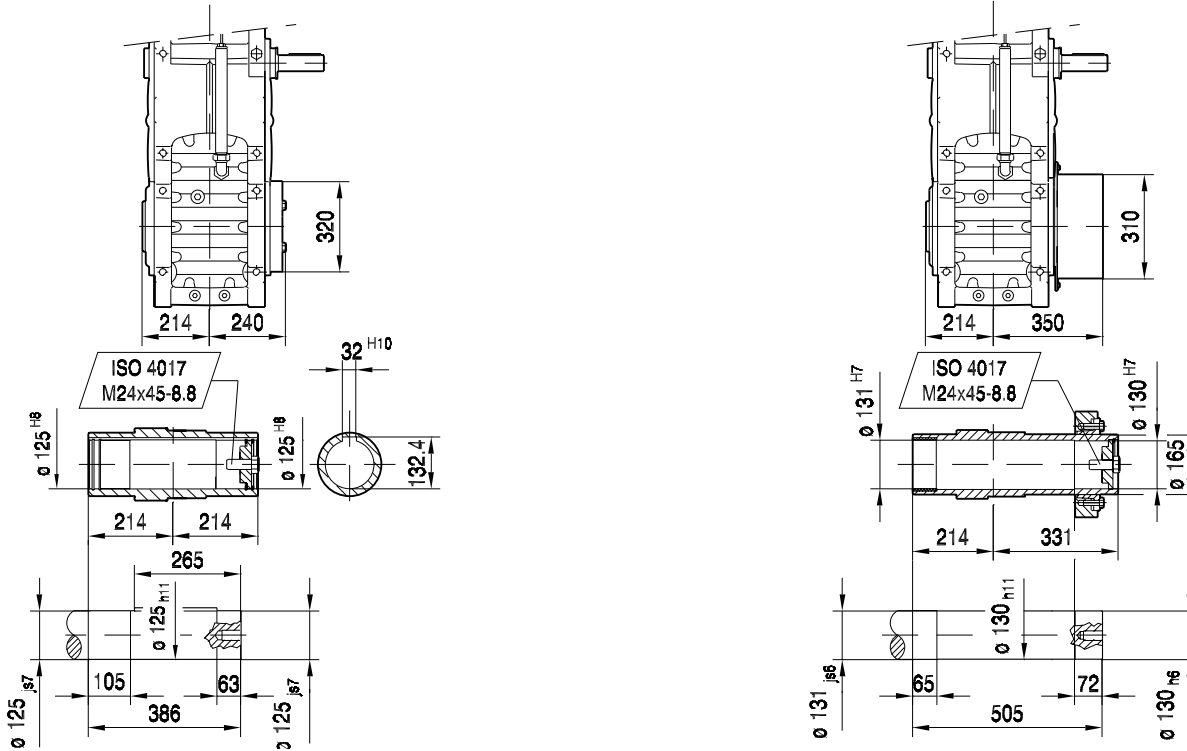
47 109 00 03
1(2)

614 kg
65 l



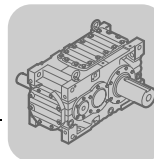
MC3PEHF06

MC3PEHF06 /SD



Helical Gear Units MC...P

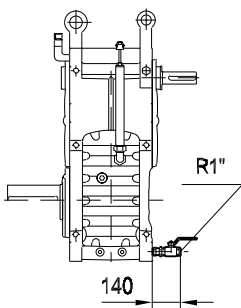
Selection tables (detailed) MC.PE..



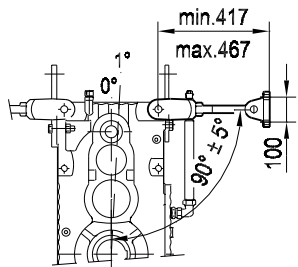
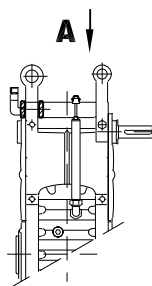
10

MC3PE..06

/ODV

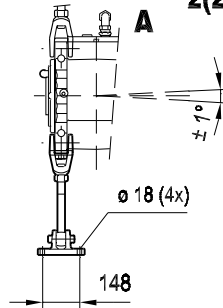


MC3PEHT 06



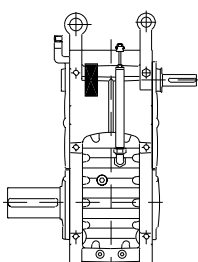
47 109 00 03

2(2)

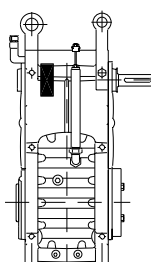


/BS

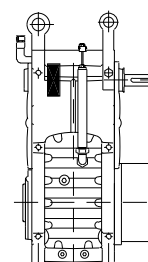
(..S..)



(..H..)

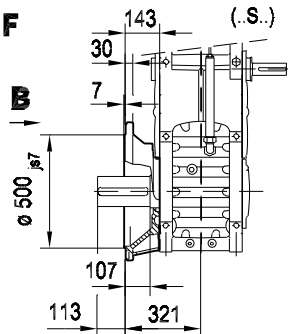


(..H.. / SD)

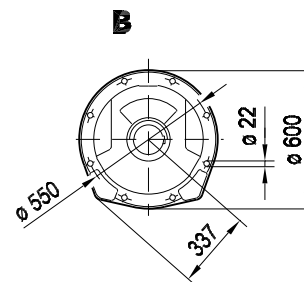
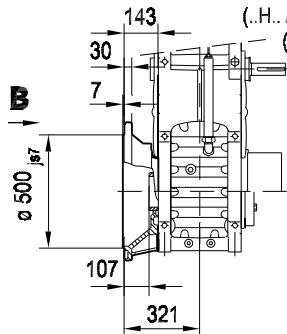


/MF

(..S..)

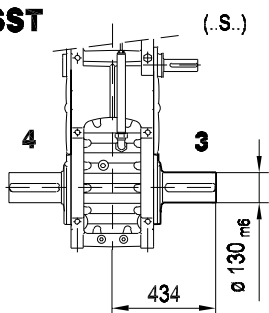


(..H.. / SD)
(..H..)



/LSST

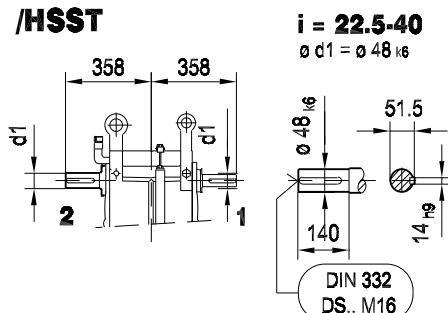
(..S..)



/HSST

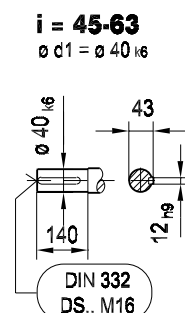
i = 22.5-40

ø d1 = ø 48 k6



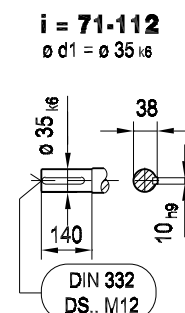
i = 45-63

ø d1 = ø 40 k6



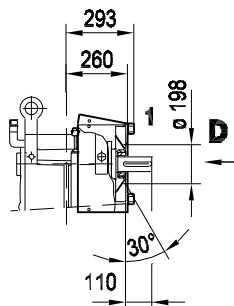
i = 71-112

ø d1 = ø 35 k6

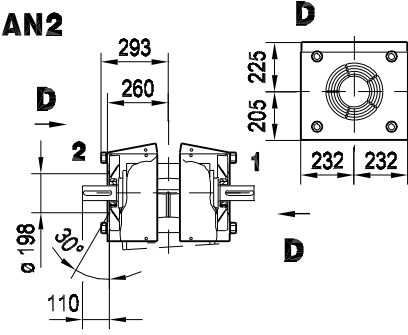


10

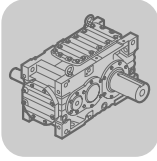
/FAN



/FAN2



10

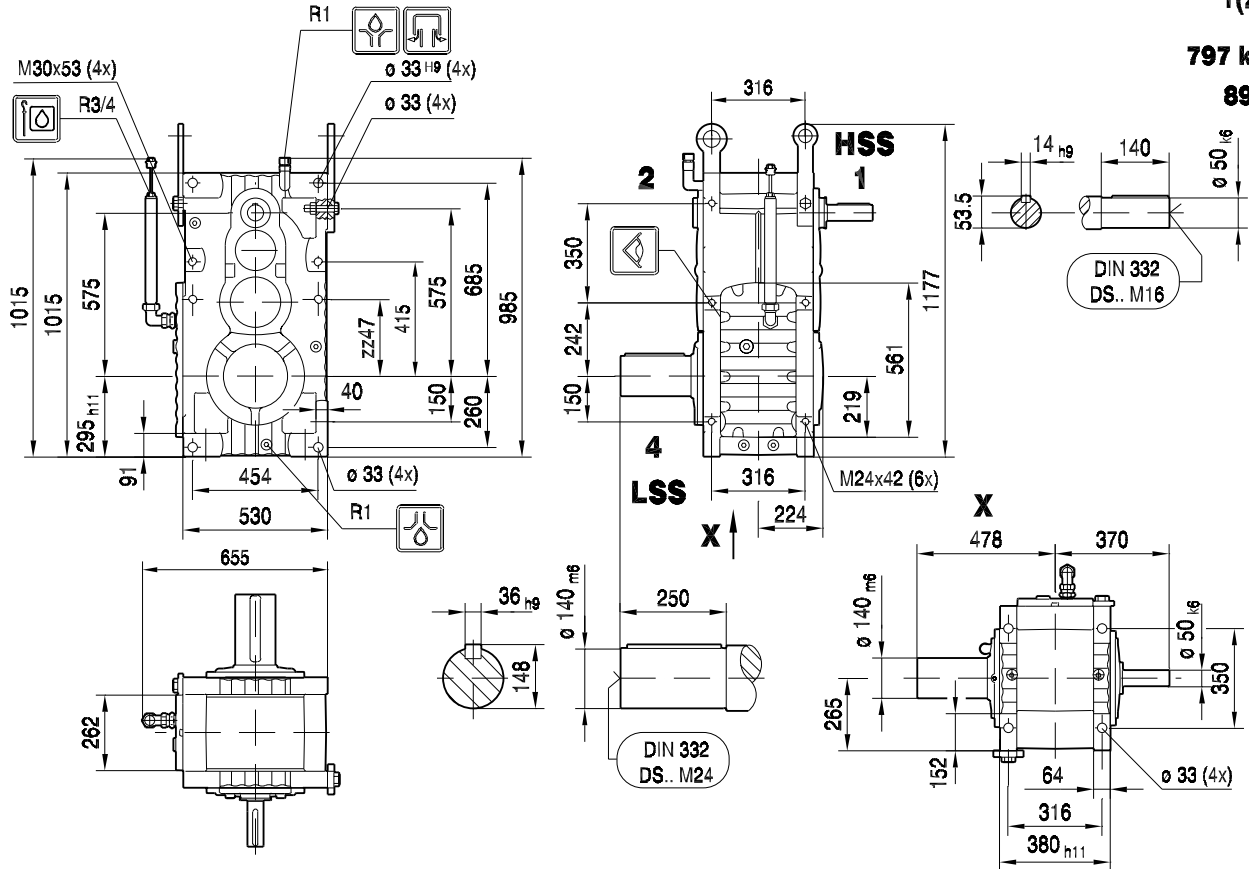


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF07

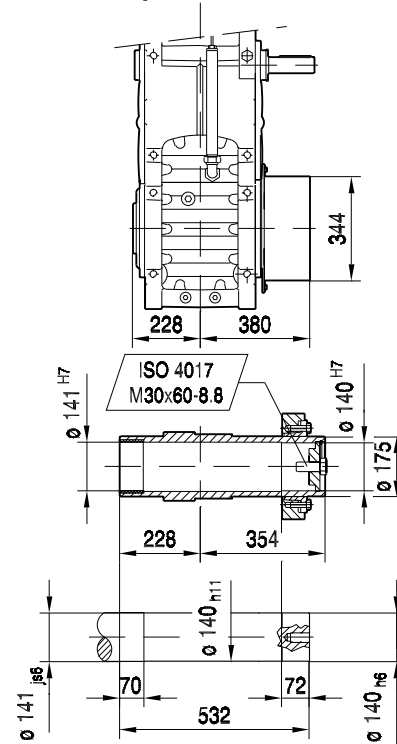
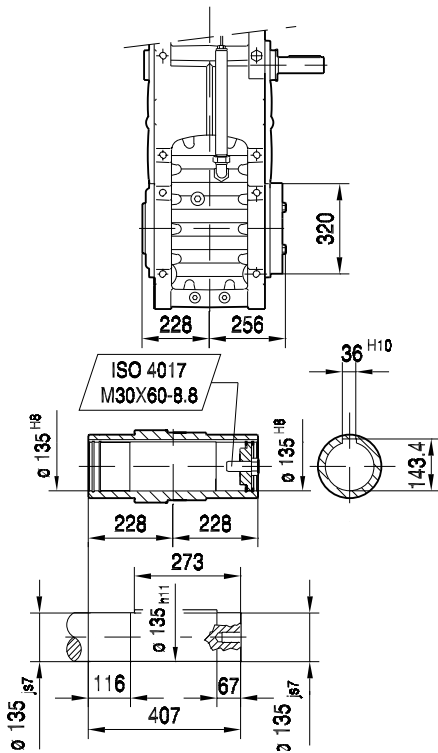
47 110 00 03
1(2)

797 kg
89 l



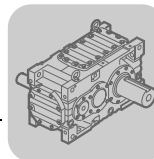
MC3PEHF07

MC3PEHF07 /SD



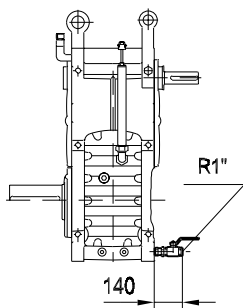
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

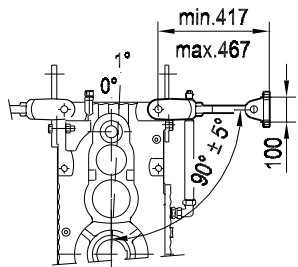
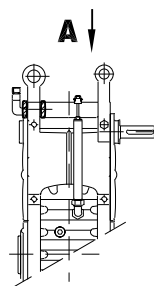


MC3PE..07

/ODV

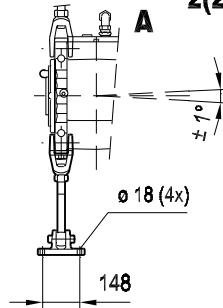


MC3PEHT 07



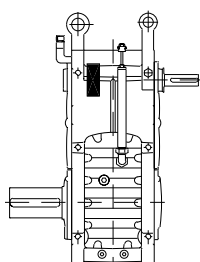
47 110 00 03

2(2)

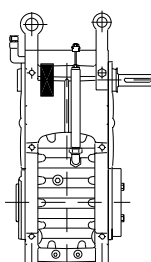


/BS

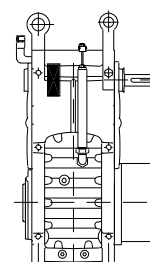
(.S.)



(.H.)

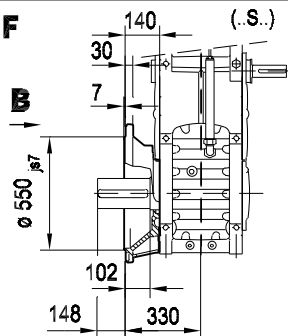


(.H.. / SD)

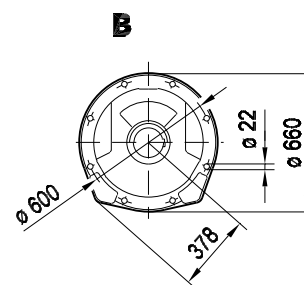
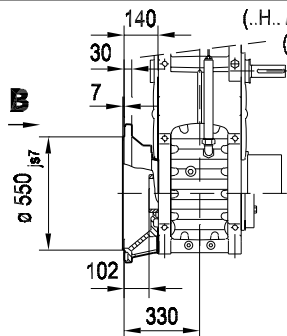


/MF

(.S.)

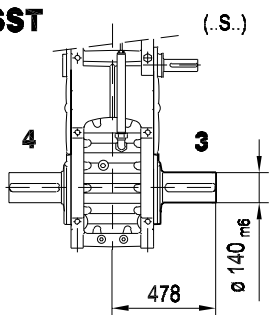


(.H.. / SD)



/LSST

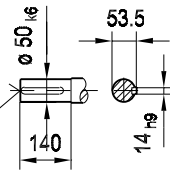
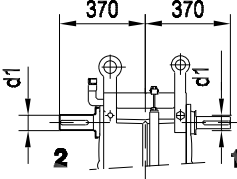
(.S.)



/HSST

i = 22.5-40

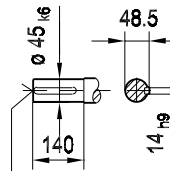
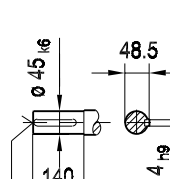
ø d1 = ø 50 k6



DIN 332 DS.. M16

i = 45-63

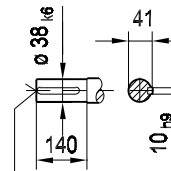
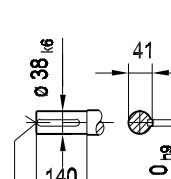
ø d1 = ø 45 k6



DIN 332 DS.. M16

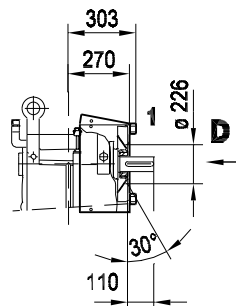
i = 71-112

ø d1 = ø 38 k6

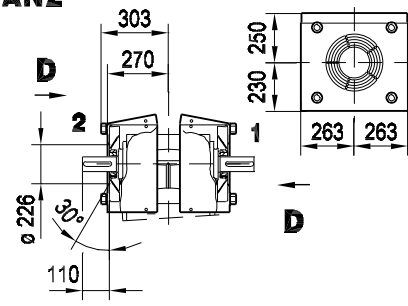


DIN 332 DS.. M12

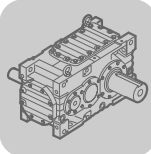
/FAN



/FAN2



10

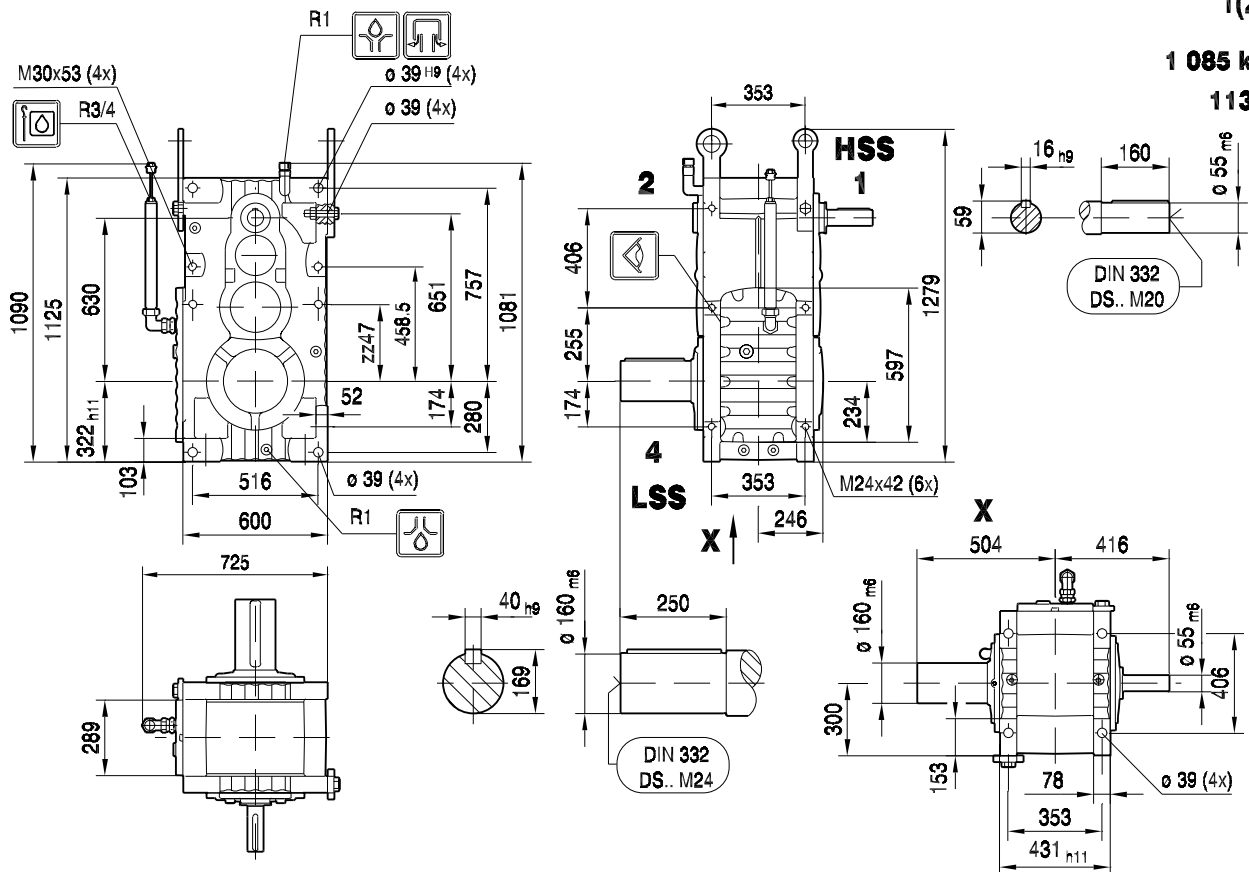


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF08

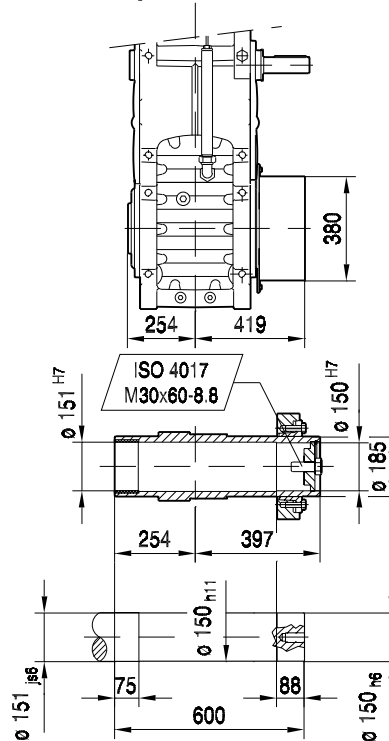
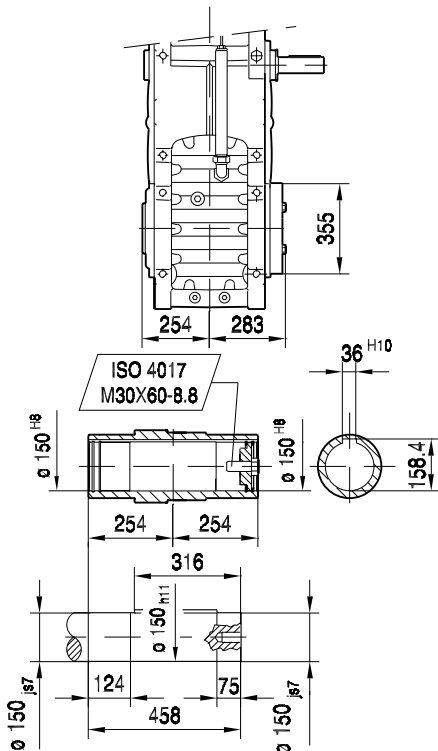
47 111 00 03
1(2)

1 085 kg
113 l



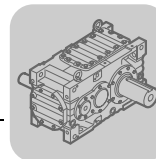
MC3PEHF08

MC3PEHF08 /SD



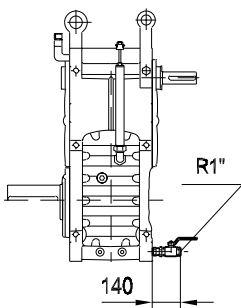
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

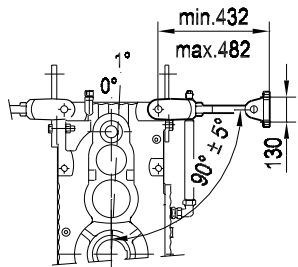
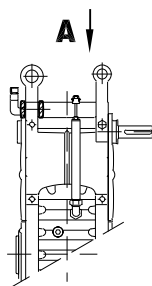


MC3PE..08

/ODV

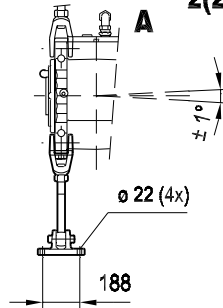


MC3PEHT 08



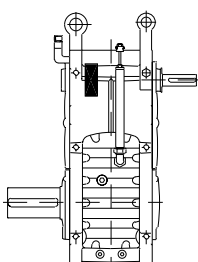
47 111 00 03

2(2)

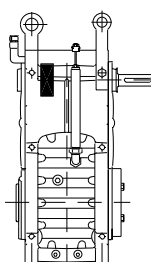


/BS

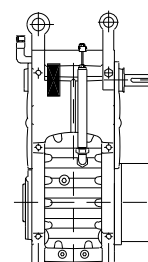
(.S.)



(.H..)

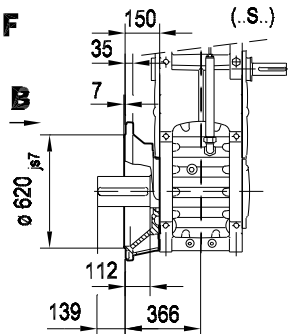


(.H.. / SD)

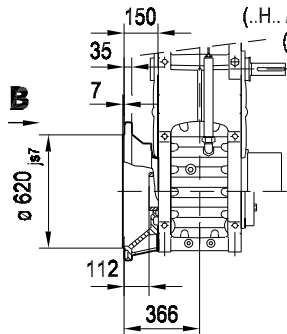


/MF

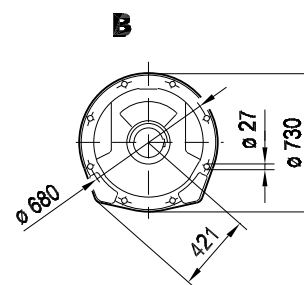
(.S.)



(.H.. / SD)

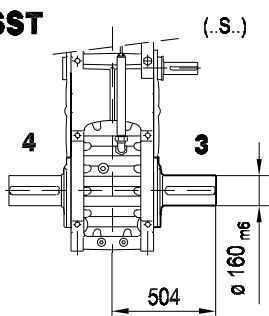


(.H..)



/LSST

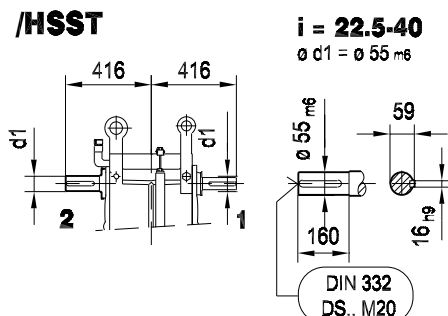
(.S.)



/HSST

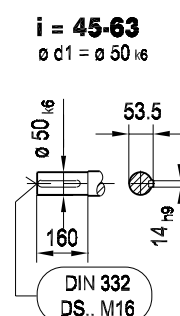
i = 22.5-40

ø d1 = ø 55 m6



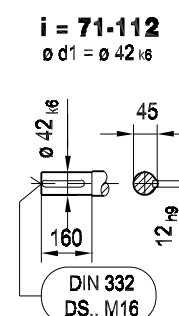
i = 45-63

ø d1 = ø 50 k6



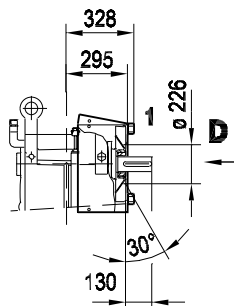
i = 71-112

ø d1 = ø 42 k6

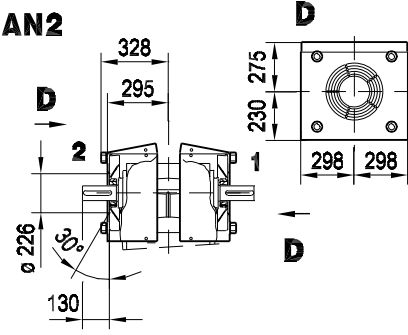


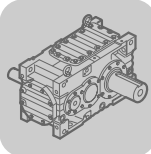
10

/FAN



/FAN2



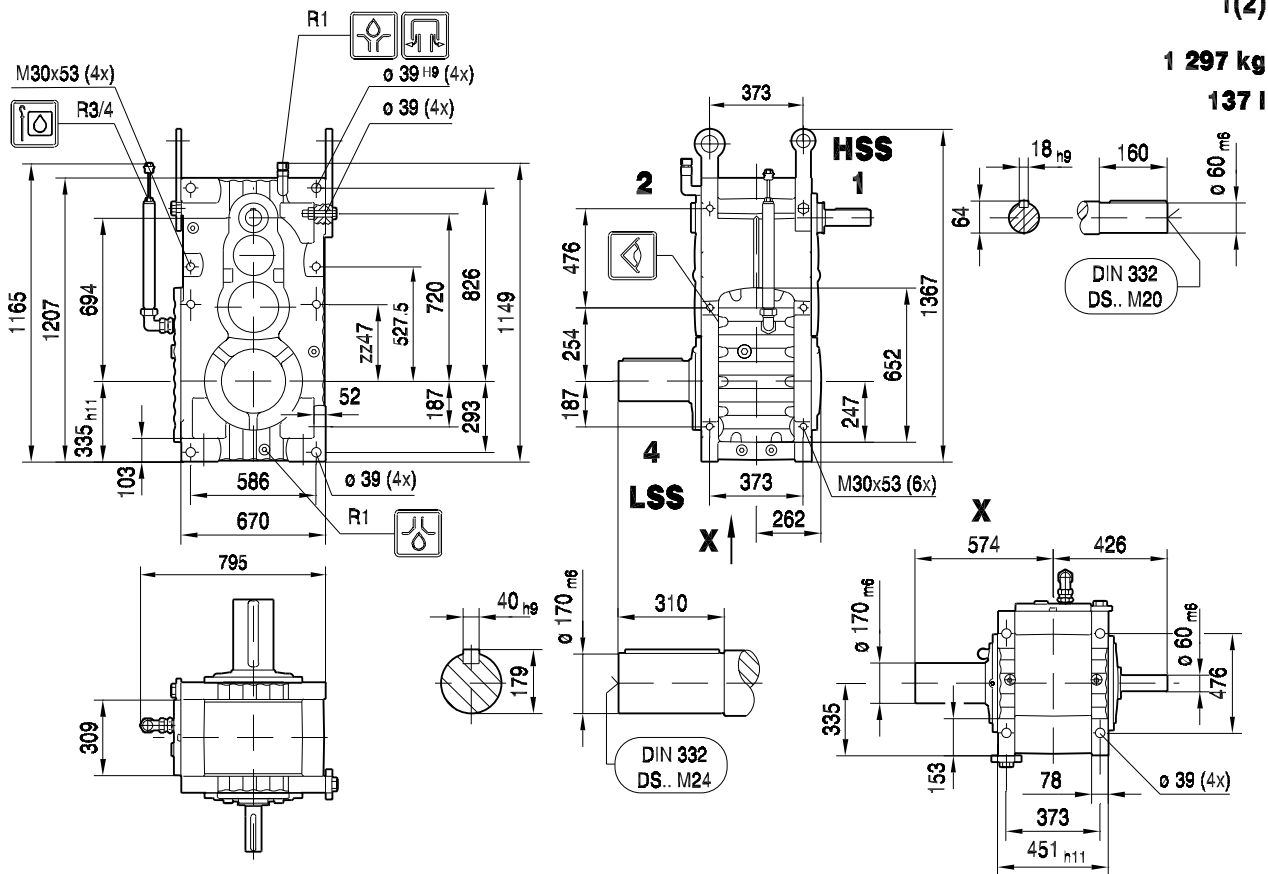


Helical Gear Units MC...P
Selection tables (detailed) MC.PE..

MC3PEF09

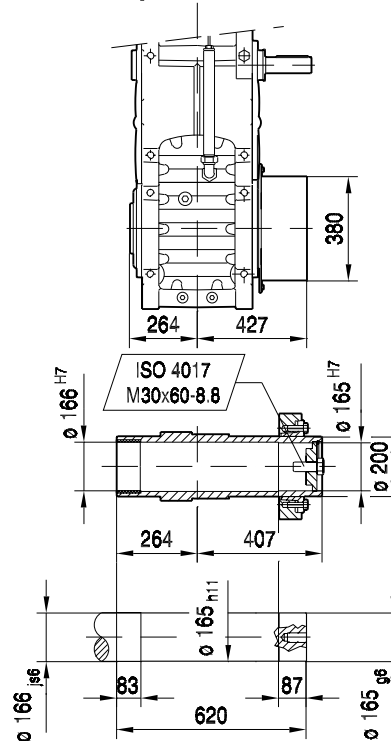
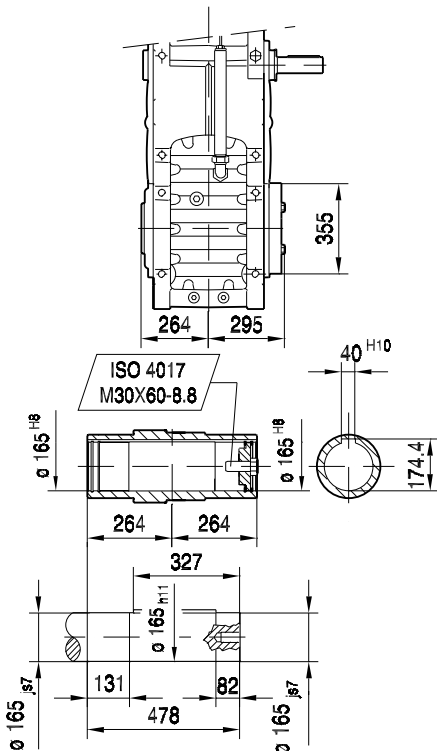
47 112 00 03
1(2)

1 297 kg
137 l



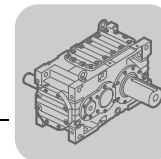
MC3PEHF09

MC3PEHF09 /SD



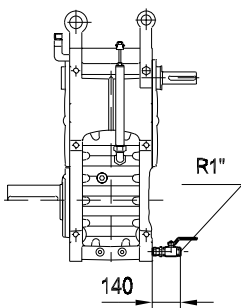
Helical Gear Units MC...P

Selection tables (detailed) MC.PE..

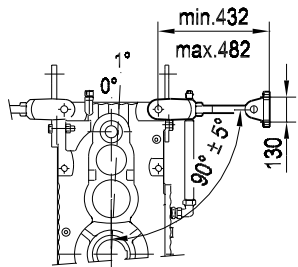
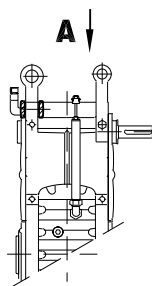


MC3PE..09

/ODV

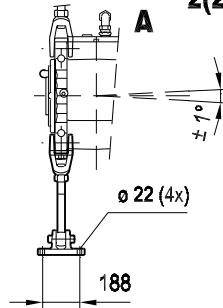


MC3PEHT 09



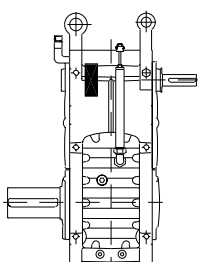
47 112 00 03

2(2)

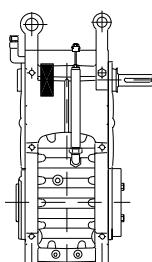


/BS

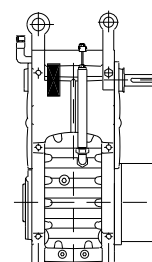
(..S..)



(..H..)

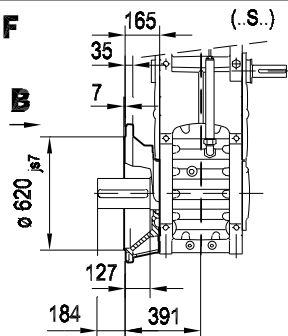


(..H.. / SD)

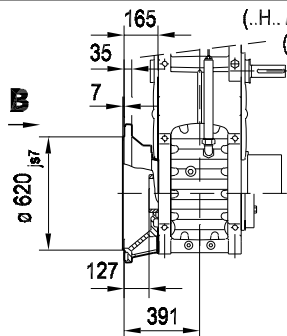


/MF

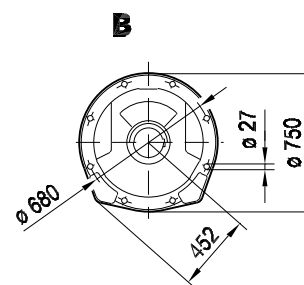
(..S..)



(..H.. / SD)

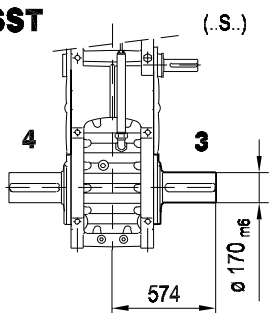


(..H..)



/LSST

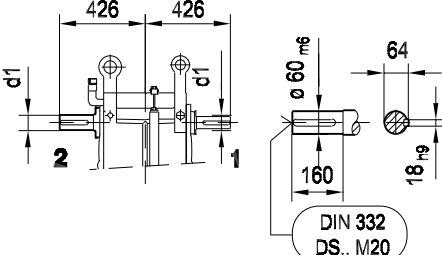
(..S..)



/HSST

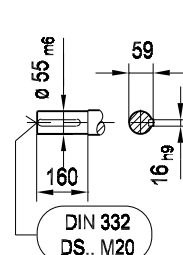
i = 22.5-40

ø d1 = ø 60 m6



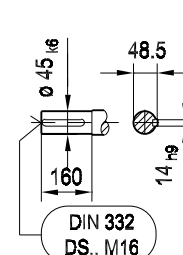
i = 45-63

ø d1 = ø 55 m6



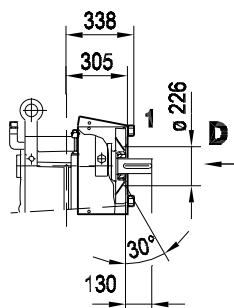
i = 71-112

ø d1 = ø 45 k6

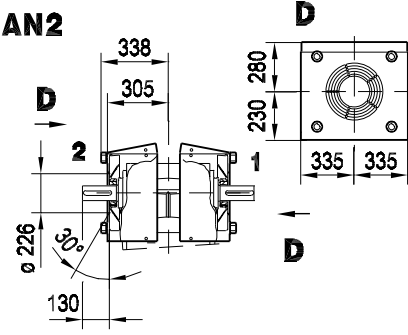


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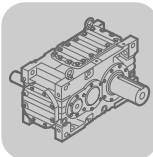
/FAN



/FAN2



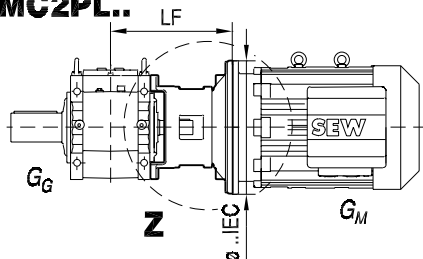
10



Helical Gear Units MC...P
Motor adapter MC.P..

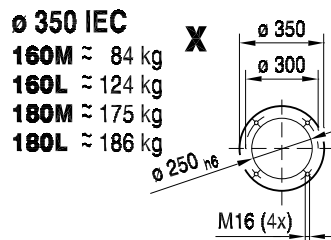
10.5 Motor adapter MC.P..

MC2PL..

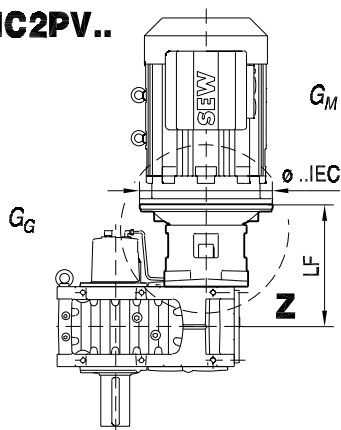


MC2PL.F.. : $G_M \leq 1.0 * G_G$
 MC2PL.T.. : $G_M \leq 0.5 * G_G$
 MC2PL../MF : $G_M \leq 0.5 * G_G$

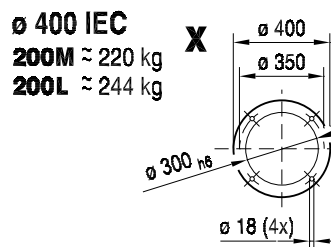
47 155 00 03



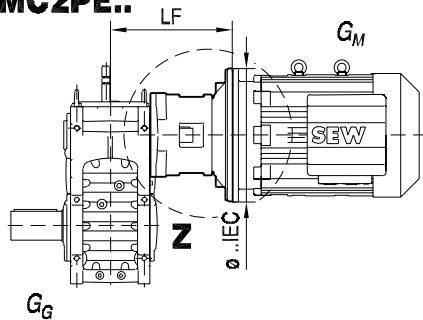
MC2PV..



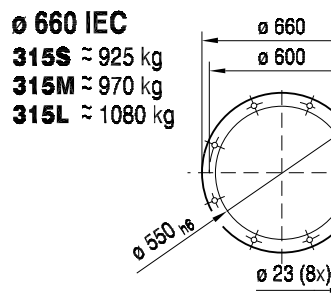
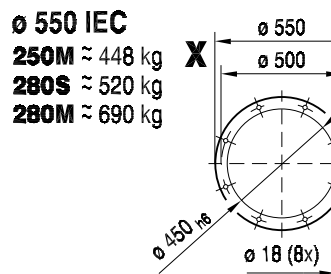
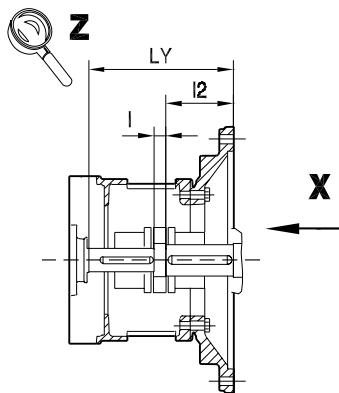
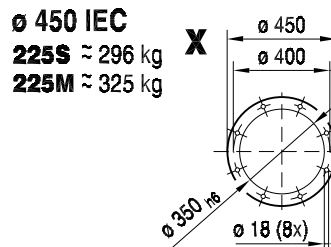
MC2PV.F.. : $G_M \leq 1.5 * G_G$
 MC2PV.T.. : $G_M \leq 1.0 * G_G$
 MC2PV../MF : $G_M \leq 1.0 * G_G$



MC2PE..

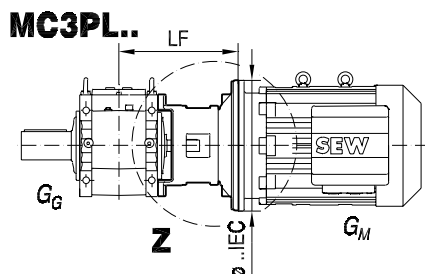
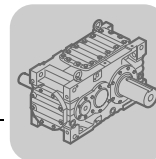


MC2PE.F.. : $G_M \leq 1.0 * G_G$
 MC2PE.T.. : $G_M \leq 1.0 * G_G$
 MC2PE../MF : $G_M \leq 1.0 * G_G$

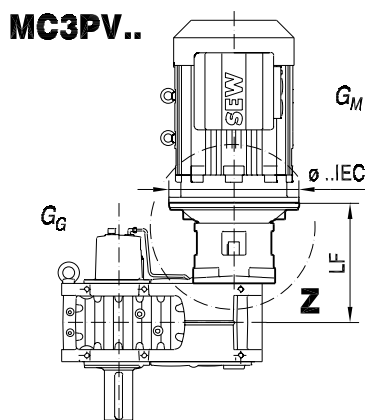


(-> 131)	MC2P..02			MC2P..03			MC2P..04		MC2P..05	MC2P..06	MC2P..07		MC2P..08	MC2P..09
	180L	200M 200L	225S	200M 200L	225S 225M	250M	225M	250M	250M 280S 280M	280S 280M	280M	315S 315M	315M 315L	315L
ø .. IEC	350	400	450	400	450	550	450	550	550	550	550	660	660	660
I2	110	110	140	110	140	140	140	140	140	140	140	170	170	170
LF	425	425	455	432	462	462	492	492	504.5	523	535	565	610.5	620.5
LY	255	255	285	255	285	285	295	295	299.5	305	305	335	354.5	354.5
I	25	25	25	25	25	25	25	25	25	25	25	25	25	25

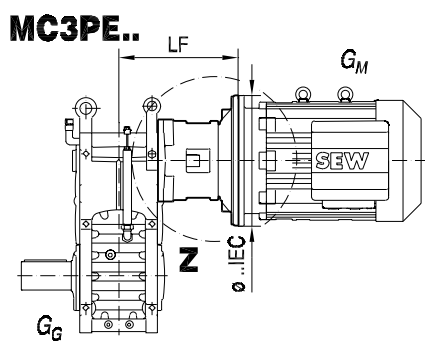
Helical Gear Units MC...P Motor adapter MC.P.



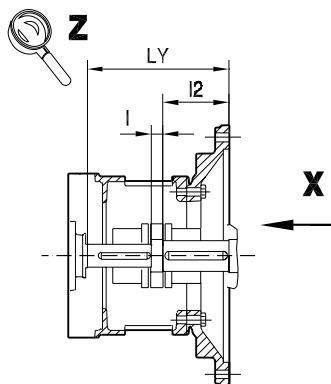
MC3PL.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3PL.T.. : $G_M \leq 0.5 \cdot G_G$
 MC3PL../MF : $G_M \leq 0.5 \cdot G_G$



MC3PV.F.. : $G_M \leq 1.5 \cdot G_G$
 MC3PV.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3PV../MF : $G_M \leq 1.0 \cdot G_G$

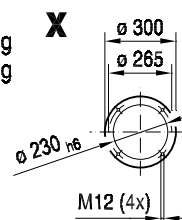


MC3PE.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3PE.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3PE../MF : $G_M \leq 1.0 \cdot G_G$

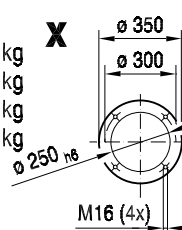


47 156 00 03

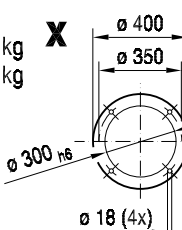
ø 300 IEC
 132S ≈ 65 kg
 132M ≈ 79 kg



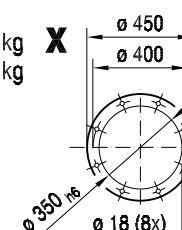
ø 350 IEC
 160M ≈ 84 kg
 160L ≈ 124 kg
 180M ≈ 175 kg
 180L ≈ 186 kg



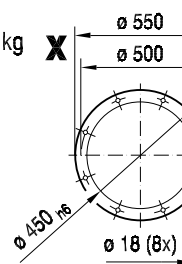
ø 400 IEC
 200M ≈ 220 kg
 200L ≈ 244 kg



ø 450 IEC
 225S ≈ 296 kg
 225M ≈ 325 kg

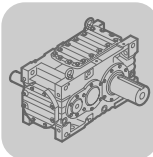


ø 550 IEC
 250M ≈ 448 kg



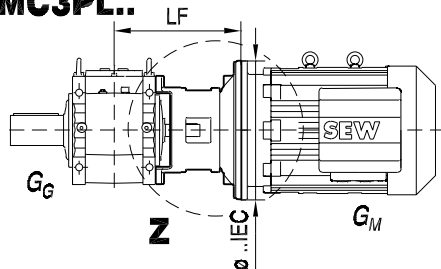
(-> 131)	MC3P..02				MC3P..03					MC3P..04			
	132S 132M	160M 160L 180M 180L	200M 200L	225S	132M	160M 160L 180M 180L	200M 200L	225S 225M	250M	160M 160L 180M 180L	200M 200L	225S 225M	250M
ø .. IEC	300	350	400	450	300	350	400	450	550	350	400	450	550
I2	80	110	110	140	80	110	110	140	140	110	110	140	140
LF	373	425	425	455	373	432	432	462	462	462	462	492	492
LY	203	255	255	285	196	255	255	285	285	265	265	295	295
I	3	25	25	25	3	25	25	25	25	25	25	25	25

10



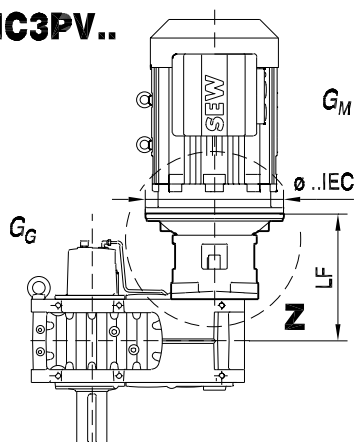
Helical Gear Units MC...P
Motor adapter MC.P..

MC3PL..



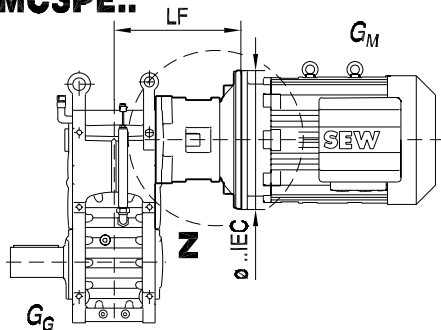
MC3PL.F.. : $G_M \leq 1.0^* G_G$
 MC3PL.T.. : $G_M \leq 0.5^* G_G$
 MC3PL../MF : $G_M \leq 0.5^* G_G$

MC3PV..

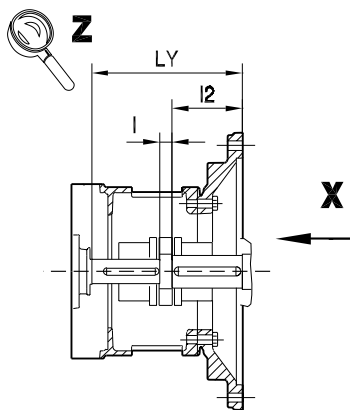


MC3PV.F.. : $G_M \leq 1.5^* G_G$
 MC3PV.T.. : $G_M \leq 1.0^* G_G$
 MC3PV../MF : $G_M \leq 1.0^* G_G$

MC3PE..



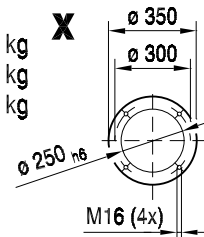
MC3PE.F.. : $G_M \leq 1.0^* G_G$
 MC3PE.T.. : $G_M \leq 1.0^* G_G$
 MC3PE../MF : $G_M \leq 1.0^* G_G$



47 157 00 03

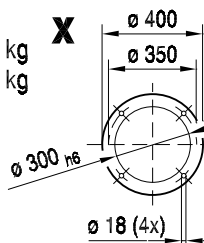
ø 350 IEC

160L ≈ 124 kg
 180M ≈ 175 kg
 180L ≈ 186 kg



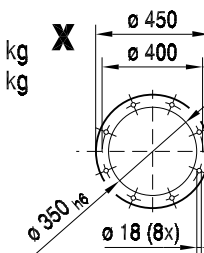
ø 400 IEC

200M ≈ 220 kg
 200L ≈ 244 kg



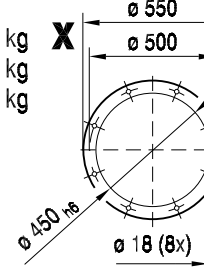
ø 450 IEC

225S ≈ 296 kg
 225M ≈ 325 kg



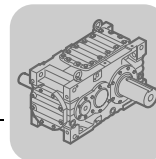
ø 550 IEC

250M ≈ 448 kg
 280S ≈ 520 kg
 280M ≈ 690 kg



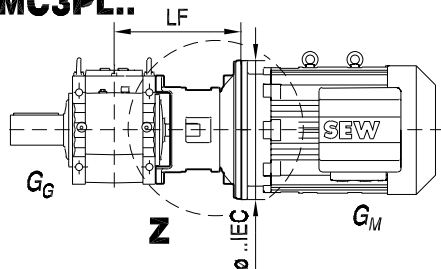
(→ 131)	MC3P..05				MC3P..06			
	160L 180M 180L	200M 200L	225S 225M	250M 280S	180L	200M 200L	225S 225M	250M 280S 280M
ø .. IEC	350	400	450	550	350	400	450	550
I2	110	110	140	140	110	110	140	140
LF	474.5	474.5	504.5	504.5	493	493	523	523
LY	269.5	269.5	299.5	299.5	275	275	305	305
I	25	25	25	25	25	25	25	25

Helical Gear Units MC...P Motor adapter MC.P.



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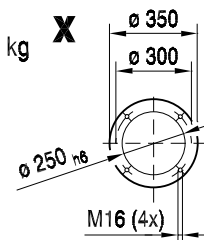
MC3PL..



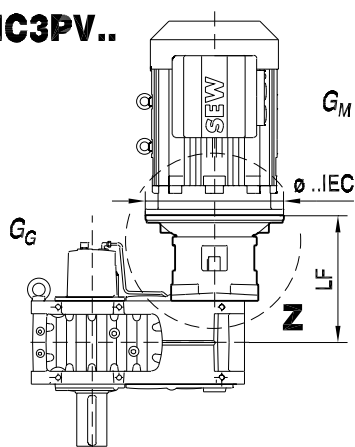
MC3PL.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3PL.T.. : $G_M \leq 0.5 \cdot G_G$
 MC3PL../MF : $G_M \leq 0.5 \cdot G_G$

47 158 00 03

ø 350 IEC
 180L ≈ 186 kg

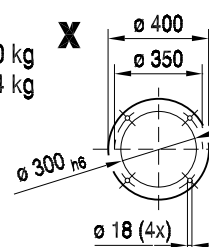


MC3PV..

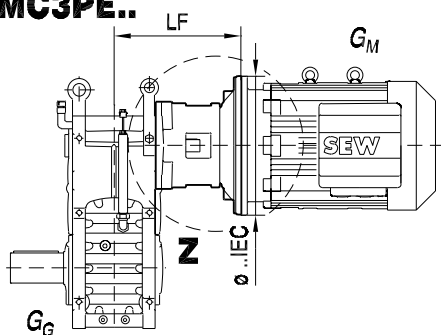


MC3PV.F.. : $G_M \leq 1.5 \cdot G_G$
 MC3PV.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3PV../MF : $G_M \leq 1.0 \cdot G_G$

ø 400 IEC
 200M ≈ 220 kg
 200L ≈ 244 kg

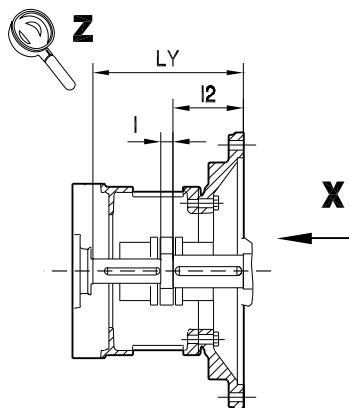
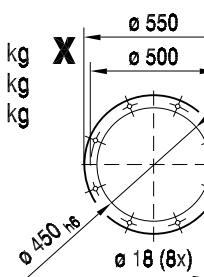


MC3PE..

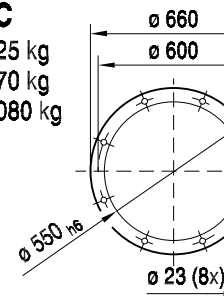


MC3PE.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3PE.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3PE../MF : $G_M \leq 1.0 \cdot G_G$

ø 550 IEC
 250M ≈ 448 kg
 280S ≈ 520 kg
 280M ≈ 690 kg



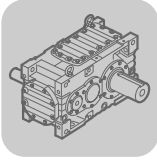
ø 660 IEC
 315S ≈ 925 kg
 315M ≈ 970 kg
 315L ≈ 1080 kg



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(→ 131)	MC3P..07					MC3P..08				MC3P..09		
	180L	200M 200L	225S 225M	250M 280S 280M	315S 315M 315L	200M 200L	225S 225M	250M 280S 280M	315S 315M 315L	225S 225M	250M 280S 280M	315S 315M 315L
ø .. IEC	350	400	450	550	660	400	450	550	660	450	550	660
I2	110	110	140	140	170	110	140	140	170	140	140	170
LF	505	505	535	535	565	550.5	580.5	580.5	610.5	590.5	590.5	620.5
LY	275	275	305	305	335	294.5	324.5	324.5	354.5	324.5	324.5	354.5
I	25	25	25	25	25	25	25	25	25	25	25	25

10



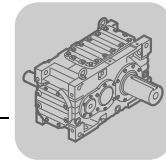
Helical Gear Units MC...P
Selection tables (short form) MC.P..

10.6 Selection tables (short form) MC.P..

Size MC2P	n ₁ [1/min]	Nominal gear unit power P _{N1} in [kW]									
		Nominal Ratio i _N									
		7.1	8	9	10	11.2	12.5	14	16	18	20
02	1800	190	171	157	149	137	12.5	110	91,9	82.4	67.3
	1500	167	151	132	131	115	110	91.7	77,1	69.1	56.4
	1200	143	127	106	111	91.8	89.1	73.5	62,1	55.7	45.4
	1000	126	106	88.8	93.3	76.6	74.4	61.3	52	46.7	38
03	1800	236	220	199	192	176	155	149	130	118	95.2
	1500	208	193	176	169	155	130	131	109	98.7	79.9
	1200	178	165	150	144	133	105	106	87,8	79.5	64.4
	1000	157	146	125	127	112	87.6	88.4	73,5	66.6	54
04	1800	307	284	264	245	227	207	192	175	167	143
	1500	270	250	232	216	200	182	169	151	141	120
	1200	231	214	198	185	171	155	144	121	113	96.2
	1000	203	188	175	162	150	129	122	101	94.5	80.6
05	1800	428	396	368	345	319	289	270	248	226	187
	1500	377	349	324	304	281	243	237	207	189	157
	1200	322	298	277	260	240	196	195	167	152	126
	1000	284	262	242	229	207	164	163	140	127	106
06	1800	514	507	469	395	395	338	338	315	291	237
	1500	452	446	413	348	348	298	298	273	243	198
	1200	387	382	353	298	298	255	254	219	196	160
	1000	341	336	311	262	259	224	212	184	164	134
07	1800	657	629	580	512	500	427	427	389	354	320
	1500	578	554	510	451	441	376	376	343	312	270
	1200	495	474	436	386	377	321	321	293	267	217
	1000	436	417	384	339	332	283	281	256	225	182
08	1800	828	828	765	650	650	541	541	509	473	426
	1500	729	729	673	572	572	476	476	448	417	357
	1200	623	623	576	489	489	407	407	383	346	288
	1000	549	549	507	431	431	358	358	321	289	242
09	1800	1066	1066	1042	846	846	719	719	719	659	601
	1500	938	938	917	745	745	633	633	633	580	504
	1200	802	802	784	637	637	541	541	541	489	405
	1000	706	706	690	561	561	477	477	455	410	339

Helical Gear Units MC...P

Selection tables (short form) MC.P.

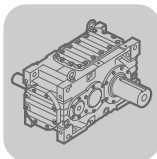


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Size MC3P	n ₁ [1/min]	Nominal gear unit power P _{N1} in [kW]														
		Nominal Ratio i _N														
		22.5	25	28	31.5	35.5	40	45	50	56	63	71	80	90	100	112
02	1800	74.1	61	50.9	49.1	41	43.3	35.6	29.7	28.5	24	22.5	19.1	15.5	16.1	13.1
	1500	62.1	51.1	42.6	41.2	34.4	36.3	29.7	24.9	23.7	20.1	18.8	16	13	13.5	11
	1200	50	41.2	34.4	33	27.7	29.3	23.8	20.1	19	16.2	15.1	12.9	10.5	10.9	8.84
	1000	42	34.5	28.8	27.6	23.2	24.5	19.8	16.9	15.9	13.6	12.6	10.8	8.78	9.17	7.42
03	1800	99	88.2	73	69.9	57.8	58.6	51.1	42.3	40.5	33.5	32.6	27	21.8	21.7	17.5
	1500	82.5	73.9	61.2	58.6	48.5	48.8	42.9	35.5	33.8	28.1	27.1	22.7	18.3	18.2	14.7
	1200	66	59.6	49.3	47	39.1	39.1	34.6	28.6	27	22.7	21.7	18.3	14.8	14.7	11.8
	1000	55	50	41.4	39.1	32.8	32.6	29	24	22.5	19	18.1	15.3	12.4	12.4	9.99
04	1800	118	118	101	94.2	79.2	70.3	70	58.4	55.3	45.8	44.3	36.5	31	30.1	26
	1500	98	98	84.3	79	66.1	58.6	58.6	48.7	46.3	38.2	37.2	30.4	26	25.1	21.8
	1200	78.4	78.4	67.6	63.6	52.9	46.9	46.9	39	37.4	30.6	30	24.4	21	20	17.6
	1000	65.3	65.3	56.4	53.4	44.2	39.1	39.1	32.6	31.3	25.5	25.1	20.3	17.6	16.7	14.8
05	1800	135	135	135	121	109	89.8	82.1	81.9	72.8	64.6	57.8	51.1	42.2	38.8	34.8
	1500	113	113	113	101	91.2	75.3	68.4	68.4	60.7	54.2	48.1	42.9	35.4	32.4	29.2
	1200	90.3	90.3	90.3	80.5	73.5	60.7	54.7	54.7	48.6	43.7	38.5	34.6	28.5	25.9	23.5
	1000	75.2	75.2	75.2	67.1	61.6	50.9	45.6	45.6	40.5	36.6	32.1	29	23.9	21.6	19.8
06	1800	161	161	161	146	142	115	96.1	96.1	87.2	83	69.8	66.2	54.5	53.2	45.3
	1500	134	134	134	122	119	97	80.1	80.1	72.7	69.6	58.1	55.5	45.7	44.3	38
	1200	107	107	107	97.6	95.9	78.4	64.1	64.1	58.1	56.1	46.5	44.8	36.8	35.4	30.6
	1000	89.3	89.3	89.3	81.3	80.4	65.9	53.4	53.4	48.4	47	38.8	37.6	30.9	29.5	25.7
07	1800	219	219	219	197	197	160	131	131	117	116	95.5	94.5	76.3	63.5	59.7
	1500	183	183	183	164	164	134	109	109	97.6	97.3	79.6	79.2	64	53	50.1
	1200	146	146	146	131	131	108	87.2	87.2	78.1	78.1	63.7	63.7	51.6	42.4	40.4
	1000	122	122	122	110	110	90.8	72.7	72.7	65.1	65.1	53.1	53.1	43.2	35.3	34
08	1800	323	323	323	280	260	216	197	187	170	148	138	120	100	92.8	81.7
	1500	284	284	275	246	218	181	165	157	142	124	115	101	84.2	77.4	68.5
	1200	227	227	221	199	175	146	133	126	114	100	92.4	81.1	67.8	61.9	55.2
	1000	189	189	185	166	147	123	110	106	95.3	83.9	77.3	68	56.9	51.6	46.4
09	1800	410	410	410	360	360	296	276	254	233	207	187	167	138	135	112
	1500	361	361	361	317	301	248	230	213	195	174	156	140	115	112	93.6
	1200	309	309	297	271	243	200	184	171	156	140	125	113	91.8	89.7	74.9
	1000	259	259	249	229	203	167	153	144	130	118	104	94.7	76.5	74.8	62.4

10

10



Helical Gear Units MC...P Selection tables (short form) MC.P..

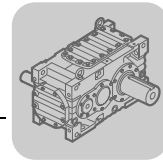
Size MC2P	Exact Ratios i_{ex}									
	Nominal Ratio i_N									
	7.1	8	9	10	11.2	12.5	14	16	18	20
02	7.070	8.176	9.175	9.829	11.366	12.314	14.240	15.981	17.880	20.238
03	7.291	8.226	9.280	9.952	11.227	12.697	14.324	16.160	17.913	20.401
04	7.124	8.014	8.958	9.945	11.186	12.723	14.312	15.998	17.115	19.250
05	7.104	7.996	8.871	9.783	11.012	12.522	14.095	15.636	17.236	19.400
06	6.817	7.889	8.853	9.822	11.366	12.036	13.927	15.630	17.588	19.908
07	6.860	7.725	8.677	9.647	10.863	12.194	13.731	15.424	17.664	20.249
08	7.005	7.888	8.958	9.798	11.033	12.488	14.063	15.969	17.763	19.895
09	6.911	7.992	8.969	9.534	11.025	11.767	13.607	15.271	17.012	19.256

Size MC3P	Exact Ratios i_{ex}							
	Nominal Ratio i_N							
	22.5	25	28	31.5	35.5	40	45	50
02	22.303	25.791	28.945	32.314	36.265	38.887	44.968	50.467
03	22.650	25.552	28.828	32.599	36.778	39.810	44.909	50.667
04	23.204	26.101	29.176	33.394	37.329	40.276	45.304	50.642
05	22.575	25.412	28.191	32.528	36.084	40.615	43.547	48.308
06	22.801	26.385	29.611	32.330	36.284	41.069	45.957	51.576
07	22.380	25.202	28.310	31.856	35.783	41.020	43.887	49.298
08	21.695	24.431	27.742	31.139	35.360	39.603	43.631	49.545
09	21.634	25.017	28.076	30.877	34.652	39.223	44.098	49.491

Size MC3P	Exact Ratios i_{ex}						
	Nominal Ratio i_N						
	56	63	71	80	90	100	112
02	56.341	63.231	71.200	79.907	90.446	95.359	107.937
03	57.295	64.640	71.618	80.800	92.022	101.822	115.963
04	57.962	64.792	72.860	81.444	91.602	97.558	109.725
05	55.740	61.835	71.064	78.333	88.733	96.362	108.464
06	56.313	63.199	71.100	79.795	90.319	96.735	109.493
07	55.473	62.312	68.655	77.119	88.405	99.479	114.036
08	55.612	63.150	69.091	78.456	87.871	97.274	108.947
09	54.427	61.082	68.034	76.353	86.423	93.938	106.328

Helical Gear Units MC...P

Selection tables (short form) MC.P.



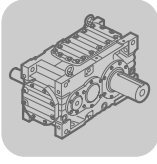
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Size MC2P	Nominal gear unit torque M_{N2} in kNm Calculated with $n_1 = 1000$ 1/min									
	Nominal Ratio i_N									
	7.1	8	9	10	11.2	12.5	14	16	18	20
02	8.23	8.02	7.55	8.49	8.07	8.49	8.09	7.71	7.74	7.13
03	10.6	11.1	10.8	11.7	11.6	10.3	11.7	11	11	10.2
04	13.4	14	14.5	15	15.6	15.2	16.2	15	15	14.4
05	18.7	19.4	19.9	20.7	21.1	19	21.3	20.3	20.3	19
06	21.5	24.5	25.5	23.8	27.3	25	27.3	26.6	26.7	24.8
07	27.7	29.8	30.9	30.3	33.4	31.9	35.7	36.6	36.8	34.2
08	35.6	40.1	42	39.1	44	41.5	46.7	47.4	47.6	44.5
09	45.2	52.3	57.4	49.5	57.3	51.9	60.1	64.3	64.6	60.5

Size MC3P	Nominal gear unit torque M_{N2} in kNm Calculated with $n_1 = 1000$ 1/min														
	Nominal Ratio i_N														
	22.5	25	28	31.5	35.5	40	45	50	56	63	71	80	90	100	112
02	8.54	8.1	7.61	8.13	7.68	8.7	8.13	7.76	8.15	7.84	8.16	7.91	7.25	7.97	7.31
03	11.4	11.6	10.9	11.6	11	11.8	11.9	11.1	11.8	11.2	11.8	11.3	10.4	11.5	10.6
04	13.8	15.6	15	16.3	15	14.4	16.1	15	16.6	15.1	16.7	15.1	14.7	14.9	14.8
05	15.5	17.4	19.3	19.9	20.3	18.8	18.1	20.1	20.6	20.7	20.8	20.8	19.4	19	19.6
06	18.6	21.5	24.1	24	26.6	24.7	22.4	25.1	24.9	27.1	25.1	27.3	25.4	26.1	25.7
07	24.9	28	31.5	31.8	35.8	34	29.1	32.7	32.9	37	33.2	37.3	34.9	32	35.3
08	37.4	42.1	46.9	47.2	47.4	44.4	44	47.8	48.3	48.3	48.7	48.7	45.6	45.8	56.1
09	51.1	59.1	63.7	64.4	64.3	59.9	61.6	64.9	64.6	65.5	64.7	66	60.3	64.1	60.5

10

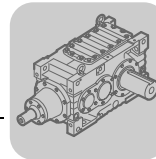
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Helical Gear Units MC...P
Selection tables (short form) MC.P..

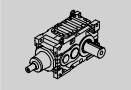
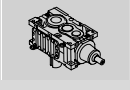


Bevel-Helical Gear Units MC...R

Selection table guide

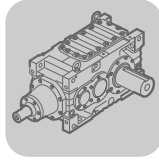


11 Bevel-Helical Gear Units MC...R

11.1 Selection table guide

MC2R... MC3R...	Torque class [kNm]	Gear unit design "L"				Gear unit design "V"				Gear unit design "E"			
		 Input speed $n_1 = \dots$ 1/min				 Input speed $n_1 = \dots$ 1/min				 Input speed $n_1 = \dots$ 1/min			
		1800	1500	1200	1000	1800	1500	1200	1000	1800	1500	1200	1000
Selection data on page... 													
02	8.0	290	294	298	302	338	342	346	350	386	390	394	398
03	11.5	290	294	298	302	338	342	346	350	386	390	394	398
04	15.5	291	295	299	303	339	343	347	351	387	391	395	399
05	20.0	291	295	299	303	339	343	347	351	387	391	395	399
06	25.0	292	296	300	304	340	344	348	352	388	392	396	400
07	35.0	292	296	300	304	340	344	348	352	388	392	396	400
08	46.0	293	297	301	305	341	345	349	353	389	393	397	401
09	65.0	293	297	301	305	341	345	349	353	389	393	397	401

11



Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

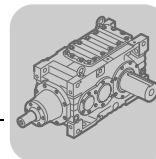
11.2 Selection tables (detailed) MC.RL..

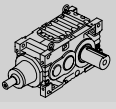
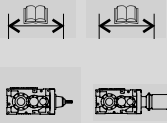
11.2.1 MC.RL..., n₁ = 1800 1/min

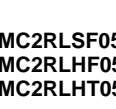

MC.RL..02, n ₁ = 1800 1/min								P _{TH}						8.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	259	5.1	143	4.60	5.4	MC2RLSF02 MC2RLHF02 MC2RLHT02	*)	*)	73	26	-	-	306	434		
8.00	8.05	224	5.5	132	5.1	6.8		*)	*)	78	31	-	-				
9.00	9.03	199	5.7	123	5.5	8.0		15	*)	81	34	-	-				
10.00	9.61	187	5.2	107	6.9	5.2		17	*)	83	36	-	-				
11.20	11.11	162	5.6	99	7.3	6.5		21	*)	87	40	-	-				
12.50	12.47	144	5.9	93	7.7	7.5	24	*)	90	43	-	-					
14.00	14.61	123	5.7	76	9.0	*)	MC3RLSF02 MC3RLHF02 MC3RLHT02	20	*)	67	36	-	-	322	435		
16.00	16.90	107	6.6	76	7.5	*)		23	*)	69	38	-	-				
18.00	18.96	95	7.3	75	6.3	*)		24	*)	71	40	-	-				
20.00	20.31	89	7.2	70	5.7	0.91		26	7	72	41	-	-				
22.50	23.49	77	7.9	66	5.4	1.47		28	9	75	43	-	-				
25.00	26.36	68	7.4	55	9.8	3.20		29	11	76	45	-	-				
28.00	29.43	61	8.0	53	7.9	3.50		31	12	78	47	-	-				
31.50	33.03	55	7.4	44	12.5	4.89		32	14	79	48	-	-				
35.50	37.38	48	6.8	36	17.5	6.2		34	15	81	50	-	-				
40.00	40.30	45	6.6	33	18.1	2.54		35	16	82	51	-	-				
45.00	45.22	40	7.5	33	16.7	2.48		36	18	83	52	-	-				
50.00	50.49	36	8.1	32	15.2	2.89		38	19	85	53	-	-				
56.00	56.66	32	7.6	27	19.8	4.38		39	20	86	55	-	-				
63.00	64.14	28	7.0	22	22.3	5.8		40	22	87	56	-	-				
71.00	70.97	25	8.1	23	20.6	1.63		32	13	73	41	-	-				
80.00	79.65	23	7.7	19	22.7	2.58		33	14	74	43	-	-				
90.00	90.15	20	7.1	15.6	22.7	3.59	34	16	75	44	-	-					
100.00	97.35	18	6.0	12.3	22.7	1.25	35	16	76	44	-	-					
112.00	110.19	16	6.8	12.3	22.7	1.25	36	17	77	46	-	-					

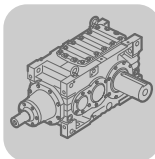
MC.RL..03, n ₁ = 1800 1/min								P _{TH}						11.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	253	6.4	176	16.2	7.3	MC2RLSF03 MC2RLHF03 MC2RLHT03	*)	*)	90	33	-	-	308	434		
8.00	8.04	224	6.8	165	16.8	8.5		*)	*)	94	37	-	-				
9.00	9.07	199	7.2	154	17.5	9.7		19	*)	99	42	-	-				
10.00	10.00	180	6.5	128	18.6	5.1		22	*)	102	45	-	-				
11.20	11.28	160	7.1	123	19.1	5.9		26	*)	106	49	-	-				
12.50	12.73	141	7.5	115	19.9	7.2	30	*)	110	53	-	-					
14.00	15.07	119	7.7	101	20.6	*)	MC3RLSF03 MC3RLHF03 MC3RLHT03	25	*)	82	44	-	-	324	435		
16.00	17.00	106	8.7	101	20.8	*)		28	*)	85	47	-	-				
18.00	19.18	94	9.9	101	20.1	*)		30	*)	87	49	-	-				
20.00	20.57	88	10.0	96	18.2	0.455		31	*)	88	50	-	-				
22.50	23.20	78	11.3	96	16.0	0.453		34	11	91	53	-	-				
25.00	26.18	69	10.6	79	23.2	2.69		36	13	93	55	-	-				
28.00	29.60	61	11.4	76	20.9	3.19		38	15	95	57	-	-				
31.50	33.40	54	10.7	63	25.8	4.89		40	17	97	59	-	-				
35.50	35.08	51	10.7	60	26.3	2.47		41	18	98	60	-	-				
40.00	39.67	45	11.3	57	26.8	3.13		42	20	100	62	-	-				
45.00	44.75	40	10.8	48	29.1	4.71		44	21	101	63	-	-				
50.00	50.97	35	9.9	39	30.7	6.3		46	23	103	65	-	-				
56.00	57.30	31	10.9	38	30.7	4.54		48	25	105	67	-	-				
63.00	65.25	28	10.0	30	30.7	6.2		49	27	106	68	-	-				
71.00	69.86	26	10.6	30	30.7	0.063		39	16	88	50	-	-				
80.00	78.82	23	11.0	28	30.7	0.84		40	17	90	52	-	-				
90.00	89.76	20	10.1	22	30.7	2.48	42	19	91	53	-	-					
100.00	97.53	18	8.9	18.2	30.7	*)	43	20	92	54	-	-					
112.00	111.07	16	10.2	18.2	30.7	*)	44	21	94	56	-	-					

Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..

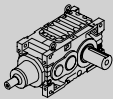











MC.RL..04, n ₁ = 1800 1/min							P _{TH}						15.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.29	247	8.5	225	18.5	7.0		*)	*)	112	42	-	-			
8.00	8.20	219	8.9	210	19.4	8.7	MC2RLSF04	*)	*)	117	47	-	-			
9.00	9.17	196	9.3	197	20.1	10.2	MC2RLHF04	24	*)	122	52	-	-	310	434	
10.00	10.15	177	8.7	168	21.2	5.5	MC2RLHT04	28	*)	126	56	-	-			
11.20	11.41	158	9.2	158	22.0	7.0		33	*)	131	61	-	-			
12.50	12.76	141	9.7	149	22.8	8.4		37	*)	136	65	-	-			
14.00	14.76	122	8.7	116	25.0	*)		30	*)	101	54	-	-			
16.00	16.60	108	9.8	116	25.2	*)		33	*)	104	57	-	-			
18.00	18.56	97	10.9	116	25.4	*)		36	*)	107	60	-	-			
20.00	20.60	87	12.2	116	22.7	*)		39	*)	109	62	-	-			
22.50	23.17	78	13.7	116	20.1	*)		41	13	112	65	-	-			
25.00	25.90	69	14.9	113	18.8	*)		44	16	114	67	-	-			
28.00	29.65	61	15.9	105	16.6	0.89		47	19	117	70	-	-			
31.50	33.14	54	14.9	88	25.2	3.18		49	21	119	72	-	-			
35.50	34.63	52	13.1	75	30.7	2.88	MC3RLSF04	50	22	120	73	-	-			
40.00	39.63	45	15.3	76	27.1	2.68	MC3RLHF04	52	24	123	76	-	-	326	435	
45.00	44.30	41	14.9	67	32.3	4.25	MC3RLHT04	54	26	125	78	-	-			
50.00	49.83	36	14.0	56	35.2	6.0		56	28	127	80	-	-			
56.00	55.99	32	14.0	50	35.3	4.63		58	30	129	82	-	-			
63.00	62.98	29	14.1	44	35.3	5.7		60	32	130	84	-	-			
71.00	68.90	26	13.3	38	35.3	1.85		47	19	108	62	-	-			
80.00	77.02	23	14.3	37	35.3	2.28		49	21	110	63	-	-			
90.00	86.63	21	14.3	33	35.3	3.59		51	23	112	65	-	-			
100.00	93.18	19	8.7	18.5	35.3	*)		52	24	113	66	-	-			
112.00	104.81	17	9.9	19	35.3	*)		53	25	114	68	-	-			

MC.RL..05, n ₁ = 1800 1/min							P _{TH}						20.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	7.10	254	11.7	318	13.0	5.8		*)	*)	125	46	-	-			
8.00	7.99	225	12.3	299	13.7	8.1	MC2RLSF05	*)	*)	131	52	-	-			
9.00	8.86	203	12.9	281	14.7	9.2	MC2RLHF05	*)	*)	136	57	-	-	312	434	
10.00	9.87	182	12.0	237	16.9	6.8	MC2RLHT05	30	*)	141	62	-	-			
11.20	11.11	162	12.7	223	17.6	8.9		36	*)	147	68	-	-			
12.50	12.33	146	13.3	211	18.6	9.7		40	*)	151	72	-	-			
14.00	14.68	123	12.0	160	23.4	*)		34	*)	114	61	-	-			
16.00	16.53	109	13.5	160	22.1	*)		38	*)	117	64	-	-			
18.00	18.33	98	15.0	160	21.0	*)		40	*)	120	67	-	-			
20.00	20.22	89	15.3	148	19.7	0.83		43	*)	122	70	-	-			
22.50	22.76	79	17.2	148	17.7	0.83		46	15	126	73	-	-			
25.00	25.25	71	19.1	148	16.1	0.83		49	17	128	75	-	-			
28.00	29.13	62	20.0	134	15.1	2.71		52	21	132	79	-	-			
31.50	32.32	56	19.8	120	19.6	4.71		54	23	134	81	-	-			
35.50	33.83	53	18.3	107	24.6	2.10	MC3RLSF05	55	24	135	82	-	-			
40.00	39.03	46	19.5	99	23.1	3.55	MC3RLHF05	59	27	138	85	-	-	328	436	
45.00	43.30	42	20.0	91	25.8	4.86	MC3RLHT05	61	29	140	87	-	-			
50.00	48.74	37	18.5	75	33.5	7.6		63	31	142	90	-	-			
56.00	55.44	32	19.7	70	32.6	0.352		65	34	145	92	-	-			
63.00	62.40	29	18.7	59	37.0	2.75		68	36	147	94	-	-			
71.00	69.92	26	15.7	44	40.3	3.86		54	22	123	70	-	-			
80.00	77.56	23	17.4	44	41.0	3.86		56	24	124	72	-	-			
90.00	87.30	21	18.9	43	41.3	4.24		57	26	126	74	-	-			
100.00	93.84	19	13.2	28	41.3	2.40		59	27	127	75	-	-			
112.00	105.62	17	15.1	28	41.3	2.29		60	29	129	76	-	-			

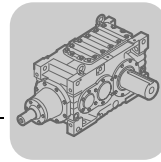


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC.RL..06, n₁ = 1800 1/min							P_{TH}						25.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C			P _{TH[20]} 20 °C	P _{TH[40]} 40 °C
7.10	6.74	267	14.7	422	17.4	4.19		*)	*)	146	51	-	-		
8.00	7.80	231	15.7	390	18.9	7.5	MC2RLSF06	*)	*)	155	60	-	-		
9.00	8.75	206	16.5	364	20.2	9.8	MC2RLHF06	*)	*)	162	67	-	-	314	434
10.00	9.64	187	15.1	307	24.2	5.4	MC2RLHT06	35	*)	168	73	-	-		
11.20	11.15	161	16.2	285	25.8	8.4		43	*)	176	81	-	-		
12.50	12.52	144	17.1	268	26.9	10.5		49	*)	182	87	-	-		
14.00	14.09	128	14.4	200	31.5	1.17		39	*)	134	71	-	-		
16.00	16.30	110	16.6	200	31.9	1.17		44	*)	140	76	-	-		
18.00	18.30	98	18.7	200	32.1	1.17		48	*)	143	80	-	-		
20.00	20.30	89	18.9	182	30.4	3.25		52	*)	147	84	-	-		
22.50	23.49	77	21.8	182	26.6	3.25		56	*)	151	88	-	-		
25.00	26.36	68	24.5	182	22.3	3.25		60	22	155	91	-	-		
28.00	28.78	63	25.2	171	20.9	4.51		62	24	157	94	-	-		
31.50	32.30	56	26.0	157	24.1	6.1		65	27	160	97	-	-		
35.50	35.53	51	23.7	132	35.9	5.3	MC3RLSF06	68	30	163	100	-	-		
40.00	38.80	46	24.1	123	35.7	6.5	MC3RLHF06	70	32	165	102	-	-	330	436
45.00	43.54	41	26.2	119	34.5	7.1	MC3RLHT06	73	35	168	105	-	-		
50.00	49.28	37	24.2	97	44.4	10.2		76	38	171	108	-	-		
56.00	55.31	33	24.1	86	45.3	7.8		78	41	173	110	-	-		
63.00	62.60	29	24.4	77	45.3	9.4		81	43	176	113	-	-		
71.00	68.96	26	21.9	63	45.3	4.31		64	26	147	83	-	-		
80.00	77.39	23	24.6	63	45.3	4.31		66	29	149	86	-	-		
90.00	87.60	21	24.8	56	45.3	5.9		69	31	151	88	-	-		
100.00	95.76	19	22.5	46	45.3	0.96		71	33	153	90	-	-		
112.00	108.39	17	25.0	46	45.3	1.17		73	35	155	92	-	-		

MC.RL..07, n₁ = 1800 1/min							P_{TH}						33.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C			P _{TH[20]} 20 °C	P _{TH[40]} 40 °C
7.10	6.84	263	18.1	511	22.0	8.2		*)	*)	179	63	-	-		
8.00	7.70	234	19.1	479	23.2	10.9	MC2RLSF07	*)	*)	188	73	-	-		
9.00	8.65	208	20.0	447	24.5	12.5	MC2RLHF07	*)	*)	196	81	-	-	316	434
10.00	9.74	185	18.7	376	29.3	9.1	MC2RLHT07	43	*)	205	90	-	-		
11.20	10.96	164	19.9	354	30.5	11.6		51	*)	213	98	-	-		
12.50	12.32	146	20.9	332	31.7	13.4		59	*)	220	105	-	-		
14.00	14.18	127	19.3	266	34.8	*)		48	*)	164	87	-	-		
16.00	15.97	113	21.7	266	35.0	*)		53	*)	169	92	-	-		
18.00	17.93	100	24.4	266	32.3	*)		58	*)	173	97	-	-		
20.00	19.94	90	23.4	229	35.8	2.12		62	*)	178	101	-	-		
22.50	22.45	80	26.3	229	32.0	2.12		67	*)	182	105	-	-		
25.00	25.22	71	29.6	229	27.1	2.12		71	25	186	110	-	-		
28.00	28.38	63	29.0	200	31.8	5.7		75	29	190	114	-	-		
31.50	31.88	56	32.6	200	26.3	5.7		79	33	194	118	-	-		
35.50	33.79	53	29.4	172	39.4	1.36	MC3RLSF07	81	35	196	119	-	-		
40.00	38.02	47	30.2	157	39.7	3.82	MC3RLHF07	84	38	200	123	-	-	332	437
45.00	42.71	42	33.9	157	34.2	3.82	MC3RLHT07	88	42	203	127	-	-		
50.00	48.96	37	33.4	135	45.2	7.4		92	46	207	131	-	-		
56.00	53.98	33	31.1	114	51	5.3		95	49	210	133	-	-		
63.00	61.88	29	33.8	108	53	6.5		98	52	214	137	-	-		
71.00	70.77	25	25.5	71	53	*)		79	33	179	102	-	-		
80.00	79.49	23	28.6	71	53	*)		81	35	182	105	-	-		
90.00	91.12	20	32.8	71	53	*)		85	39	185	108	-	-		
100.00	96.17	19	29.3	60	53	0.464		86	40	186	109	-	-		
112.00	110.25	16	33.6	60	53	0.464		89	43	189	112	-	-		

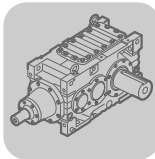
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..



MC.RL..08, $n_1 = 1800$ 1/min							P_{TH}						45.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$			$P_{TH[20]}$	$P_{TH[40]}$
		[1/min]	[kNm]	[kW]	[kN]	[kN]		20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	259	24.4	678	22.4	12.0	MC2RLSF08 MC2RLHF08 MC2RLHT08	*)	*)	221	79	-	-	318	434
8.00	7.82	230	25.7	635	23.8	15.1		*)	*)	232	91	-	-		
9.00	8.88	203	27.1	590	25.3	16.4		*)	*)	244	102	-	-		
10.00	9.74	185	25.3	507	29.3	11.3		53	*)	252	110	-	-		
11.20	10.96	164	26.8	477	30.6	14.9		63	*)	261	120	-	-		
12.50	12.45	145	28.4	445	32.1	16.4		73	*)	272	130	-	-		
14.00	14.48	124	24.9	336	40.1	*)	MC3RLSF08 MC3RLHF08 MC3RLHT08	60	*)	202	108	-	-	334	437
16.00	16.30	110	28.0	336	40.0	*)		66	*)	208	114	-	-		
18.00	18.51	97	31.8	336	36.6	*)		73	*)	215	120	-	-		
20.00	20.25	89	30.1	291	40.2	2.78		77	*)	219	125	-	-		
22.50	22.80	79	33.9	291	36.8	2.78		83	*)	225	130	-	-		
25.00	25.89	70	38.5	291	32.1	2.78		88	32	230	136	-	-		
28.00	29.06	62	37.5	252	36.9	6.8		93	37	235	141	-	-		
31.50	33.00	55	42.6	252	31.7	6.8		98	42	240	146	-	-		
35.50	34.90	52	39.4	223	42.1	2.91		100	44	242	148	-	-		
40.00	39.18	46	38.7	195	46.5	6.6		105	48	247	152	-	-		
45.00	44.49	40	43.9	195	41.4	6.6		110	53	251	157	-	-		
50.00	49.82	36	43.6	173	49.9	9.5		113	57	255	161	-	-		
56.00	56.62	32	45.8	160	47.9	1.58		118	61	260	165	-	-		
63.00	63.41	28	44.0	137	61	6.2		121	65	263	169	-	-		
71.00	70.39	26	37.0	104	67	4.22		96	40	219	125	-	-		
80.00	79.93	23	42.1	104	67	4.22	100	44	223	129	-	-			
90.00	89.53	20	44.7	98	67	5.4	103	47	227	132	-	-			
100.00	96.71	19	33.1	68	67	0.489	106	49	229	134	-	-			
112.00	108.32	17	37.6	68	67	0.267	109	52	232	137	-	-			

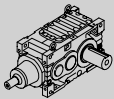
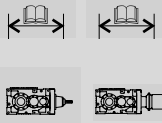

MC.RL..09, $n_1 = 1800$ 1/min							P_{TH}						55.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$			$P_{TH[20]}$	$P_{TH[40]}$
		[1/min]	[kNm]	[kW]	[kN]	[kN]		20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	263	33.6	945	28.8	10.2	MC2RLSF09 MC2RLHF09 MC2RLHT09	*)	*)	253	*)	-	-	320	434
8.00	7.92	227	35.8	872	31.0	15.6		*)	*)	269	106	-	-		
9.00	8.89	202	37.6	815	32.7	19.4		*)	*)	281	118	-	-		
10.00	9.61	187	34.8	707	37.0	9.0		*)	*)	289	125	-	-		
11.20	11.11	162	37.3	655	39.2	14.2		73	*)	303	139	-	-		
12.50	12.47	144	39.3	614	41.1	18.3		84	*)	313	150	-	-		
14.00	14.28	126	29.8	407	51	*)	MC3RLSF09 MC3RLHF09 MC3RLHT09	69	*)	232	124	-	-	336	437
16.00	16.52	109	34.4	407	52	*)		77	*)	241	132	-	-		
18.00	18.54	97	38.6	407	52	*)		84	*)	248	139	-	-		
20.00	19.70	91	37.8	375	53	3.08		87	*)	251	142	-	-		
22.50	22.78	79	43.7	375	54	3.08		95	*)	259	150	-	-		
25.00	25.57	70	49.1	375	50	3.08		101	*)	265	156	-	-		
28.00	28.12	64	47.8	332	55	8.3		106	41	269	161	-	-		
31.50	31.56	57	53.7	332	51	8.3		111	46	275	166	-	-		
35.50	34.47	52	50.2	288	61	4.41		115	50	279	170	-	-		
40.00	37.90	47	49.1	256	64	9.4		119	54	283	174	-	-		
45.00	42.54	42	55.1	256	63	9.4		124	59	288	179	-	-		
50.00	48.15	37	59.2	243	64	10.2		129	64	293	184	-	-		
56.00	54.72	33	57.3	207	70	8.2		134	69	298	189	-	-		
63.00	61.94	29	59.6	190	73	10.1		139	74	303	194	-	-		
71.00	68.22	26	51.4	149	80	4.49		110	45	252	143	-	-		
80.00	76.56	24	57.7	149	80	4.49	114	49	256	147	-	-			
90.00	86.65	21	60.1	137	80	6.3	118	53	260	151	-	-			
100.00	94.51	19	35.0	73	80	5.8	121	56	263	154	-	-			
112.00	106.98	17	40.1	74	80	5.7	125	60	267	158	-	-			

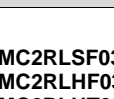
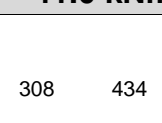

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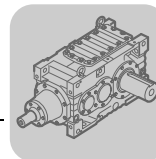
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

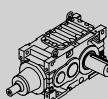


11.2.2 MC.RL..., n₁ = 1500 1/min

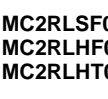


MC.RL..02, n ₁ = 1500 1/min								P _{TH}						8.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	215	5.4	126	4.81	5.7	MC2RLSF02 MC2RLHF02 MC2RLHT02	13	*)	67	23	-	-	306	434		
8.00	8.05	186	5.8	116	5.4	7.2		17	*)	71	28	-	-				
9.00	9.03	166	6.0	108	5.9	8.5		20	*)	74	31	-	-				
10.00	9.61	156	5.5	94	7.3	5.5		22	*)	76	32	-	-				
11.20	11.11	135	5.9	87	7.8	6.9		26	*)	80	36	-	-				
12.50	12.47	120	6.3	82	8.2	7.9		29	*)	82	39	-	-				
14.00	14.61	103	6.0	67	9.5	*)	MC3RLSF02 MC3RLHF02 MC3RLHT02	23	*)	62	33	-	-	322	435		
16.00	16.90	89	6.9	67	7.9	*)		25	7	64	35	-	-				
18.00	18.96	79	7.3	63	8.3	0.54		27	9	66	37	-	-				
20.00	20.31	74	7.6	61	6.1	0.96		28	10	67	38	-	-				
22.50	23.49	64	7.9	55	7.5	2.08		30	12	69	40	-	-				
25.00	26.36	57	7.4	46	12.0	3.82		32	13	70	41	-	-				
28.00	29.43	51	8.0	45	10.2	4.11		33	15	72	43	-	-				
31.50	33.03	45	7.5	37	14.8	5.5		35	16	73	44	-	-				
35.50	37.38	40	6.9	30	19.3	6.8		36	18	75	46	-	-				
40.00	40.30	37	6.7	27	19.9	3.20		37	19	76	47	-	-				
45.00	45.22	33	7.6	28	19.2	3.12		38	20	77	48	-	-				
50.00	50.49	30	8.1	26	18.0	3.57		40	21	78	49	-	-				
56.00	56.66	26	7.6	22	21.9	5.00		41	22	79	50	-	-				
63.00	64.14	23	7.0	18.1	22.7	6.4		42	23	80	52	-	-				
71.00	70.97	21	8.1	19	22.7	2.05		34	15	67	38	-	-				
80.00	79.65	19	7.7	16.1	22.7	2.99		35	16	68	39	-	-				
90.00	90.15	17	7.1	13.1	22.7	4.00		36	17	69	40	-	-				
100.00	97.35	15	6.0	10.3	22.7	1.59		37	18	70	41	-	-				
112.00	110.19	14	6.8	10.3	22.7	1.59	38	19	71	42	-	-					

MC.RL..03, n ₁ = 1500 1/min								P _{TH}						11.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	211	6.8	155	17.1	7.7	MC2RLSF03 MC2RLHF03 MC2RLHT03	17	*)	82	29	-	-	308	434		
8.00	8.04	187	7.2	145	17.8	9.0		21	*)	86	34	-	-				
9.00	9.07	165	7.6	135	18.5	10.3		25	*)	90	38	-	-				
10.00	10.00	150	6.6	107	20.1	6.5		28	*)	94	41	-	-				
11.20	11.28	133	7.5	108	20.2	6.3		32	*)	97	45	-	-				
12.50	12.73	118	7.9	101	21.0	7.6		36	*)	101	48	-	-				
14.00	15.07	100	7.8	85	22.3	0.395	MC3RLSF03 MC3RLHF03 MC3RLHT03	29	*)	76	40	-	-	324	435		
16.00	17.00	88	8.8	85	22.5	0.396		31	*)	78	43	-	-				
18.00	19.18	78	9.9	85	22.6	0.396		33	11	80	45	-	-				
20.00	20.57	73	10.6	84	19.2	0.483		35	12	81	46	-	-				
22.50	23.20	65	11.4	80	19.5	1.15		37	14	83	48	-	-				
25.00	26.18	57	10.6	66	25.1	3.38		39	16	85	50	-	-				
28.00	29.60	51	11.4	63	25.1	3.93		41	18	87	52	-	-				
31.50	33.40	45	10.8	53	27.8	5.6		43	20	89	54	-	-				
35.50	35.08	43	10.7	51	28.4	3.16		43	21	90	55	-	-				
40.00	39.67	38	11.4	47	29.0	3.86		45	22	92	57	-	-				
45.00	44.75	34	10.9	40	30.7	5.4		47	24	93	58	-	-				
50.00	50.97	29	10.0	32	30.7	7.0		48	26	95	60	-	-				
56.00	57.30	26	11.0	32	30.7	5.2		50	27	97	61	-	-				
63.00	65.25	23	10.1	25	30.7	6.9		51	29	98	63	-	-				
71.00	69.86	21	10.7	25	30.7	0.58		41	18	81	46	-	-				
80.00	78.82	19	11.1	23	30.7	1.29		42	20	83	48	-	-				
90.00	89.76	17	10.2	19	30.7	2.96		44	21	84	49	-	-				
100.00	97.53	15	9.0	15.3	30.7	*)		45	22	85	50	-	-				
112.00	111.07	14	10.3	15.3	30.7	*)	46	23	86	51	-	-					

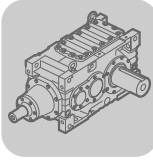
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..



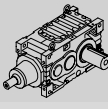






MC.RL..04, n ₁ = 1500 1/min							P _{TH}						15.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	206	8.9	197	19.7	7.5	MC2RLSF04 MC2RLHF04 MC2RLHT04	22	*)	102	37	-	-	310	434		
8.00	8.20	183	9.4	185	20.4	9.2		27	*)	107	42	-	-				
9.00	9.17	164	9.9	174	21.2	10.8		31	*)	112	47	-	-				
10.00	10.15	148	9.2	148	22.4	5.8		35	*)	116	51	-	-				
11.20	11.41	131	9.7	139	23.3	7.4		40	*)	120	55	-	-				
12.50	12.76	118	10.3	131	24.1	8.9	44	*)	124	59	-	-					
14.00	14.76	102	9.2	102	26.4	*)	MC3RLSF04 MC3RLHF04 MC3RLHT04	35	*)	93	49	-	-	326	435		
16.00	16.60	90	10.3	102	26.7	*)		38	*)	95	52	-	-				
18.00	18.56	81	11.6	102	26.9	*)		40	12	98	55	-	-				
20.00	20.60	73	12.9	102	23.9	*)		43	15	100	57	-	-				
22.50	23.17	65	14.5	102	21.2	*)		45	17	103	59	-	-				
25.00	25.90	58	14.9	94	23.6	0.68		48	20	105	62	-	-				
28.00	29.65	51	15.9	88	21.3	1.71		50	22	108	64	-	-				
31.50	33.14	45	14.9	74	30.2	4.02		52	24	110	66	-	-				
35.50	34.63	43	13.2	63	33.2	3.69		53	25	111	67	-	-				
40.00	39.63	38	15.4	64	32.1	3.47		55	27	113	70	-	-				
45.00	44.30	34	15.0	56	34.9	5.1		57	29	115	72	-	-				
50.00	49.83	30	14.1	47	35.3	6.8		59	31	117	73	-	-				
56.00	55.99	27	14.1	41	35.3	5.4		61	33	119	75	-	-				
63.00	62.98	24	14.2	37	35.3	6.5		63	35	120	77	-	-				
71.00	68.90	22	13.3	32	35.3	2.63		50	22	100	57	-	-				
80.00	77.02	19	14.4	31	35.3	3.04		52	24	102	58	-	-				
90.00	86.63	17	14.4	27	35.3	4.25		53	25	103	60	-	-				
100.00	93.18	16	8.7	15.5	35.3	0.230	54	26	104	61	-	-					
112.00	104.81	14	10.0	15.7	35.3	0.131	56	28	106	62	-	-					

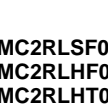






MC.RL..05, n ₁ = 1500 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	211	12.3	280	13.8	6.2	MC2RLSF05 MC2RLHF05 MC2RLHT05	*)	*)	114	40	-	-	312	434		
8.00	7.99	188	13.0	263	14.4	8.6		29	*)	120	46	-	-				
9.00	8.86	169	13.6	247	15.6	9.8		34	*)	124	51	-	-				
10.00	9.87	152	12.7	209	17.8	7.1		39	*)	129	56	-	-				
11.20	11.11	135	13.5	197	18.5	9.3		44	*)	135	61	-	-				
12.50	12.33	122	14.1	186	19.6	10.3	48	*)	139	66	-	-					
14.00	14.68	102	12.1	134	25.3	0.228	MC3RLSF05 MC3RLHF05 MC3RLHT05	39	*)	104	55	-	-	328	436		
16.00	16.53	91	13.6	134	25.2	0.229		43	*)	107	59	-	-				
18.00	18.33	82	15.1	134	24.2	0.227		45	14	110	61	-	-				
20.00	20.22	74	15.3	124	23.3	2.01		48	16	113	64	-	-				
22.50	22.76	66	17.2	124	21.4	2.01		51	19	115	67	-	-				
25.00	25.25	59	19.1	124	19.9	2.01		53	21	118	69	-	-				
28.00	29.13	51	20.5	115	17.7	3.46		56	25	121	72	-	-				
31.50	32.32	46	19.8	100	23.6	5.8		58	27	123	74	-	-				
35.50	33.83	44	18.2	89	28.9	3.33		59	28	124	75	-	-				
40.00	39.03	38	19.5	82	27.4	4.71		62	31	127	78	-	-				
45.00	43.30	35	20.1	76	30.0	5.9		64	33	129	80	-	-				
50.00	48.74	31	18.6	63	36.1	8.7		66	35	131	82	-	-				
56.00	55.44	27	19.8	59	37.1	1.18		69	37	134	85	-	-				
63.00	62.40	24	18.8	50	39.7	3.56		71	39	136	87	-	-				
71.00	69.92	21	15.7	37	41.3	4.70		57	25	113	64	-	-				
80.00	77.56	19	17.4	37	41.3	4.70		58	27	115	66	-	-				
90.00	87.30	17	19.1	36	41.3	4.99		60	29	117	68	-	-				
100.00	93.84	16	13.4	23	41.3	2.91	61	30	118	69	-	-					
112.00	105.62	14	15.0	23	41.3	2.91	63	31	119	70	-	-					

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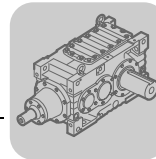


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC.RL..06, $n_1 = 1500$ 1/min							P_{TH}						25.0 kNm		
i_N	i_{ex}	n_2 [1/min]	M_{N2} [kNm]	P_{N1} [kW]	F_{Ra} [kN]	F_{Re} [kN]									
								$P_{TH[20]}$ 20 °C	$P_{TH[40]}$ 40 °C	$P_{TH[20]}$ 20 °C	$P_{TH[40]}$ 40 °C	$P_{TH[20]}$ 20 °C	$P_{TH[40]}$ 40 °C		
7.10	6.74	223	15.5	371	18.4	4.44	MC2RLSF06 MC2RLHF06 MC2RLHT06	*)	*)	133	45	-	-	314	434
8.00	7.80	192	16.6	343	20.0	7.9		*)	*)	142	54	-	-		
9.00	8.75	171	17.4	320	21.3	10.4		40	*)	148	61	-	-		
10.00	9.64	156	16.0	270	25.6	5.7		45	*)	154	66	-	-		
11.20	11.15	135	17.2	250	27.2	8.9		53	*)	161	73	-	-		
12.50	12.52	120	18.1	235	28.4	11.1		58	*)	167	79	-	-		
14.00	14.09	106	14.3	166	34.1	2.60	MC3RLSF06 MC3RLHF06 MC3RLHT06	46	*)	123	65	-	-	330	436
16.00	16.30	92	16.6	166	34.6	2.60		50	*)	128	70	-	-		
18.00	18.30	82	18.6	166	34.8	2.60		54	*)	132	73	-	-		
20.00	20.30	74	18.8	151	35.4	4.66		57	19	135	76	-	-		
22.50	23.49	64	21.8	151	32.9	4.66		61	24	139	81	-	-		
25.00	26.36	57	24.5	151	28.9	4.66		65	27	142	84	-	-		
28.00	28.78	52	25.1	142	27.5	5.9		67	29	145	86	-	-		
31.50	32.30	46	26.1	131	30.5	7.4		70	32	148	89	-	-		
35.50	35.53	42	23.7	110	41.7	6.6		72	34	150	91	-	-		
40.00	38.80	39	24.2	103	42.4	7.8		74	37	152	94	-	-		
45.00	43.54	34	26.3	100	41.3	8.4		77	39	155	96	-	-		
50.00	49.28	30	24.4	81	45.3	11.4		80	42	157	99	-	-		
56.00	55.31	27	24.2	72	45.3	9.0		82	44	160	101	-	-		
63.00	62.60	24	24.7	65	45.3	10.5		85	47	162	104	-	-		
71.00	68.96	22	21.9	52	45.3	5.3		68	30	135	77	-	-		
80.00	77.39	19	24.6	52	45.3	5.3		70	32	137	79	-	-		
90.00	87.60	17	25.0	47	45.3	6.8		72	34	140	81	-	-		
100.00	95.76	16	22.7	39	45.3	1.68		74	36	141	83	-	-		
112.00	108.39	14	25.3	38	45.3	1.90	76	38	143	85	-	-			

MC.RL..07, $n_1 = 1500$ 1/min							P_{TH}						33.0 kNm		
i_N	i_{ex}	n_2 [1/min]	M_{N2} [kNm]	P_{N1} [kW]	F_{Ra} [kN]	F_{Re} [kN]									
								$P_{TH[20]}$ 20 °C	$P_{TH[40]}$ 40 °C	$P_{TH[20]}$ 20 °C	$P_{TH[40]}$ 40 °C	$P_{TH[20]}$ 20 °C	$P_{TH[40]}$ 40 °C		
7.10	6.84	219	19.1	450	23.2	8.6	MC2RLSF07 MC2RLHF07 MC2RLHT07	*)	*)	163	56	-	-	316	434
8.00	7.70	195	20.2	421	24.6	11.5		*)	*)	171	65	-	-		
9.00	8.65	173	21.1	394	25.8	13.2		47	*)	179	73	-	-		
10.00	9.74	154	19.9	332	30.7	9.5		55	*)	187	81	-	-		
11.20	10.96	137	21.0	312	32.1	12.2		63	*)	195	88	-	-		
12.50	12.32	122	22.2	293	33.3	14.1		70	*)	202	95	-	-		
14.00	14.18	106	19.3	221	37.7	*)	MC3RLSF07 MC3RLHF07 MC3RLHT07	56	*)	150	79	-	-	332	437
16.00	15.97	94	21.7	221	38.0	*)		61	*)	155	84	-	-		
18.00	17.93	84	24.4	221	38.1	*)		65	*)	159	88	-	-		
20.00	19.94	75	24.7	202	37.9	2.27		69	23	163	92	-	-		
22.50	22.45	67	27.8	202	33.9	2.27		73	27	168	96	-	-		
25.00	25.22	59	31.2	202	28.7	2.27		77	31	171	100	-	-		
28.00	28.38	53	30.7	176	33.5	6.0		81	35	175	104	-	-		
31.50	31.88	47	34.4	176	27.7	6.0		85	39	179	108	-	-		
35.50	33.79	44	29.3	143	46.2	3.09		86	40	181	110	-	-		
40.00	38.02	39	30.7	133	46.1	5.0		90	44	184	113	-	-		
45.00	42.71	35	34.5	133	40.7	5.0		93	47	188	116	-	-		
50.00	48.96	31	33.6	113	52	8.9		97	51	191	120	-	-		
56.00	53.98	28	31.2	95	53	6.8		99	53	194	123	-	-		
63.00	61.88	24	33.9	90	53	8.0		103	57	197	126	-	-		
71.00	70.77	21	25.5	59	53	1.14		83	37	165	94	-	-		
80.00	79.49	19	28.7	59	53	1.14		86	40	167	96	-	-		
90.00	91.12	16	32.9	59	53	1.14		89	43	170	99	-	-		
100.00	96.17	16	29.3	50	53	1.48		90	44	172	100	-	-		
112.00	110.25	14	33.6	50	53	1.48	93	47	174	103	-	-			

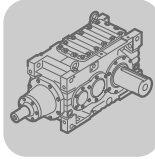
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..



MC.RL..08, n ₁ = 1500 1/min							P _{TH}						45.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]} 20 °C		P _{TH[40]} 40 °C		P _{TH[20]} 20 °C		P _{TH[40]} 40 °C		
7.10	6.95	216	25.8	597	23.7	12.7			*)	*)	202	70	-	-		
8.00	7.82	192	27.2	559	25.0	16.0	MC2RLSF08 MC2RLHF08 MC2RLHT08	*)	*)	212	81	-	-			
9.00	8.88	169	28.6	519	26.8	17.4		60	*)	223	92	-	-	318	434	
10.00	9.74	154	26.8	447	30.8	11.8		68	*)	230	99	-	-			
11.20	10.96	137	28.3	420	32.3	15.7		77	*)	240	108	-	-			
12.50	12.45	120	30.0	392	33.9	17.3		87	*)	249	118	-	-			
14.00	14.48	104	26.4	296	42.4	*)	MC3RLSF08 MC3RLHF08 MC3RLHT08	70	*)	186	98	-	-			
16.00	16.30	92	29.7	296	42.1	*)		75	*)	191	104	-	-			
18.00	18.51	81	33.7	296	38.4	*)		81	*)	197	110	-	-			
20.00	20.25	74	31.8	256	42.4	2.91		85	29	201	114	-	-			
22.50	22.80	66	35.9	256	38.8	2.91		91	34	207	119	-	-			
25.00	25.89	58	40.7	256	33.9	2.91		96	39	212	124	-	-			
28.00	29.06	52	39.7	222	38.8	7.1		100	44	216	129	-	-			
31.50	33.00	45	45.1	222	33.2	7.1		105	49	221	134	-	-			
35.50	34.90	43	41.5	196	44.6	3.11		107	51	223	136	-	-			
40.00	39.18	38	40.9	172	48.8	7.0		111	55	227	140	-	-	334	437	
45.00	44.49	34	46.5	172	43.4	7.0		116	59	232	144	-	-			
50.00	49.82	30	43.9	145	58	11.2		120	63	236	148	-	-			
56.00	56.62	26	47.5	138	53	2.35		124	67	240	152	-	-			
63.00	63.41	24	44.3	115	66	7.8		127	71	243	156	-	-			
71.00	70.39	21	37.1	87	67	5.8		102	45	202	115	-	-			
80.00	79.93	19	42.1	87	67	5.8		105	49	206	119	-	-			
90.00	89.53	17	45.0	83	67	6.8		108	52	209	122	-	-			
100.00	96.71	16	33.4	57	67	1.31		110	54	211	124	-	-			
112.00	108.32	14	37.9	58	67	1.10		113	57	214	126	-	-			

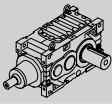


MC.RL..09, n ₁ = 1500 1/min							P _{TH}						55.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]} 20 °C		P _{TH[40]} 40 °C		P _{TH[20]} 20 °C		P _{TH[40]} 40 °C		
7.10	6.85	219	35.5	832	30.4	10.8			*)	*)	231	*)	-	-		
8.00	7.92	189	37.8	768	32.7	16.4	MC2RLSF09 MC2RLHF09 MC2RLHT09	*)	*)	246	94	-	-			
9.00	8.89	169	39.7	717	34.6	20.5		*)	*)	257	106	-	-	320	434	
10.00	9.61	156	36.8	622	39.2	9.6		77	*)	264	113	-	-			
11.20	11.11	135	39.5	577	41.4	15.0		90	*)	277	126	-	-			
12.50	12.47	120	41.5	541	43.3	19.2		100	*)	287	136	-	-			
14.00	14.28	105	31.5	359	54	*)	MC3RLSF09 MC3RLHF09 MC3RLHT09	79	*)	213	112	-	-			
16.00	16.52	91	36.4	359	55	*)		88	*)	221	121	-	-			
18.00	18.54	81	40.9	359	55	*)		94	*)	228	127	-	-			
20.00	19.70	76	40.0	330	56	3.20		97	*)	231	130	-	-			
22.50	22.78	66	46.2	330	57	3.20		104	39	238	137	-	-			
25.00	25.57	59	51.9	330	53	3.20		110	45	244	143	-	-			
28.00	28.12	53	50.6	293	58	8.7		114	49	248	147	-	-			
31.50	31.56	48	56.7	293	53	8.7		119	54	253	152	-	-			
35.50	34.47	44	53.0	253	64	4.75		123	58	257	156	-	-			
40.00	37.90	40	52.0	226	67	9.8		127	62	261	160	-	-	336	437	
45.00	42.54	35	58.4	226	66	9.8		132	67	265	165	-	-			
50.00	48.15	31	59.4	203	71	11.5		137	71	270	169	-	-			
56.00	54.72	27	58.8	177	75	9.9		141	76	275	174	-	-			
63.00	61.94	24	59.8	159	79	11.3		146	81	279	179	-	-			
71.00	68.22	22	51.4	124	80	6.1		116	51	232	131	-	-			
80.00	76.56	20	57.7	124	80	6.1		120	55	236	135	-	-			
90.00	86.65	17	60.5	115	80	7.7		124	59	240	139	-	-			
100.00	94.51	16	35.2	61	80	6.4		127	62	242	142	-	-			
112.00	106.98	14	40.4	62	80	6.3		130	65	246	145	-	-			




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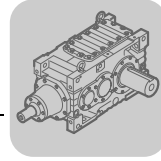
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

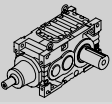






11.2.3 MC.RL..., n₁ = 1200 1/min








MC.RL..02, n ₁ = 1200 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	172	5.8	107	5.3	6.2	MC2RLSF02 MC2RLHF02 MC2RLHT02	19	*)	60	20	-	-	306	434		
8.00	8.05	149	6.2	99	5.8	7.8		23	*)	64	24	-	-				
9.00	9.03	133	6.5	93	6.2	9.0		26	*)	67	27	-	-				
10.00	9.61	125	5.7	78	8.6	6.5		28	*)	68	29	-	-				
11.20	11.11	108	6.4	75	8.3	7.3		31	*)	72	32	-	-				
12.50	12.47	96	6.7	70	8.7	8.5		34	*)	74	35	-	-				
14.00	14.61	82	6.2	56	11.0	*)	MC3RLSF02 MC3RLHF02 MC3RLHT02	27	8	56	29	-	-	322	435		
16.00	16.90	71	7.2	56	9.3	*)		29	10	58	31	-	-				
18.00	18.96	63	7.4	51	10.9	1.38		30	12	59	33	-	-				
20.00	20.31	59	8.1	52	6.4	1.01		31	13	60	34	-	-				
22.50	23.49	51	8.0	45	10.2	2.88		33	15	62	36	-	-				
25.00	26.36	46	7.5	37	14.9	4.63		35	16	64	37	-	-				
28.00	29.43	41	8.1	36	13.1	4.93		36	17	65	39	-	-				
31.50	33.03	36	7.6	30	17.9	6.3		37	19	66	40	-	-				
35.50	37.38	32	6.9	24	21.1	6.9		39	20	68	41	-	-				
40.00	40.30	30	6.7	22	21.8	4.08		40	21	68	42	-	-				
45.00	45.22	27	7.6	22	21.9	3.99		41	22	70	43	-	-				
50.00	50.49	24	8.1	21	21.7	4.46		42	23	71	44	-	-				
56.00	56.66	21	7.7	18.0	22.7	5.8		43	24	72	46	-	-				
63.00	64.14	19	7.1	14.6	22.7	6.9		44	26	73	47	-	-				
71.00	70.97	17	8.1	15.1	22.7	2.64		36	17	61	34	-	-				
80.00	79.65	15	7.8	13.0	22.7	3.53		37	18	62	35	-	-				
90.00	90.15	13	7.1	10.5	22.7	4.58		38	19	63	36	-	-				
100.00	97.35	12	6.2	8.4	22.7	1.98		38	20	63	37	-	-				
112.00	110.19	11	7.0	8.4	22.7	1.98	39	21	64	38	-	-					

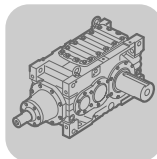
MC.RL..03, n ₁ = 1200 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	168	7.3	133	18.2	8.1	MC2RLSF03 MC2RLHF03 MC2RLHT03	24	*)	74	25	-	-	308	434		
8.00	8.04	149	7.7	124	19.0	9.6		28	*)	78	29	-	-				
9.00	9.07	132	8.1	116	19.7	10.9		32	*)	81	33	-	-				
10.00	10.00	120	6.6	86	22.0	8.3		35	*)	84	36	-	-				
11.20	11.28	106	7.5	87	22.2	8.0		38	*)	88	40	-	-				
12.50	12.73	94	8.5	87	22.4	8.1		42	*)	91	43	-	-				
14.00	15.07	80	7.8	68	24.4	1.38	MC3RLSF03 MC3RLHF03 MC3RLHT03	33	10	68	36	-	-	324	435		
16.00	17.00	71	8.8	68	24.7	1.38		35	12	70	38	-	-				
18.00	19.18	63	10.0	68	24.9	1.38		37	15	72	40	-	-				
20.00	20.57	58	10.7	68	23.7	1.38		38	16	74	42	-	-				
22.50	23.20	52	11.5	65	24.3	2.04		40	18	76	43	-	-				
25.00	26.18	46	10.7	53	27.6	4.28		42	20	77	45	-	-				
28.00	29.60	41	11.4	50	28.1	4.89		44	21	79	47	-	-				
31.50	33.40	36	10.8	42	30.5	6.5		46	23	81	49	-	-				
35.50	35.08	34	10.8	41	30.7	4.04		46	24	82	49	-	-				
40.00	39.67	30	11.4	38	30.7	4.81		48	25	83	51	-	-				
45.00	44.75	27	10.9	32	30.7	6.3		50	27	85	53	-	-				
50.00	50.97	24	10.1	26	30.7	8.0		51	28	86	54	-	-				
56.00	57.30	21	11.1	25	30.7	6.1		53	30	88	56	-	-				
63.00	65.25	18	10.2	21	30.7	7.8		54	31	89	57	-	-				
71.00	69.86	17	10.7	20	30.7	1.25		43	21	74	42	-	-				
80.00	78.82	15	11.2	19	30.7	1.90		45	22	75	43	-	-				
90.00	89.76	13	10.3	15.1	30.7	3.62		46	23	76	44	-	-				
100.00	97.53	12	9.1	12.3	30.7	*)		47	24	77	45	-	-				
112.00	111.07	11	10.3	12.3	30.7	*)	48	25	78	46	-	-					

Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..

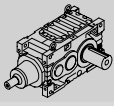
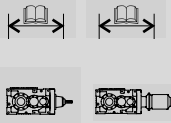


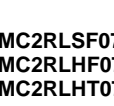
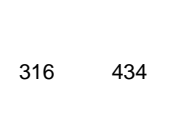
MC.RL..04, n ₁ = 1200 1/min							P _{TH}						15.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	165	9.6	170	20.9	7.9	MC2RLSF04 MC2RLHF04 MC2RLHT04	31	*)	92	32	-	-	310	434		
8.00	8.20	146	10.1	159	21.8	9.8		36	*)	96	37	-	-				
9.00	9.17	131	10.6	149	22.6	11.5		40	*)	101	41	-	-				
10.00	10.15	118	9.7	125	24.1	6.5		44	*)	104	45	-	-				
11.20	11.41	105	10.4	119	24.9	7.9		48	*)	108	49	-	-				
12.50	12.76	94	11.0	112	25.7	9.5	52	*)	112	53	-	-					
14.00	14.76	81	9.8	87	28.2	*)	MC3RLSF04 MC3RLHF04 MC3RLHT04	40	12	84	44	-	-	326	435		
16.00	16.60	72	11.1	87	28.5	*)		43	15	86	47	-	-				
18.00	18.56	65	12.4	87	28.7	*)		45	17	89	49	-	-				
20.00	20.60	58	13.1	83	28.7	0.208		47	19	91	51	-	-				
22.50	23.17	52	14.7	83	26.1	0.208		50	22	93	53	-	-				
25.00	25.90	46	14.9	75	29.7	1.79		52	24	95	56	-	-				
28.00	29.65	40	16.0	71	27.1	2.73		54	26	98	58	-	-				
31.50	33.14	36	15.0	59	33.9	5.1		56	28	100	60	-	-				
35.50	34.63	35	13.3	51	35.3	4.73		57	29	100	61	-	-				
40.00	39.63	30	15.5	51	35.3	4.51		59	31	102	63	-	-				
45.00	44.30	27	15.0	45	35.3	6.2		61	33	104	65	-	-				
50.00	49.83	24	14.2	38	35.3	7.9		63	35	106	66	-	-				
56.00	55.99	21	14.2	33	35.3	6.5		64	36	108	68	-	-				
63.00	62.98	19	14.4	30	35.3	7.5		66	38	109	70	-	-				
71.00	68.90	17	13.4	26	35.3	3.59		53	25	91	51	-	-				
80.00	77.02	16	14.4	25	35.3	4.01	55	27	92	53	-	-					
90.00	86.63	14	14.5	22	35.3	5.1	56	28	94	54	-	-					
100.00	93.18	13	8.9	12.6	35.3	0.65	57	29	95	55	-	-					
112.00	104.81	11	10.1	12.7	35.3	0.59	58	30	96	56	-	-					

MC.RL..05, n ₁ = 1200 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	169	13.2	239	14.8	6.7	MC2RLSF05 MC2RLHF05 MC2RLHT05	34	*)	102	35	-	-	312	434		
8.00	7.99	150	13.9	224	15.6	9.3		39	*)	107	41	-	-				
9.00	8.86	135	14.5	211	16.7	10.4		44	*)	112	45	-	-				
10.00	9.87	122	12.8	169	21.2	9.8		48	*)	116	50	-	-				
11.20	11.11	108	14.4	168	19.9	10.1		53	*)	121	54	-	-				
12.50	12.33	97	15.1	159	21.0	11.0	57	*)	125	58	-	-					
14.00	14.68	82	12.1	108	27.6	1.73	MC3RLSF05 MC3RLHF05 MC3RLHT05	45	14	94	50	-	-	328	436		
16.00	16.53	73	13.6	108	28.1	1.73		48	17	97	52	-	-				
18.00	18.33	65	15.1	108	28.5	1.73		51	19	100	55	-	-				
20.00	20.22	59	15.3	99	28.0	3.58		53	21	102	57	-	-				
22.50	22.76	53	17.2	99	26.3	3.58		56	24	105	60	-	-				
25.00	25.25	48	19.1	99	25.0	3.58		58	26	107	62	-	-				
28.00	29.13	41	20.5	92	23.0	5.0		61	29	110	65	-	-				
31.50	32.32	37	20.0	81	28.3	7.2		63	31	112	67	-	-				
35.50	33.83	35	18.2	71	34.2	4.85		64	32	113	68	-	-				
40.00	39.03	31	19.5	66	33.1	6.2		66	35	115	71	-	-				
45.00	43.30	28	20.2	62	35.4	7.3		68	37	117	73	-	-				
50.00	48.74	25	18.8	51	39.3	10.1		70	39	119	75	-	-				
56.00	55.44	22	19.9	47	40.5	2.24		73	41	121	77	-	-				
63.00	62.40	19	19.0	40	41.3	4.59		74	43	123	79	-	-				
71.00	69.92	17	15.7	30	41.3	5.8		60	29	103	58	-	-				
80.00	77.56	15	17.4	30	41.3	5.8	62	30	104	60	-	-					
90.00	87.30	14	19.2	29	41.3	6.0	63	32	106	61	-	-					
100.00	93.84	13	13.5	19	41.3	3.58	64	33	107	62	-	-					
112.00	105.62	11	15.4	19	41.3	3.46	66	34	108	64	-	-					

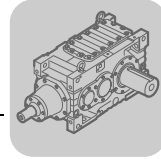


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC.RL..06, n ₁ = 1200 1/min								P _{TH}						25.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.74	178	16.6	317	19.6	4.74	MC2RLSF06 MC2RLHF06 MC2RLHT06	37	*)	119	39	-	-	314	434	
8.00	7.80	154	17.8	294	21.3	8.4		45	*)	127	47	-	-			
9.00	8.75	137	18.6	274	22.9	11.1		52	*)	133	53	-	-			
10.00	9.64	125	17.0	229	27.7	6.4		56	*)	138	58	-	-			
11.20	11.15	108	18.4	214	29.1	9.5		63	*)	145	65	-	-			
12.50	12.52	96	19.4	201	30.4	11.9		69	*)	151	71	-	-			
14.00	14.09	85	14.4	133	37.3	4.28	MC3RLSF06 MC3RLHF06 MC3RLHT06	53	15	111	58	-	-	330	436	
16.00	16.30	74	16.7	133	37.9	4.28		57	20	116	62	-	-			
18.00	18.30	66	18.7	133	38.3	4.28		61	23	119	66	-	-			
20.00	20.30	59	18.9	122	39.0	6.3		64	26	122	69	-	-			
22.50	23.49	51	21.9	122	39.4	6.3		67	30	126	73	-	-			
25.00	26.36	46	24.6	122	36.7	6.3		70	33	129	75	-	-			
28.00	28.78	42	25.1	114	36.1	7.7		73	35	131	78	-	-			
31.50	32.30	37	26.2	106	38.7	9.0		75	38	134	80	-	-			
35.50	35.53	34	23.7	88	45.3	8.4		78	40	136	83	-	-			
40.00	38.80	31	24.2	82	45.3	9.6		79	42	138	85	-	-			
45.00	43.54	28	26.6	80	45.3	10		82	44	140	87	-	-			
50.00	49.28	24	24.6	66	45.3	13.0		84	47	143	90	-	-			
56.00	55.31	22	24.3	58	45.3	10.6		87	49	145	92	-	-			
63.00	62.60	19	24.9	52	45.3	12.1		89	51	148	94	-	-			
71.00	68.96	17	21.9	42	45.3	6.7		72	34	123	69	-	-			
80.00	77.39	16	24.6	42	45.3	6.7		74	36	125	71	-	-			
90.00	87.60	14	25.2	38	45.3	8.0		76	38	127	73	-	-			
100.00	95.76	13	22.9	31	45.3	2.65		77	40	128	75	-	-			
112.00	108.39	11	25.4	31	45.3	2.92	79	42	130	77	-	-				

MC.RL..07, n ₁ = 1200 1/min								P _{TH}						33.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.84	176	20.4	385	24.8	9.2	MC2RLSF07 MC2RLHF07 MC2RLHT07	47	*)	146	49	-	-	316	434	
8.00	7.70	156	21.6	361	26.2	12.3		54	*)	154	57	-	-			
9.00	8.65	139	22.6	337	27.5	14.0		62	*)	161	64	-	-			
10.00	9.74	123	21.0	281	33.6	10.7		69	*)	169	71	-	-			
11.20	10.96	109	22.5	267	34.4	13.1		76	*)	176	78	-	-			
12.50	12.32	97	23.6	249	35.9	15.1		83	*)	182	85	-	-			
14.00	14.18	85	19.2	177	41.4	1.62	MC3RLSF07 MC3RLHF07 MC3RLHT07	65	19	136	71	-	-	332	437	
16.00	15.97	75	21.7	177	41.9	1.62		69	23	140	75	-	-			
18.00	17.93	67	24.3	177	42.1	1.62		73	27	144	79	-	-			
20.00	19.94	60	25.0	163	42.8	4.12		77	31	148	83	-	-			
22.50	22.45	53	28.1	163	41.8	4.12		81	35	152	87	-	-			
25.00	25.22	48	31.6	163	36.8	4.12		84	38	155	90	-	-			
28.00	28.38	42	32.7	150	36.0	6.4		88	42	159	94	-	-			
31.50	31.88	38	36.3	148	31.4	6.8		91	45	162	97	-	-			
35.50	33.79	36	29.5	115	51	5.1		93	47	164	99	-	-			
40.00	38.02	32	30.9	107	52	7.0		96	50	167	102	-	-			
45.00	42.71	28	34.7	107	51	7.0		99	53	170	105	-	-			
50.00	48.96	25	33.9	91	53	10.8		102	57	174	109	-	-			
56.00	53.98	22	31.3	76	53	8.8		105	59	176	111	-	-			
63.00	61.88	19	34.2	73	53	9.9		108	62	179	114	-	-			
71.00	70.77	17	25.5	47	53	2.68		88	42	150	85	-	-			
80.00	79.49	15	28.6	47	53	2.68		90	44	152	87	-	-			
90.00	91.12	13	32.8	47	53	2.68		93	47	155	90	-	-			
100.00	96.17	12	29.3	40	53	2.79		94	48	156	91	-	-			
112.00	110.25	11	33.6	40	53	2.79	97	51	158	93	-	-				

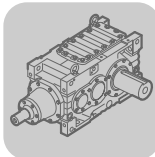
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..



MC.RL..08, n₁ = 1200 1/min							P_{TH}				45.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C		
7.10	6.95	173	27.6	511	25.3	13.6		59	*)	181	61	-	-
8.00	7.82	153	29.1	478	26.9	17.1	MC2RLSF08	68	*)	190	71	-	-
9.00	8.88	135	30.7	444	28.6	18.5	MC2RLHF08	78	*)	200	81	-	-
10.00	9.74	123	28.6	382	33.1	12.7	MC2RLHT08	85	*)	207	88	318	434
11.20	10.96	109	30.3	360	34.4	16.7		94	*)	216	96	-	-
12.50	12.45	96	32.0	335	36.3	18.6		102	*)	225	105	-	-
14.00	14.48	83	28.1	253	45.3	*)		80	*)	168	88	-	-
16.00	16.30	74	31.7	253	45.2	*)		86	29	173	93	-	-
18.00	18.51	65	36.0	253	41.3	*)		91	35	178	99	-	-
20.00	20.25	59	34.0	218	45.6	3.20		95	38	182	102	-	-
22.50	22.80	53	38.2	218	41.7	3.20		100	43	187	107	-	-
25.00	25.89	46	43.4	218	36.5	3.20		105	48	192	112	-	-
28.00	29.06	41	42.4	190	41.7	7.6		109	52	196	116	-	-
31.50	33.00	36	46.9	185	38.9	8.4		113	57	201	121	-	-
35.50	34.90	34	42.1	159	53	5.1	MC3RLSF08	115	59	203	123	-	-
40.00	39.18	31	43.7	147	52	7.5	MC3RLHF08	119	63	206	127	334	437
45.00	44.49	27	47.3	140	52	8.8	MC3RLHT08	123	67	210	131	-	-
50.00	49.82	24	44.3	117	65	13.4		126	70	214	134	-	-
56.00	56.62	21	47.7	111	64	4.64		130	74	218	138	-	-
63.00	63.41	19	44.8	93	67	9.8		133	77	221	141	-	-
71.00	70.39	17	37.0	69	67	7.8		108	51	184	104	-	-
80.00	79.93	15	42.1	69	67	7.8		111	55	187	107	-	-
90.00	89.53	13	45.3	67	67	8.7		114	58	190	110	-	-
100.00	96.71	12	33.8	46	67	2.39		116	59	192	112	-	-
112.00	108.32	11	38.2	46	67	2.20		119	62	194	114	-	-

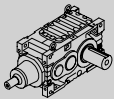


MC.RL..09, n₁ = 1200 1/min							P_{TH}				55.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C		
7.10	6.85	175	37.9	712	32.5	11.5		*)	*)	207	*)	-	-
8.00	7.92	151	40.4	657	35.0	17.5	MC2RLSF09	80	*)	221	83	-	-
9.00	8.89	135	42.4	614	37.0	21.9	MC2RLHF09	90	*)	231	93	-	-
10.00	9.61	125	39.3	532	41.9	10.3	MC2RLHT09	97	*)	238	100	320	434
11.20	11.11	108	42.1	493	44.4	16.1		109	*)	250	112	-	-
12.50	12.47	96	44.4	463	46.3	20.6		118	*)	259	121	-	-
14.00	14.28	84	33.6	306	58	*)		92	*)	193	101	-	-
16.00	16.52	73	38.9	306	59	*)		99	34	200	108	-	-
18.00	18.54	65	43.6	306	59	*)		105	40	206	114	-	-
20.00	19.70	61	42.8	283	60	3.36		108	43	209	117	-	-
22.50	22.78	53	49.5	283	61	3.36		115	50	215	124	-	-
25.00	25.57	47	55.5	283	57	3.36		120	55	221	129	-	-
28.00	28.12	43	54.0	250	62	9.4		124	59	225	133	-	-
31.50	31.56	38	60.6	250	57	9.4		129	64	229	137	-	-
35.50	34.47	35	55.5	212	70	6.1	MC3RLSF09	132	67	233	141	-	-
40.00	37.90	32	55.5	193	72	10.5	MC3RLHF09	136	71	237	145	336	437
45.00	42.54	28	62.3	193	71	10.5	MC3RLHT09	140	75	241	149	-	-
50.00	48.15	25	60.0	164	78	13.0		145	80	245	153	-	-
56.00	54.72	22	59.0	142	80	11.5		149	84	250	158	-	-
63.00	61.94	19	60.2	128	80	12.9		153	88	254	162	-	-
71.00	68.22	18	51.4	99	80	8.0		123	58	211	119	-	-
80.00	76.56	16	57.7	99	80	8.0		127	62	214	122	-	-
90.00	86.65	14	60.5	92	80	9.0		131	65	218	126	-	-
100.00	94.51	13	35.6	50	80	7.3		133	68	220	128	-	-
112.00	106.98	11	40.8	50	80	7.2		136	71	224	132	-	-

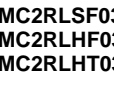


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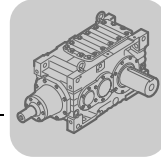
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

11.2.4 MC.RL..., $n_1 = 1000$ 1/min.

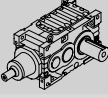


MC.RL..02, $n_1 = 1000$ 1/min							P_{TH}				8.0 kNm				
i_N	i_{ex}	n_2 [1/min]	M_{N2} [kNm]	P_{N1} [kW]	F_{Ra} [kN]	F_{Re} [kN]		$P_{TH[20]}$		$P_{TH[40]}$					
								20 °C	40 °C	20 °C	40 °C			20 °C	40 °C
7.10	6.96	144	6.1	95	5.5	6.5	MC2RLSF02 MC2RLHF02 MC2RLHT02	24	*)	55	18	-	-	306	434
8.00	8.05	124	6.5	87	6.0	8.2		28	*)	59	22	-	-		
9.00	9.03	111	6.8	82	6.5	9.5		31	*)	61	25	-	-		
10.00	9.61	104	5.8	66	10.4	7.8		32	*)	63	26	-	-		
11.20	11.11	90	6.7	65	9.0	7.9		35	7	66	29	-	-		
12.50	12.47	80	7.1	62	9.2	8.9		38	10	68	32	-	-		
14.00	14.61	68	6.3	47	13.1	0.87	MC3RLSF02 MC3RLHF02 MC3RLHT02	29	11	51	27	-	-	322	435
16.00	16.90	59	7.3	47	11.5	0.87		31	13	53	29	-	-		
18.00	18.96	53	7.4	43	13.1	2.05		33	14	55	30	-	-		
20.00	20.31	49	8.6	46	6.9	1.08		34	15	56	31	-	-		
22.50	23.49	43	8.0	37	12.6	3.57		36	17	57	33	-	-		
25.00	26.36	38	7.5	31	17.4	5.3		37	18	59	34	-	-		
28.00	29.43	34	8.1	30	15.8	5.7		38	20	60	36	-	-		
31.50	33.03	30	7.6	25	20.5	6.9		39	21	61	37	-	-		
35.50	37.38	27	7.0	20	22.7	6.9		41	22	63	38	-	-		
40.00	40.30	25	6.7	18.5	22.7	4.79		42	23	63	39	-	-		
45.00	45.22	22	7.7	19	22.7	4.69		43	24	65	40	-	-		
50.00	50.49	20	8.1	17.7	22.7	5.2		44	25	66	41	-	-		
56.00	56.66	18	7.8	15.1	22.7	6.5		45	26	67	42	-	-		
63.00	64.14	16	7.1	12.2	22.7	6.9		46	27	68	43	-	-		
71.00	70.97	14	8.1	12.6	22.7	3.14		37	19	56	32	-	-		
80.00	79.65	13	7.9	10.9	22.7	4.00		38	20	57	33	-	-		
90.00	90.15	11	7.2	8.8	22.7	4.95		39	21	58	34	-	-		
100.00	97.35	10	6.2	7.1	22.7	2.32	40	21	59	34	-	-			
112.00	110.19	9.1	7.0	7.0	22.7	2.34	41	22	60	35	-	-			

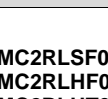


MC.RL..03, $n_1 = 1000$ 1/min							P_{TH}				11.0 kNm				
i_N	i_{ex}	n_2 [1/min]	M_{N2} [kNm]	P_{N1} [kW]	F_{Ra} [kN]	F_{Re} [kN]		$P_{TH[20]}$		$P_{TH[40]}$					
								20 °C	40 °C	20 °C	40 °C			20 °C	40 °C
7.10	7.12	140	7.7	117	19.2	8.5	MC2RLSF03 MC2RLHF03 MC2RLHT03	30	*)	68	23	-	-	308	434
8.00	8.04	124	8.1	109	20.0	10.2		34	*)	71	26	-	-		
9.00	9.07	110	8.6	102	20.8	11.6		37	*)	75	30	-	-		
10.00	10.00	100	6.6	72	23.6	9.8		40	*)	78	33	-	-		
11.20	11.28	89	7.6	73	23.9	9.6		43	9	81	36	-	-		
12.50	12.73	79	8.7	74	24.0	9.3		47	13	84	39	-	-		
14.00	15.07	66	7.8	57	26.3	2.19	MC3RLSF03 MC3RLHF03 MC3RLHT03	36	14	63	33	-	-	324	435
16.00	17.00	59	8.8	57	26.7	2.19		38	16	65	35	-	-		
18.00	19.18	52	10.0	57	26.9	2.19		40	18	67	37	-	-		
20.00	20.57	49	10.7	57	26.3	2.19		41	19	68	38	-	-		
22.50	23.20	43	11.5	54	27.2	2.81		43	20	70	40	-	-		
25.00	26.18	38	10.8	45	29.8	5.0		45	22	72	42	-	-		
28.00	29.60	34	11.5	42	30.4	5.7		47	24	73	43	-	-		
31.50	33.40	30	10.9	36	30.7	7.3		48	25	75	45	-	-		
35.50	35.08	29	10.9	34	30.7	4.81		49	26	75	46	-	-		
40.00	39.67	25	11.4	32	30.7	5.6		50	28	77	47	-	-		
45.00	44.75	22	11.0	27	30.7	7.1		52	29	78	49	-	-		
50.00	50.97	20	10.1	22	30.7	8.7		53	31	80	50	-	-		
56.00	57.30	17	11.1	21	30.7	6.9		55	32	81	51	-	-		
63.00	65.25	15	10.2	17.2	30.7	8.6		56	33	83	53	-	-		
71.00	69.86	14	10.7	16.9	30.7	1.81		45	23	68	39	-	-		
80.00	78.82	13	11.2	15.7	30.7	2.48		46	24	70	40	-	-		
90.00	89.76	11	10.3	12.7	30.7	4.12		48	25	71	41	-	-		
100.00	97.53	10	9.1	10.3	30.7	0.210	48	26	72	42	-	-			
112.00	111.07	9.0	10.5	10.4	30.7	0.127	50	27	73	43	-	-			

Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



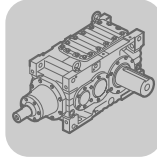
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MC.RL..04, n₁ = 1000 1/min							P_{TH}						15.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	137	10.1	149	22.2	8.5	MC2RLSF04 MC2RLHF04 MC2RLHT04	38	*)	84	29	-	-	310	434
8.00	8.20	122	10.7	140	23.0	10.3		43	*)	88	33	-	-		
9.00	9.17	109	11.2	131	23.9	12.1		47	*)	92	37	-	-		
10.00	10.15	99	10.0	107	25.8	7.7		50	*)	96	41	-	-		
11.20	11.41	88	10.8	103	26.5	8.8		54	12	100	45	-	-		
12.50	12.76	78	11.6	98	27.2	10.1		58	16	103	48	-	-		
14.00	14.76	68	10.1	75	30.1	*)	MC3RLSF04 MC3RLHF04 MC3RLHT04	44	16	77	40	-	-	326	435
16.00	16.60	60	11.4	75	30.4	*)		47	19	80	43	-	-		
18.00	18.56	54	12.7	75	30.7	*)		49	21	82	45	-	-		
20.00	20.60	49	13.0	69	31.2	1.20		51	23	84	47	-	-		
22.50	23.17	43	14.7	69	31.3	1.20		53	25	86	49	-	-		
25.00	25.90	39	14.9	63	33.0	2.74		55	27	88	51	-	-		
28.00	29.65	34	16.1	59	32.2	3.60		57	29	90	53	-	-		
31.50	33.14	30	15.0	49	35.3	6.1		59	31	92	55	-	-		
35.50	34.63	29	13.3	42	35.3	5.6		60	32	93	56	-	-		
40.00	39.63	25	15.5	43	35.3	5.4		62	34	95	58	-	-		
45.00	44.30	23	15.0	37	35.3	7.1		64	36	96	60	-	-		
50.00	49.83	20	14.3	32	35.3	8.8		65	37	98	61	-	-		
56.00	55.99	18	14.2	28	35.3	7.4		67	39	100	63	-	-		
63.00	62.98	16	14.4	25	35.3	8.4		68	40	101	65	-	-		
71.00	68.90	15	13.3	21	35.3	4.47		56	28	84	47	-	-		
80.00	77.02	13	14.3	20	35.3	4.87		57	29	85	49	-	-		
90.00	86.63	12	14.6	19	35.3	5.8		58	30	87	50	-	-		
100.00	93.18	11	9.0	10.6	35.3	1.06		59	31	88	51	-	-		
112.00	104.81	9.5	10.2	10.7	35.3	0.98	60	32	89	52	-	-			

MC.RL..05, n₁ = 1000 1/min							P_{TH}						20.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	141	13.9	210	15.6	7.1	MC2RLSF05 MC2RLHF05 MC2RLHT05	42	*)	94	32	-	-	312	434
8.00	7.99	125	14.7	197	16.4	9.8		47	*)	99	37	-	-		
9.00	8.86	113	15.4	186	17.5	11.0		51	*)	103	41	-	-		
10.00	9.87	101	12.9	142	24.1	11.4		55	*)	107	45	-	-		
11.20	11.11	90	14.7	143	22.4	11.3		60	*)	112	49	-	-		
12.50	12.33	81	15.9	140	22.1	11.6		64	16	115	53	-	-		
14.00	14.68	68	12.1	90	29.7	3.07	MC3RLSF05 MC3RLHF05 MC3RLHT05	50	18	87	45	-	-	328	436
16.00	16.53	61	13.6	90	30.2	3.07		53	21	90	48	-	-		
18.00	18.33	55	15.1	90	30.6	3.07		55	23	92	50	-	-		
20.00	20.22	49	15.3	82	31.3	4.89		57	25	94	53	-	-		
22.50	22.76	44	17.2	82	30.5	4.89		60	28	97	55	-	-		
25.00	25.25	40	19.1	82	29.3	4.89		62	30	99	57	-	-		
28.00	29.13	34	20.5	76	27.5	6.3		64	33	101	60	-	-		
31.50	32.32	31	20.1	68	32.7	8.4		66	35	103	62	-	-		
35.50	33.83	30	18.2	59	36.8	6.2		67	36	104	63	-	-		
40.00	39.03	26	19.5	55	37.8	7.6		70	38	107	65	-	-		
45.00	43.30	23	20.4	52	39.1	8.5		71	40	108	67	-	-		
50.00	48.74	21	18.9	43	41.3	11.4		73	42	110	69	-	-		
56.00	55.44	18	20.0	40	41.3	3.17		75	44	112	71	-	-		
63.00	62.40	16	19.1	34	41.3	5.5		77	46	114	73	-	-		
71.00	69.92	14	15.6	25	41.3	6.7		63	31	95	54	-	-		
80.00	77.56	13	17.4	25	41.3	6.7		64	33	96	55	-	-		
90.00	87.30	11	19.3	24	41.3	6.8		66	34	98	56	-	-		
100.00	93.84	11	13.6	16.0	41.3	4.12		67	35	99	57	-	-		
112.00	105.62	9.5	15.6	16.2	41.3	4.02	68	37	100	59	-	-			

11

11

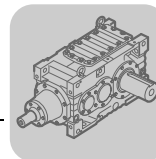


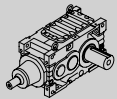






Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..

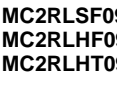






MC.RL..06, n ₁ = 1000 1/min							P _{TH}						25.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.74	148	17.6	280	20.6	4.94	MC2RLSF06 MC2RLHF06 MC2RLHT06	47	*)	109	35	-	-	314	434	
8.00	7.80	128	18.7	258	22.7	9.0		55	*)	117	43	-	-			
9.00	8.75	114	19.7	241	24.1	11.8		61	*)	123	48	-	-			
10.00	9.64	104	17.6	198	30.5	7.6		65	*)	127	53	-	-			
11.20	11.15	90	19.3	187	31.2	10.4		72	*)	134	59	-	-			
12.50	12.52	80	20.5	177	32.1	12.5		77	20	139	64	-	-			
14.00	14.09	71	14.3	111	40.2	5.9	MC3RLSF06 MC3RLHF06 MC3RLHT06	58	21	103	53	-	-	330	436	
16.00	16.30	61	16.6	111	41.0	5.9		63	25	107	57	-	-			
18.00	18.30	55	18.6	111	41.4	5.9		66	28	110	60	-	-			
20.00	20.30	49	18.8	101	42.2	8.0		68	31	113	63	-	-			
22.50	23.49	43	21.8	101	42.8	8.0		72	34	116	67	-	-			
25.00	26.36	38	24.5	101	43.0	8.0		75	37	119	70	-	-			
28.00	28.78	35	25.1	95	43.4	9.2		77	39	121	72	-	-			
31.50	32.30	31	26.4	89	45.3	10.4		79	42	124	74	-	-			
35.50	35.53	28	23.7	73	45.3	9.9		81	44	126	76	-	-			
40.00	38.80	26	24.2	68	45.3	11.1		83	46	128	78	-	-			
45.00	43.54	23	26.7	67	45.3	11.4		86	48	130	80	-	-			
50.00	49.28	20	24.9	55	45.3	14.4		88	50	132	83	-	-			
56.00	55.31	18	24.5	49	45.3	12.0		90	52	134	85	-	-			
63.00	62.60	16	25.1	44	45.3	13.4		92	55	137	87	-	-			
71.00	68.96	15	22.0	35	45.3	7.8		75	37	113	64	-	-			
80.00	77.39	13	24.7	35	45.3	7.8		77	39	115	66	-	-			
90.00	87.60	11	25.4	32	45.3	9.1	79	41	117	68	-	-				
100.00	95.76	10	23.0	26	45.3	3.52	80	42	119	69	-	-				
112.00	108.39	9.2	25.7	26	45.3	3.74	82	44	120	71	-	-				

MC.RL..07, n ₁ = 1000 1/min							P _{TH}						33.0 kNm			
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	
7.10	6.84	146	21.6	339	26.1	9.7	MC2RLSF07 MC2RLHF07 MC2RLHT07	59	*)	134	43	-	-	316	434	
8.00	7.70	130	22.8	317	27.7	13.0		66	*)	141	51	-	-			
9.00	8.65	116	23.9	297	29.2	14.8		73	*)	148	58	-	-			
10.00	9.74	103	21.8	242	36.0	12.2		80	*)	155	65	-	-			
11.20	10.96	91	23.4	231	37.1	14.5		86	*)	162	71	-	-			
12.50	12.32	81	25.0	220	37.5	15.9		93	24	168	77	-	-			
14.00	14.18	71	19.2	147	44.7	3.55	MC3RLSF07 MC3RLHF07 MC3RLHT07	71	25	125	65	-	-	332	437	
16.00	15.97	63	21.6	147	45.2	3.55		75	29	129	69	-	-			
18.00	17.93	56	24.3	147	45.6	3.55		79	33	133	73	-	-			
20.00	19.94	50	24.9	135	46.5	6.1		83	37	136	76	-	-			
22.50	22.45	45	28.0	135	46.8	6.1		86	40	140	80	-	-			
25.00	25.22	40	31.5	135	45.3	6.1		90	44	144	83	-	-			
28.00	28.38	35	33.1	127	43.1	8.0		93	47	147	87	-	-			
31.50	31.88	31	36.6	125	39.1	8.4		96	50	150	90	-	-			
35.50	33.79	30	29.4	95	53	7.1		98	52	152	91	-	-			
40.00	38.02	26	30.7	89	53	9.0		101	55	155	94	-	-			
45.00	42.71	23	34.5	89	53	9.0		104	58	157	97	-	-			
50.00	48.96	20	34.1	76	53	12.6		107	61	161	100	-	-			
56.00	53.98	19	31.4	64	53	10.5		109	63	163	103	-	-			
63.00	61.88	16	34.4	61	53	11.5		112	66	166	105	-	-			
71.00	70.77	14	25.5	40	53	3.99		92	46	138	78	-	-			
80.00	79.49	13	28.7	40	53	3.99		94	48	141	80	-	-			
90.00	91.12	11	32.9	40	53	3.99	97	51	143	83	-	-				
100.00	96.17	10	29.3	33	53	3.94	98	52	144	84	-	-				
112.00	110.25	9.1	33.6	33	53	3.94	100	54	147	86	-	-				

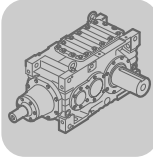
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RL..



MC.RL..08, n ₁ = 1000 1/min							P _{TH}						45.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	6.95	144	29.1	449	26.8	14.4	MC2RLSF08 MC2RLHF08 MC2RLHT08	73	*)	166	55	-	-	318	434
8.00	7.82	128	30.7	420	28.4	18.1		82	*)	175	64	-	-		
9.00	8.88	113	32.4	391	30.2	19.6		92	*)	184	73	-	-		
10.00	9.74	103	29.7	331	36.2	14.6		98	*)	191	80	-	-		
11.20	10.96	91	31.8	315	36.8	18.0		106	*)	199	88	-	-		
12.50	12.45	80	33.9	295	38.4	19.6		114	30	207	96	-	-		
14.00	14.48	69	29.4	220	48.1	*)	MC3RLSF08 MC3RLHF08 MC3RLHT08	88	32	155	80	-	-	334	437
16.00	16.30	61	33.1	220	48.5	*)		93	37	160	85	-	-		
18.00	18.51	54	37.6	220	44.6	*)		99	42	165	91	-	-		
20.00	20.25	49	36.0	193	47.9	3.29		102	46	168	94	-	-		
22.50	22.80	44	40.5	193	43.8	3.29		107	50	173	99	-	-		
25.00	25.89	39	46.0	193	38.3	3.29		111	55	177	103	-	-		
28.00	29.06	34	44.7	167	44.0	8.1		115	59	181	107	-	-		
31.50	33.00	30	47.2	155	46.8	10.3		119	63	186	111	-	-		
35.50	34.90	29	42.3	133	61	7.0		121	65	187	113	-	-		
40.00	39.18	26	46.0	129	56	8.0		125	68	191	117	-	-		
45.00	44.49	22	47.8	118	61	10.6		129	72	195	121	-	-		
50.00	49.82	20	44.7	98	67	15.2		132	75	198	124	-	-		
56.00	56.62	18	48.1	93	67	6.5		135	79	201	127	-	-		
63.00	63.41	16	45.0	78	67	11.6		138	82	204	130	-	-		
71.00	70.39	14	37.1	58	67	9.5		113	56	170	96	-	-		
80.00	79.93	13	42.1	58	67	9.5		116	59	173	99	-	-		
90.00	89.53	11	45.6	56	67	10.3		118	62	176	102	-	-		
100.00	96.71	10	34.0	39	67	3.36		120	64	177	103	-	-		
112.00	108.32	9.2	38.6	39	67	3.14	123	66	180	106	-	-			

MC.RL..09, n ₁ = 1000 1/min							P _{TH}						55.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	6.85	146	40.1	627	34.3	12.1	MC2RLSF09 MC2RLHF09 MC2RLHT09	83	*)	190	*)	-	-	320	434
8.00	7.92	126	42.7	578	36.9	18.5		96	*)	203	75	-	-		
9.00	8.89	112	44.8	540	39.2	23.1		106	*)	212	84	-	-		
10.00	9.61	104	41.1	464	45.1	11.6		112	*)	219	91	-	-		
11.20	11.11	90	44.5	434	46.9	17.0		123	*)	230	102	-	-		
12.50	12.47	80	46.9	408	48.8	21.7		132	*)	239	111	-	-		
14.00	14.28	70	35.5	270	61	*)	MC3RLSF09 MC3RLHF09 MC3RLHT09	101	36	178	92	-	-	336	437
16.00	16.52	61	41.1	270	62	*)		108	43	185	99	-	-		
18.00	18.54	54	46.1	270	62	*)		114	49	190	105	-	-		
20.00	19.70	51	45.1	248	63	3.71		116	51	193	107	-	-		
22.50	22.78	44	52.1	248	64	3.71		123	58	199	114	-	-		
25.00	25.57	39	58.5	248	60	3.71		128	63	204	118	-	-		
28.00	28.12	36	57.1	220	66	9.8		131	66	208	122	-	-		
31.50	31.56	32	64.1	220	60	9.8		136	71	212	127	-	-		
35.50	34.47	29	55.6	177	75	9.1		139	74	215	130	-	-		
40.00	37.90	26	58.7	170	76	11.1		143	78	219	133	-	-		
45.00	42.54	24	64.7	167	77	11.7		147	82	223	137	-	-		
50.00	48.15	21	60.1	137	80	14.4		151	86	227	142	-	-		
56.00	54.72	18	59.3	119	80	12.9		155	90	231	146	-	-		
63.00	61.94	16	60.4	107	80	14.3		159	94	235	149	-	-		
71.00	68.22	15	51.5	83	80	9.2		129	64	195	110	-	-		
80.00	76.56	13	57.8	83	80	9.2		132	67	198	113	-	-		
90.00	86.65	12	60.5	76	80	10.2		136	70	202	116	-	-		
100.00	94.51	11	35.9	42	80	8.0		138	73	204	118	-	-		
112.00	106.98	9.3	41.1	42	80	7.9	141	76	207	122	-	-			

11



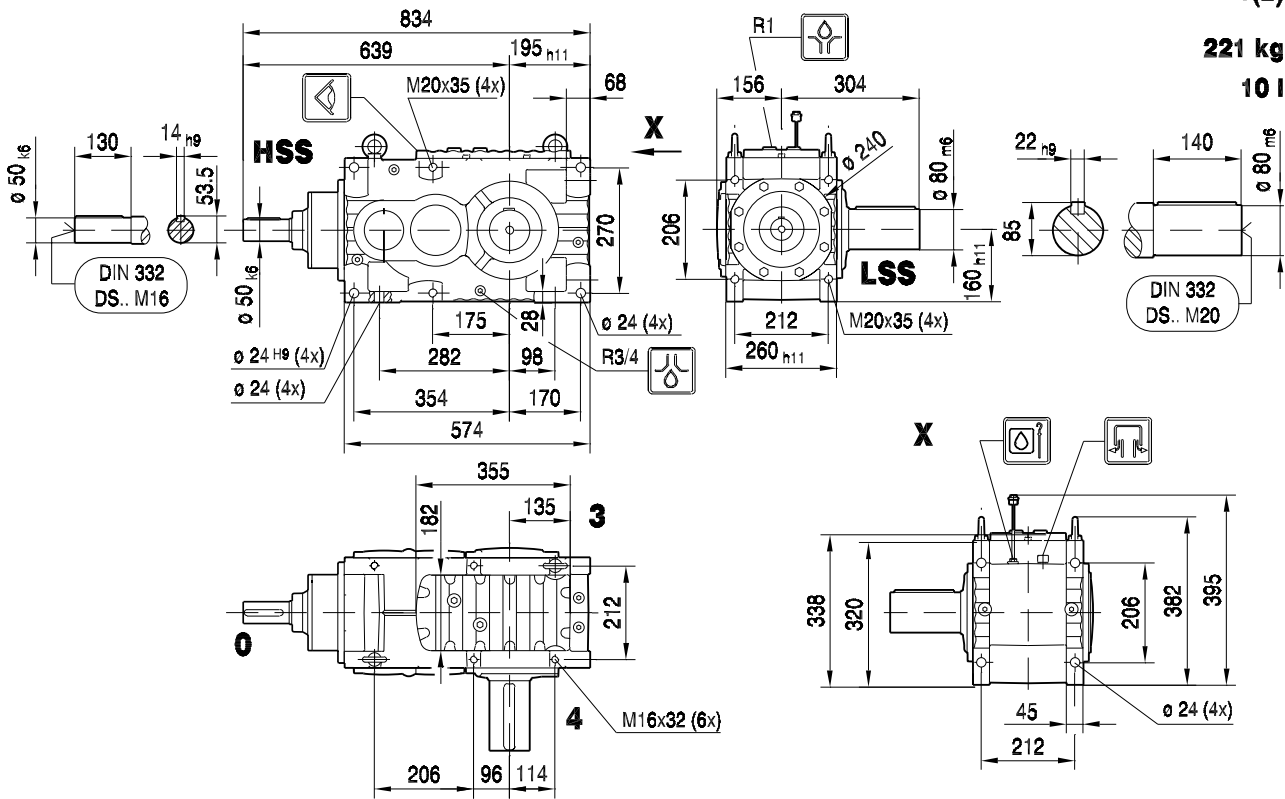
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

11.2.5 MC.RL.. [mm]

MC2RLSF02

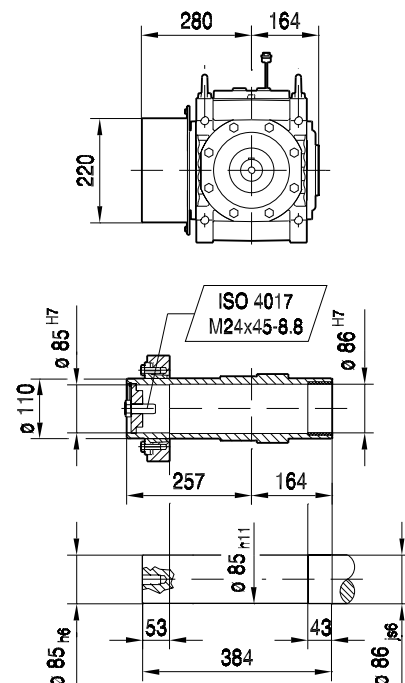
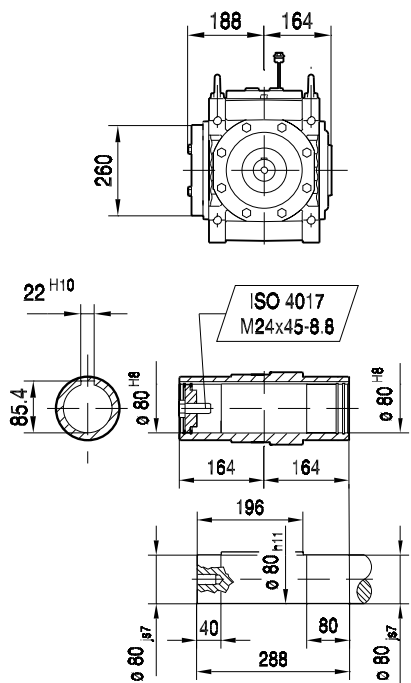
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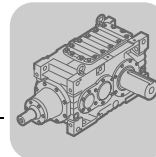


MC2RLHF02

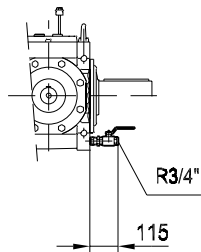
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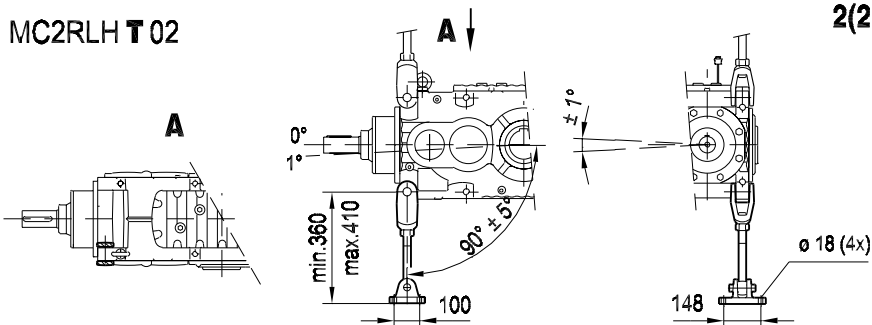
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC2RL..02
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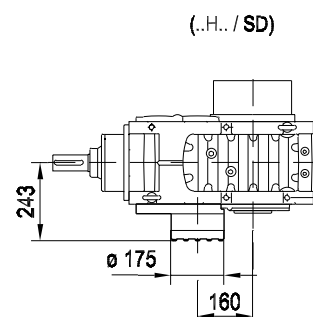
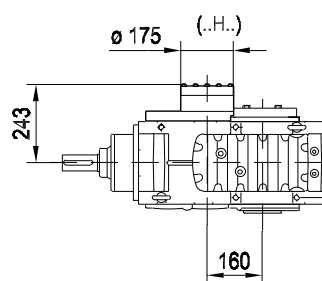
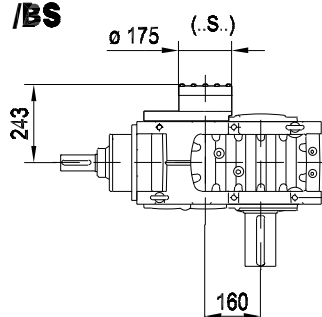


MC2RLH T 02

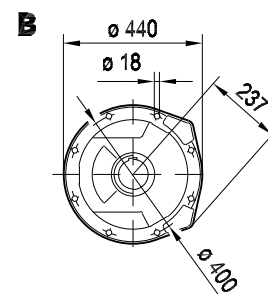
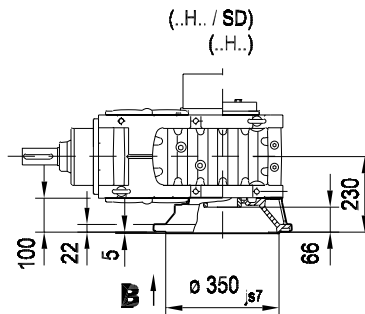
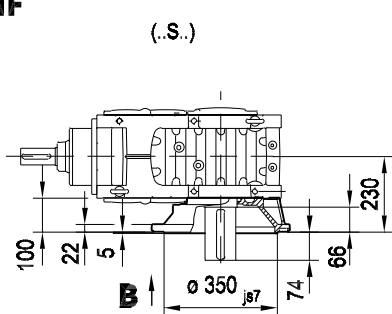


47 049 00 03
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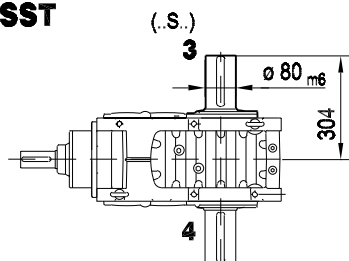
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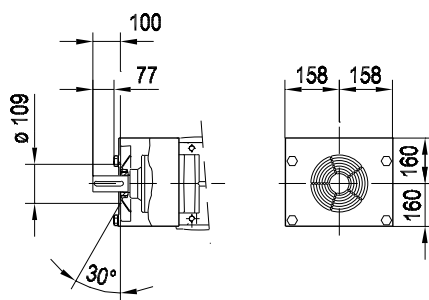
/MF

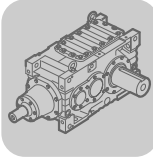


/LSST



/FAN



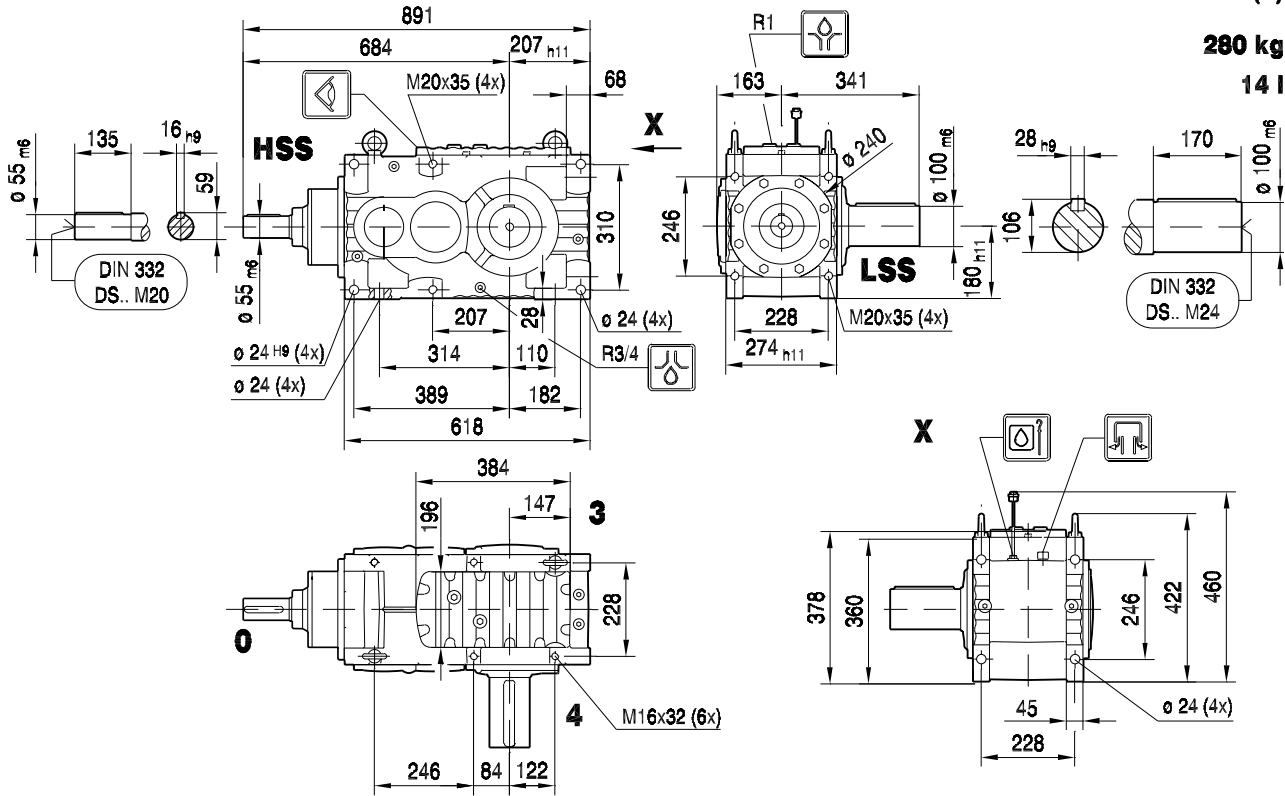


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC2RLSF03

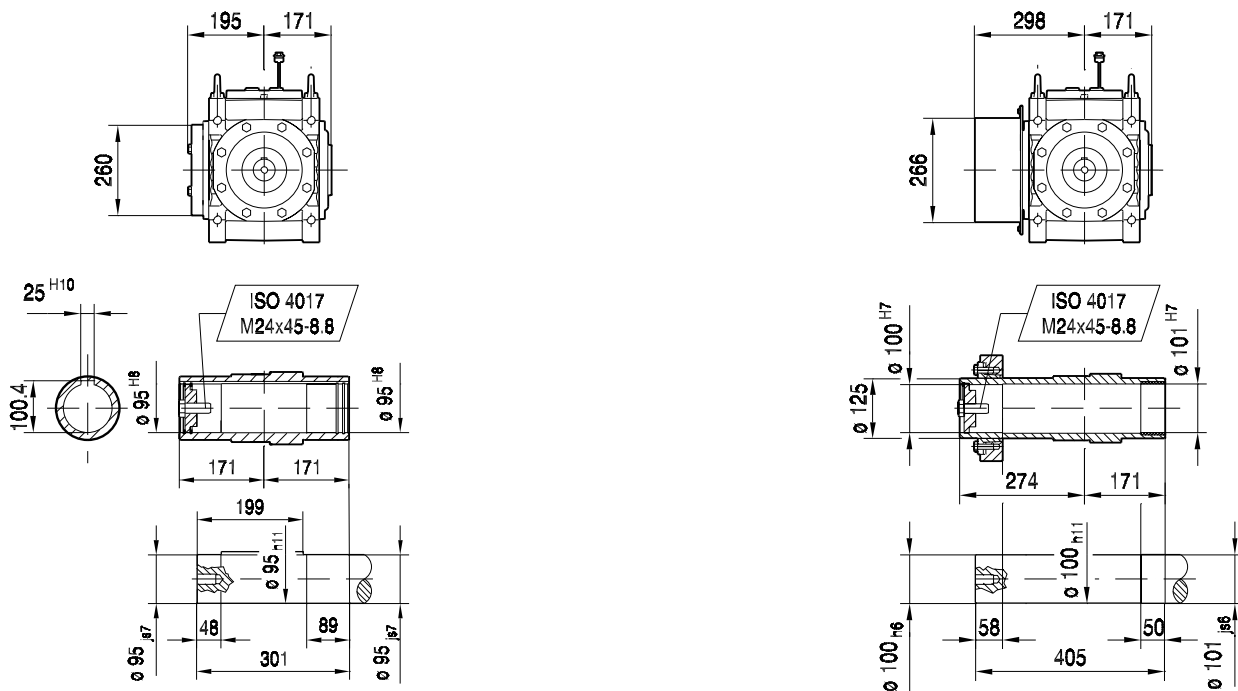
47 050 00 03
1(2)

280 kg
14 l

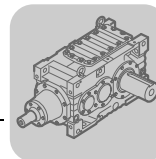


MC2RLHF03

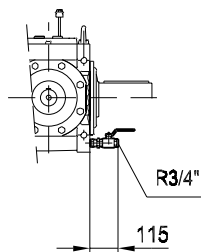
MC2RLHF03 /SD



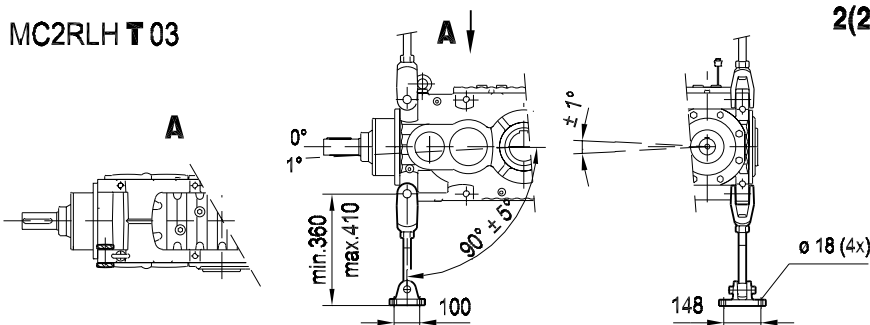
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC2RL..03
/ODV

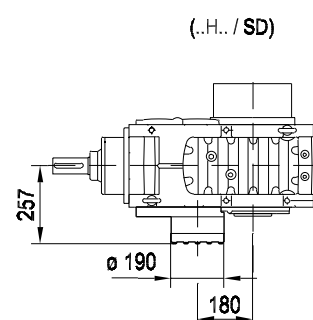
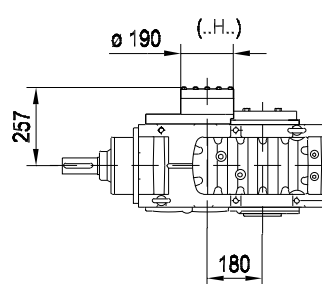
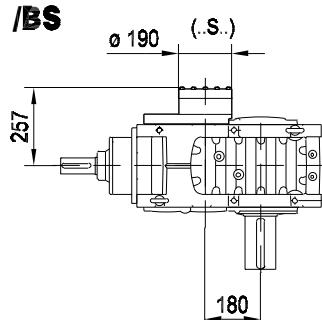


MC2RLH T 03

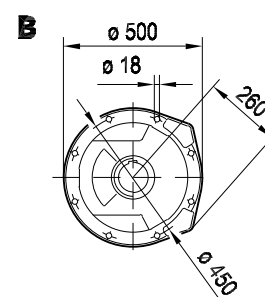
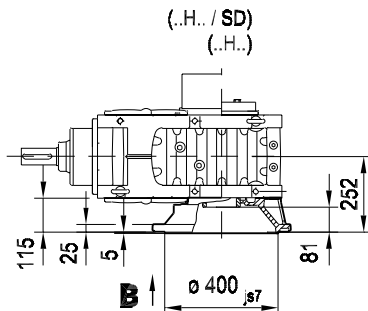
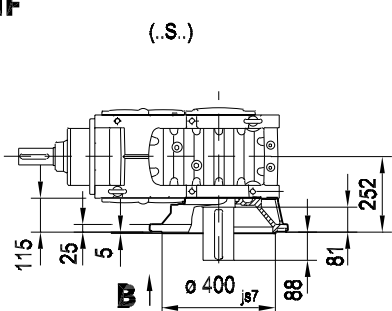


47 050 00 03
2(2)

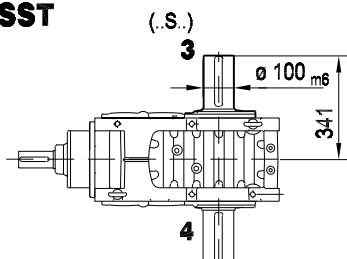
/BS



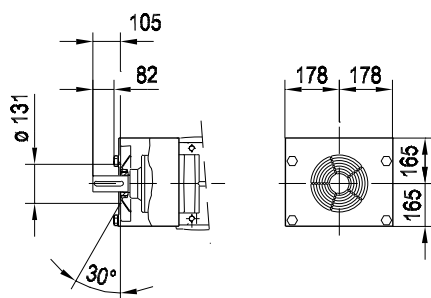
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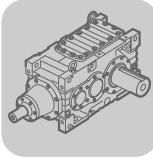


/LSST



/FAN



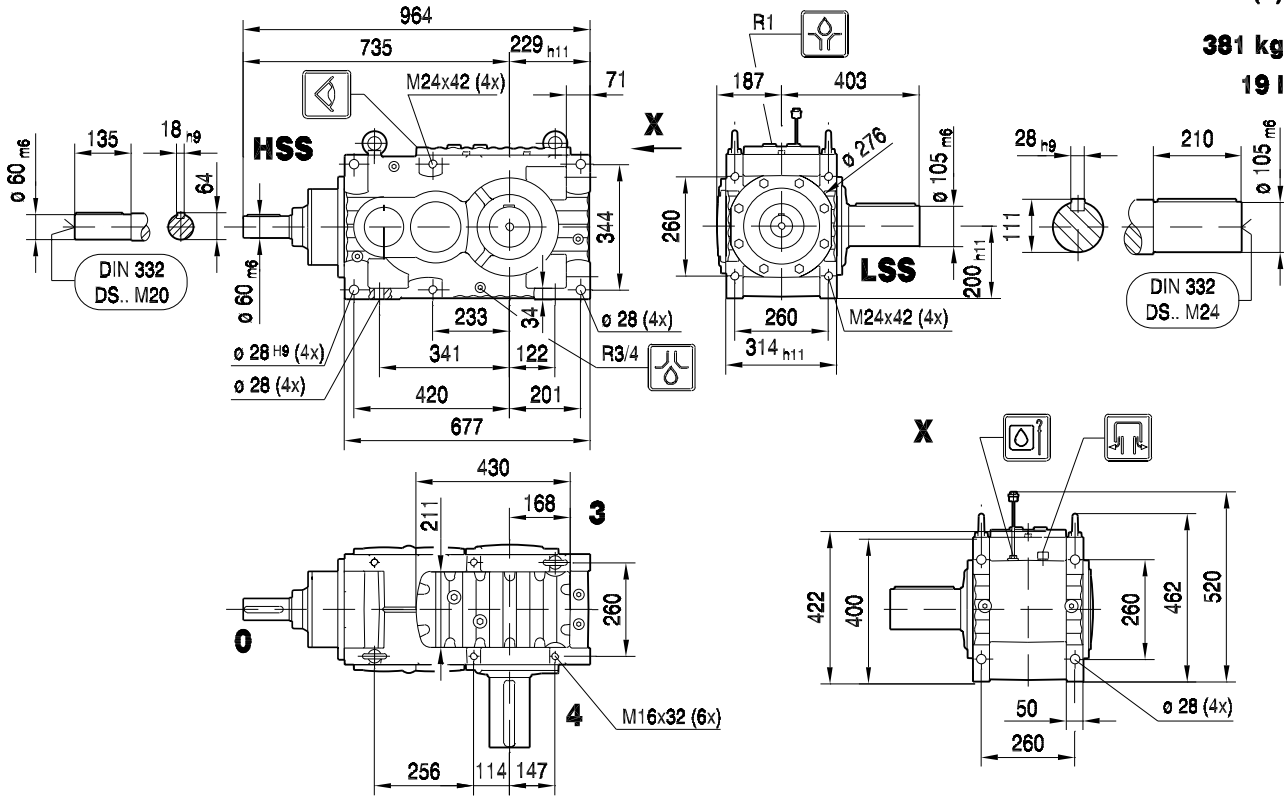


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC2RLSF04

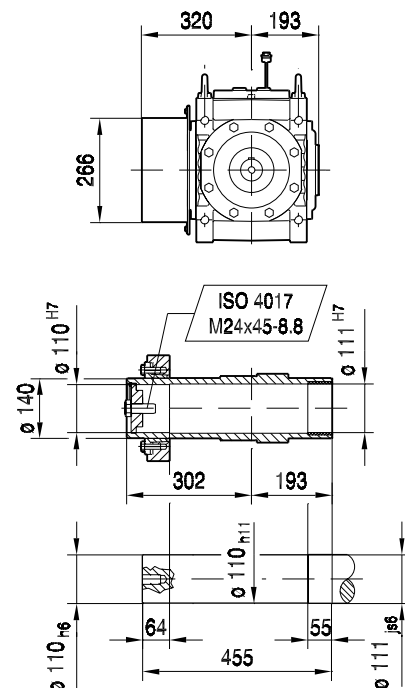
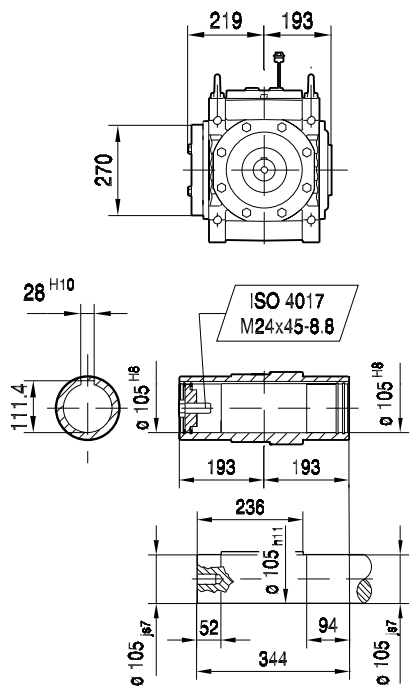
47 051 00 03
1(2)

381 kg
19 l



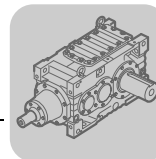
MC2RLHF04

MC2RLHF04 /SD



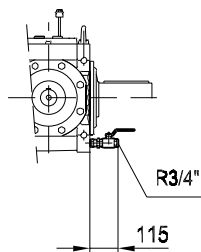
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RL..

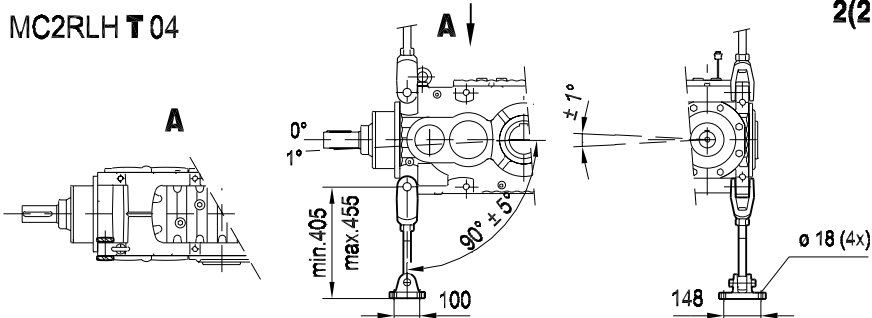


MC2RL..04

/ODV

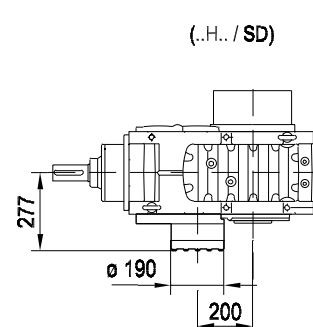
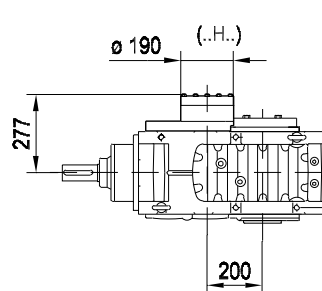
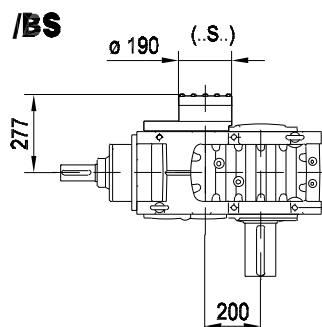


MC2RLH T 04

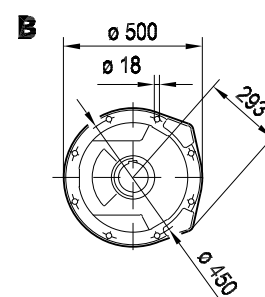
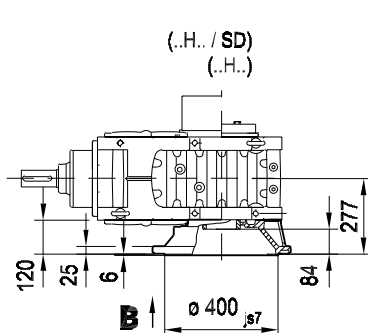
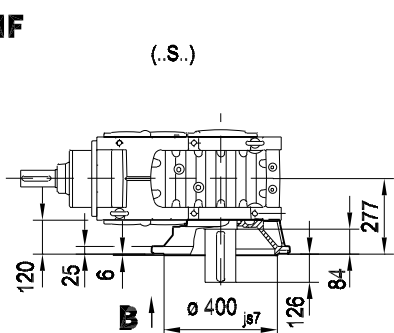


47 051 00 03
2(2)

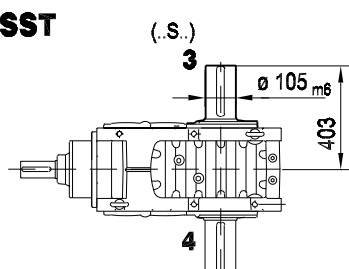
/BS



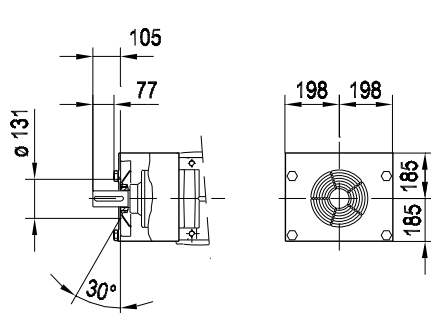
/MF

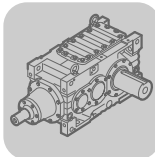


/LSST



/FAN



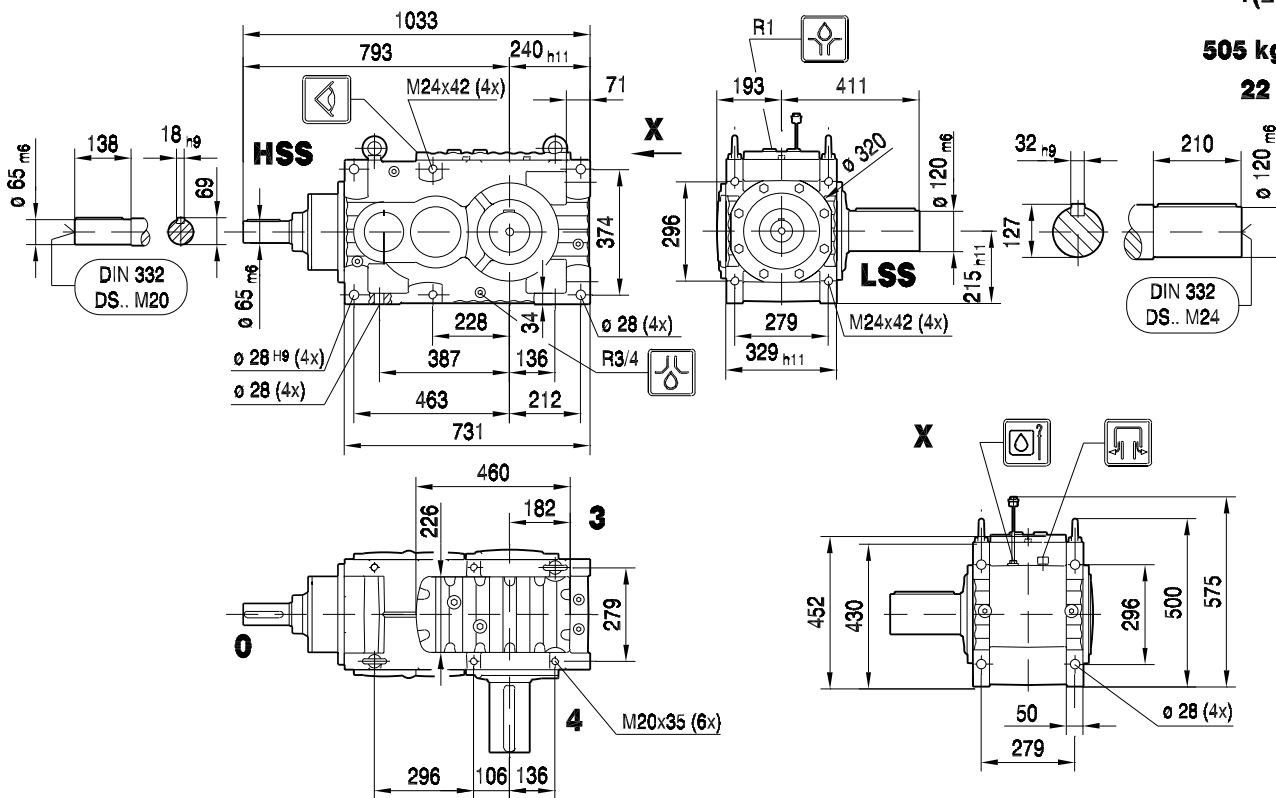


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC2RLSF05

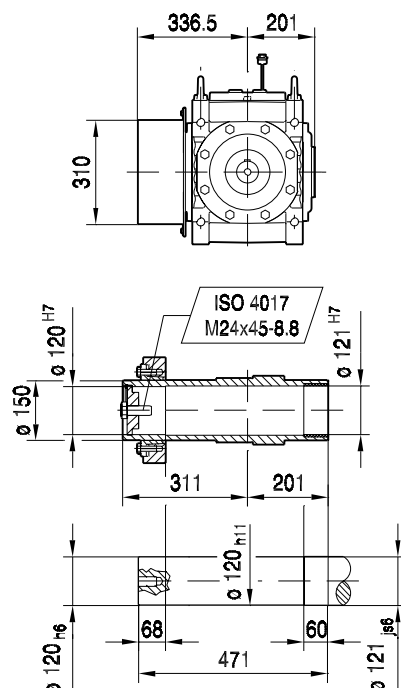
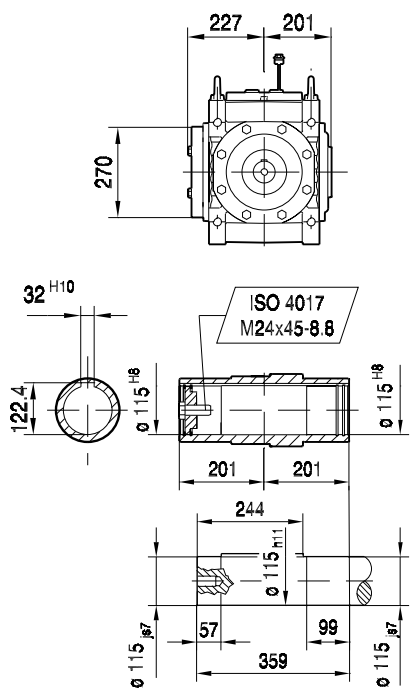
47 052 00 03
1(2)

505 kg
22 l

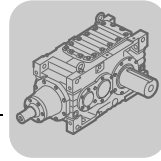


MC2RLHF05

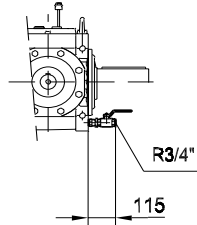
MC2RLHF05 /SD



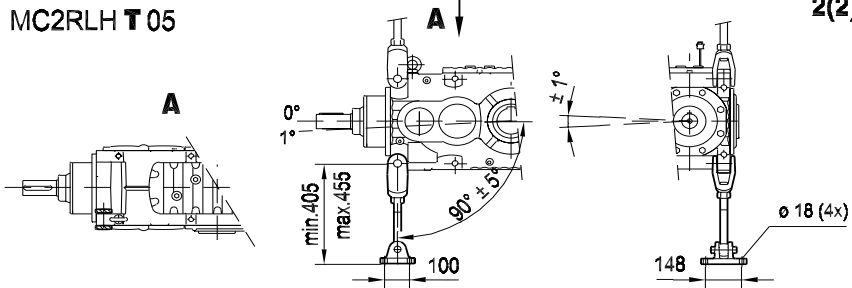
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



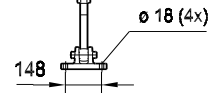
MC2RL..05
/ODV



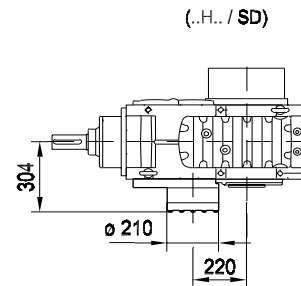
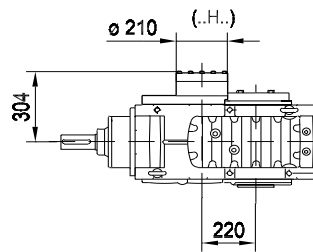
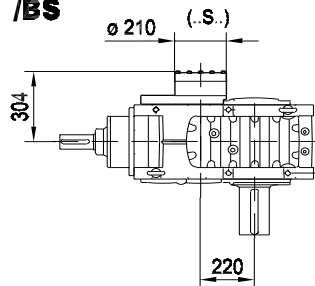
MC2RLH T 05



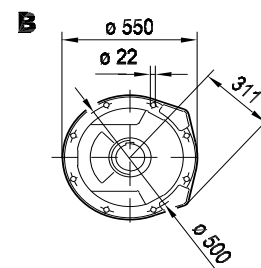
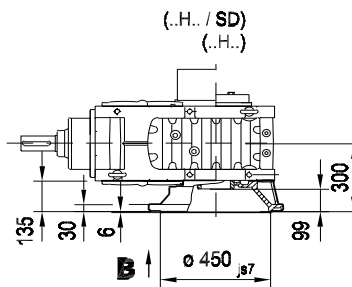
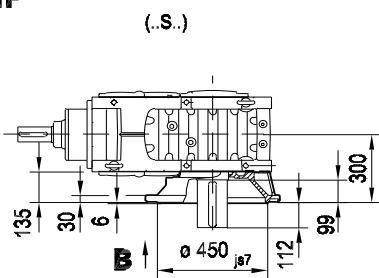
47 052 00 03
2(2)



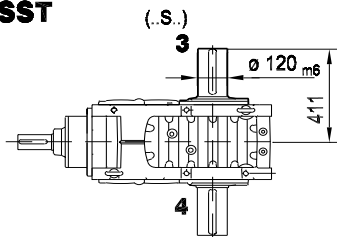
/BS



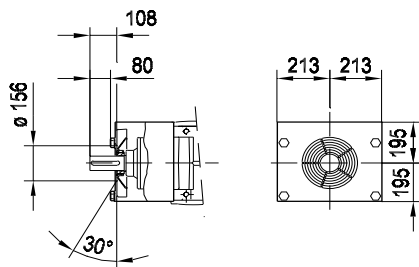
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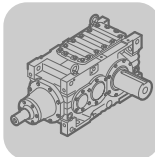


/LSST



/FAN



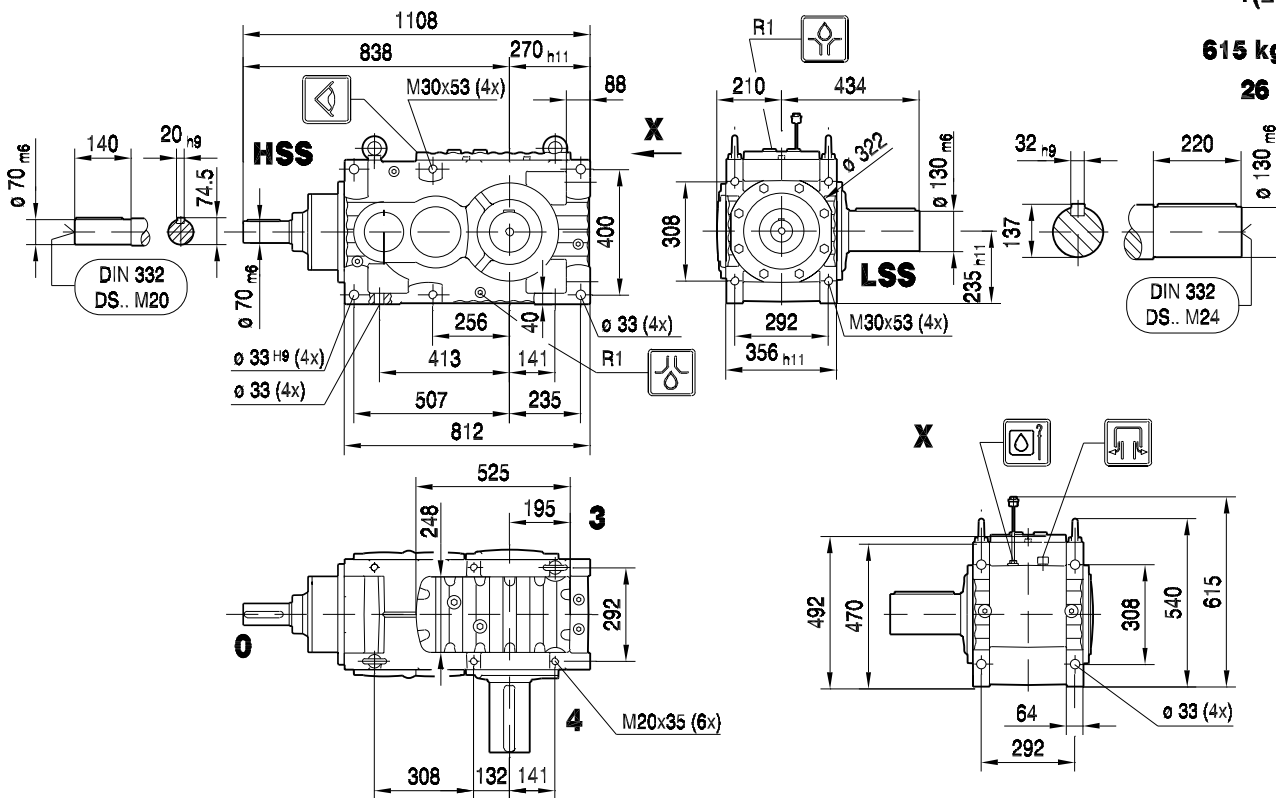


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC2RLSF06

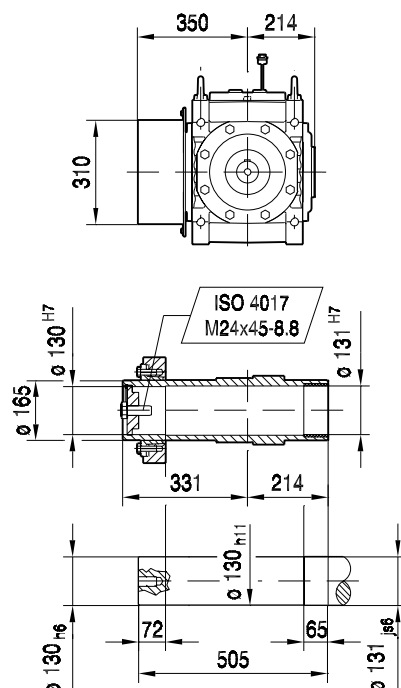
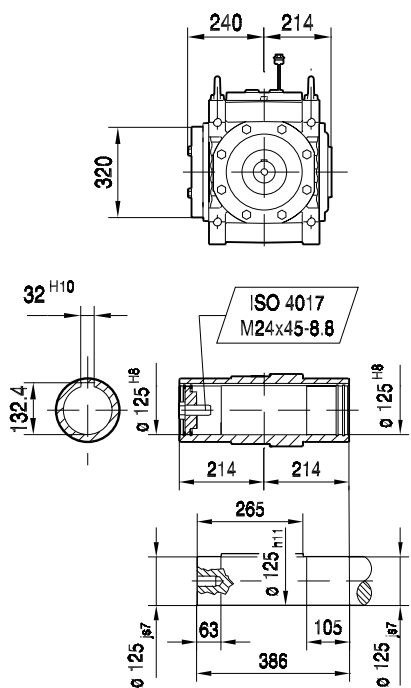
47 053 00 03
 1(2)

615 kg
26 l



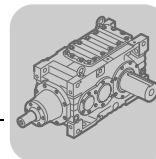
MC2RLHF06

MC2RLHF06 /SD



Bevel-Helical Gear Units MC...R

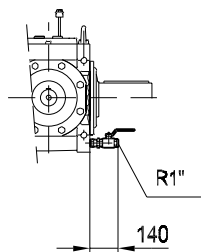
Selection tables (detailed) MC.RL..



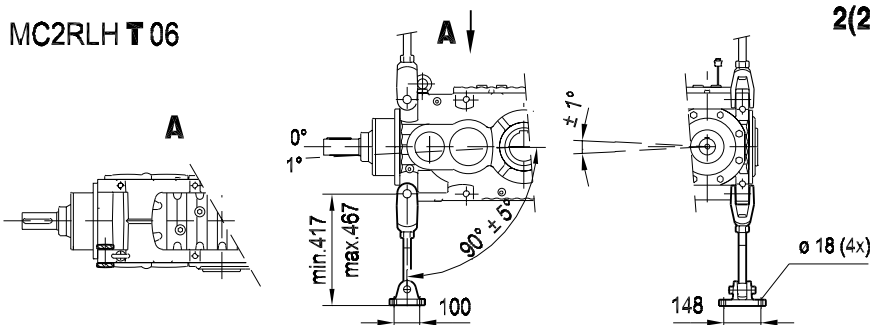
11

MC2RL..06

/ODV

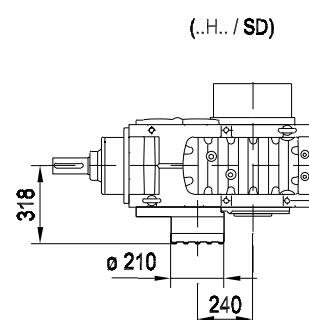
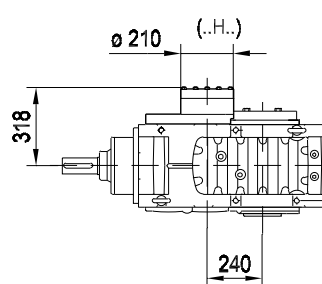
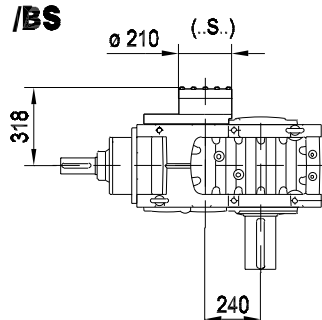


MC2RLH T 06

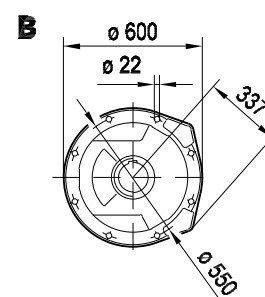
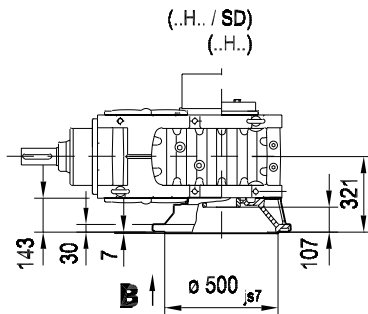
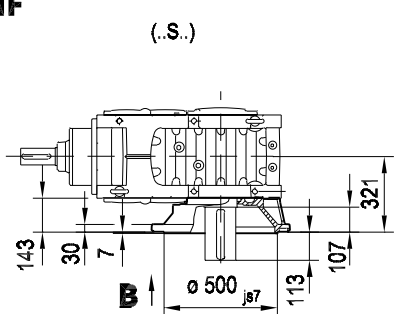


47 053 00 03
2(2)

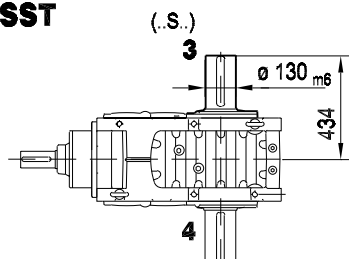
/BS



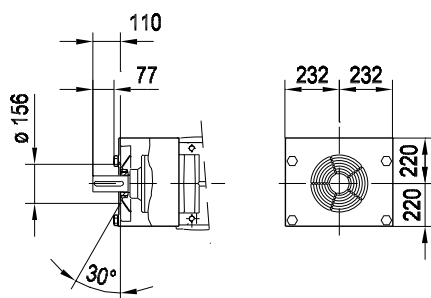
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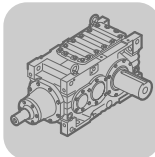
/LSST



/FAN



11

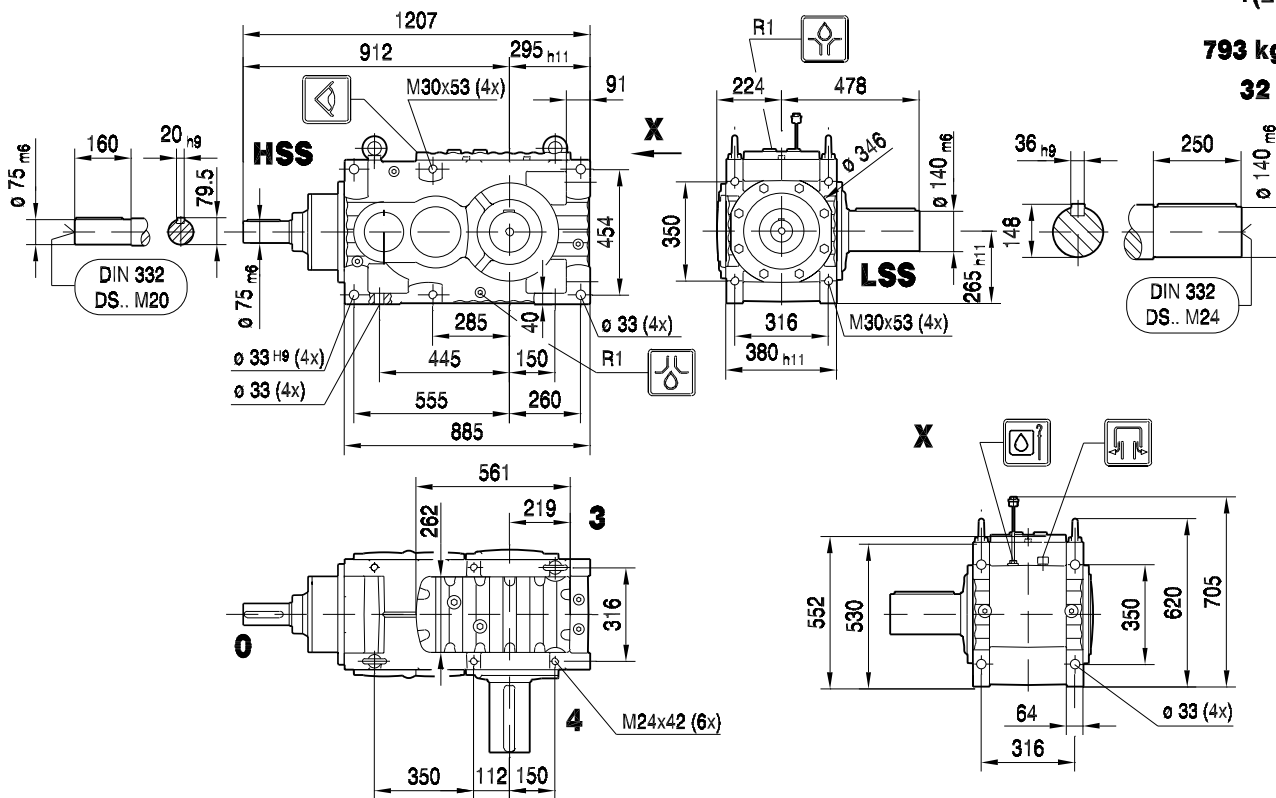


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC2RLSF07

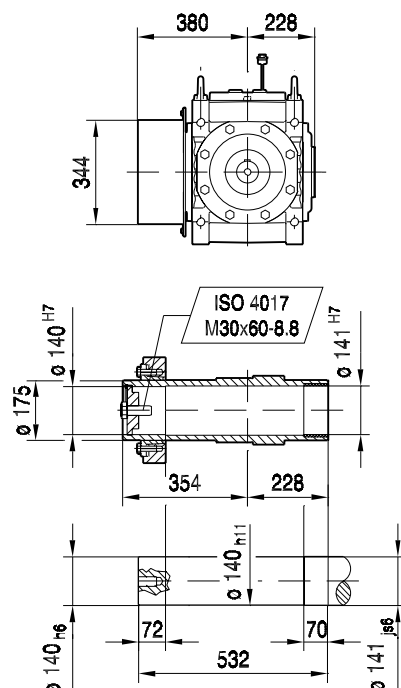
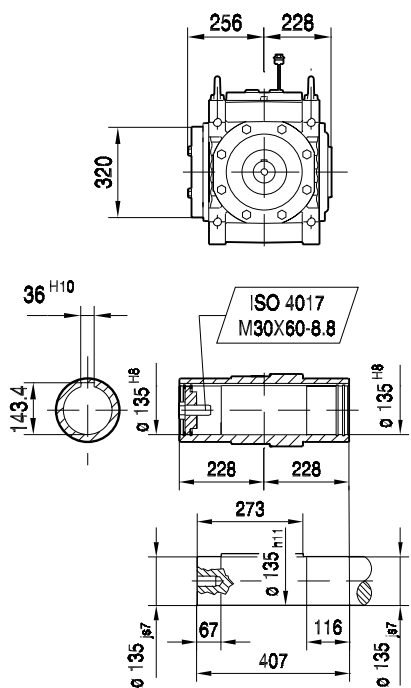
47 054 00 03
 1(2)

793 kg
32 l

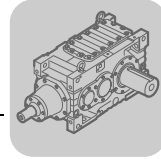


MC2RLHF07

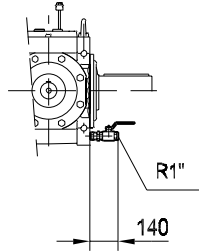
MC2RLHF07 /SD



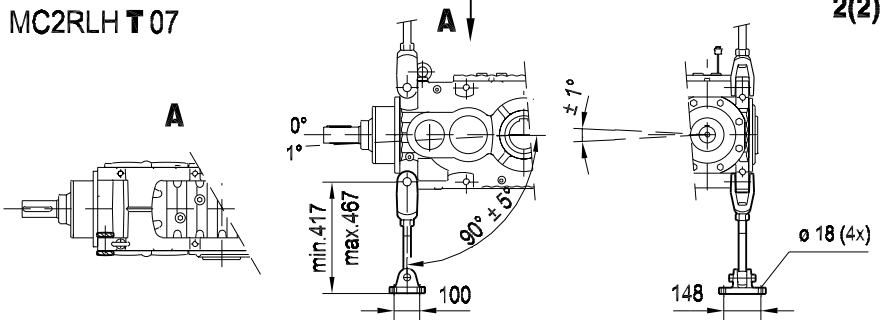
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC2RL..07
/ODV

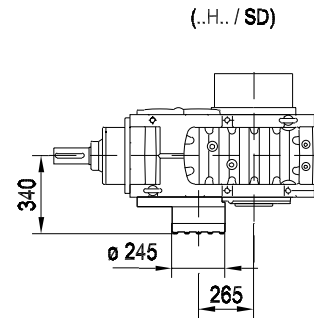
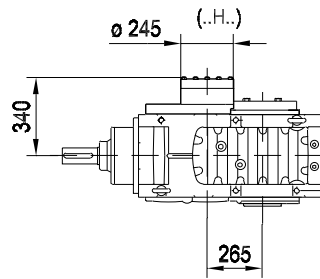
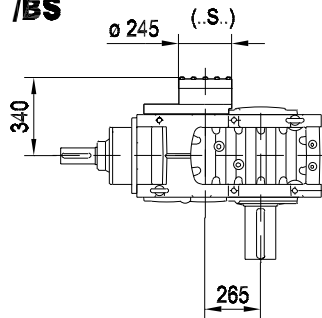


MC2RLH T 07

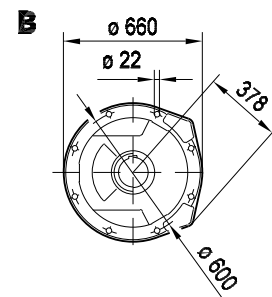
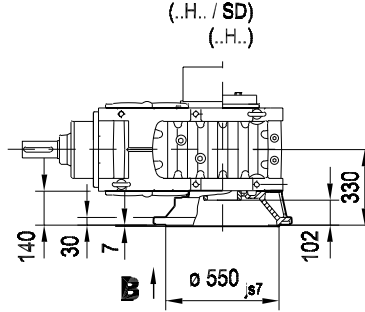
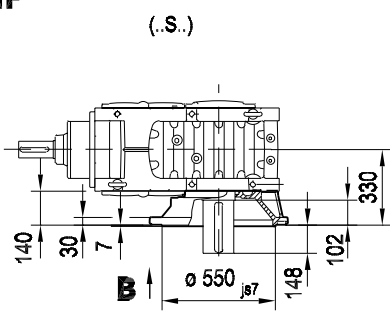


47 054 00 03
2(2)

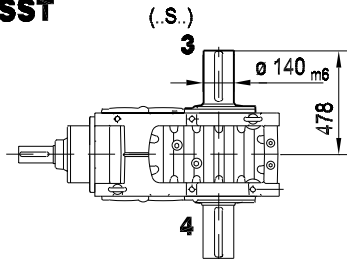
/BS



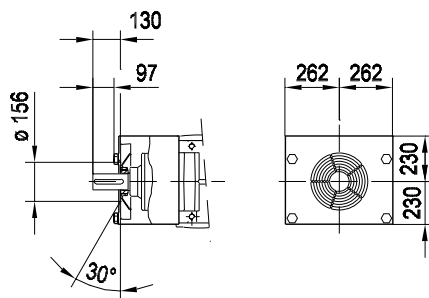
/MF

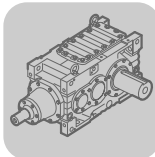


/LSST



/FAN



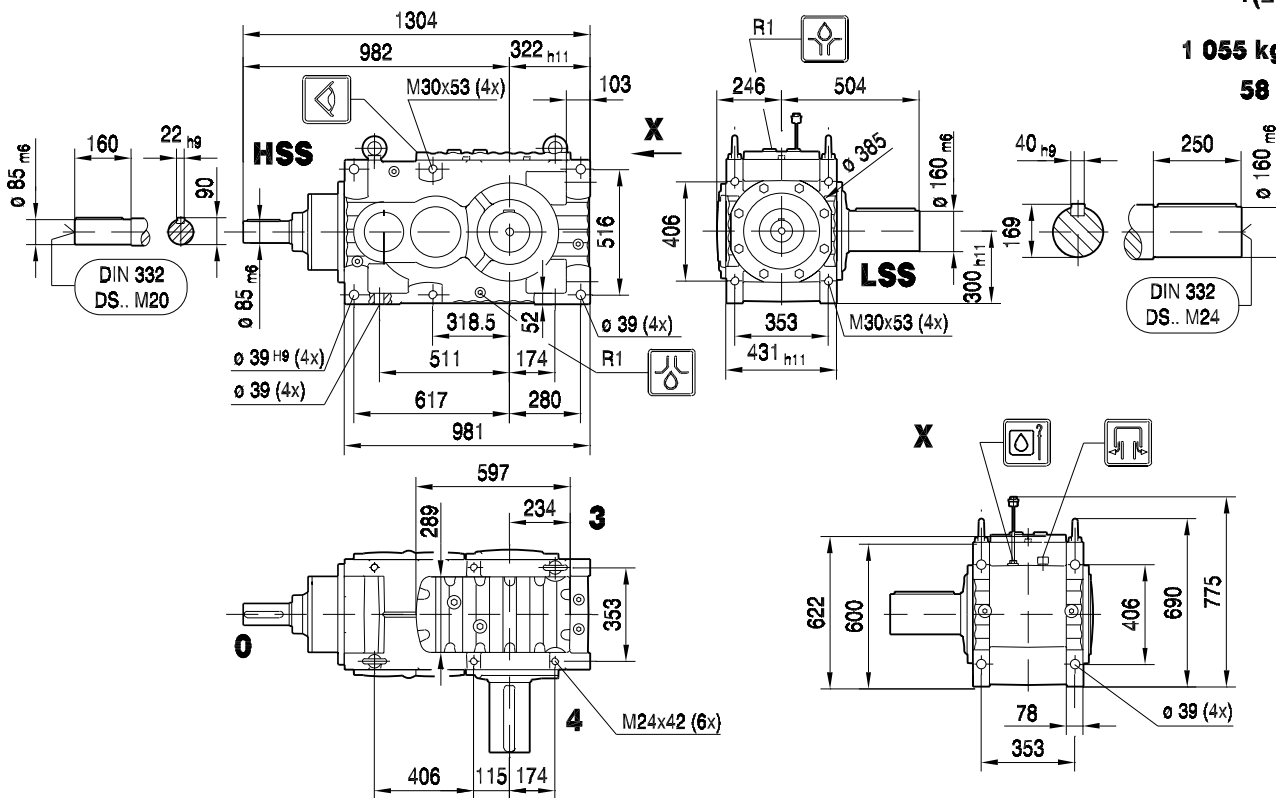


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC2RLSF08

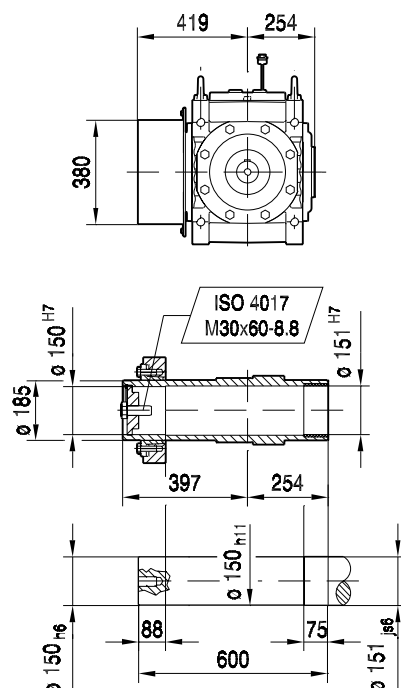
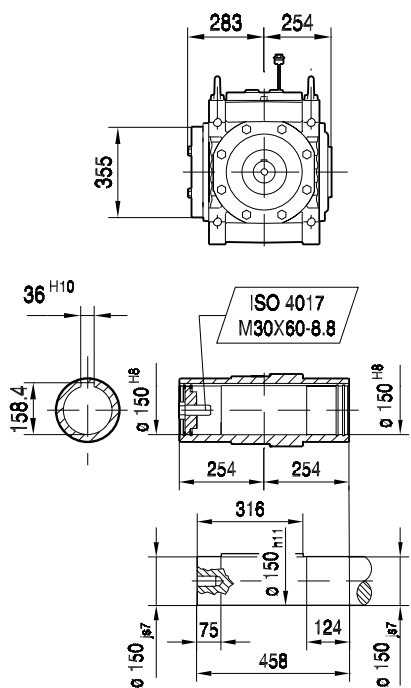
47 055 00 03
 1(2)

1 055 kg
58 l



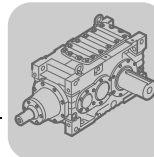
MC2RLHF08

MC2RLHF08 /SD

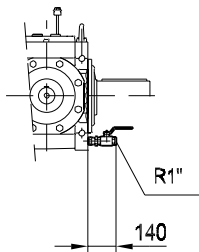


Bevel-Helical Gear Units MC...R

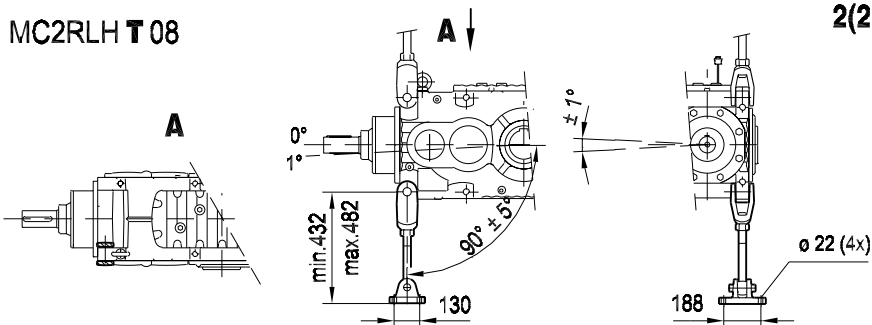
Selection tables (detailed) MC.RL..



MC2RL..08 /ODV

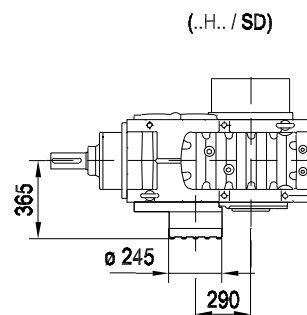
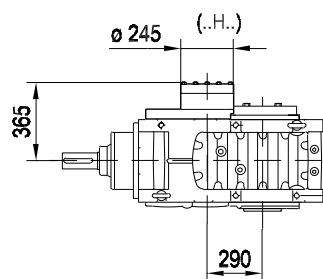
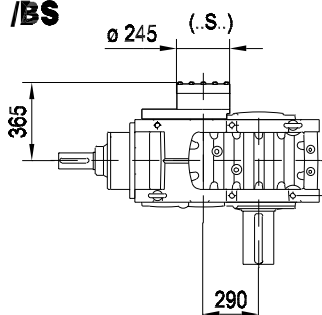


MC2RLH T 08

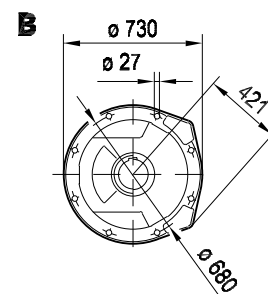
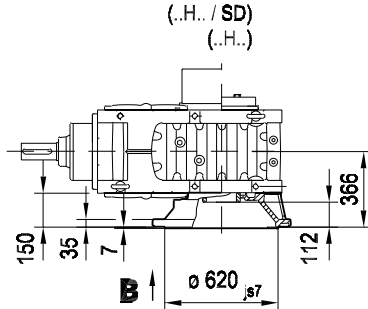
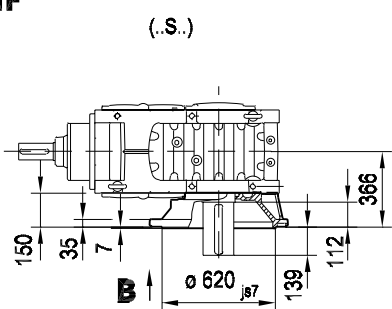


47 055 00 03
2(2)

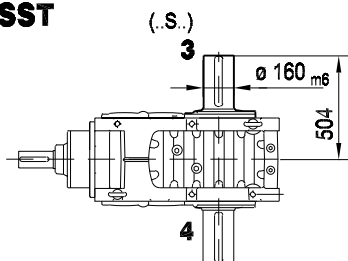
/BS



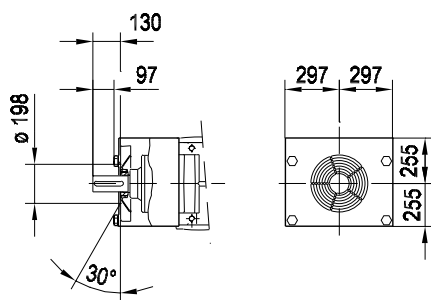
/MF

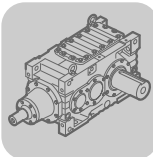


/LSST



/FAN

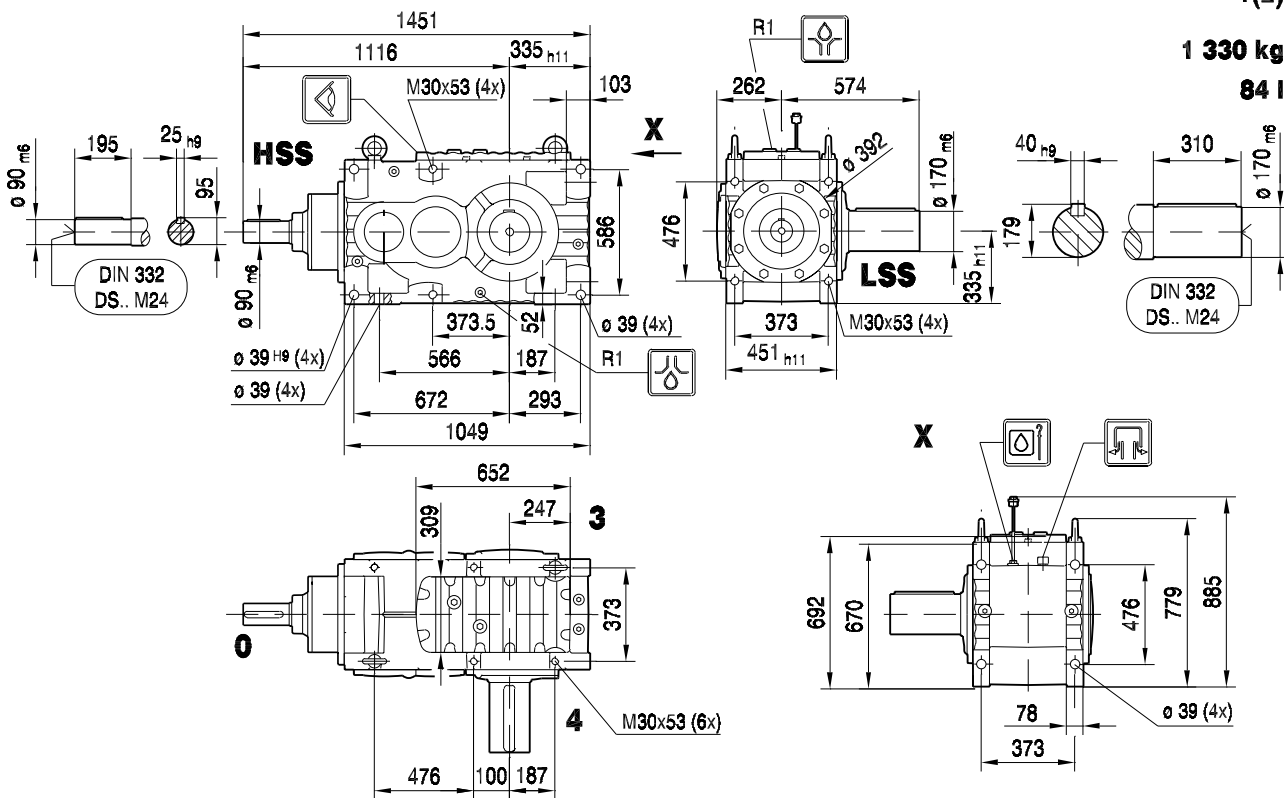




Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

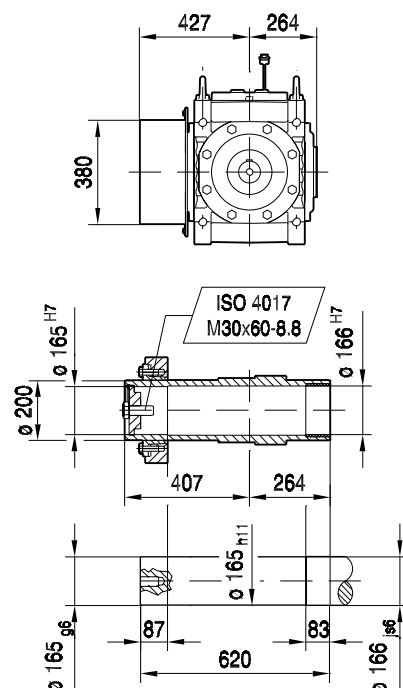
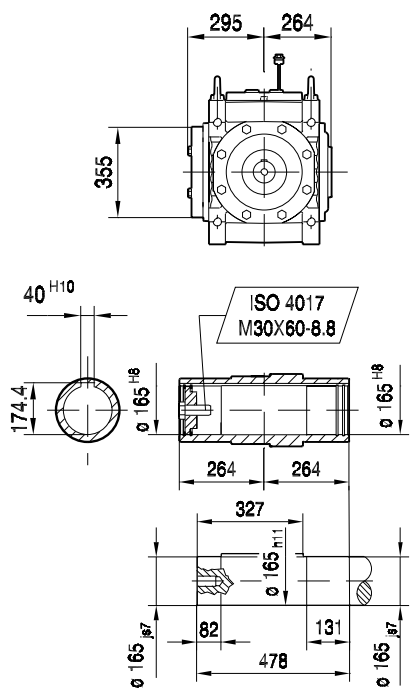
MC2RLSF09

47 056 00 03
 1(2)



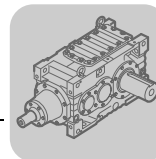
MC2RLHF09

MC2RLHF09 /SD



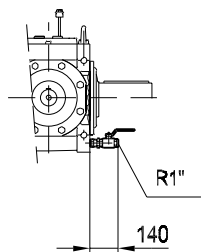
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RL..

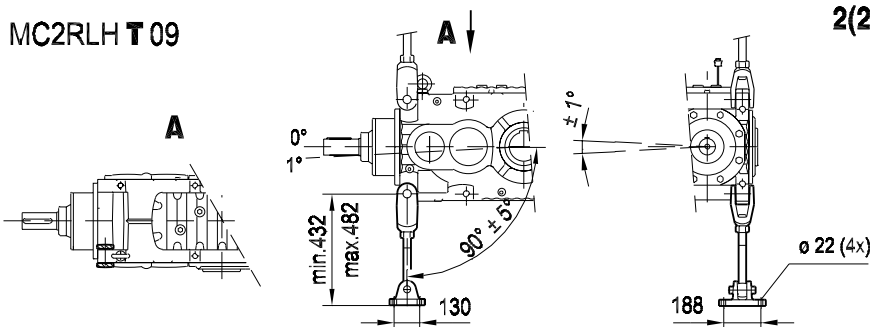


MC2RL..09

/ODV

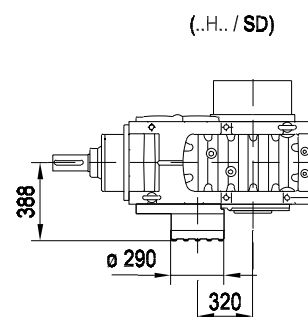
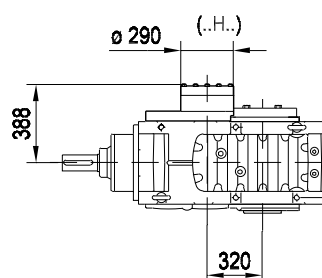
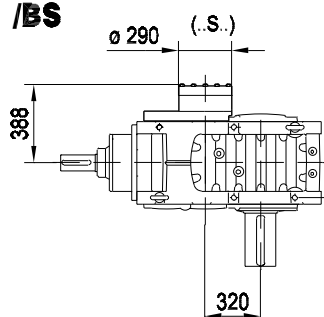


MC2RLH T 09

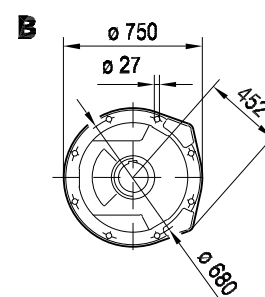
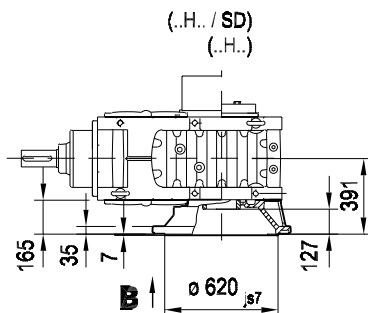
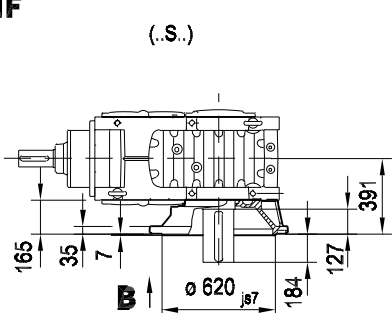


47 056 00 03
2(2)

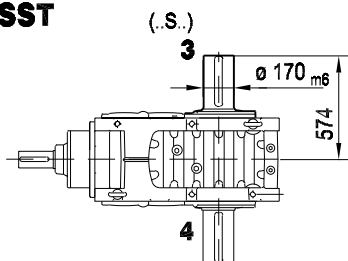
/BS



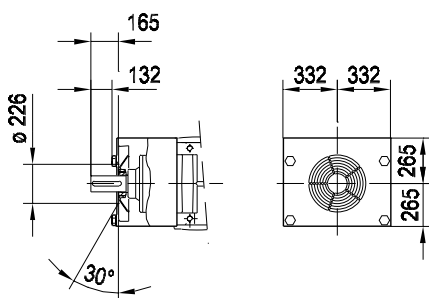
/MF



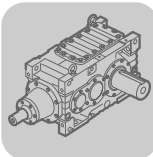
/LSST



/FAN



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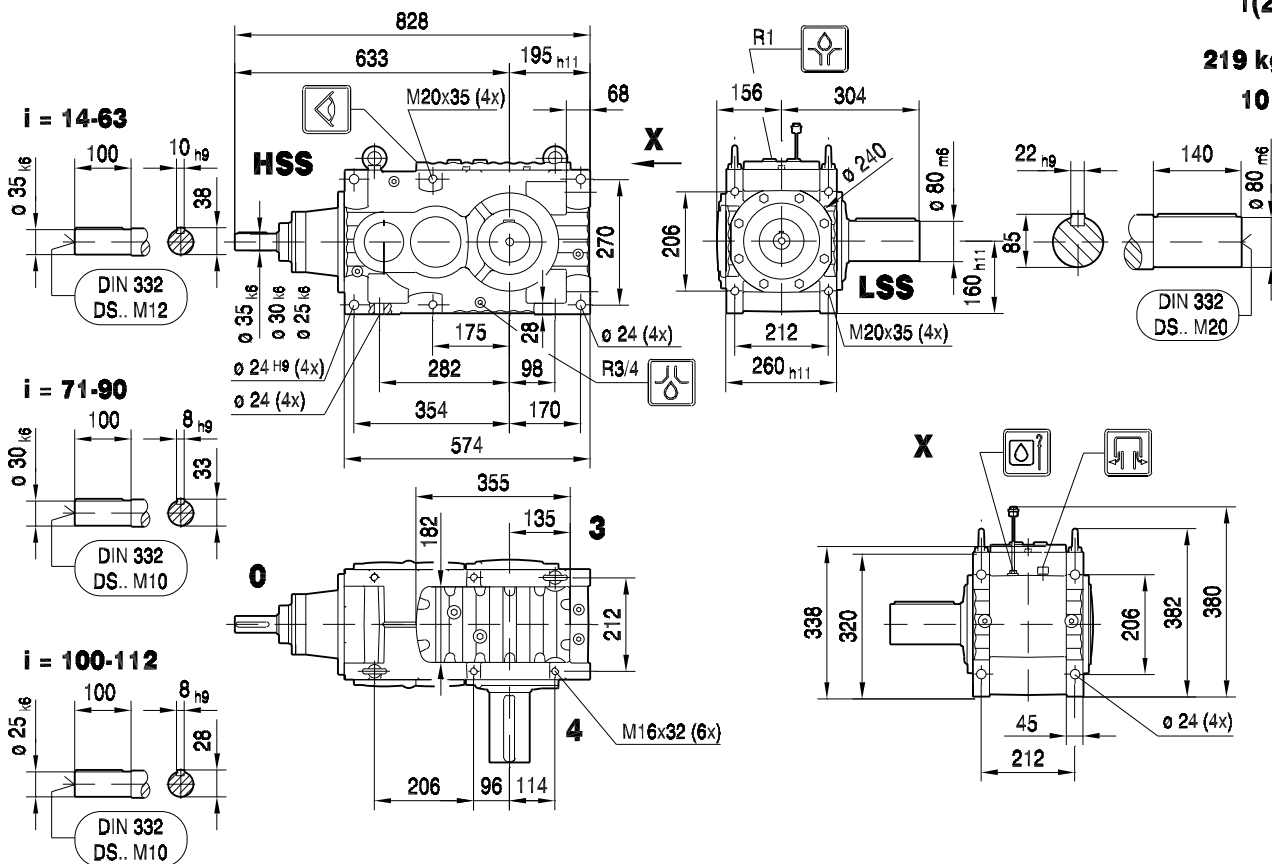


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC3RLSF02

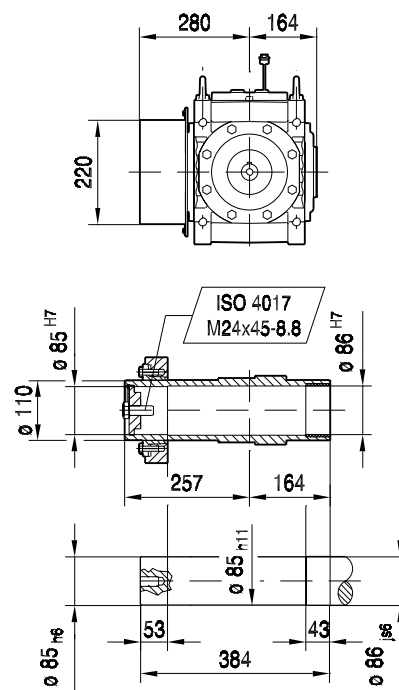
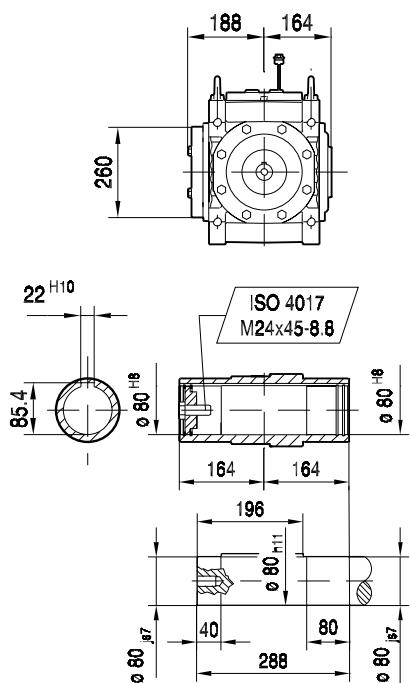
47 057 00 03
1(2)

219 kg
10 I

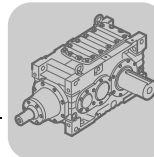


MC3RLHF02

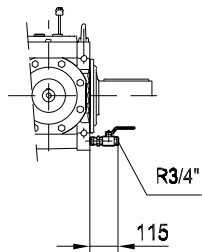
MC3RLHF02 /SD



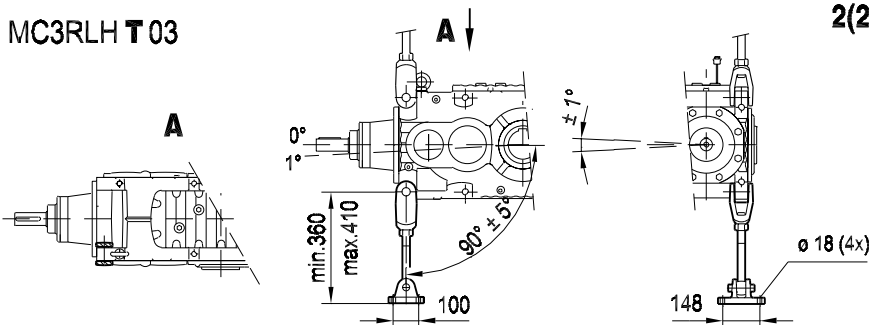
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..02
/ODV



MC3RLH T 03



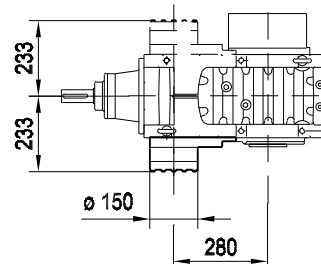
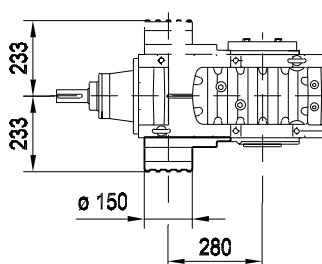
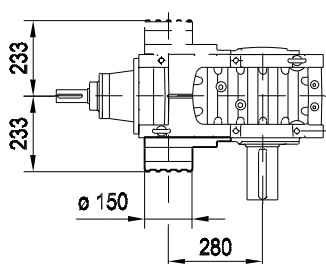
47 057 00 03
2(2)

/BS

(.S.)

(.H.)

(.H.. / SD)

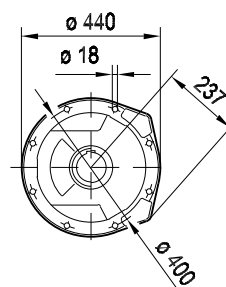
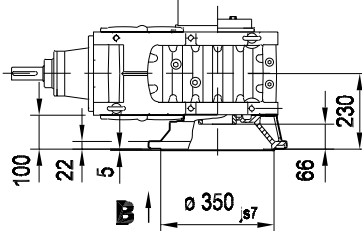
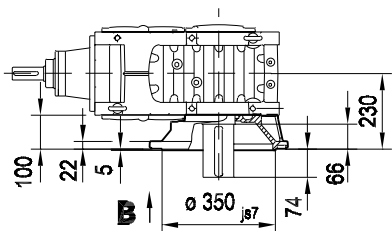


/MF

(.S.)

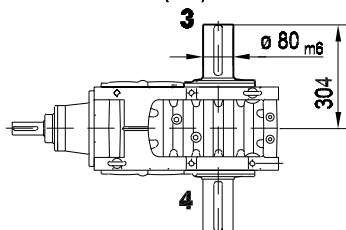
(.H.. / SD)
 (.H.)

B



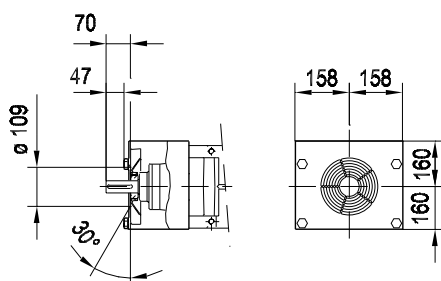
/LSST

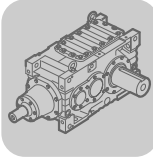
(.S.)



11

/FAN



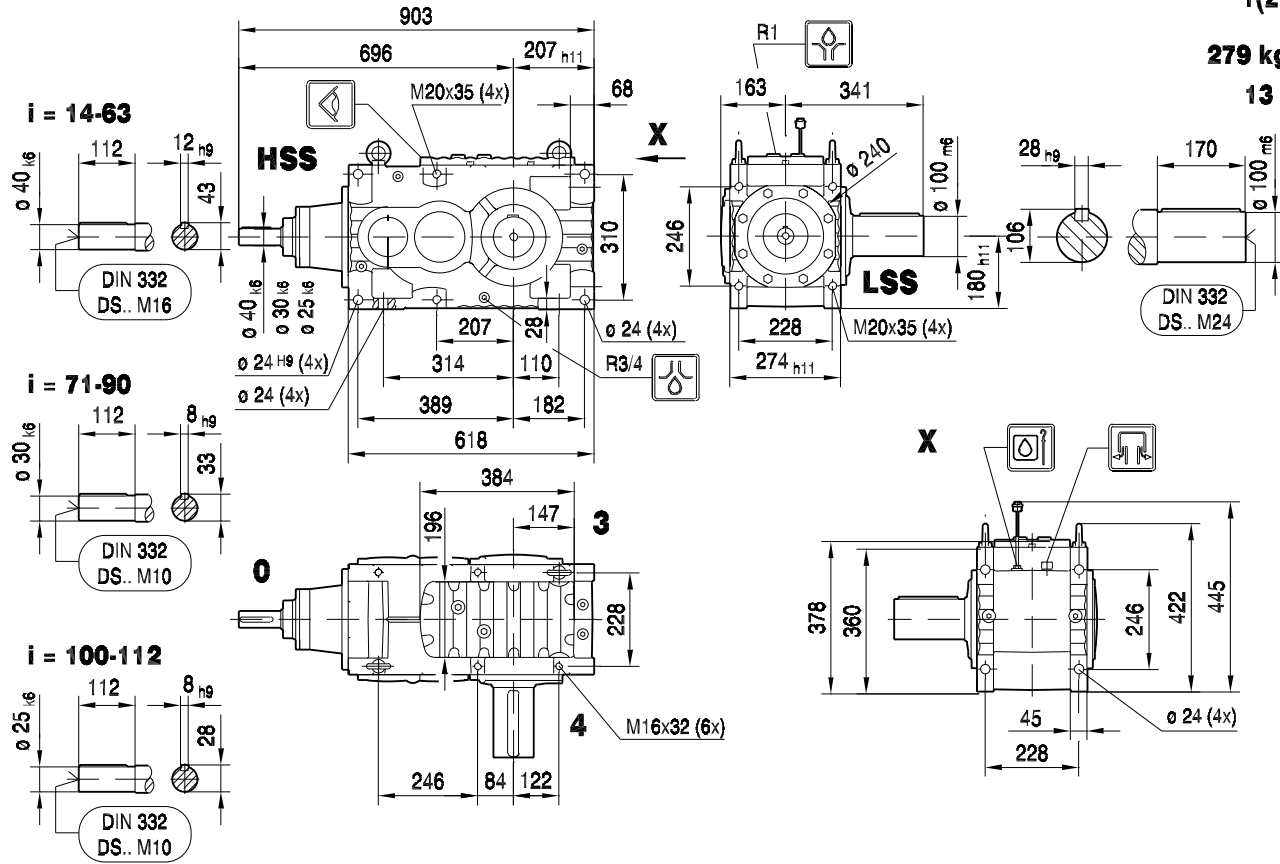


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC3RLSF03

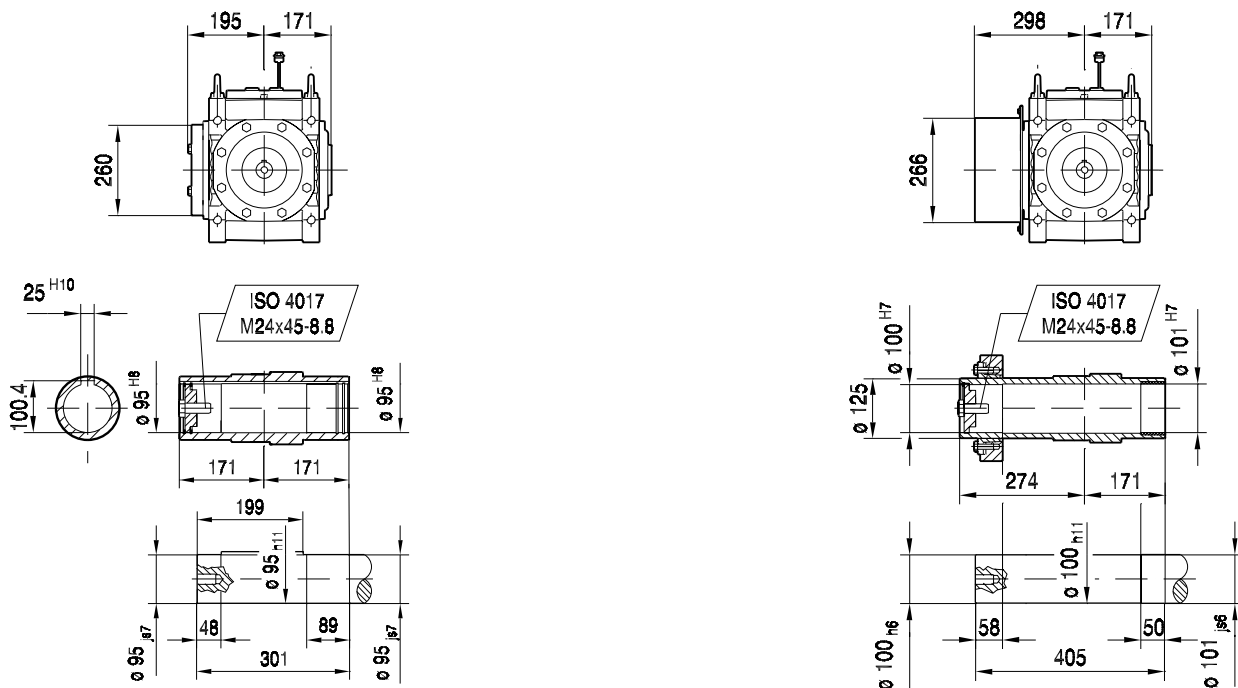
47 058 00 03
1(2)

279 kg
13 l

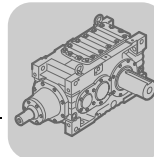


MC3RLHF03

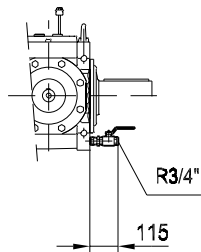
MC3RLHF03 /SD



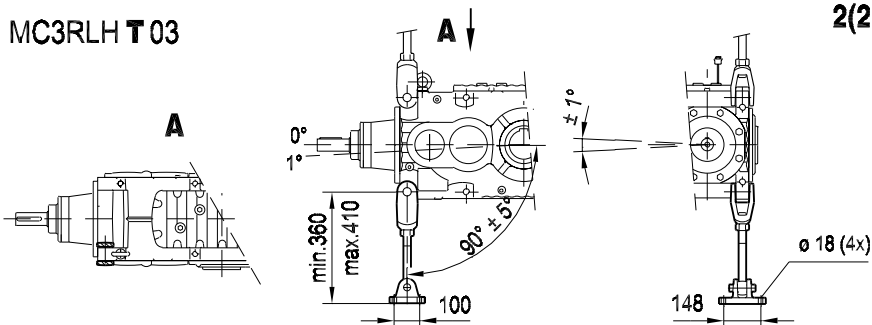
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..03
/ODV



MC3RLH T 03



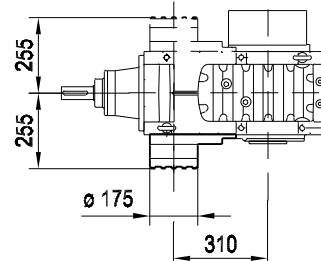
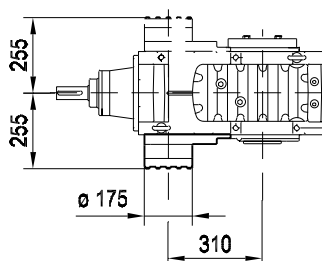
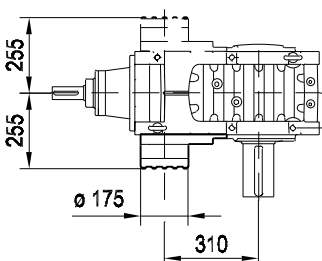
47 058 00 03
2(2)

/BS

(.S.)

(..H..)

(..H.. / SD)

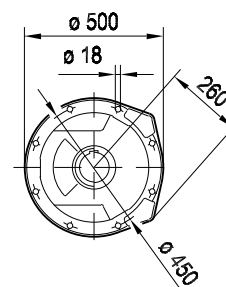
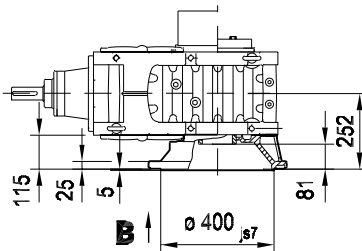
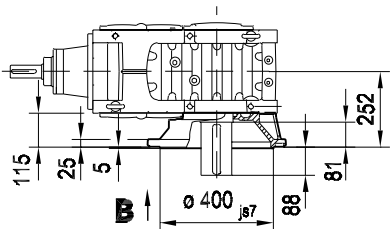


/MF

(.S.)

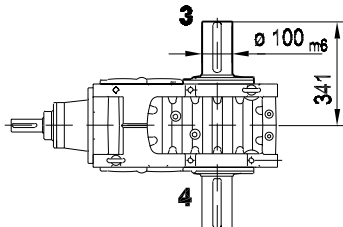
(..H.. / SD)
 (..H..)

B



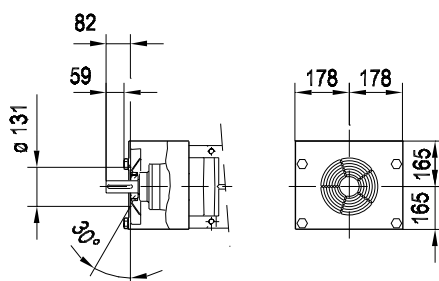
/LSST

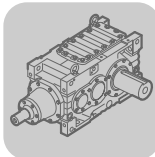
(.S.)



11

/FAN



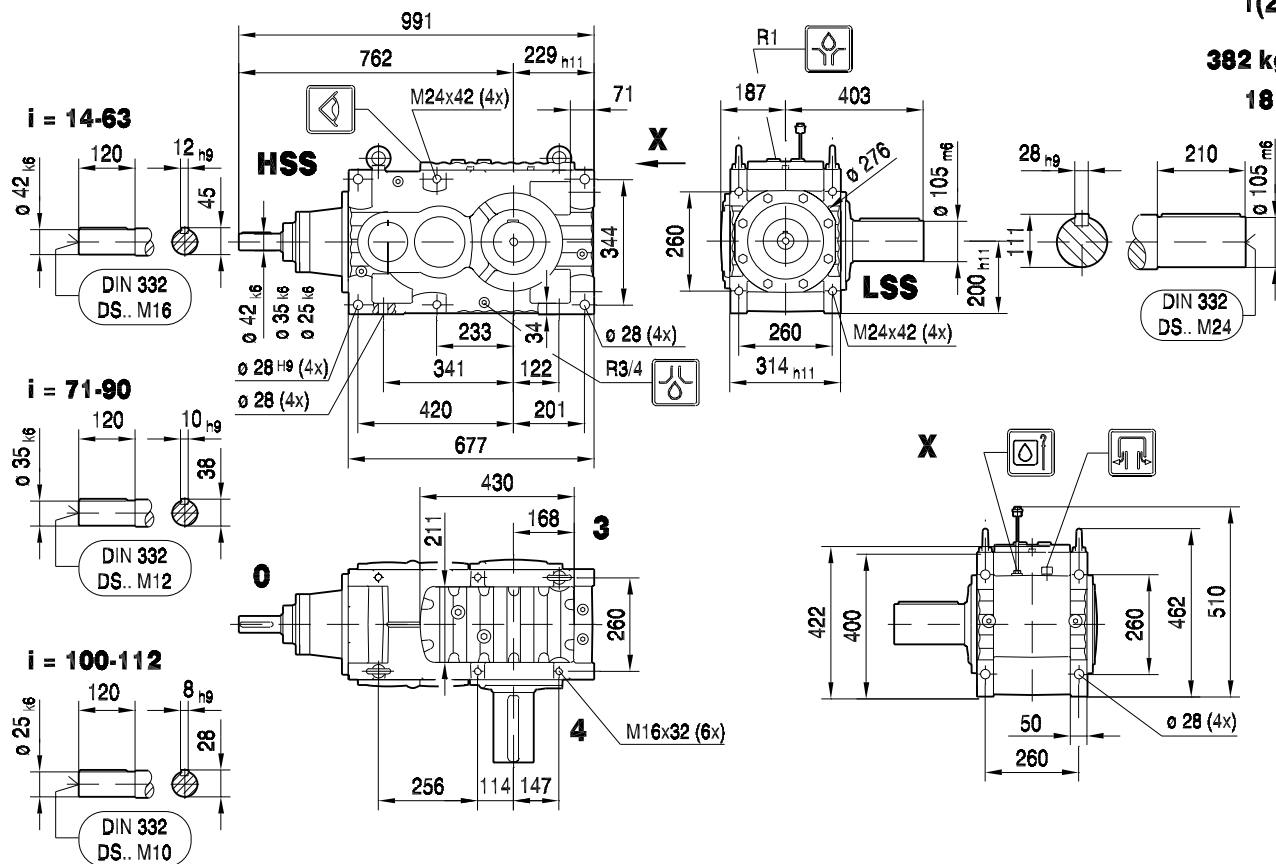


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC3RLSF04

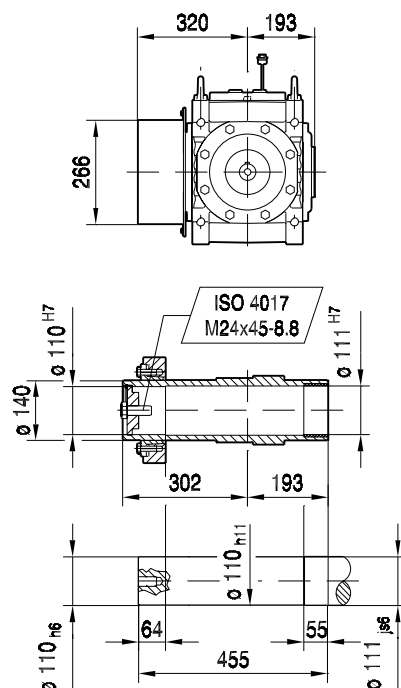
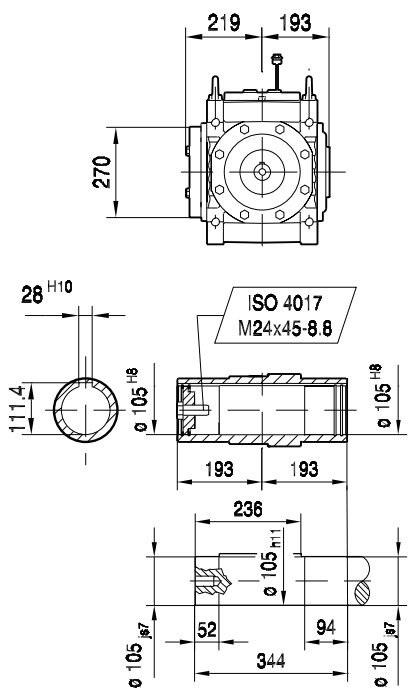
47 059 00 03
1(2)

382 kg
18 l

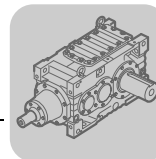


MC3RLHF04

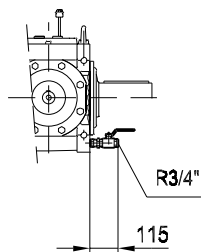
MC3RLHF04 /SD



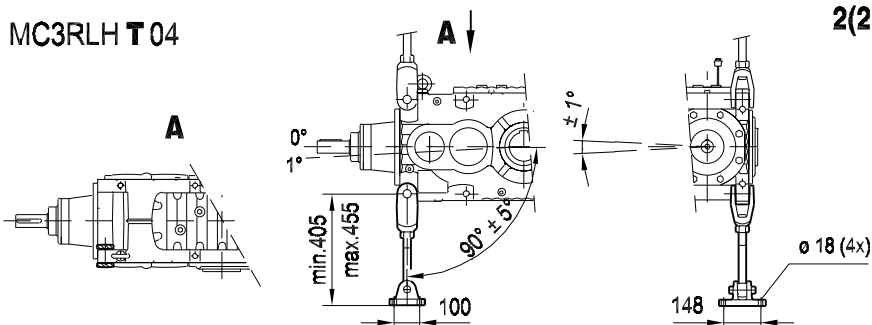
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..04
/ODV



MC3RLH T 04



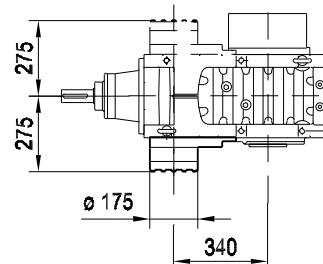
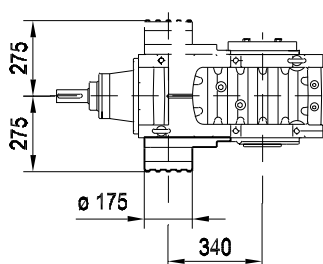
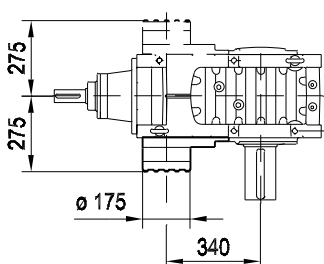
47 059 00 03
2(2)

/BS

(.S.)

(.H.)

(.H. / SD)

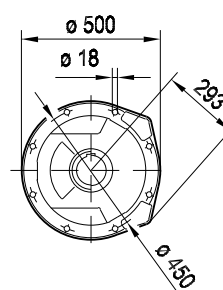
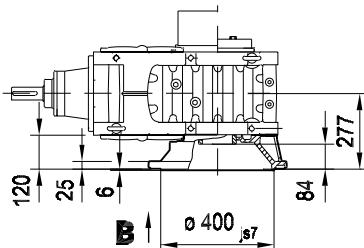
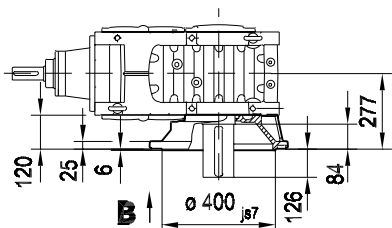


/MF

(.S.)

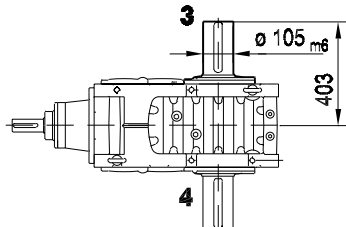
(.H. / SD)
 (.H.)

B



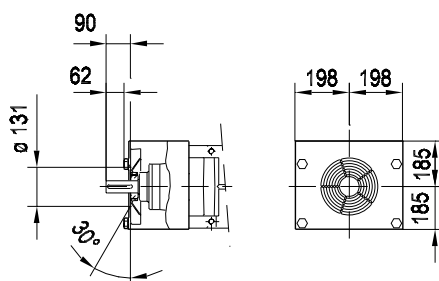
/LSST

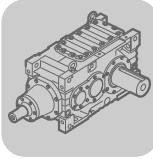
(.S.)



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/FAN



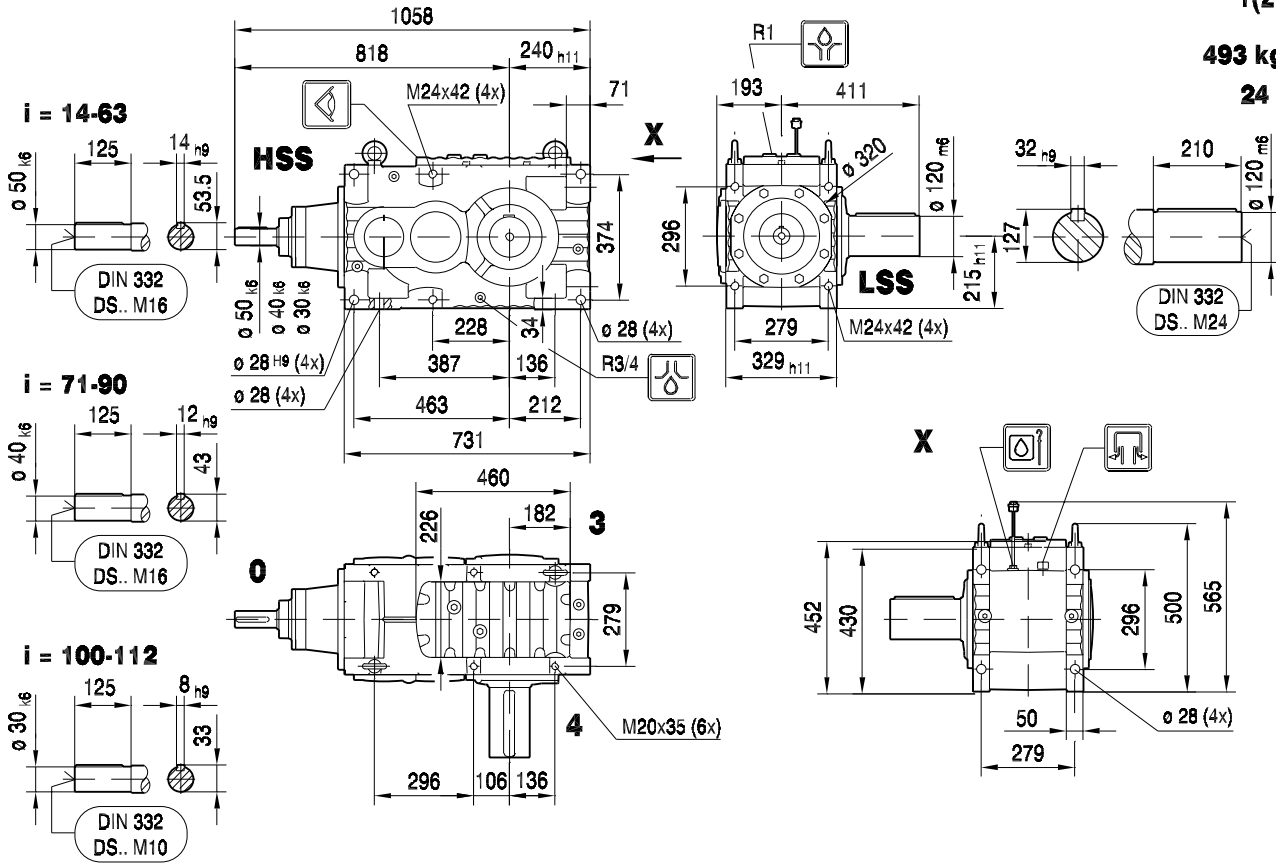


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC3RLSF05

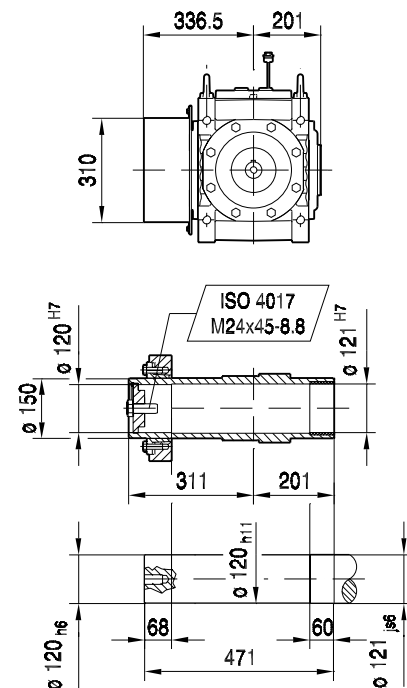
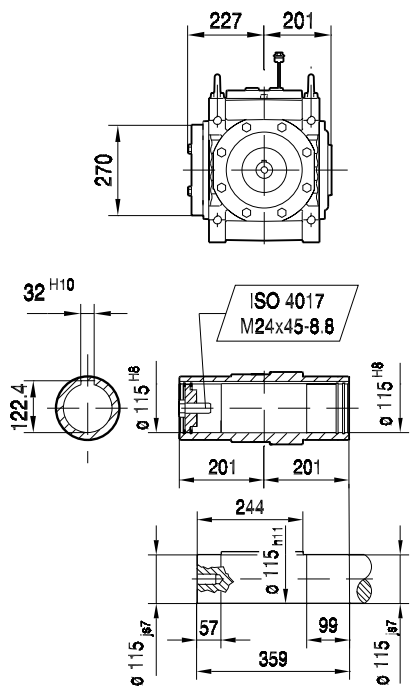
47 060 00 03
1(2)

493 kg
24 l

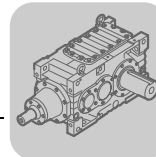


MC3RLHF05

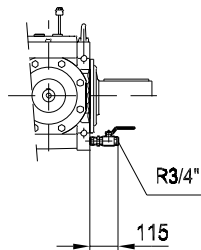
MC3RLHF05 /SD



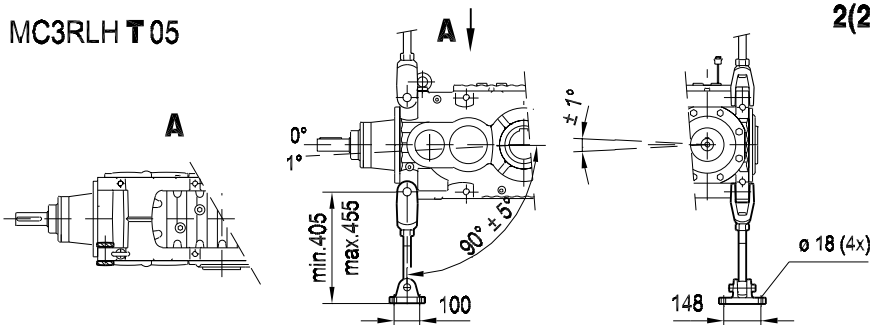
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..05
/ODV



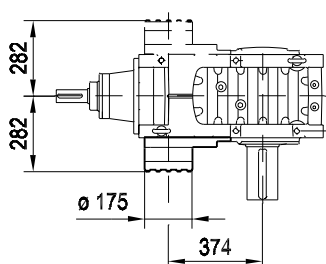
MC3RLH T 05



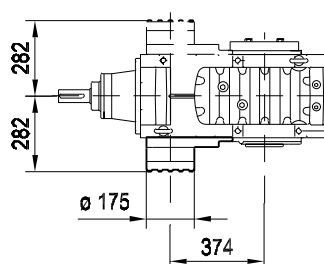
47 060 00 03
2(2)

/BS

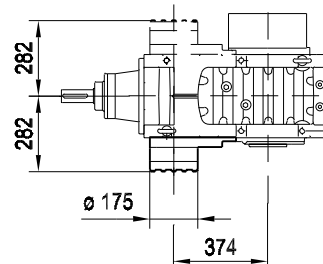
(..S.)



(..H..)

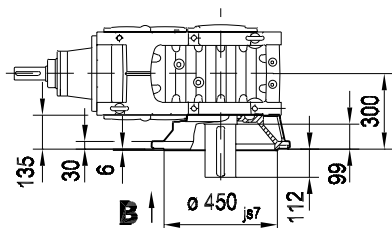


(..H.. / SD)

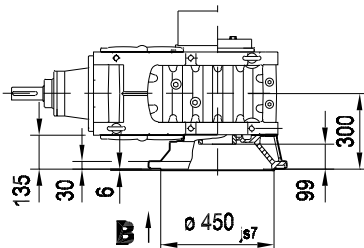


/MF

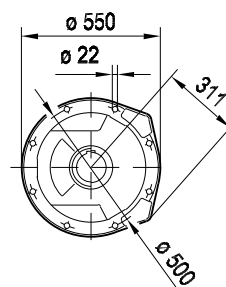
(..S.)



(..H.. / SD)
 (..H..)

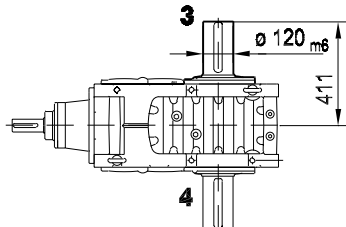


B



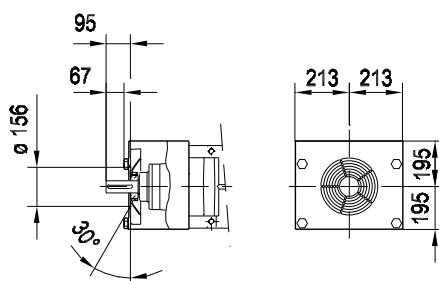
/LSST

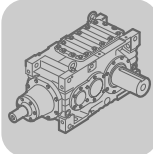
(..S.)



11

/FAN



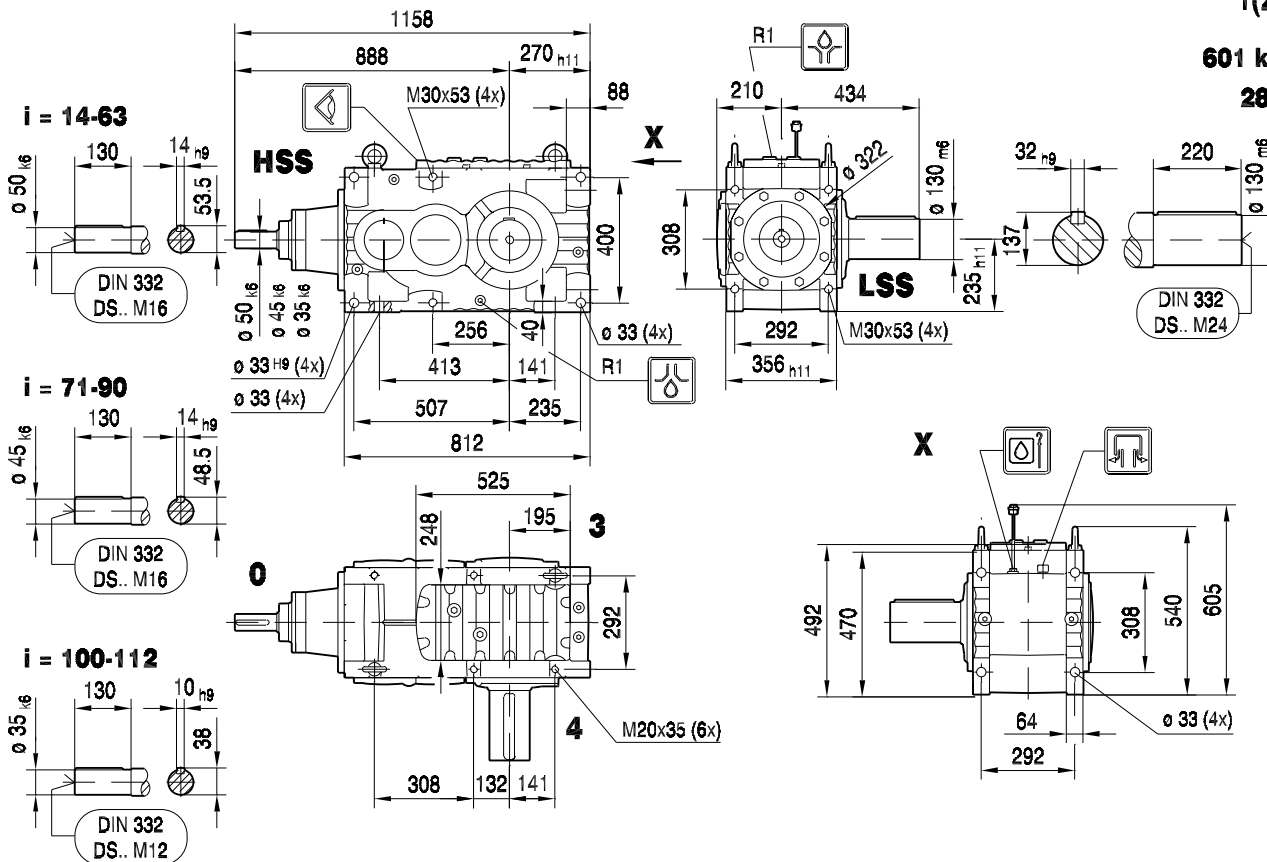


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC3RLSF06

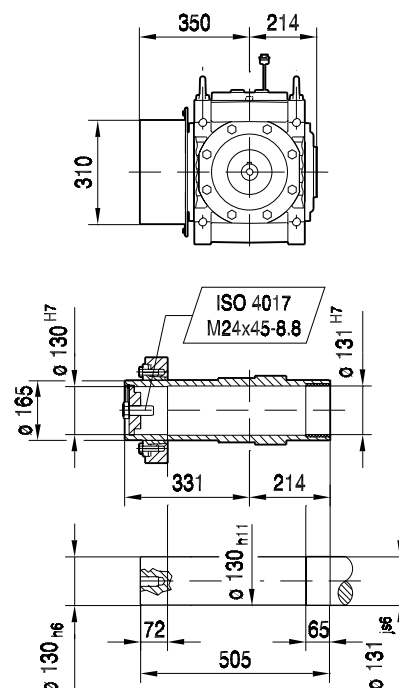
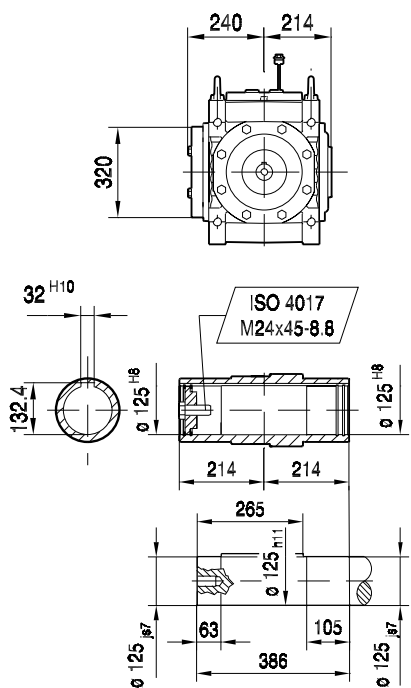
47 061 00 03
1(2)

601 kg
28 l

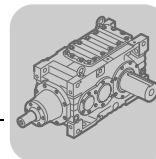


MC3RLHF06

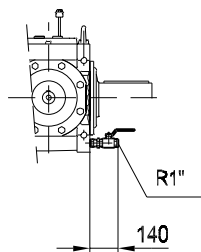
MC3RLHF06 /SD



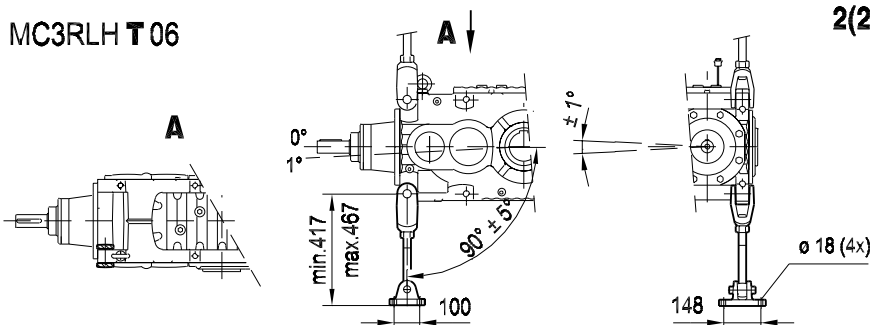
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..06
/ODV



MC3RLH T 06



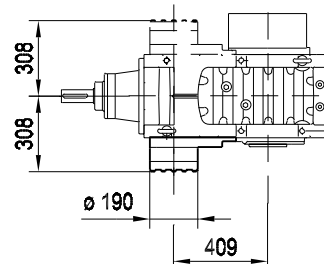
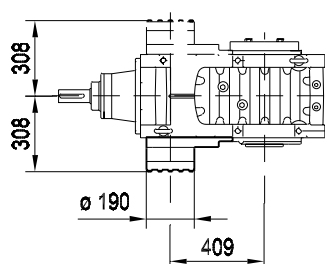
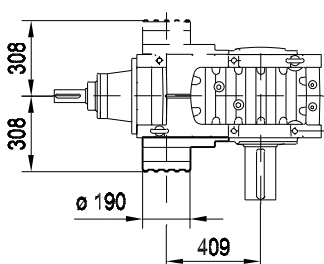
47 061 00 03
2(2)

/BS

(.S.)

(.H.)

(.H.. / SD)

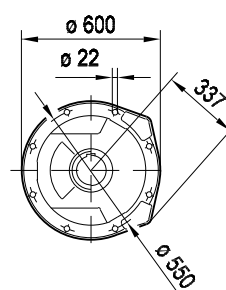
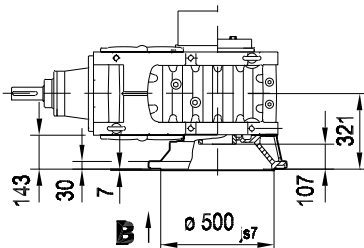
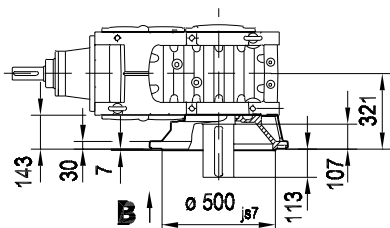


/MF

(.S.)

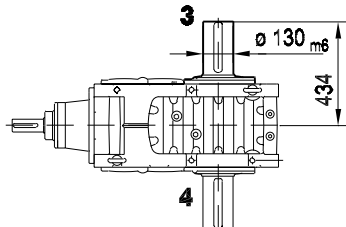
(.H.. / SD)
 (.H.)

B

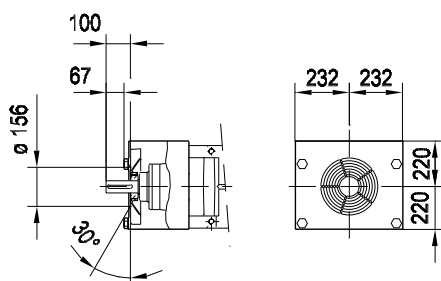


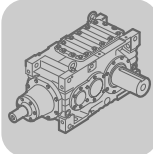
/LSST

(.S.)



/FAN



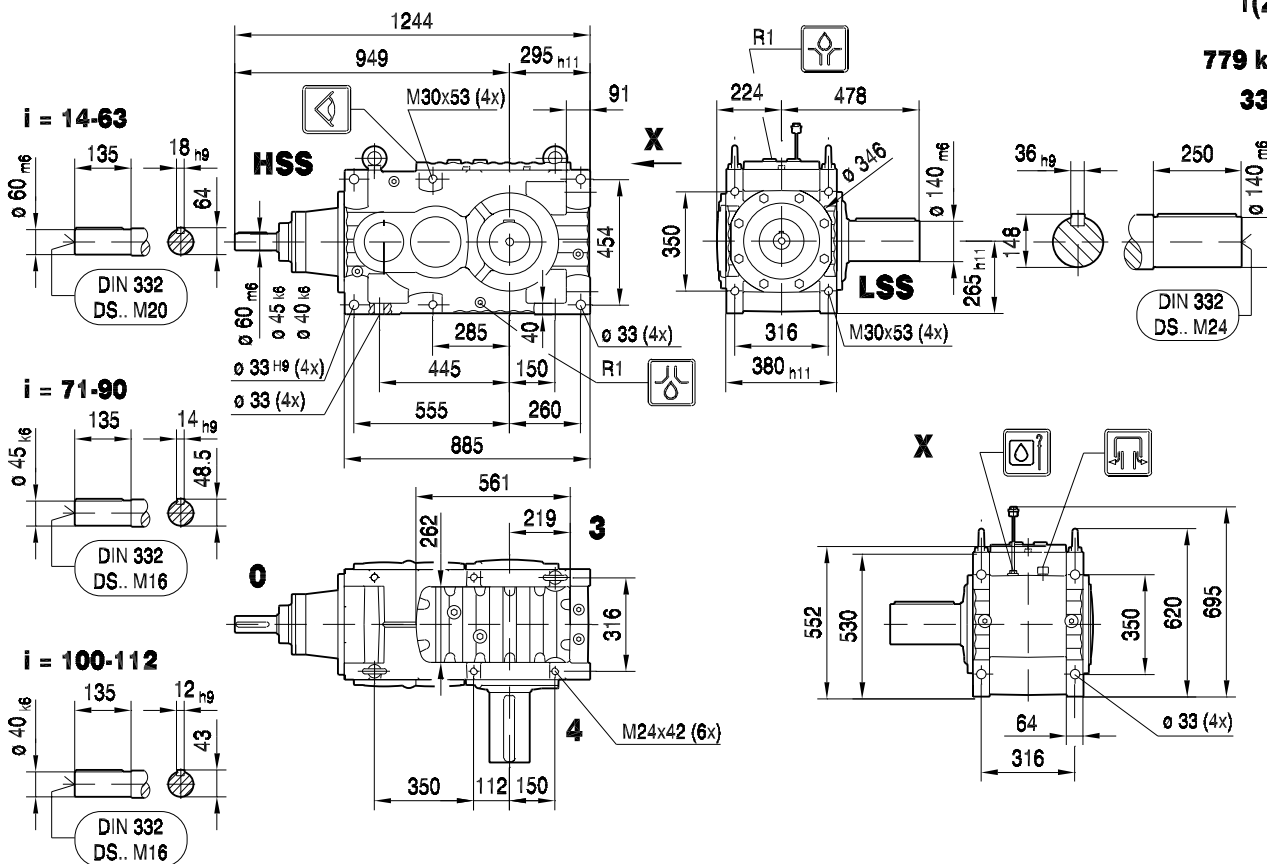


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC3RLSF07

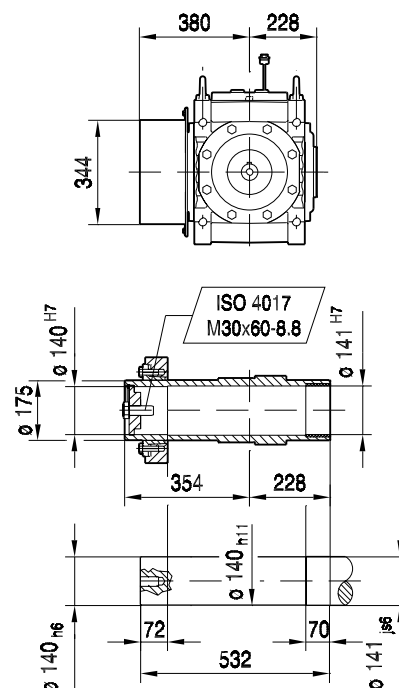
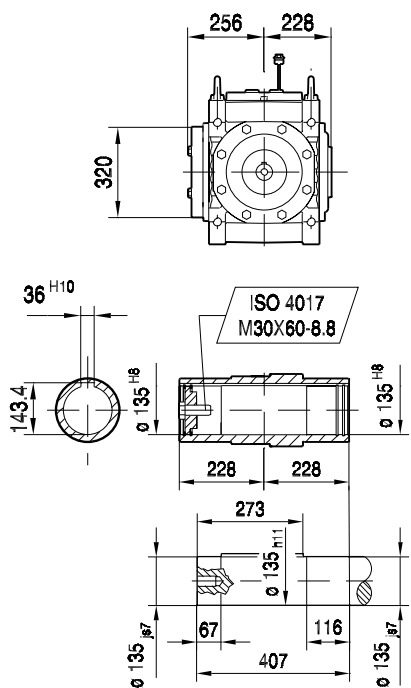
47 062 00 03
 1(2)

779 kg
 33 l



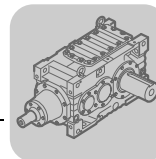
MC3RLHF07

MC3RLHF07 /SD



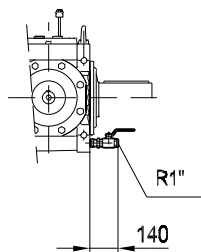
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RL..

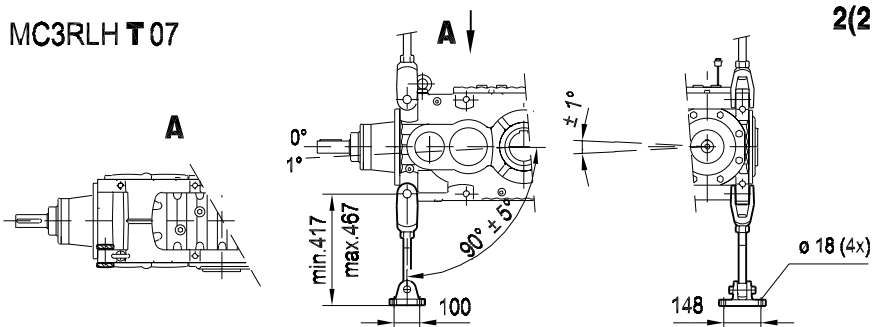


MC3RL..07

/ODV



MC3RLH T 07



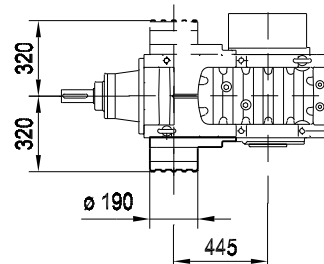
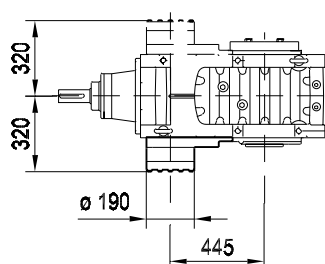
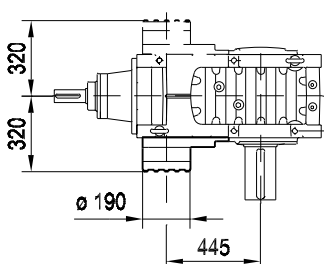
47 062 00 03
2(2)

/BS

(.S.)

(.H.)

(.H.. / SD)

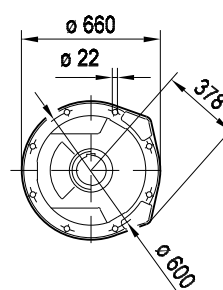
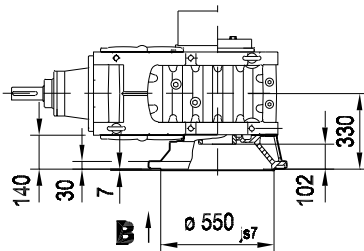
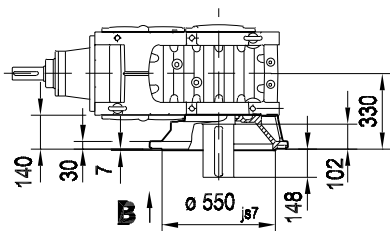


/MF

(.S.)

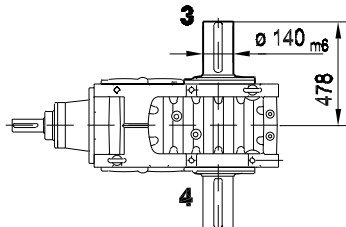
(.H.. / SD)
(.H.)

B

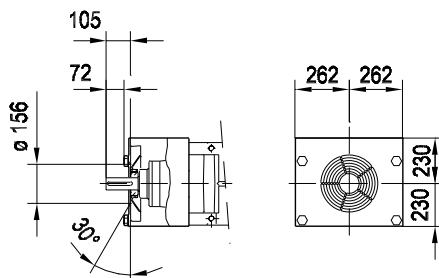


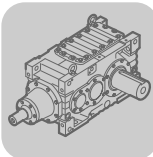
/LSST

(.S.)



/FAN



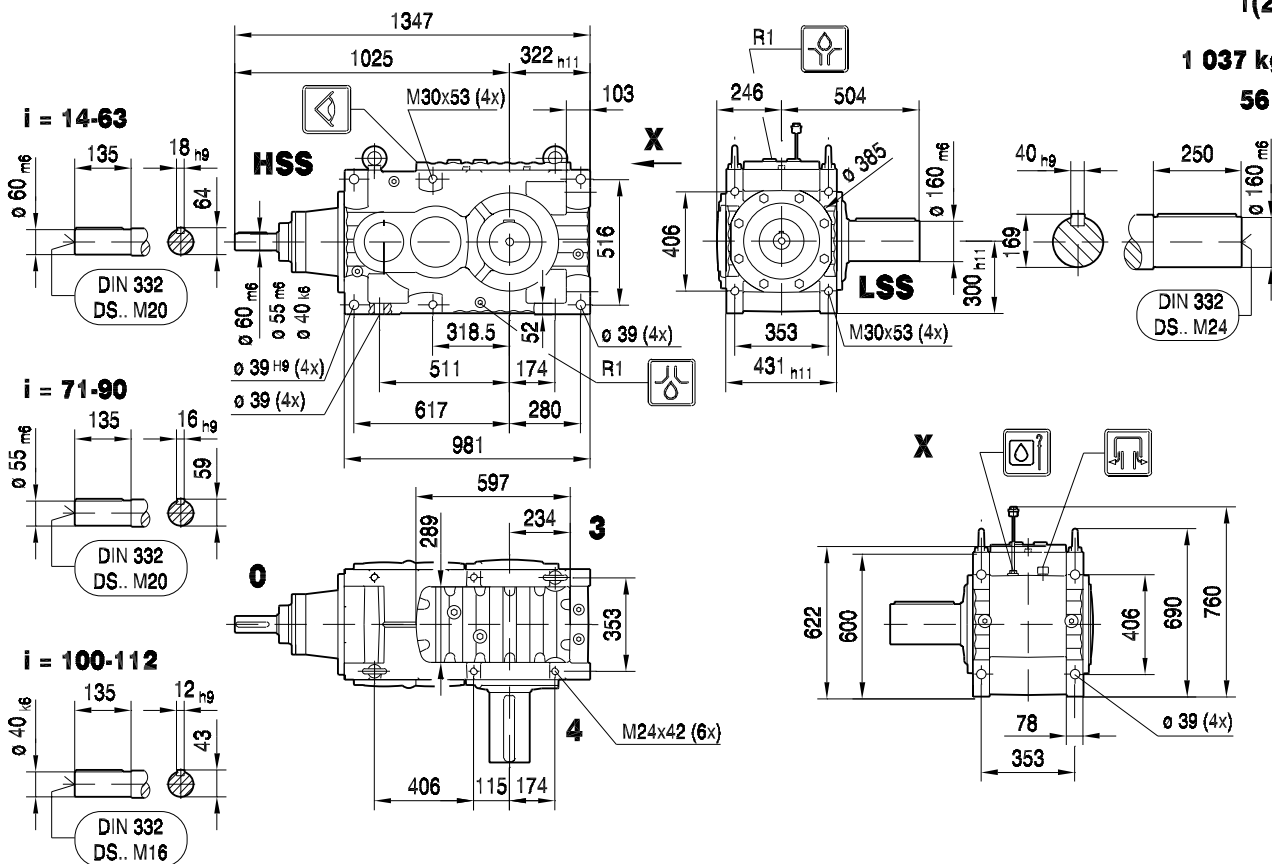


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..

MC3RLSF08

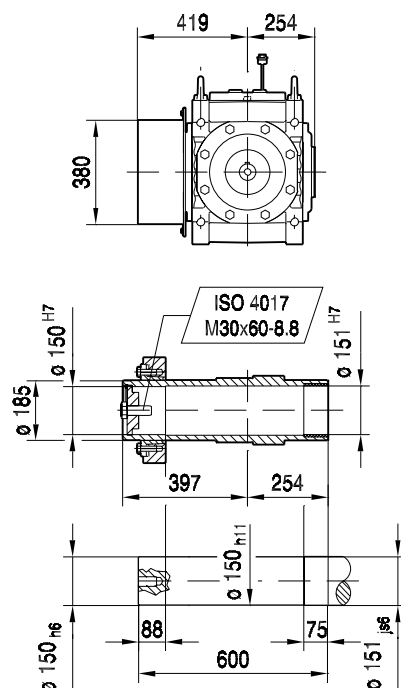
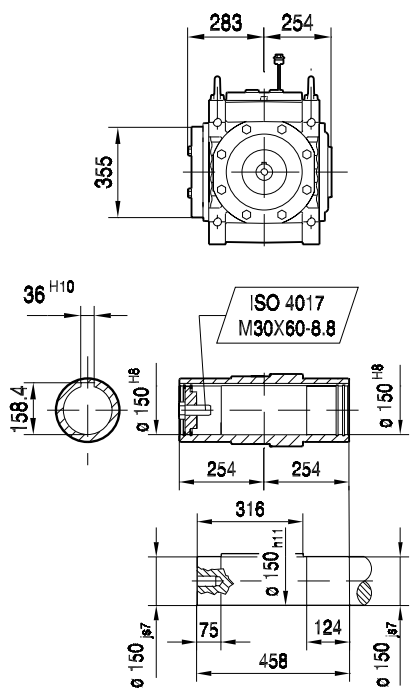
47 063 00 03
 1(2)

1 037 kg
 56 l

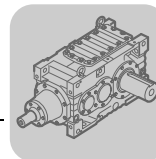


MC3RLHF08

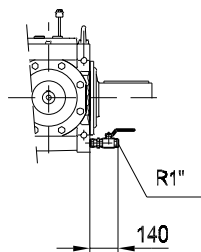
MC3RLHF08 /SD



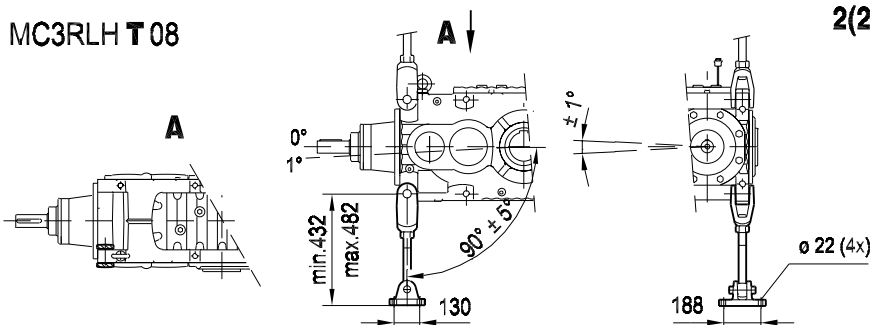
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..08
/ODV



MC3RLH T 08



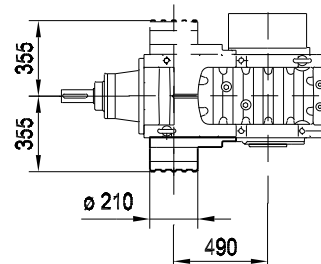
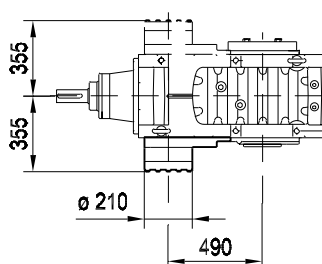
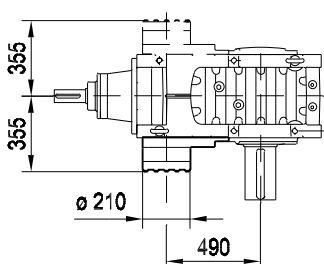
47 063 00 03
2(2)

/BS

(.S.)

(..H..)

(..H.. / SD)

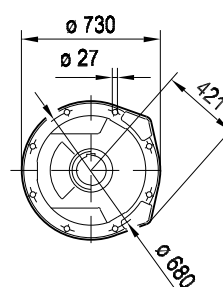
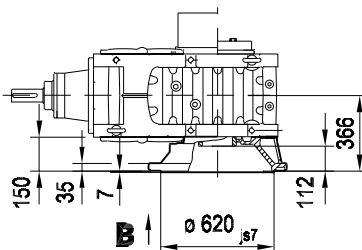
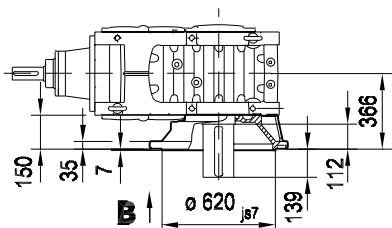


/MF

(.S.)

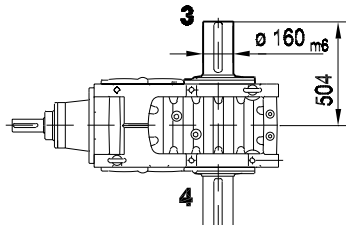
(..H.. / SD)
 (..H..)

B



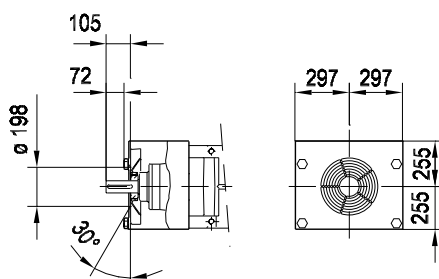
/LSST

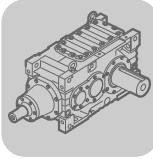
(.S.)



11

/FAN



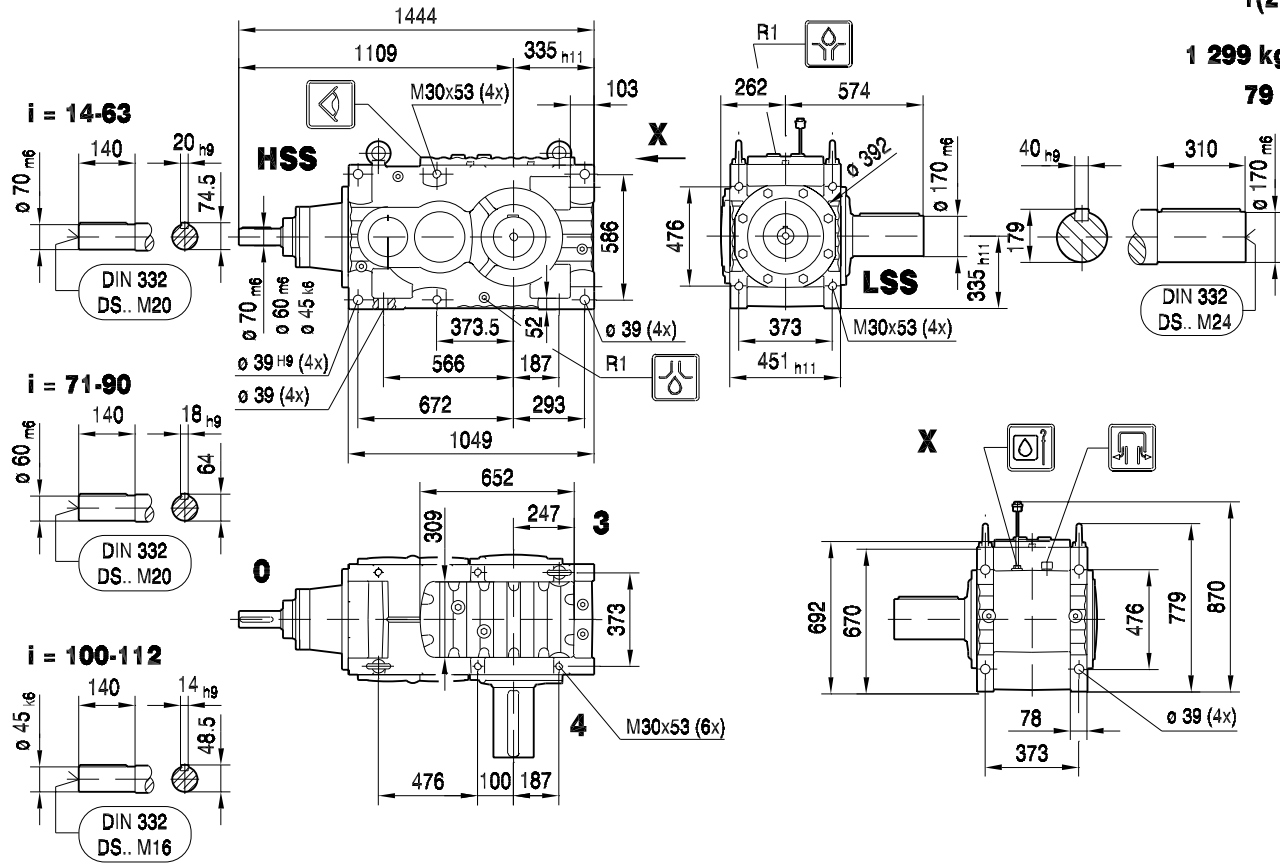


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RL..

MC3RLSF09

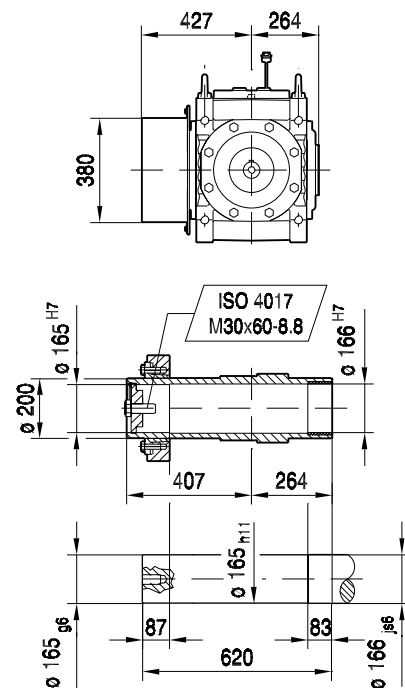
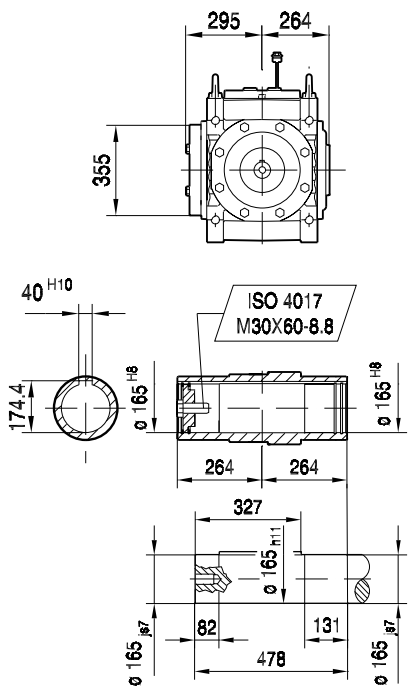
47 064 00 03
1(2)

1 299 kg
79 l

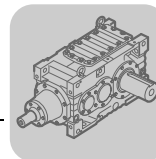


MC3RLHF09

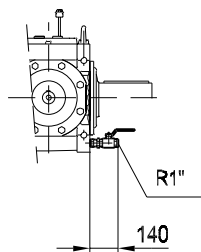
MC3RLHF09 /SD



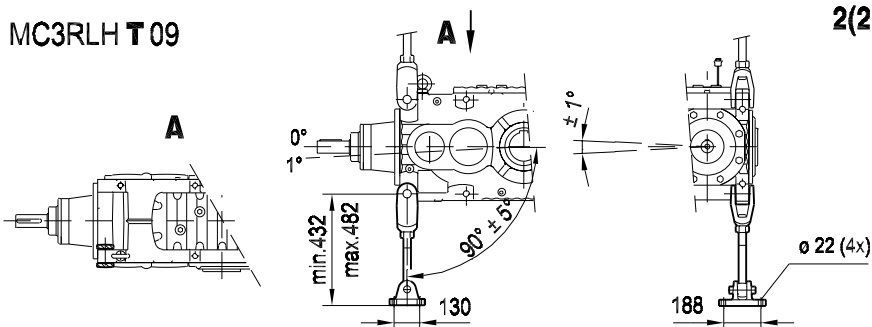
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RL..



MC3RL..09
/ODV



MC3RLH T 09



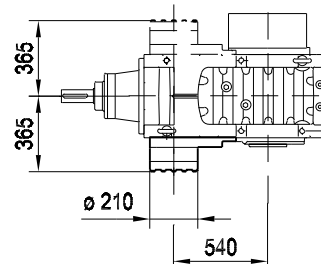
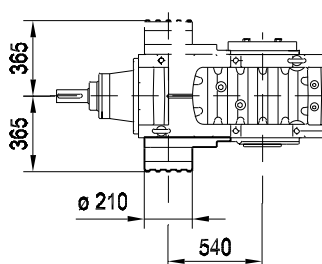
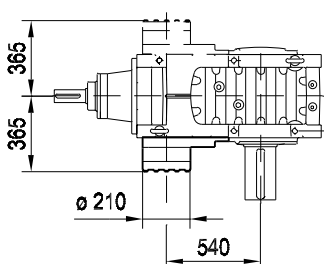
47 064 00 03
2(2)

/BS

(..S.)

(..H..)

(..H.. / SD)

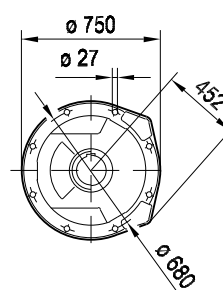
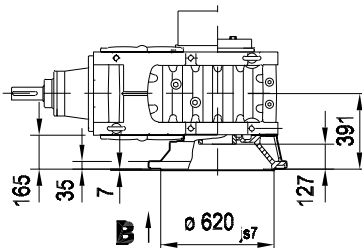
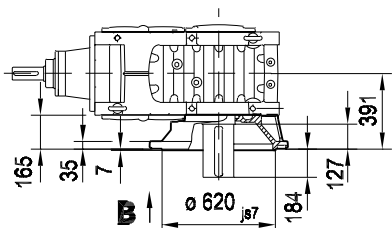


/MF

(..S.)

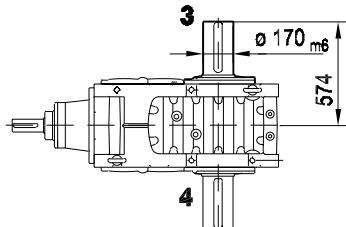
(..H.. / SD)
 (..H..)

B

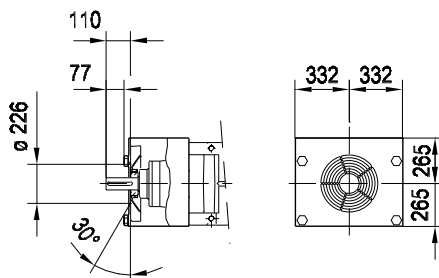


/LSST

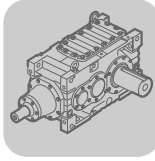
(..S.)



/FAN



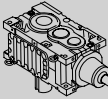





11




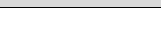




Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

11.3 Selection tables (detailed) MC.RV..

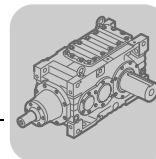
11.3.1 MC.RV.., n₁ = 1800 1/min

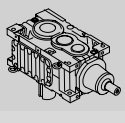


MC.RV..02, n ₁ = 1800 1/min							P _{TH}						8.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	6.96	259	5.1	143	4.60	5.4		*)	*)	69	25	-	-		
8.00	8.05	224	5.5	132	5.1	6.8	MC2RVSF02	*)	*)	74	29	-	-		
9.00	9.03	199	5.7	123	5.5	8.0	MC2RVHF02	14	*)	77	32	-	-	354	434
10.00	9.61	187	5.2	107	6.9	5.2	MC2RVHT02	15	*)	79	34	-	-		
11.20	11.11	162	5.6	99	7.3	6.5		19	*)	82	38	-	-		
12.50	12.47	144	5.9	93	7.7	7.5		22	*)	85	41	-	-		
14.00	14.61	123	5.7	76	9.0	*)		18	*)	64	34	-	-		
16.00	16.90	107	6.6	76	7.5	*)		20	*)	66	36	-	-		
18.00	18.96	95	7.3	75	6.3	*)		22	*)	68	38	-	-		
20.00	20.31	89	7.2	70	5.7	0.91		23	*)	69	39	-	-		
22.50	23.49	77	7.9	66	5.4	1.47		25	8	71	41	-	-		
25.00	26.36	68	7.4	55	9.8	3.20		26	10	73	43	-	-		
28.00	29.43	61	8.0	53	7.9	3.50		28	11	74	44	-	-		
31.50	33.03	55	7.4	44	12.5	4.89		29	12	75	46	-	-		
35.50	37.38	48	6.8	36	17.5	6.2	MC3RVSF02	31	14	77	47	-	-		
40.00	40.30	45	6.6	33	18.1	2.54	MC3RVHF02	32	15	78	48	-	-	370	435
45.00	45.22	40	7.5	33	16.7	2.48	MC3RVHT02	33	16	79	50	-	-		
50.00	50.49	36	8.1	32	15.2	2.89		34	17	80	51	-	-		
56.00	56.66	32	7.6	27	19.8	4.38		35	18	82	52	-	-		
63.00	64.14	28	7.0	22	22.3	5.8		36	19	83	53	-	-		
71.00	70.97	25	8.1	23	20.6	1.63		29	12	69	39	-	-		
80.00	79.65	23	7.7	19	22.7	2.58		30	13	70	40	-	-		
90.00	90.15	20	7.1	15.6	22.7	3.59		31	14	71	42	-	-		
100.00	97.35	18	6.0	12.3	22.7	1.25		31	15	72	42	-	-		
112.00	110.19	16	6.8	12.3	22.7	1.25		32	16	73	43	-	-		

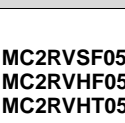


MC.RV..03, n ₁ = 1800 1/min							P _{TH}						11.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]									
								P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C	P _{TH[20]} 20 °C	P _{TH[40]} 40 °C		
7.10	7.12	253	6.4	176	16.2	7.3		*)	*)	85	31	-	-		
8.00	8.04	224	6.8	165	16.8	8.5	MC2RVSF03	*)	*)	90	36	-	-		
9.00	9.07	199	7.2	154	17.5	9.7	MC2RVHF03	17	*)	94	40	-	-	356	434
10.00	10.00	180	6.5	128	18.6	5.1	MC2RVHT03	20	*)	97	43	-	-		
11.20	11.28	160	7.1	123	19.1	5.9		24	*)	101	47	-	-		
12.50	12.73	141	7.5	115	19.9	7.2		27	*)	105	50	-	-		
14.00	15.07	119	7.7	101	20.6	*)		23	*)	78	42	-	-		
16.00	17.00	106	8.7	101	20.8	*)		25	*)	81	44	-	-		
18.00	19.18	94	9.9	101	20.1	*)		27	*)	83	47	-	-		
20.00	20.57	88	10.0	96	18.2	0.455		28	*)	84	48	-	-		
22.50	23.20	78	11.3	96	16.0	0.453		30	10	86	50	-	-		
25.00	26.18	69	10.6	79	23.2	2.69		32	12	88	52	-	-		
28.00	29.60	61	11.4	76	20.9	3.19		34	14	90	54	-	-		
31.50	33.40	54	10.7	63	25.8	4.89		36	15	92	56	-	-		
35.50	35.08	51	10.7	60	26.3	2.47	MC3RVSF03	36	16	93	57	-	-		
40.00	39.67	45	11.3	57	26.8	3.13	MC3RVHF03	38	18	95	58	-	-	372	435
45.00	44.75	40	10.8	48	29.1	4.71	MC3RVHT03	40	19	96	60	-	-		
50.00	50.97	35	9.9	39	30.7	6.3		41	21	98	62	-	-		
56.00	57.30	31	10.9	38	30.7	4.54		43	22	99	63	-	-		
63.00	65.25	28	10.0	30	30.7	6.2		44	24	101	65	-	-		
71.00	69.86	26	10.6	30	30.7	0.063		35	14	84	48	-	-		
80.00	78.82	23	11.0	28	30.7	0.84		36	16	85	49	-	-		
90.00	89.76	20	10.1	22	30.7	2.48		38	17	87	51	-	-		
100.00	97.53	18	8.9	18.2	30.7	*)		38	18	88	51	-	-		
112.00	111.07	16	10.2	18.2	30.7	*)		40	19	89	53	-	-		

Bevel-Helical Gear Units MC...R

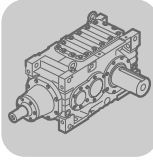
Selection tables (detailed) MC.RV..



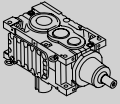
MC.RV..04, n ₁ = 1800 1/min							P _{TH}						15.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	247	8.5	225	18.5	7.0	MC2RVSF04 MC2RVHF04 MC2RVHT04	*)	*)	106	40	-	-	358	434		
8.00	8.20	219	8.9	210	19.4	8.7		*)	*)	111	45	-	-				
9.00	9.17	196	9.3	197	20.1	10.2		21	*)	116	49	-	-				
10.00	10.15	177	8.7	168	21.2	5.5		25	*)	120	53	-	-				
11.20	11.41	158	9.2	158	22.0	7.0		29	*)	125	58	-	-				
12.50	12.76	141	9.7	149	22.8	8.4	33	*)	129	62	-	-					
14.00	14.76	122	8.7	116	25.0	*)	MC3RVSF04 MC3RVHF04 MC3RVHT04	27	*)	96	51	-	-	374	435		
16.00	16.60	108	9.8	116	25.2	*)		30	*)	99	54	-	-				
18.00	18.56	97	10.9	116	25.4	*)		33	*)	101	57	-	-				
20.00	20.60	87	12.2	116	22.7	*)		35	*)	104	59	-	-				
22.50	23.17	78	13.7	116	20.1	*)		37	12	106	62	-	-				
25.00	25.90	69	14.9	113	18.8	*)		39	14	108	64	-	-				
28.00	29.65	61	15.9	105	16.6	0.89		42	17	111	67	-	-				
31.50	33.14	54	14.9	88	25.2	3.18		44	19	113	69	-	-				
35.50	34.63	52	13.1	75	30.7	2.88		45	19	114	70	-	-				
40.00	39.63	45	15.3	76	27.1	2.68		47	22	116	72	-	-				
45.00	44.30	41	14.9	67	32.3	4.25		49	24	118	74	-	-				
50.00	49.83	36	14.0	56	35.2	6.0		51	25	120	76	-	-				
56.00	55.99	32	14.0	50	35.3	4.63		52	27	122	78	-	-				
63.00	62.98	29	14.1	44	35.3	5.7		54	29	124	80	-	-				
71.00	68.90	26	13.3	38	35.3	1.85		43	18	103	59	-	-				
80.00	77.02	23	14.3	37	35.3	2.28		44	19	105	60	-	-				
90.00	86.63	21	14.3	33	35.3	3.59		46	21	106	62	-	-				
100.00	93.18	19	8.7	18.5	35.3	*)	47	21	107	63	-	-					
112.00	104.81	17	9.9	19	35.3	*)	48	23	109	64	-	-					


MC.RV..05, n ₁ = 1800 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	254	11.7	318	13.0	5.8	MC2RVSF05 MC2RVHF05 MC2RVHT05	*)	*)	119	43	-	-	360	434		
8.00	7.99	225	12.3	299	13.7	8.1		*)	*)	124	49	-	-				
9.00	8.86	203	12.9	281	14.7	9.2		*)	*)	129	54	-	-				
10.00	9.87	182	12.0	237	16.9	6.8		27	*)	134	59	-	-				
11.20	11.11	162	12.7	223	17.6	8.9		32	*)	139	64	-	-				
12.50	12.33	146	13.3	211	18.6	9.7	36	*)	144	69	-	-					
14.00	14.68	123	12.0	160	23.4	*)	MC3RVSF05 MC3RVHF05 MC3RVHT05	31	*)	108	58	-	-	376	436		
16.00	16.53	109	13.5	160	22.1	*)		34	*)	111	61	-	-				
18.00	18.33	98	15.0	160	21.0	*)		36	*)	114	64	-	-				
20.00	20.22	89	15.3	148	19.7	0.83		39	*)	116	66	-	-				
22.50	22.76	79	17.2	148	17.7	0.83		42	*)	119	69	-	-				
25.00	25.25	71	19.1	148	16.1	0.83		44	15	122	72	-	-				
28.00	29.13	62	20.0	134	15.1	2.71		47	18	125	75	-	-				
31.50	32.32	56	19.8	120	19.6	4.71		49	21	127	77	-	-				
35.50	33.83	53	18.3	107	24.6	2.10		50	22	128	78	-	-				
40.00	39.03	46	19.5	99	23.1	3.55		53	24	131	81	-	-				
45.00	43.30	42	20.0	91	25.8	4.86		55	26	133	83	-	-				
50.00	48.74	37	18.5	75	33.5	7.6		57	28	135	85	-	-				
56.00	55.44	32	19.7	70	32.6	0.352		59	31	138	88	-	-				
63.00	62.40	29	18.7	59	37.0	2.75		61	32	140	90	-	-				
71.00	69.92	26	15.7	44	40.3	3.86		48	20	117	66	-	-				
80.00	77.56	23	17.4	44	41.0	3.86		50	22	118	68	-	-				
90.00	87.30	21	18.9	43	41.3	4.24		52	23	120	70	-	-				
100.00	93.84	19	13.2	28	41.3	2.40	53	24	121	71	-	-					
112.00	105.62	17	15.1	28	41.3	2.29	54	26	123	73	-	-					

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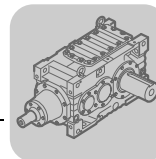


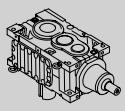
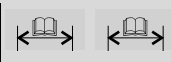


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

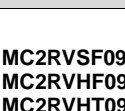
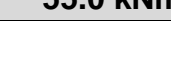


MC.RV..06, n ₁ = 1800 1/min							P _{TH} 25.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.74	267	14.7	422	17.4	4.19	MC2RVSF06 MC2RVHF06 MC2RVHT06	*)	*)	139	49	-	-	362	434
8.00	7.80	231	15.7	390	18.9	7.5		*)	*)	147	57	-	-		
9.00	8.75	206	16.5	364	20.2	9.8		*)	*)	154	64	-	-		
10.00	9.64	187	15.1	307	24.2	5.4		31	*)	159	69	-	-		
11.20	11.15	161	16.2	285	25.8	8.4		39	*)	167	77	-	-		
12.50	12.52	144	17.1	268	26.9	10.5		44	*)	173	83	-	-		
14.00	14.09	128	14.4	200	31.5	1.17	MC3RVSF06 MC3RVHF06 MC3RVHT06	35	*)	128	68	-	-	378	436
16.00	16.30	110	16.6	200	31.9	1.17		40	*)	133	73	-	-		
18.00	18.30	98	18.7	200	32.1	1.17		44	*)	136	76	-	-		
20.00	20.30	89	18.9	182	30.4	3.25		47	*)	139	79	-	-		
22.50	23.49	77	21.8	182	26.6	3.25		51	*)	144	84	-	-		
25.00	26.36	68	24.5	182	22.3	3.25		54	20	147	87	-	-		
28.00	28.78	63	25.2	171	20.9	4.51		56	22	149	89	-	-		
31.50	32.30	56	26.0	157	24.1	6.1		59	25	152	92	-	-		
35.50	35.53	51	23.7	132	35.9	5.3		61	27	155	95	-	-		
40.00	38.80	46	24.1	123	35.7	6.5		63	29	157	97	-	-		
45.00	43.54	41	26.2	119	34.5	7.1		66	31	159	99	-	-		
50.00	49.28	37	24.2	97	44.4	10.2		68	34	162	102	-	-		
56.00	55.31	33	24.1	86	45.3	7.8		71	36	165	105	-	-		
63.00	62.60	29	24.4	77	45.3	9.4		73	39	167	107	-	-		
71.00	68.96	26	21.9	63	45.3	4.31		58	24	139	79	-	-		
80.00	77.39	23	24.6	63	45.3	4.31		60	26	141	81	-	-		
90.00	87.60	21	24.8	56	45.3	5.9		62	28	144	84	-	-		
100.00	95.76	19	22.5	46	45.3	0.96		63	29	145	85	-	-		
112.00	108.39	17	25.0	46	45.3	1.17	65	31	147	87	-	-			

MC.RV..07, n ₁ = 1800 1/min							P _{TH} 33.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.84	263	18.1	511	22.0	8.2	MC2RVSF07 MC2RVHF07 MC2RVHT07	*)	*)	170	60	-	-	364	434
8.00	7.70	234	19.1	479	23.2	10.9		*)	*)	178	69	-	-		
9.00	8.65	208	20.0	447	24.5	12.5		*)	*)	186	77	-	-		
10.00	9.74	185	18.7	376	29.3	9.1		39	*)	194	85	-	-		
11.20	10.96	164	19.9	354	30.5	11.6		46	*)	202	93	-	-		
12.50	12.32	146	20.9	332	31.7	13.4		53	*)	209	100	-	-		
14.00	14.18	127	19.3	266	34.8	*)	MC3RVSF07 MC3RVHF07 MC3RVHT07	43	*)	155	83	-	-	380	437
16.00	15.97	113	21.7	266	35.0	*)		48	*)	160	87	-	-		
18.00	17.93	100	24.4	266	32.3	*)		52	*)	165	92	-	-		
20.00	19.94	90	23.4	229	35.8	2.12		56	*)	169	96	-	-		
22.50	22.45	80	26.3	229	32.0	2.12		60	*)	173	100	-	-		
25.00	25.22	71	29.6	229	27.1	2.12		64	*)	177	104	-	-		
28.00	28.38	63	29.0	200	31.8	5.7		67	26	181	108	-	-		
31.50	31.88	56	32.6	200	26.3	5.7		71	30	185	112	-	-		
35.50	33.79	53	29.4	172	39.4	1.36		73	31	186	113	-	-		
40.00	38.02	47	30.2	157	39.7	3.82		76	35	190	117	-	-		
45.00	42.71	42	33.9	157	34.2	3.82		79	38	193	120	-	-		
50.00	48.96	37	33.4	135	45.2	7.4		83	41	197	124	-	-		
56.00	53.98	33	31.1	114	51	5.3		85	44	200	127	-	-		
63.00	61.88	29	33.8	108	53	6.5		88	47	203	130	-	-		
71.00	70.77	25	25.5	71	53	*)		71	29	170	97	-	-		
80.00	79.49	23	28.6	71	53	*)		73	32	172	100	-	-		
90.00	91.12	20	32.8	71	53	*)		76	35	175	103	-	-		
100.00	96.17	19	29.3	60	53	0.464		77	36	177	104	-	-		
112.00	110.25	16	33.6	60	53	0.464	80	39	179	107	-	-			

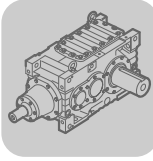
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RV..



MC.RV..08, n ₁ = 1800 1/min							P _{TH} 45.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	259	24.4	678	22.4	12.0	MC2RVSF08 MC2RVHF08 MC2RVHT08	*)	*)	210	75	-	-	366	434
8.00	7.82	230	25.7	635	23.8	15.1		*)	*)	220	86	-	-		
9.00	8.88	203	27.1	590	25.3	16.4		*)	*)	231	97	-	-		
10.00	9.74	185	25.3	507	29.3	11.3		*)	*)	239	105	-	-		
11.20	10.96	164	26.8	477	30.6	14.9		56	*)	248	114	-	-		
12.50	12.45	145	28.4	445	32.1	16.4		66	*)	258	124	-	-		
14.00	14.48	124	24.9	336	40.1	*)	MC3RVSF08 MC3RVHF08 MC3RVHT08	54	*)	192	103	-	-	382	437
16.00	16.30	110	28.0	336	40.0	*)		60	*)	198	108	-	-		
18.00	18.51	97	31.8	336	36.6	*)		65	*)	204	114	-	-		
20.00	20.25	89	30.1	291	40.2	2.78		69	*)	208	118	-	-		
22.50	22.80	79	33.9	291	36.8	2.78		74	*)	213	124	-	-		
25.00	25.89	70	38.5	291	32.1	2.78		79	*)	219	129	-	-		
28.00	29.06	62	37.5	252	36.9	6.8		84	33	223	134	-	-		
31.50	33.00	55	42.6	252	31.7	6.8		88	38	228	139	-	-		
35.50	34.90	52	39.4	223	42.1	2.91		90	40	230	141	-	-		
40.00	39.18	46	38.7	195	46.5	6.6		94	44	234	145	-	-		
45.00	44.49	40	43.9	195	41.4	6.6		99	48	239	149	-	-		
50.00	49.82	36	43.6	173	49.9	9.5		102	51	243	153	-	-		
56.00	56.62	32	45.8	160	47.9	1.58		106	55	247	157	-	-		
63.00	63.41	28	44.0	137	61	6.2		109	58	250	161	-	-		
71.00	70.39	26	37.0	104	67	4.22		87	36	209	119	-	-		
80.00	79.93	23	42.1	104	67	4.22		90	39	212	122	-	-		
90.00	89.53	20	44.7	98	67	5.4		93	42	215	126	-	-		
100.00	96.71	19	33.1	68	67	0.489		95	44	217	128	-	-		
112.00	108.32	17	37.6	68	67	0.267	98	47	220	130	-	-			

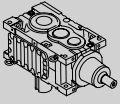


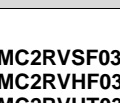


MC.RV..09, n ₁ = 1800 1/min							P _{TH} 55.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	263	33.6	945	28.8	10.2	MC2RVSF09 MC2RVHF09 MC2RVHT09	*)	*)	240	*)	-	-	368	434
8.00	7.92	227	35.8	872	31.0	15.6		*)	*)	255	100	-	-		
9.00	8.89	202	37.6	815	32.7	19.4		*)	*)	267	112	-	-		
10.00	9.61	187	34.8	707	37.0	9.0		*)	*)	274	119	-	-		
11.20	11.11	162	37.3	655	39.2	14.2		66	*)	287	132	-	-		
12.50	12.47	144	39.3	614	41.1	18.3		76	*)	298	143	-	-		
14.00	14.28	126	29.8	407	51	*)	MC3RVSF09 MC3RVHF09 MC3RVHT09	62	*)	221	117	-	-	384	437
16.00	16.52	109	34.4	407	52	*)		70	*)	229	126	-	-		
18.00	18.54	97	38.6	407	52	*)		76	*)	235	132	-	-		
20.00	19.70	91	37.8	375	53	3.08		79	*)	238	135	-	-		
22.50	22.78	79	43.7	375	54	3.08		86	*)	246	142	-	-		
25.00	25.57	70	49.1	375	50	3.08		91	*)	251	148	-	-		
28.00	28.12	64	47.8	332	55	8.3		95	37	256	153	-	-		
31.50	31.56	57	53.7	332	51	8.3		100	41	261	158	-	-		
35.50	34.47	52	50.2	288	61	4.41		104	45	265	162	-	-		
40.00	37.90	47	49.1	256	64	9.4		107	49	269	166	-	-		
45.00	42.54	42	55.1	256	63	9.4		112	53	274	170	-	-		
50.00	48.15	37	59.2	243	64	10.2		116	58	278	175	-	-		
56.00	54.72	33	57.3	207	70	8.2		121	62	283	180	-	-		
63.00	61.94	29	59.6	190	73	10.1		125	67	288	184	-	-		
71.00	68.22	26	51.4	149	80	4.49		99	40	239	136	-	-		
80.00	76.56	24	57.7	149	80	4.49		103	44	243	140	-	-		
90.00	86.65	21	60.1	137	80	6.3		106	48	247	144	-	-		
100.00	94.51	19	35.0	73	80	5.8		109	50	250	146	-	-		
112.00	106.98	17	40.1	74	80	5.7	112	54	253	150	-	-			

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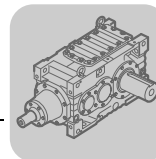


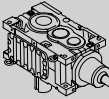


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

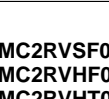


11.3.2 MC.RV..., n₁ = 1500 1/min

MC.RV..02, n ₁ = 1500 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	215	5.4	126	4.81	5.7	MC2RVSF02 MC2RVHF02 MC2RVHT02	*)	*)	63	22	-	-	354	434		
8.00	8.05	186	5.8	116	5.4	7.2		15	*)	67	26	-	-				
9.00	9.03	166	6.0	108	5.9	8.5		18	*)	70	29	-	-				
10.00	9.61	156	5.5	94	7.3	5.5		20	*)	72	31	-	-				
11.20	11.11	135	5.9	87	7.8	6.9		23	*)	76	34	-	-				
12.50	12.47	120	6.3	82	8.2	7.9		26	*)	78	37	-	-				
14.00	14.61	103	6.0	67	9.5	*)	MC3RVSF02 MC3RVHF02 MC3RVHT02	21	*)	58	31	-	-	370	435		
16.00	16.90	89	6.9	67	7.9	*)		23	*)	61	33	-	-				
18.00	18.96	79	7.3	63	8.3	0.54		25	8	62	35	-	-				
20.00	20.31	74	7.6	61	6.1	0.96		25	9	63	36	-	-				
22.50	23.49	64	7.9	55	7.5	2.08		27	11	65	38	-	-				
25.00	26.36	57	7.4	46	12.0	3.82		29	12	67	39	-	-				
28.00	29.43	51	8.0	45	10.2	4.11		30	13	68	41	-	-				
31.50	33.03	45	7.5	37	14.8	5.5		31	15	69	42	-	-				
35.50	37.38	40	6.9	30	19.3	6.8		33	16	71	43	-	-				
40.00	40.30	37	6.7	27	19.9	3.20		33	17	72	44	-	-				
45.00	45.22	33	7.6	28	19.2	3.12		35	18	73	46	-	-				
50.00	50.49	30	8.1	26	18.0	3.57		36	19	74	47	-	-				
56.00	56.66	26	7.6	22	21.9	5.00		37	20	75	48	-	-				
63.00	64.14	23	7.0	18.1	22.7	6.4		38	21	76	49	-	-				
71.00	70.97	21	8.1	19	22.7	2.05		30	14	64	36	-	-				
80.00	79.65	19	7.7	16.1	22.7	2.99		31	15	65	37	-	-				
90.00	90.15	17	7.1	13.1	22.7	4.00		32	16	66	38	-	-				
100.00	97.35	15	6.0	10.3	22.7	1.59		33	16	66	39	-	-				
112.00	110.19	14	6.8	10.3	22.7	1.59	34	17	67	40	-	-					
MC.RV..03, n ₁ = 1500 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	211	6.8	155	17.1	7.7	MC2RVSF03 MC2RVHF03 MC2RVHT03	*)	*)	78	28	-	-	356	434		
8.00	8.04	187	7.2	145	17.8	9.0		19	*)	82	32	-	-				
9.00	9.07	165	7.6	135	18.5	10.3		22	*)	86	36	-	-				
10.00	10.00	150	6.6	107	20.1	6.5		25	*)	89	39	-	-				
11.20	11.28	133	7.5	108	20.2	6.3		29	*)	92	42	-	-				
12.50	12.73	118	7.9	101	21.0	7.6		32	*)	96	46	-	-				
14.00	15.07	100	7.8	85	22.3	0.395	MC3RVSF03 MC3RVHF03 MC3RVHT03	26	*)	72	38	-	-	372	435		
16.00	17.00	88	8.8	85	22.5	0.396		28	*)	74	41	-	-				
18.00	19.18	78	9.9	85	22.6	0.396		30	10	76	43	-	-				
20.00	20.57	73	10.6	84	19.2	0.483		31	11	77	44	-	-				
22.50	23.20	65	11.4	80	19.5	1.15		33	13	79	46	-	-				
25.00	26.18	57	10.6	66	25.1	3.38		35	14	81	48	-	-				
28.00	29.60	51	11.4	63	25.1	3.93		37	16	83	50	-	-				
31.50	33.40	45	10.8	53	27.8	5.6		38	18	85	51	-	-				
35.50	35.08	43	10.7	51	28.4	3.16		39	18	85	52	-	-				
40.00	39.67	38	11.4	47	29.0	3.86		41	20	87	54	-	-				
45.00	44.75	34	10.9	40	30.7	5.4		42	22	89	55	-	-				
50.00	50.97	29	10.0	32	30.7	7.0		44	23	90	57	-	-				
56.00	57.30	26	11.0	32	30.7	5.2		45	24	92	58	-	-				
63.00	65.25	23	10.1	25	30.7	6.9		46	26	93	60	-	-				
71.00	69.86	21	10.7	25	30.7	0.58		37	16	77	44	-	-				
80.00	78.82	19	11.1	23	30.7	1.29		38	18	79	45	-	-				
90.00	89.76	17	10.2	19	30.7	2.96		39	19	80	47	-	-				
100.00	97.53	15	9.0	15.3	30.7	*)		40	20	81	47	-	-				
112.00	111.07	14	10.3	15.3	30.7	*)	41	21	82	49	-	-					

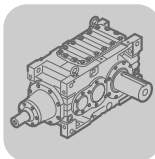
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RV..



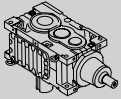
MC.RV..04, n ₁ = 1500 1/min							P _{TH}						15.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	206	8.9	197	19.7	7.5	MC2RVSF04 MC2RVHF04 MC2RVHT04	*)	*)	97	35	-	-	358	434		
8.00	8.20	183	9.4	185	20.4	9.2		24	*)	102	40	-	-				
9.00	9.17	164	9.9	174	21.2	10.8		28	*)	106	44	-	-				
10.00	10.15	148	9.2	148	22.4	5.8		32	*)	110	48	-	-				
11.20	11.41	131	9.7	139	23.3	7.4		36	*)	114	53	-	-				
12.50	12.76	118	10.3	131	24.1	8.9	39	*)	118	56	-	-					
14.00	14.76	102	9.2	102	26.4	*)	32	*)	88	47	-	-	374	435			
16.00	16.60	90	10.3	102	26.7	*)	34	*)	91	49	-	-					
18.00	18.56	81	11.6	102	26.9	*)	36	11	93	52	-	-					
20.00	20.60	73	12.9	102	23.9	*)	38	13	95	54	-	-					
22.50	23.17	65	14.5	102	21.2	*)	41	16	98	56	-	-					
25.00	25.90	58	14.9	94	23.6	0.68	43	18	100	59	-	-					
28.00	29.65	51	15.9	88	21.3	1.71	45	20	102	61	-	-					
31.50	33.14	45	14.9	74	30.2	4.02	47	22	104	63	-	-					
35.50	34.63	43	13.2	63	33.2	3.69	48	23	105	64	-	-					
40.00	39.63	38	15.4	64	32.1	3.47	50	25	107	66	-	-					
45.00	44.30	34	15.0	56	34.9	5.1	52	26	109	68	-	-					
50.00	49.83	30	14.1	47	35.3	6.8	53	28	111	70	-	-					
56.00	55.99	27	14.1	41	35.3	5.4	55	30	113	72	-	-					
63.00	62.98	24	14.2	37	35.3	6.5	57	31	114	73	-	-					
71.00	68.90	22	13.3	32	35.3	2.63	45	20	95	54	-	-					
80.00	77.02	19	14.4	31	35.3	3.04	47	21	97	55	-	-					
90.00	86.63	17	14.4	27	35.3	4.25	48	23	98	57	-	-					
100.00	93.18	16	8.7	15.5	35.3	0.230	49	24	99	58	-	-					
112.00	104.81	14	10.0	15.7	35.3	0.131	50	25	100	59	-	-					


MC.RV..05, n ₁ = 1500 1/min							P _{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	211	12.3	280	13.8	6.2	MC2RVSF05 MC2RVHF05 MC2RVHT05	*)	*)	108	38	-	-	360	434		
8.00	7.99	188	13.0	263	14.4	8.6		*)	*)	114	44	-	-				
9.00	8.86	169	13.6	247	15.6	9.8		30	*)	118	49	-	-				
10.00	9.87	152	12.7	209	17.8	7.1		35	*)	123	53	-	-				
11.20	11.11	135	13.5	197	18.5	9.3		39	*)	128	58	-	-				
12.50	12.33	122	14.1	186	19.6	10.3	43	*)	132	62	-	-					
14.00	14.68	102	12.1	134	25.3	0.228	35	*)	99	53	-	-	376	436			
16.00	16.53	91	13.6	134	25.2	0.229	38	*)	102	56	-	-					
18.00	18.33	82	15.1	134	24.2	0.227	41	*)	105	58	-	-					
20.00	20.22	74	15.3	124	23.3	2.01	43	15	107	61	-	-					
22.50	22.76	66	17.2	124	21.4	2.01	46	17	110	63	-	-					
25.00	25.25	59	19.1	124	19.9	2.01	48	19	112	66	-	-					
28.00	29.13	51	20.5	115	17.7	3.46	51	22	115	69	-	-					
31.50	32.32	46	19.8	100	23.6	5.8	53	24	117	71	-	-					
35.50	33.83	44	18.2	89	28.9	3.33	53	25	118	72	-	-					
40.00	39.03	38	19.5	82	27.4	4.71	56	28	121	74	-	-					
45.00	43.30	35	20.1	76	30.0	5.9	58	29	123	76	-	-					
50.00	48.74	31	18.6	63	36.1	8.7	60	31	125	78	-	-					
56.00	55.44	27	19.8	59	37.1	1.18	62	33	127	81	-	-					
63.00	62.40	24	18.8	50	39.7	3.56	64	35	129	82	-	-					
71.00	69.92	21	15.7	37	41.3	4.70	51	23	107	61	-	-					
80.00	77.56	19	17.4	37	41.3	4.70	53	24	109	63	-	-					
90.00	87.30	17	19.1	36	41.3	4.99	54	26	111	64	-	-					
100.00	93.84	16	13.4	23	41.3	2.91	55	27	112	65	-	-					
112.00	105.62	14	15.0	23	41.3	2.91	57	28	113	67	-	-					

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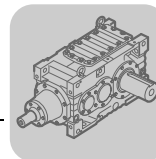
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

MC.RV..06, n ₁ = 1500 1/min							P _{TH} 25.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.74	223	15.5	371	18.4	4.44	MC2RVSF06 MC2RVHF06 MC2RVHT06	*)	*)	126	43	-	-	362	434
8.00	7.80	192	16.6	343	20.0	7.9		*)	*)	135	51	-	-		
9.00	8.75	171	17.4	320	21.3	10.4		36	*)	141	58	-	-		
10.00	9.64	156	16.0	270	25.6	5.7		40	*)	146	63	-	-		
11.20	11.15	135	17.2	250	27.2	8.9		47	*)	153	70	-	-		
12.50	12.52	120	18.1	235	28.4	11.1	52	*)	159	75	-	-			
14.00	14.09	106	14.3	166	34.1	2.60	MC3RVSF06 MC3RVHF06 MC3RVHT06	41	*)	117	62	-	-	378	436
16.00	16.30	92	16.6	166	34.6	2.60		45	*)	122	66	-	-		
18.00	18.30	82	18.6	166	34.8	2.60		49	*)	125	70	-	-		
20.00	20.30	74	18.8	151	35.4	4.66		52	17	128	73	-	-		
22.50	23.49	64	21.8	151	32.9	4.66		55	21	132	77	-	-		
25.00	26.36	57	24.5	151	28.9	4.66		58	24	135	80	-	-		
28.00	28.78	52	25.1	142	27.5	5.9		60	26	137	82	-	-		
31.50	32.30	46	26.1	131	30.5	7.4		63	29	140	85	-	-		
35.50	35.53	42	23.7	110	41.7	6.6		65	31	142	87	-	-		
40.00	38.80	39	24.2	103	42.4	7.8		67	33	144	89	-	-		
45.00	43.54	34	26.3	100	41.3	8.4		69	35	147	91	-	-		
50.00	49.28	30	24.4	81	45.3	11.4		72	38	150	94	-	-		
56.00	55.31	27	24.2	72	45.3	9.0		74	40	152	96	-	-		
63.00	62.60	24	24.7	65	45.3	10.5		76	42	154	99	-	-		
71.00	68.96	22	21.9	52	45.3	5.3		61	27	128	73	-	-		
80.00	77.39	19	24.6	52	45.3	5.3		63	29	130	75	-	-		
90.00	87.60	17	25.0	47	45.3	6.8		65	31	133	77	-	-		
100.00	95.76	16	22.7	39	45.3	1.68	66	32	134	78	-	-			
112.00	108.39	14	25.3	38	45.3	1.90	68	34	136	80	-	-			

MC.RV..07, n ₁ = 1500 1/min							P _{TH} 33.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.84	219	19.1	450	23.2	8.6	MC2RVSF07 MC2RVHF07 MC2RVHT07	*)	*)	155	53	-	-	364	434
8.00	7.70	195	20.2	421	24.6	11.5		*)	*)	163	61	-	-		
9.00	8.65	173	21.1	394	25.8	13.2		43	*)	170	69	-	-		
10.00	9.74	154	19.9	332	30.7	9.5		50	*)	178	77	-	-		
11.20	10.96	137	21.0	312	32.1	12.2		56	*)	185	84	-	-		
12.50	12.32	122	22.2	293	33.3	14.1	63	*)	192	91	-	-			
14.00	14.18	106	19.3	221	37.7	*)	MC3RVSF07 MC3RVHF07 MC3RVHT07	50	*)	143	75	-	-	380	437
16.00	15.97	94	21.7	221	38.0	*)		55	*)	147	80	-	-		
18.00	17.93	84	24.4	221	38.1	*)		59	*)	151	84	-	-		
20.00	19.94	75	24.7	202	37.9	2.27		62	21	155	88	-	-		
22.50	22.45	67	27.8	202	33.9	2.27		66	24	159	92	-	-		
25.00	25.22	59	31.2	202	28.7	2.27		69	28	163	95	-	-		
28.00	28.38	53	30.7	176	33.5	6.0		73	31	167	99	-	-		
31.50	31.88	47	34.4	176	27.7	6.0		76	35	170	102	-	-		
35.50	33.79	44	29.3	143	46.2	3.09		78	36	172	104	-	-		
40.00	38.02	39	30.7	133	46.1	5.0		81	39	175	107	-	-		
45.00	42.71	35	34.5	133	40.7	5.0		84	42	178	111	-	-		
50.00	48.96	31	33.6	113	52	8.9		87	46	182	114	-	-		
56.00	53.98	28	31.2	95	53	6.8		89	48	184	116	-	-		
63.00	61.88	24	33.9	90	53	8.0		92	51	187	120	-	-		
71.00	70.77	21	25.5	59	53	1.14		75	33	157	89	-	-		
80.00	79.49	19	28.7	59	53	1.14		77	36	159	91	-	-		
90.00	91.12	16	32.9	59	53	1.14		80	38	162	94	-	-		
100.00	96.17	16	29.3	50	53	1.48	81	39	163	95	-	-			
112.00	110.25	14	33.6	50	53	1.48	83	42	166	98	-	-			

Bevel-Helical Gear Units MC...R

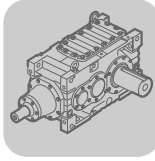
Selection tables (detailed) MC.RV..



MC.RV..08, n₁ = 1500 1/min							P_{TH}						45.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	6.95	216	25.8	597	23.7	12.7	MC2RVSF08 MC2RVHF08 MC2RVHT08	*)	*)	192	67	-	-	366	434		
8.00	7.82	192	27.2	559	25.0	16.0		*)	*)	201	77	-	-				
9.00	8.88	169	28.6	519	26.8	17.4		54	*)	212	87	-	-				
10.00	9.74	154	26.8	447	30.8	11.8		61	*)	219	94	-	-				
11.20	10.96	137	28.3	420	32.3	15.7		69	*)	228	103	-	-				
12.50	12.45	120	30.0	392	33.9	17.3		78	*)	237	112	-	-				
14.00	14.48	104	26.4	296	42.4	*)	MC3RVSF08 MC3RVHF08 MC3RVHT08	63	*)	176	93	-	-	382	437		
16.00	16.30	92	29.7	296	42.1	*)		68	*)	182	99	-	-				
18.00	18.51	81	33.7	296	38.4	*)		73	*)	188	104	-	-				
20.00	20.25	74	31.8	256	42.4	2.91		77	26	191	108	-	-				
22.50	22.80	66	35.9	256	38.8	2.91		81	31	196	113	-	-				
25.00	25.89	58	40.7	256	33.9	2.91		86	35	201	118	-	-				
28.00	29.06	52	39.7	222	38.8	7.1		90	40	206	123	-	-				
31.50	33.00	45	45.1	222	33.2	7.1		95	44	210	127	-	-				
35.50	34.90	43	41.5	196	44.6	3.11		97	46	212	129	-	-				
40.00	39.18	38	40.9	172	48.8	7.0		100	49	216	133	-	-				
45.00	44.49	34	46.5	172	43.4	7.0		104	53	220	137	-	-				
50.00	49.82	30	43.9	145	58	11.2		108	57	224	141	-	-				
56.00	56.62	26	47.5	138	53	2.35		111	60	228	145	-	-				
63.00	63.41	24	44.3	115	66	7.8		114	63	231	148	-	-				
71.00	70.39	21	37.1	87	67	5.8		92	41	192	109	-	-				
80.00	79.93	19	42.1	87	67	5.8		95	44	196	113	-	-				
90.00	89.53	17	45.0	83	67	6.8		98	47	199	115	-	-				
100.00	96.71	16	33.4	57	67	1.31		99	49	200	117	-	-				
112.00	108.32	14	37.9	58	67	1.10	102	51	203	120	-	-					

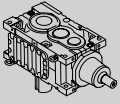


MC.RV..09, n₁ = 1500 1/min							P_{TH}						55.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]											
7.10	6.85	219	35.5	832	30.4	10.8	MC2RVSF09 MC2RVHF09 MC2RVHT09	*)	*)	219	*)	-	-	368	434		
8.00	7.92	189	37.8	768	32.7	16.4		*)	*)	233	90	-	-				
9.00	8.89	169	39.7	717	34.6	20.5		*)	*)	244	100	-	-				
10.00	9.61	156	36.8	622	39.2	9.6		69	*)	251	107	-	-				
11.20	11.11	135	39.5	577	41.4	15.0		81	*)	263	120	-	-				
12.50	12.47	120	41.5	541	43.3	19.2		90	*)	273	129	-	-				
14.00	14.28	105	31.5	359	54	*)	MC3RVSF09 MC3RVHF09 MC3RVHT09	72	*)	203	107	-	-	384	437		
16.00	16.52	91	36.4	359	55	*)		79	*)	210	115	-	-				
18.00	18.54	81	40.9	359	55	*)		84	*)	216	120	-	-				
20.00	19.70	76	40.0	330	56	3.20		87	*)	219	123	-	-				
22.50	22.78	66	46.2	330	57	3.20		94	35	226	130	-	-				
25.00	25.57	59	51.9	330	53	3.20		99	40	231	136	-	-				
28.00	28.12	53	50.6	293	58	8.7		103	44	236	140	-	-				
31.50	31.56	48	56.7	293	53	8.7		107	49	240	145	-	-				
35.50	34.47	44	53.0	253	64	4.75		111	52	244	148	-	-				
40.00	37.90	40	52.0	226	67	9.8		114	56	248	152	-	-				
45.00	42.54	35	58.4	226	66	9.8		119	60	252	156	-	-				
50.00	48.15	31	59.4	203	71	11.5		123	64	257	161	-	-				
56.00	54.72	27	58.8	177	75	9.9		127	69	261	165	-	-				
63.00	61.94	24	59.8	159	79	11.3		131	72	265	170	-	-				
71.00	68.22	22	51.4	124	80	6.1		105	46	221	125	-	-				
80.00	76.56	20	57.7	124	80	6.1		108	50	224	128	-	-				
90.00	86.65	17	60.5	115	80	7.7		112	53	228	132	-	-				
100.00	94.51	16	35.2	61	80	6.4		114	55	230	135	-	-				
112.00	106.98	14	40.4	62	80	6.3	117	59	234	138	-	-					




11



Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

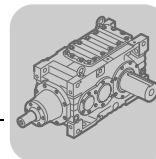
11.3.3 MC.RV..., n₁ = 1200 1/min

MC.RV..02, n ₁ = 1200 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	172	5.8	107	5.3	6.2	MC2RVSF02 MC2RVHF02 MC2RVHT02	17	*)	57	19	-	-	354	434		
8.00	8.05	149	6.2	99	5.8	7.8		21	*)	61	23	-	-				
9.00	9.03	133	6.5	93	6.2	9.0		24	*)	63	26	-	-				
10.00	9.61	125	5.7	78	8.6	6.5		25	*)	65	27	-	-				
11.20	11.11	108	6.4	75	8.3	7.3		28	*)	68	31	-	-				
12.50	12.47	96	6.7	70	8.7	8.5		31	*)	71	33	-	-				
14.00	14.61	82	6.2	56	11.0	*)	MC3RVSF02 MC3RVHF02 MC3RVHT02	24	7	53	28	-	-	370	435		
16.00	16.90	71	7.2	56	9.3	*)		26	9	55	30	-	-				
18.00	18.96	63	7.4	51	10.9	1.38		27	11	56	31	-	-				
20.00	20.31	59	8.1	52	6.4	1.01		28	11	57	32	-	-				
22.50	23.49	51	8.0	45	10.2	2.88		30	13	59	34	-	-				
25.00	26.36	46	7.5	37	14.9	4.63		31	14	60	35	-	-				
28.00	29.43	41	8.1	36	13.1	4.93		32	16	62	37	-	-				
31.50	33.03	36	7.6	30	17.9	6.3		34	17	63	38	-	-				
35.50	37.38	32	6.9	24	21.1	6.9		35	18	64	39	-	-				
40.00	40.30	30	6.7	22	21.8	4.08		36	19	65	40	-	-				
45.00	45.22	27	7.6	22	21.9	3.99		37	20	66	41	-	-				
50.00	50.49	24	8.1	21	21.7	4.46		38	21	67	42	-	-				
56.00	56.66	21	7.7	18.0	22.7	5.8		39	22	68	43	-	-				
63.00	64.14	19	7.1	14.6	22.7	6.9		40	23	69	44	-	-				
71.00	70.97	17	8.1	15.1	22.7	2.64		32	15	58	33	-	-				
80.00	79.65	15	7.8	13.0	22.7	3.53		33	16	59	34	-	-				
90.00	90.15	13	7.1	10.5	22.7	4.58		34	17	60	35	-	-				
100.00	97.35	12	6.2	8.4	22.7	1.98		35	18	60	35	-	-				
112.00	110.19	11	7.0	8.4	22.7	1.98	35	19	61	36	-	-					

MC.RV..03, n ₁ = 1200 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	168	7.3	133	18.2	8.1	MC2RVSF03 MC2RVHF03 MC2RVHT03	22	*)	70	24	-	-	356	434		
8.00	8.04	149	7.7	124	19.0	9.6		25	*)	74	28	-	-				
9.00	9.07	132	8.1	116	19.7	10.9		29	*)	77	31	-	-				
10.00	10.00	120	6.6	86	22.0	8.3		32	*)	80	34	-	-				
11.20	11.28	106	7.5	87	22.2	8.0		35	*)	83	38	-	-				
12.50	12.73	94	8.5	87	22.4	8.1		38	*)	87	41	-	-				
14.00	15.07	80	7.8	68	24.4	1.38	MC3RVSF03 MC3RVHF03 MC3RVHT03	30	9	65	34	-	-	372	435		
16.00	17.00	71	8.8	68	24.7	1.38		32	11	67	36	-	-				
18.00	19.18	63	10.0	68	24.9	1.38		34	13	69	38	-	-				
20.00	20.57	58	10.7	68	23.7	1.38		35	14	70	39	-	-				
22.50	23.20	52	11.5	65	24.3	2.04		36	16	72	41	-	-				
25.00	26.18	46	10.7	53	27.6	4.28		38	18	74	43	-	-				
28.00	29.60	41	11.4	50	28.1	4.89		40	19	75	45	-	-				
31.50	33.40	36	10.8	42	30.5	6.5		41	21	77	46	-	-				
35.50	35.08	34	10.8	41	30.7	4.04		42	21	78	47	-	-				
40.00	39.67	30	11.4	38	30.7	4.81		43	23	79	49	-	-				
45.00	44.75	27	10.9	32	30.7	6.3		45	24	81	50	-	-				
50.00	50.97	24	10.1	26	30.7	8.0		46	26	82	52	-	-				
56.00	57.30	21	11.1	25	30.7	6.1		47	27	83	53	-	-				
63.00	65.25	18	10.2	21	30.7	7.8		49	28	85	54	-	-				
71.00	69.86	17	10.7	20	30.7	1.25		39	19	70	40	-	-				
80.00	78.82	15	11.2	19	30.7	1.90		40	20	71	41	-	-				
90.00	89.76	13	10.3	15.1	30.7	3.62		41	21	73	42	-	-				
100.00	97.53	12	9.1	12.3	30.7	*)		42	22	73	43	-	-				
112.00	111.07	11	10.3	12.3	30.7	*)	43	23	75	44	-	-					

Bevel-Helical Gear Units MC...R

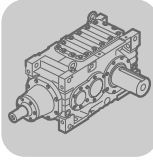
Selection tables (detailed) MC.RV..



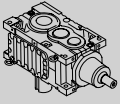


MC.RV..04, n₁ = 1200 1/min							P_{TH}						15.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	165	9.6	170	20.9	7.9	MC2RVSF04 MC2RVHF04 MC2RVHT04	28	*)	87	31	-	-	358	434		
8.00	8.20	146	10.1	159	21.8	9.8		32	*)	91	35	-	-				
9.00	9.17	131	10.6	149	22.6	11.5		36	*)	96	39	-	-				
10.00	10.15	118	9.7	125	24.1	6.5		39	*)	99	43	-	-				
11.20	11.41	105	10.4	119	24.9	7.9		43	*)	103	47	-	-				
12.50	12.76	94	11.0	112	25.7	9.5	46	*)	107	50	-	-					
14.00	14.76	81	9.8	87	28.2	*)	MC3RVSF04 MC3RVHF04 MC3RVHT04	36	11	79	42	-	-	374	435		
16.00	16.60	72	11.1	87	28.5	*)		39	13	82	44	-	-				
18.00	18.56	65	12.4	87	28.7	*)		41	16	84	47	-	-				
20.00	20.60	58	13.1	83	28.7	0.208		43	17	86	49	-	-				
22.50	23.17	52	14.7	83	26.1	0.208		45	20	88	51	-	-				
25.00	25.90	46	14.9	75	29.7	1.79		47	21	90	53	-	-				
28.00	29.65	40	16.0	71	27.1	2.73		49	24	93	55	-	-				
31.50	33.14	36	15.0	59	33.9	5.1		51	25	95	57	-	-				
35.50	34.63	35	13.3	51	35.3	4.73		51	26	95	58	-	-				
40.00	39.63	30	15.5	51	35.3	4.51		53	28	97	60	-	-				
45.00	44.30	27	15.0	45	35.3	6.2		55	30	99	61	-	-				
50.00	49.83	24	14.2	38	35.3	7.9		56	31	101	63	-	-				
56.00	55.99	21	14.2	33	35.3	6.5		58	33	102	65	-	-				
63.00	62.98	19	14.4	30	35.3	7.5		59	34	104	66	-	-				
71.00	68.90	17	13.4	26	35.3	3.59		48	23	86	49	-	-				
80.00	77.02	16	14.4	25	35.3	4.01		49	24	88	50	-	-				
90.00	86.63	14	14.5	22	35.3	5.1		51	25	89	51	-	-				
100.00	93.18	13	8.9	12.6	35.3	0.65	51	26	90	52	-	-					
112.00	104.81	11	10.1	12.7	35.3	0.59	53	27	91	54	-	-					




MC.RV..05, n₁ = 1200 1/min							P_{TH}						20.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	169	13.2	239	14.8	6.7	MC2RVSF05 MC2RVHF05 MC2RVHT05	30	*)	97	33	-	-	360	434		
8.00	7.99	150	13.9	224	15.6	9.3		35	*)	102	39	-	-				
9.00	8.86	135	14.5	211	16.7	10.4		39	*)	106	43	-	-				
10.00	9.87	122	12.8	169	21.2	9.8		43	*)	111	47	-	-				
11.20	11.11	108	14.4	168	19.9	10.1		48	*)	115	52	-	-				
12.50	12.33	97	15.1	159	21.0	11.0	51	*)	119	55	-	-					
14.00	14.68	82	12.1	108	27.6	1.73	MC3RVSF05 MC3RVHF05 MC3RVHT05	41	12	89	47	-	-	376	436		
16.00	16.53	73	13.6	108	28.1	1.73		43	15	92	50	-	-				
18.00	18.33	65	15.1	108	28.5	1.73		46	17	95	52	-	-				
20.00	20.22	59	15.3	99	28.0	3.58		48	19	97	54	-	-				
22.50	22.76	53	17.2	99	26.3	3.58		50	22	99	57	-	-				
25.00	25.25	48	19.1	99	25.0	3.58		52	24	101	59	-	-				
28.00	29.13	41	20.5	92	23.0	5.0		55	26	104	62	-	-				
31.50	32.32	37	20.0	81	28.3	7.2		57	28	106	64	-	-				
35.50	33.83	35	18.2	71	34.2	4.85		57	29	107	65	-	-				
40.00	39.03	31	19.5	66	33.1	6.2		60	31	110	67	-	-				
45.00	43.30	28	20.2	62	35.4	7.3		62	33	111	69	-	-				
50.00	48.74	25	18.8	51	39.3	10.1		63	35	113	71	-	-				
56.00	55.44	22	19.9	47	40.5	2.24		65	37	115	73	-	-				
63.00	62.40	19	19.0	40	41.3	4.59		67	38	117	75	-	-				
71.00	69.92	17	15.7	30	41.3	5.8		54	26	97	55	-	-				
80.00	77.56	15	17.4	30	41.3	5.8		56	27	99	57	-	-				
90.00	87.30	14	19.2	29	41.3	6.0		57	29	101	58	-	-				
100.00	93.84	13	13.5	19	41.3	3.58	58	30	101	59	-	-					
112.00	105.62	11	15.4	19	41.3	3.46	59	31	103	61	-	-					

11



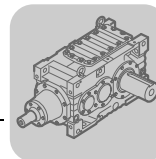
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

MC.RV..06, n ₁ = 1200 1/min							P _{TH} 25.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.74	178	16.6	317	19.6	4.74	MC2RVSF06 MC2RVHF06 MC2RVHT06	34	*)	113	37	-	-	362	434
8.00	7.80	154	17.8	294	21.3	8.4		41	*)	121	45	-	-		
9.00	8.75	137	18.6	274	22.9	11.1		46	*)	127	51	-	-		
10.00	9.64	125	17.0	229	27.7	6.4		51	*)	131	55	-	-		
11.20	11.15	108	18.4	214	29.1	9.5		57	*)	138	62	-	-		
12.50	12.52	96	19.4	201	30.4	11.9	62	*)	143	67	-	-			
14.00	14.09	85	14.4	133	37.3	4.28	MC3RVSF06 MC3RVHF06 MC3RVHT06	48	14	106	55	-	-	378	436
16.00	16.30	74	16.7	133	37.9	4.28		52	18	110	59	-	-		
18.00	18.30	66	18.7	133	38.3	4.28		55	21	113	62	-	-		
20.00	20.30	59	18.9	122	39.0	6.3		57	23	116	65	-	-		
22.50	23.49	51	21.9	122	39.4	6.3		61	27	120	69	-	-		
25.00	26.36	46	24.6	122	36.7	6.3		63	29	122	72	-	-		
28.00	28.78	42	25.1	114	36.1	7.7		65	31	125	74	-	-		
31.50	32.30	37	26.2	106	38.7	9.0		68	34	127	76	-	-		
35.50	35.53	34	23.7	88	45.3	8.4		70	36	129	78	-	-		
40.00	38.80	31	24.2	82	45.3	9.6		72	37	131	80	-	-		
45.00	43.54	28	26.6	80	45.3	10		74	40	133	83	-	-		
50.00	49.28	24	24.6	66	45.3	13.0		76	42	136	85	-	-		
56.00	55.31	22	24.3	58	45.3	10.6		78	44	138	87	-	-		
63.00	62.60	19	24.9	52	45.3	12.1		80	46	140	89	-	-		
71.00	68.96	17	21.9	42	45.3	6.7		65	31	116	66	-	-		
80.00	77.39	16	24.6	42	45.3	6.7		67	33	118	68	-	-		
90.00	87.60	14	25.2	38	45.3	8.0		68	34	120	70	-	-		
100.00	95.76	13	22.9	31	45.3	2.65	70	36	122	71	-	-			
112.00	108.39	11	25.4	31	45.3	2.92	71	37	124	73	-	-			

MC.RV..07, n ₁ = 1200 1/min							P _{TH} 33.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.84	176	20.4	385	24.8	9.2	MC2RVSF07 MC2RVHF07 MC2RVHT07	42	*)	139	46	-	-	364	434
8.00	7.70	156	21.6	361	26.2	12.3		49	*)	146	54	-	-		
9.00	8.65	139	22.6	337	27.5	14.0		56	*)	153	61	-	-		
10.00	9.74	123	21.0	281	33.6	10.7		62	*)	160	68	-	-		
11.20	10.96	109	22.5	267	34.4	13.1		69	*)	167	74	-	-		
12.50	12.32	97	23.6	249	35.9	15.1	74	*)	173	81	-	-			
14.00	14.18	85	19.2	177	41.4	1.62	MC3RVSF07 MC3RVHF07 MC3RVHT07	58	*)	129	67	-	-	380	437
16.00	15.97	75	21.7	177	41.9	1.62		62	21	133	71	-	-		
18.00	17.93	67	24.3	177	42.1	1.62		66	24	137	75	-	-		
20.00	19.94	60	25.0	163	42.8	4.12		69	28	140	79	-	-		
22.50	22.45	53	28.1	163	41.8	4.12		73	31	144	82	-	-		
25.00	25.22	48	31.6	163	36.8	4.12		76	34	148	86	-	-		
28.00	28.38	42	32.7	150	36.0	6.4		79	38	151	89	-	-		
31.50	31.88	38	36.3	148	31.4	6.8		82	41	154	92	-	-		
35.50	33.79	36	29.5	115	51	5.1		84	42	156	94	-	-		
40.00	38.02	32	30.9	107	52	7.0		86	45	159	97	-	-		
45.00	42.71	28	34.7	107	51	7.0		89	48	162	100	-	-		
50.00	48.96	25	33.9	91	53	10.8		92	51	165	103	-	-		
56.00	53.98	22	31.3	76	53	8.8		94	53	167	105	-	-		
63.00	61.88	19	34.2	73	53	9.9		97	56	170	108	-	-		
71.00	70.77	17	25.5	47	53	2.68		79	38	142	80	-	-		
80.00	79.49	15	28.6	47	53	2.68		81	40	144	83	-	-		
90.00	91.12	13	32.8	47	53	2.68		84	42	147	85	-	-		
100.00	96.17	12	29.3	40	53	2.79	85	43	148	86	-	-			
112.00	110.25	11	33.6	40	53	2.79	87	46	150	89	-	-			

Bevel-Helical Gear Units MC...R

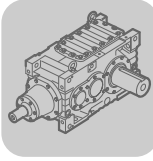
Selection tables (detailed) MC.RV..



MC.RV..08, n₁ = 1200 1/min							P_{TH}						45.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	173	27.6	511	25.3	13.6	MC2RVSF08 MC2RVHF08 MC2RVHT08	53	*)	172	58	-	-	366	434		
8.00	7.82	153	29.1	478	26.9	17.1		61	*)	181	67	-	-				
9.00	8.88	135	30.7	444	28.6	18.5		70	*)	190	77	-	-				
10.00	9.74	123	28.6	382	33.1	12.7		77	*)	197	83	-	-				
11.20	10.96	109	30.3	360	34.4	16.7		84	*)	205	91	-	-				
12.50	12.45	96	32.0	335	36.3	18.6		92	*)	213	100	-	-				
14.00	14.48	83	28.1	253	45.3	*)	MC3RVSF08 MC3RVHF08 MC3RVHT08	72	*)	159	84	-	-	382	437		
16.00	16.30	74	31.7	253	45.2	*)		77	26	164	89	-	-				
18.00	18.51	65	36.0	253	41.3	*)		82	31	170	94	-	-				
20.00	20.25	59	34.0	218	45.6	3.20		85	35	173	97	-	-				
22.50	22.80	53	38.2	218	41.7	3.20		90	39	178	102	-	-				
25.00	25.89	46	43.4	218	36.5	3.20		94	43	182	106	-	-				
28.00	29.06	41	42.4	190	41.7	7.6		98	47	186	111	-	-				
31.50	33.00	36	46.9	185	38.9	8.4		102	51	191	115	-	-				
35.50	34.90	34	42.1	159	53	5.1		104	53	192	117	-	-				
40.00	39.18	31	43.7	147	52	7.5		107	56	196	120	-	-				
45.00	44.49	27	47.3	140	52	8.8		111	60	200	124	-	-				
50.00	49.82	24	44.3	117	65	13.4		114	63	203	127	-	-				
56.00	56.62	21	47.7	111	64	4.64		117	66	207	131	-	-				
63.00	63.41	19	44.8	93	67	9.8		120	69	210	134	-	-				
71.00	70.39	17	37.0	69	67	7.8		97	46	174	99	-	-				
80.00	79.93	15	42.1	69	67	7.8		100	49	178	102	-	-				
90.00	89.53	13	45.3	67	67	8.7		103	52	180	104	-	-				
100.00	96.71	12	33.8	46	67	2.39		104	54	182	106	-	-				
112.00	108.32	11	38.2	46	67	2.20	107	56	185	109	-	-					

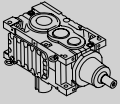


MC.RV..09, n₁ = 1200 1/min							P_{TH}						55.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	175	37.9	712	32.5	11.5	MC2RVSF09 MC2RVHF09 MC2RVHT09	*)	*)	197	*)	-	-	368	434		
8.00	7.92	151	40.4	657	35.0	17.5		72	*)	210	79	-	-				
9.00	8.89	135	42.4	614	37.0	21.9		81	*)	219	88	-	-				
10.00	9.61	125	39.3	532	41.9	10.3		87	*)	226	95	-	-				
11.20	11.11	108	42.1	493	44.4	16.1		98	*)	237	106	-	-				
12.50	12.47	96	44.4	463	46.3	20.6		106	*)	246	115	-	-				
14.00	14.28	84	33.6	306	58	*)	MC3RVSF09 MC3RVHF09 MC3RVHT09	83	*)	183	96	-	-	384	437		
16.00	16.52	73	38.9	306	59	*)		89	31	190	103	-	-				
18.00	18.54	65	43.6	306	59	*)		95	36	196	108	-	-				
20.00	19.70	61	42.8	283	60	3.36		97	39	198	111	-	-				
22.50	22.78	53	49.5	283	61	3.36		103	45	205	117	-	-				
25.00	25.57	47	55.5	283	57	3.36		108	49	210	122	-	-				
28.00	28.12	43	54.0	250	62	9.4		112	53	213	126	-	-				
31.50	31.56	38	60.6	250	57	9.4		116	57	218	131	-	-				
35.50	34.47	35	55.5	212	70	6.1		119	60	221	134	-	-				
40.00	37.90	32	55.5	193	72	10.5		122	64	225	137	-	-				
45.00	42.54	28	62.3	193	71	10.5		126	68	229	141	-	-				
50.00	48.15	25	60.0	164	78	13.0		130	72	233	146	-	-				
56.00	54.72	22	59.0	142	80	11.5		134	75	237	150	-	-				
63.00	61.94	19	60.2	128	80	12.9		138	79	241	154	-	-				
71.00	68.22	18	51.4	99	80	8.0		111	53	200	113	-	-				
80.00	76.56	16	57.7	99	80	8.0		114	56	203	116	-	-				
90.00	86.65	14	60.5	92	80	9.0		118	59	207	120	-	-				
100.00	94.51	13	35.6	50	80	7.3		120	61	209	122	-	-				
112.00	106.98	11	40.8	50	80	7.2	123	64	212	125	-	-					




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Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

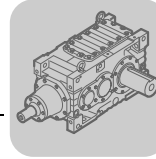
11.3.4 MC.RV..., n₁ = 1000 1/min

MC.RV..02, n ₁ = 1000 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	144	6.1	95	5.5	6.5	MC2RVSF02 MC2RVHF02 MC2RVHT02	22	*)	52	17	-	-	354	434		
8.00	8.05	124	6.5	87	6.0	8.2		25	*)	56	21	-	-				
9.00	9.03	111	6.8	82	6.5	9.5		28	*)	58	23	-	-				
10.00	9.61	104	5.8	66	10.4	7.8		29	*)	60	25	-	-				
11.20	11.11	90	6.7	65	9.0	7.9		32	7	63	28	-	-				
12.50	12.47	80	7.1	62	9.2	8.9		34	9	65	30	-	-				
14.00	14.61	68	6.3	47	13.1	0.87	MC3RVSF02 MC3RVHF02 MC3RVHT02	26	10	49	25	-	-	370	435		
16.00	16.90	59	7.3	47	11.5	0.87		28	11	51	27	-	-				
18.00	18.96	53	7.4	43	13.1	2.05		30	13	52	29	-	-				
20.00	20.31	49	8.6	46	6.9	1.08		30	14	53	30	-	-				
22.50	23.49	43	8.0	37	12.6	3.57		32	15	55	31	-	-				
25.00	26.36	38	7.5	31	17.4	5.3		33	16	56	33	-	-				
28.00	29.43	34	8.1	30	15.8	5.7		34	18	57	34	-	-				
31.50	33.03	30	7.6	25	20.5	6.9		36	19	58	35	-	-				
35.50	37.38	27	7.0	20	22.7	6.9		37	20	59	36	-	-				
40.00	40.30	25	6.7	18.5	22.7	4.79		37	21	60	37	-	-				
45.00	45.22	22	7.7	19	22.7	4.69		38	22	61	38	-	-				
50.00	50.49	20	8.1	17.7	22.7	5.2		39	23	62	39	-	-				
56.00	56.66	18	7.8	15.1	22.7	6.5		40	23	63	40	-	-				
63.00	64.14	16	7.1	12.2	22.7	6.9		41	24	64	41	-	-				
71.00	70.97	14	8.1	12.6	22.7	3.14		34	17	53	30	-	-				
80.00	79.65	13	7.9	10.9	22.7	4.00		34	18	54	31	-	-				
90.00	90.15	11	7.2	8.8	22.7	4.95		35	18	55	32	-	-				
100.00	97.35	10	6.2	7.1	22.7	2.32		36	19	56	32	-	-				
112.00	110.19	9.1	7.0	7.0	22.7	2.34	37	20	57	33	-	-					

MC.RV..03, n ₁ = 1000 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	140	7.7	117	19.2	8.5	MC2RVSF03 MC2RVHF03 MC2RVHT03	27	*)	64	22	-	-	356	434		
8.00	8.04	124	8.1	109	20.0	10.2		31	*)	68	25	-	-				
9.00	9.07	110	8.6	102	20.8	11.6		34	*)	71	29	-	-				
10.00	10.00	100	6.6	72	23.6	9.8		36	*)	74	31	-	-				
11.20	11.28	89	7.6	73	23.9	9.6		39	8	77	34	-	-				
12.50	12.73	79	8.7	74	24.0	9.3		42	11	80	37	-	-				
14.00	15.07	66	7.8	57	26.3	2.19	MC3RVSF03 MC3RVHF03 MC3RVHT03	33	12	60	31	-	-	372	435		
16.00	17.00	59	8.8	57	26.7	2.19		34	14	62	33	-	-				
18.00	19.18	52	10.0	57	26.9	2.19		36	16	64	35	-	-				
20.00	20.57	49	10.7	57	26.3	2.19		37	17	65	36	-	-				
22.50	23.20	43	11.5	54	27.2	2.81		39	18	66	38	-	-				
25.00	26.18	38	10.8	45	29.8	5.0		40	20	68	40	-	-				
28.00	29.60	34	11.5	42	30.4	5.7		42	21	70	41	-	-				
31.50	33.40	30	10.9	36	30.7	7.3		43	23	71	43	-	-				
35.50	35.08	29	10.9	34	30.7	4.81		44	23	72	43	-	-				
40.00	39.67	25	11.4	32	30.7	5.6		45	25	73	45	-	-				
45.00	44.75	22	11.0	27	30.7	7.1		47	26	75	46	-	-				
50.00	50.97	20	10.1	22	30.7	8.7		48	28	76	48	-	-				
56.00	57.30	17	11.1	21	30.7	6.9		49	29	77	49	-	-				
63.00	65.25	15	10.2	17.2	30.7	8.6		50	30	78	50	-	-				
71.00	69.86	14	10.7	16.9	30.7	1.81		41	20	65	37	-	-				
80.00	78.82	13	11.2	15.7	30.7	2.48		42	21	66	38	-	-				
90.00	89.76	11	10.3	12.7	30.7	4.12		43	22	67	39	-	-				
100.00	97.53	10	9.1	10.3	30.7	0.210		44	23	68	40	-	-				
112.00	111.07	9.0	10.5	10.4	30.7	0.127	45	24	69	41	-	-					

Bevel-Helical Gear Units MC...R

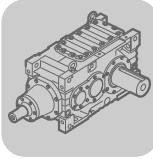
Selection tables (detailed) MC.RV..



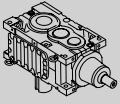
MC.RV..04, n₁ = 1000 1/min							P_{TH}						15.0 kNm					
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}				
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C			
		[1/min]	[kNm]	[kW]	[kN]	[kN]											358	434
7.10	7.29	137	10.1	149	22.2	8.5	MC2RVSF04 MC2RVHF04 MC2RVHT04	34	*)	80	27	-	-					
8.00	8.20	122	10.7	140	23.0	10.3		38	*)	84	32	-	-					
9.00	9.17	109	11.2	131	23.9	12.1		42	*)	88	35	-	-					
10.00	10.15	99	10.0	107	25.8	7.7		45	*)	91	39	-	-					
11.20	11.41	88	10.8	103	26.5	8.8		49	11	95	42	-	-					
12.50	12.76	78	11.6	98	27.2	10.1	52	14	98	46	-	-						
14.00	14.76	68	10.1	75	30.1	*)	MC3RVSF04 MC3RVHF04 MC3RVHT04	40	15	73	38	-	-					
16.00	16.60	60	11.4	75	30.4	*)		42	17	76	41	-	-					
18.00	18.56	54	12.7	75	30.7	*)		44	19	78	43	-	-					
20.00	20.60	49	13.0	69	31.2	1.20		46	21	80	45	-	-					
22.50	23.17	43	14.7	69	31.3	1.20		48	23	82	47	-	-					
25.00	25.90	39	14.9	63	33.0	2.74		50	24	84	49	-	-					
28.00	29.65	34	16.1	59	32.2	3.60		52	26	86	51	-	-					
31.50	33.14	30	15.0	49	35.3	6.1		53	28	87	53	-	-					
35.50	34.63	29	13.3	42	35.3	5.6		54	29	88	53	-	-					
40.00	39.63	25	15.5	43	35.3	5.4		56	31	90	55	-	-	374	435			
45.00	44.30	23	15.0	37	35.3	7.1		57	32	92	57	-	-					
50.00	49.83	20	14.3	32	35.3	8.8		59	34	93	58	-	-					
56.00	55.99	18	14.2	28	35.3	7.4		60	35	95	60	-	-					
63.00	62.98	16	14.4	25	35.3	8.4		62	36	96	61	-	-					
71.00	68.90	15	13.3	21	35.3	4.47		50	25	80	45	-	-					
80.00	77.02	13	14.3	20	35.3	4.87		51	26	81	46	-	-					
90.00	86.63	12	14.6	19	35.3	5.8		52	27	82	47	-	-					
100.00	93.18	11	9.0	10.6	35.3	1.06	53	28	83	48	-	-						
112.00	104.81	9.5	10.2	10.7	35.3	0.98	54	29	84	49	-	-						

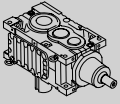
MC.RV..05, n₁ = 1000 1/min							P_{TH}						20.0 kNm					
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}				
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C			
		[1/min]	[kNm]	[kW]	[kN]	[kN]											360	434
7.10	7.10	141	13.9	210	15.6	7.1	MC2RVSF05 MC2RVHF05 MC2RVHT05	38	*)	89	30	-	-					
8.00	7.99	125	14.7	197	16.4	9.8		42	*)	94	35	-	-					
9.00	8.86	113	15.4	186	17.5	11.0		46	*)	98	39	-	-					
10.00	9.87	101	12.9	142	24.1	11.4		50	*)	102	43	-	-					
11.20	11.11	90	14.7	143	22.4	11.3		54	*)	106	47	-	-					
12.50	12.33	81	15.9	140	22.1	11.6	57	15	110	51	-	-						
14.00	14.68	68	12.1	90	29.7	3.07	MC3RVSF05 MC3RVHF05 MC3RVHT05	45	16	82	43	-	-					
16.00	16.53	61	13.6	90	30.2	3.07		47	19	85	46	-	-					
18.00	18.33	55	15.1	90	30.6	3.07		49	21	87	48	-	-					
20.00	20.22	49	15.3	82	31.3	4.89		51	23	89	50	-	-					
22.50	22.76	44	17.2	82	30.5	4.89		54	25	92	52	-	-					
25.00	25.25	40	19.1	82	29.3	4.89		56	27	94	54	-	-					
28.00	29.13	34	20.5	76	27.5	6.3		58	30	96	57	-	-					
31.50	32.32	31	20.1	68	32.7	8.4		60	31	98	59	-	-					
35.50	33.83	30	18.2	59	36.8	6.2		60	32	99	60	-	-					
40.00	39.03	26	19.5	55	37.8	7.6		63	34	101	62	-	-	376	436			
45.00	43.30	23	20.4	52	39.1	8.5		64	36	103	64	-	-					
50.00	48.74	21	18.9	43	41.3	11.4		66	38	105	65	-	-					
56.00	55.44	18	20.0	40	41.3	3.17		68	39	107	67	-	-					
63.00	62.40	16	19.1	34	41.3	5.5		69	41	108	69	-	-					
71.00	69.92	14	15.6	25	41.3	6.7		57	28	90	51	-	-					
80.00	77.56	13	17.4	25	41.3	6.7		58	29	92	52	-	-					
90.00	87.30	11	19.3	24	41.3	6.8		59	31	93	54	-	-					
100.00	93.84	11	13.6	16.0	41.3	4.12	60	32	94	55	-	-						
112.00	105.62	9.5	15.6	16.2	41.3	4.02	61	33	95	56	-	-						

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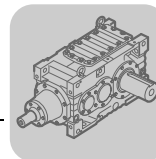


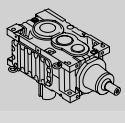


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

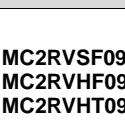


MC.RV..06, n ₁ = 1000 1/min							P _{TH} 25.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.74	148	17.6	280	20.6	4.94	MC2RVSF06 MC2RVHF06 MC2RVHT06	43	*)	104	33	-	-	362	434
8.00	7.80	128	18.7	258	22.7	9.0		49	*)	111	40	-	-		
9.00	8.75	114	19.7	241	24.1	11.8		55	*)	116	46	-	-		
10.00	9.64	104	17.6	198	30.5	7.6		59	*)	121	50	-	-		
11.20	11.15	90	19.3	187	31.2	10.4		65	*)	127	56	-	-		
12.50	12.52	80	20.5	177	32.1	12.5	69	18	132	61	-	-			
14.00	14.09	71	14.3	111	40.2	5.9	MC3RVSF06 MC3RVHF06 MC3RVHT06	53	19	98	50	-	-	378	436
16.00	16.30	61	16.6	111	41.0	5.9		56	22	102	54	-	-		
18.00	18.30	55	18.6	111	41.4	5.9		59	25	105	57	-	-		
20.00	20.30	49	18.8	101	42.2	8.0		62	28	107	60	-	-		
22.50	23.49	43	21.8	101	42.8	8.0		65	31	111	63	-	-		
25.00	26.36	38	24.5	101	43.0	8.0		67	33	113	66	-	-		
28.00	28.78	35	25.1	95	43.4	9.2		69	35	115	68	-	-		
31.50	32.30	31	26.4	89	45.3	10.4		71	37	118	70	-	-		
35.50	35.53	28	23.7	73	45.3	9.9		73	39	119	72	-	-		
40.00	38.80	26	24.2	68	45.3	11.1		75	41	121	74	-	-		
45.00	43.54	23	26.7	67	45.3	11.4		77	43	123	76	-	-		
50.00	49.28	20	24.9	55	45.3	14.4		79	45	126	79	-	-		
56.00	55.31	18	24.5	49	45.3	12.0		81	47	128	81	-	-		
63.00	62.60	16	25.1	44	45.3	13.4		83	49	130	83	-	-		
71.00	68.96	15	22.0	35	45.3	7.8		68	34	108	61	-	-		
80.00	77.39	13	24.7	35	45.3	7.8		69	35	110	62	-	-		
90.00	87.60	11	25.4	32	45.3	9.1		71	37	111	64	-	-		
100.00	95.76	10	23.0	26	45.3	3.52	72	38	113	66	-	-			
112.00	108.39	9.2	25.7	26	45.3	3.74	74	40	114	67	-	-			

MC.RV..07, n ₁ = 1000 1/min							P _{TH} 33.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C
7.10	6.84	146	21.6	339	26.1	9.7	MC2RVSF07 MC2RVHF07 MC2RVHT07	53	*)	127	41	-	-	364	434
8.00	7.70	130	22.8	317	27.7	13.0		59	*)	134	48	-	-		
9.00	8.65	116	23.9	297	29.2	14.8		66	*)	141	55	-	-		
10.00	9.74	103	21.8	242	36.0	12.2		72	*)	147	61	-	-		
11.20	10.96	91	23.4	231	37.1	14.5		78	*)	154	68	-	-		
12.50	12.32	81	25.0	220	37.5	15.9	83	*)	160	74	-	-			
14.00	14.18	71	19.2	147	44.7	3.55	MC3RVSF07 MC3RVHF07 MC3RVHT07	64	23	119	62	-	-	380	437
16.00	15.97	63	21.6	147	45.2	3.55		68	26	123	65	-	-		
18.00	17.93	56	24.3	147	45.6	3.55		71	30	126	69	-	-		
20.00	19.94	50	24.9	135	46.5	6.1		74	33	130	72	-	-		
22.50	22.45	45	28.0	135	46.8	6.1		78	36	133	76	-	-		
25.00	25.22	40	31.5	135	45.3	6.1		81	39	136	79	-	-		
28.00	28.38	35	33.1	127	43.1	8.0		84	42	140	82	-	-		
31.50	31.88	31	36.6	125	39.1	8.4		87	45	143	85	-	-		
35.50	33.79	30	29.4	95	53	7.1		88	47	144	87	-	-		
40.00	38.02	26	30.7	89	53	9.0		91	49	147	90	-	-		
45.00	42.71	23	34.5	89	53	9.0		93	52	150	92	-	-		
50.00	48.96	20	34.1	76	53	12.6		96	55	153	95	-	-		
56.00	53.98	19	31.4	64	53	10.5		98	57	155	97	-	-		
63.00	61.88	16	34.4	61	53	11.5		101	59	157	100	-	-		
71.00	70.77	14	25.5	40	53	3.99		83	41	131	74	-	-		
80.00	79.49	13	28.7	40	53	3.99		85	43	134	76	-	-		
90.00	91.12	11	32.9	40	53	3.99		87	46	136	79	-	-		
100.00	96.17	10	29.3	33	53	3.94	88	46	137	80	-	-			
112.00	110.25	9.1	33.6	33	53	3.94	90	49	139	82	-	-			

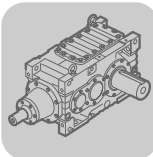
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RV..



MC.RV..08, n ₁ = 1000 1/min							P _{TH}						45.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	144	29.1	449	26.8	14.4	MC2RVSF08 MC2RVHF08 MC2RVHT08	66	*)	158	52	-	-	366	434		
8.00	7.82	128	30.7	420	28.4	18.1		74	*)	166	61	-	-				
9.00	8.88	113	32.4	391	30.2	19.6		82	*)	175	69	-	-				
10.00	9.74	103	29.7	331	36.2	14.6		88	*)	181	76	-	-				
11.20	10.96	91	31.8	315	36.8	18.0		96	*)	189	83	-	-				
12.50	12.45	80	33.9	295	38.4	19.6		103	*)	197	91	-	-				
14.00	14.48	69	29.4	220	48.1	*)	MC3RVSF08 MC3RVHF08 MC3RVHT08	80	29	147	76	-	-	382	437		
16.00	16.30	61	33.1	220	48.5	*)		84	33	152	81	-	-				
18.00	18.51	54	37.6	220	44.6	*)		89	38	157	86	-	-				
20.00	20.25	49	36.0	193	47.9	3.29		92	41	160	89	-	-				
22.50	22.80	44	40.5	193	43.8	3.29		96	45	164	94	-	-				
25.00	25.89	39	46.0	193	38.3	3.29		100	49	168	98	-	-				
28.00	29.06	34	44.7	167	44.0	8.1		104	53	172	102	-	-				
31.50	33.00	30	47.2	155	46.8	10.3		107	57	176	106	-	-				
35.50	34.90	29	42.3	133	61	7.0		109	58	178	108	-	-				
40.00	39.18	26	46.0	129	56	8.0		112	61	181	111	-	-				
45.00	44.49	22	47.8	118	61	10.6		116	65	185	115	-	-				
50.00	49.82	20	44.7	98	67	15.2		119	68	188	118	-	-				
56.00	56.62	18	48.1	93	67	6.5		122	71	191	121	-	-				
63.00	63.41	16	45.0	78	67	11.6		124	74	194	124	-	-				
71.00	70.39	14	37.1	58	67	9.5		101	51	161	91	-	-				
80.00	79.93	13	42.1	58	67	9.5		104	53	164	94	-	-				
90.00	89.53	11	45.6	56	67	10.3		107	56	167	97	-	-				
100.00	96.71	10	34.0	39	67	3.36		108	57	169	98	-	-				
112.00	108.32	9.2	38.6	39	67	3.14	110	59	171	100	-	-					

MC.RV..09, n ₁ = 1000 1/min							P _{TH}						55.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	146	40.1	627	34.3	12.1	MC2RVSF09 MC2RVHF09 MC2RVHT09	75	*)	180	*)	-	-	368	434		
8.00	7.92	126	42.7	578	36.9	18.5		86	*)	193	71	-	-				
9.00	8.89	112	44.8	540	39.2	23.1		95	*)	202	80	-	-				
10.00	9.61	104	41.1	464	45.1	11.6		101	*)	208	86	-	-				
11.20	11.11	90	44.5	434	46.9	17.0		111	*)	219	97	-	-				
12.50	12.47	80	46.9	408	48.8	21.7		119	*)	227	105	-	-				
14.00	14.28	70	35.5	270	61	*)	MC3RVSF09 MC3RVHF09 MC3RVHT09	91	33	169	87	-	-	384	437		
16.00	16.52	61	41.1	270	62	*)		98	39	175	94	-	-				
18.00	18.54	54	46.1	270	62	*)		102	44	180	99	-	-				
20.00	19.70	51	45.1	248	63	3.71		105	46	183	102	-	-				
22.50	22.78	44	52.1	248	64	3.71		111	52	189	108	-	-				
25.00	25.57	39	58.5	248	60	3.71		115	56	194	113	-	-				
28.00	28.12	36	57.1	220	66	9.8		118	60	197	116	-	-				
31.50	31.56	32	64.1	220	60	9.8		122	64	202	120	-	-				
35.50	34.47	29	55.6	177	75	9.1		125	67	205	123	-	-				
40.00	37.90	26	58.7	170	76	11.1		128	70	208	127	-	-				
45.00	42.54	24	64.7	167	77	11.7		132	73	212	131	-	-				
50.00	48.15	21	60.1	137	80	14.4		136	77	216	134	-	-				
56.00	54.72	18	59.3	119	80	12.9		139	81	220	138	-	-				
63.00	61.94	16	60.4	107	80	14.3		143	84	223	142	-	-				
71.00	68.22	15	51.5	83	80	9.2		116	57	185	104	-	-				
80.00	76.56	13	57.8	83	80	9.2		119	60	188	107	-	-				
90.00	86.65	12	60.5	76	80	10.2		122	63	192	110	-	-				
100.00	94.51	11	35.9	42	80	8.0		124	65	194	113	-	-				
112.00	106.98	9.3	41.1	42	80	7.9	127	68	197	116	-	-					

11



Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..

11.3.5 MC.RV.. [mm]

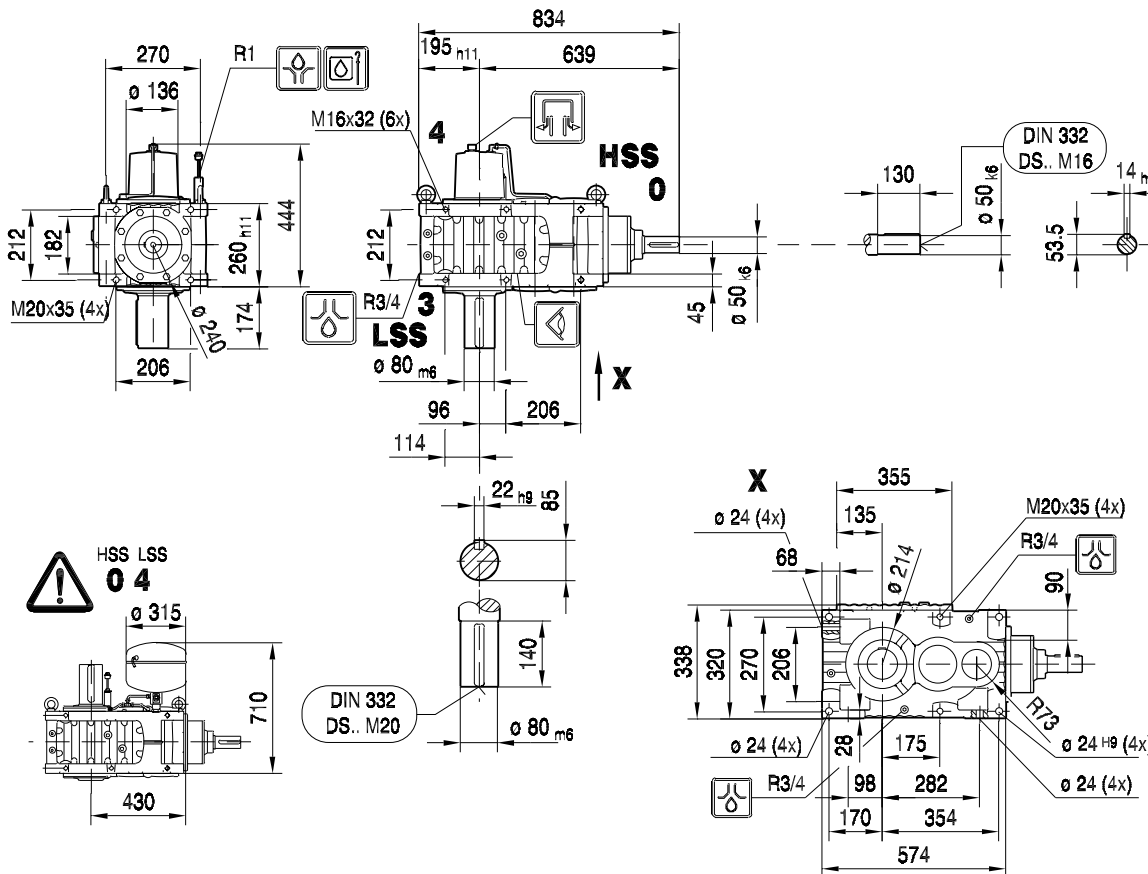
MC2RVSF02

47 081 00 03

1(2)

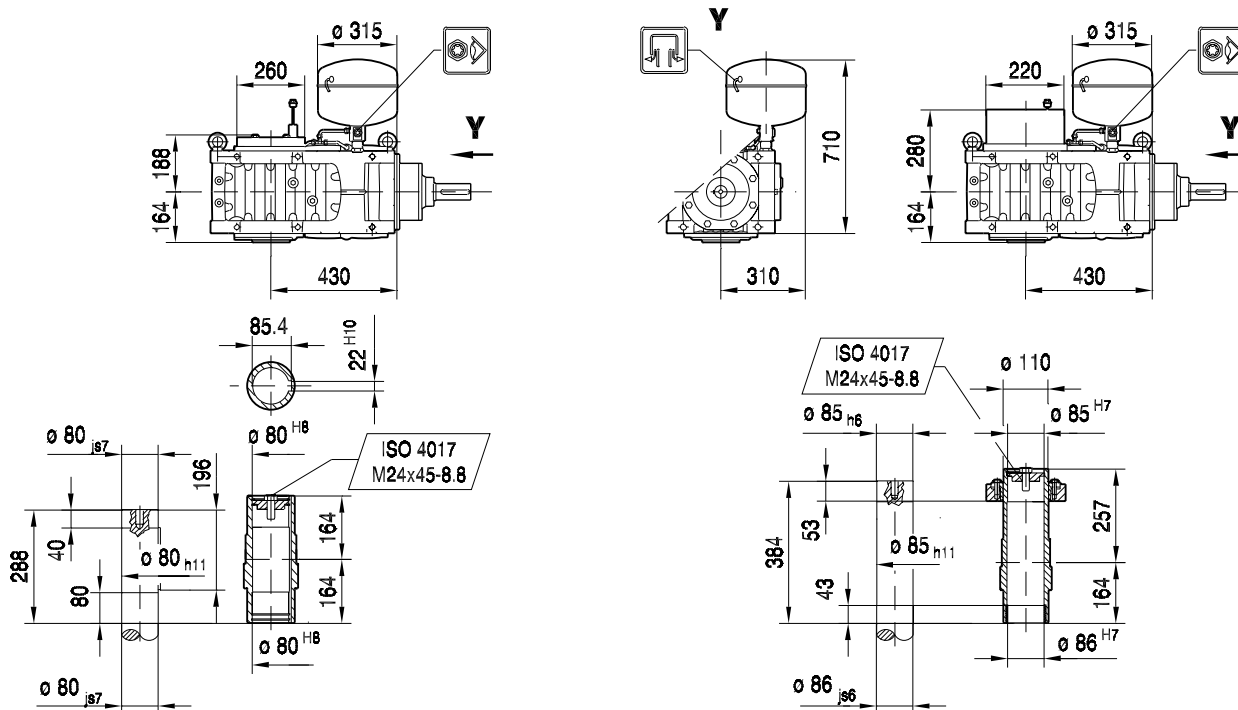
221 kg

19 l

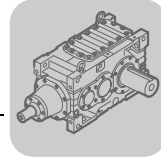


MC2RVHF02

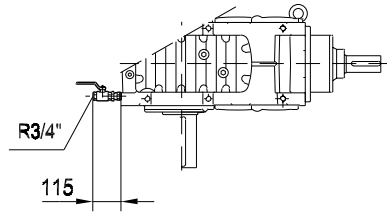
MC2RVHF02 /SD



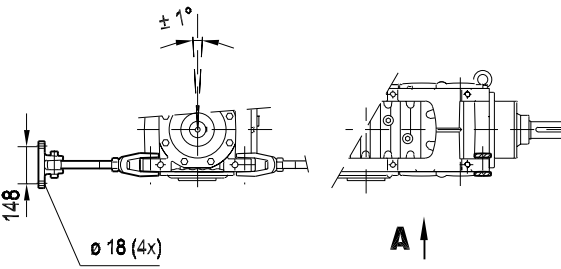
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



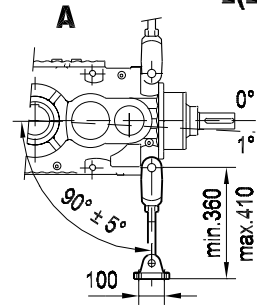
MC2RV..02
/ODV



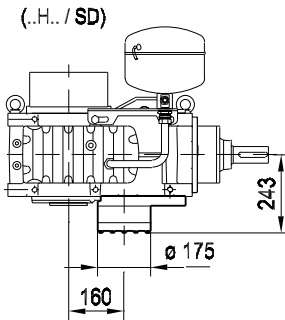
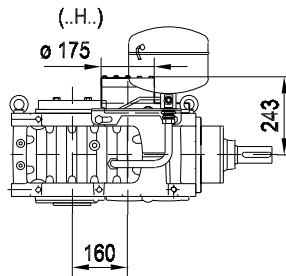
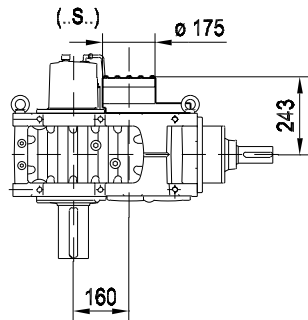
MC2RVHT 02



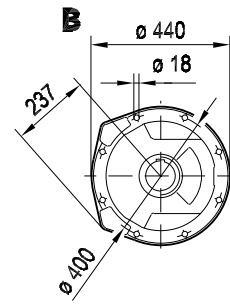
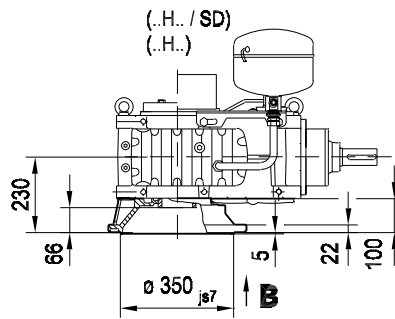
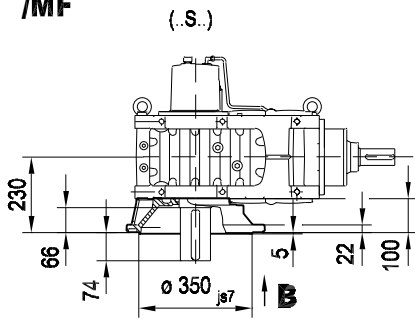
47 081 00 03
2(2)



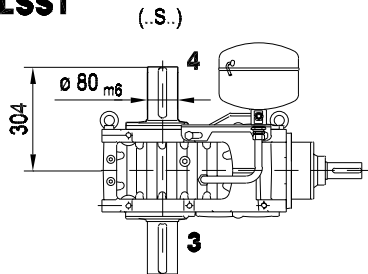
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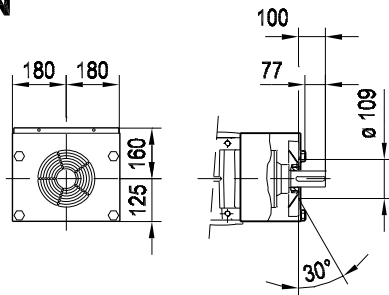
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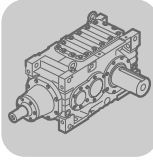


/LSST



/FAN



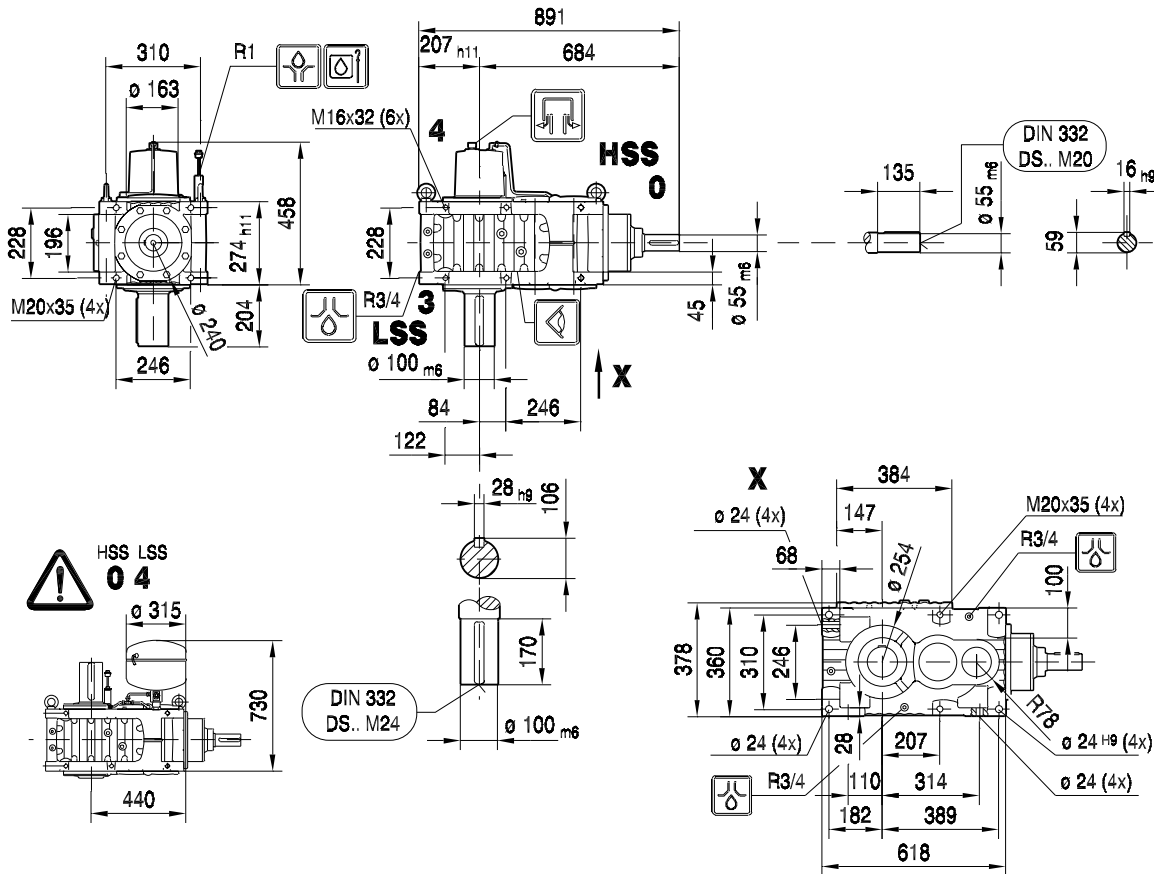


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

MC2RVSF03

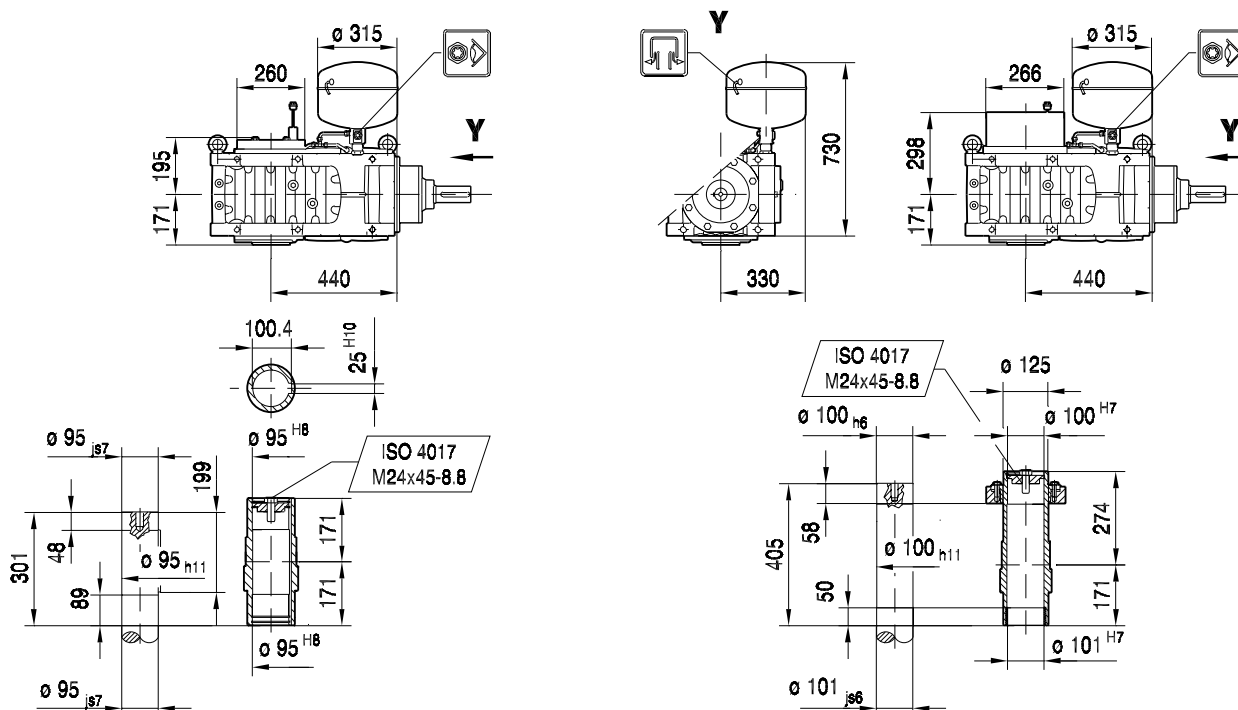
47 082 00 03
1(2)

280 kg
27 l

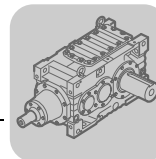


MC2RVHF03

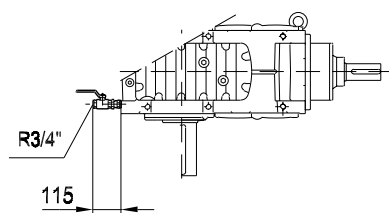
MC2RVHF03 /SD



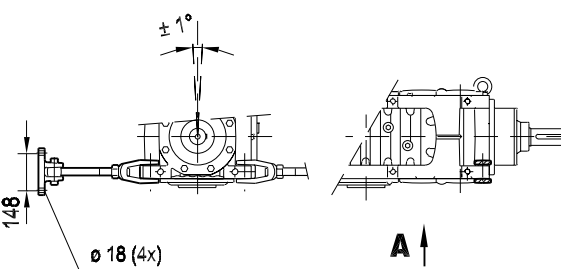
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



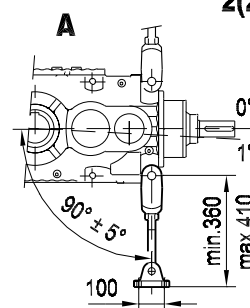
MC2RV..03
/ODV



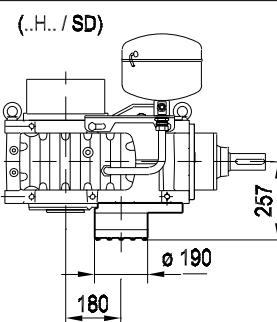
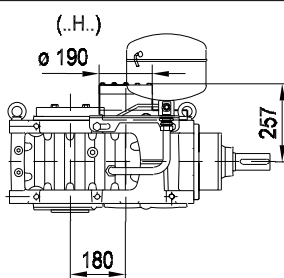
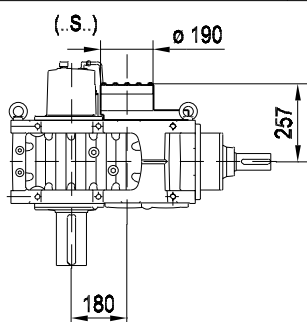
MC2RVHT 03



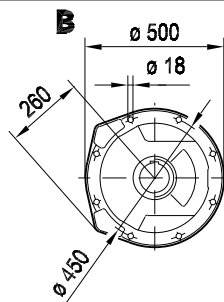
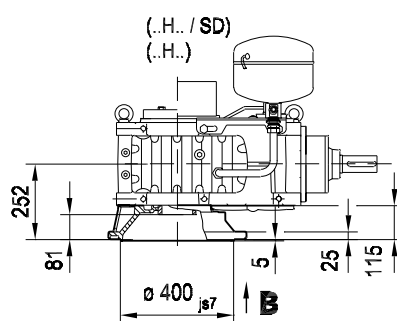
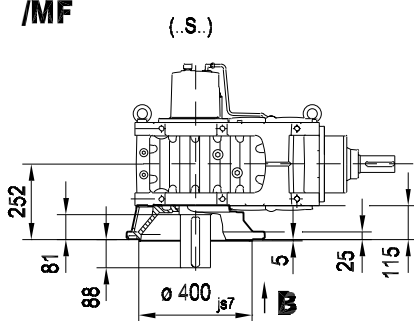
47 082 00 03
2(2)



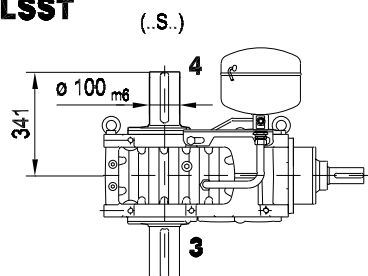
/BS



/MF

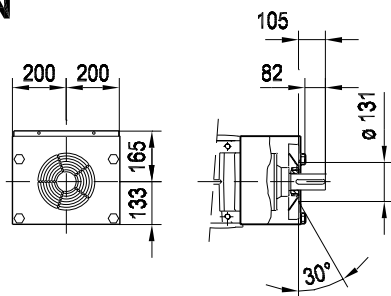


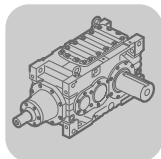
/LSST



11

/FAN



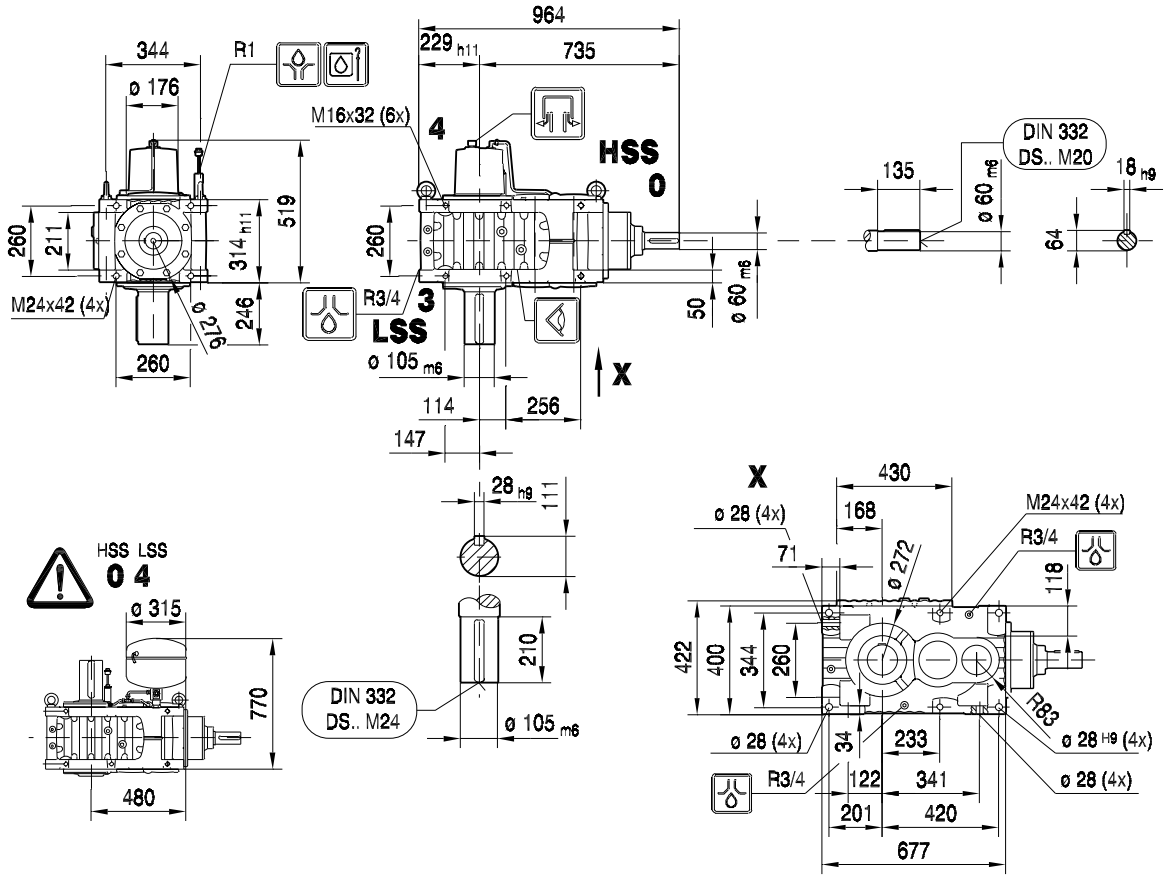


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

MC2RVSF04

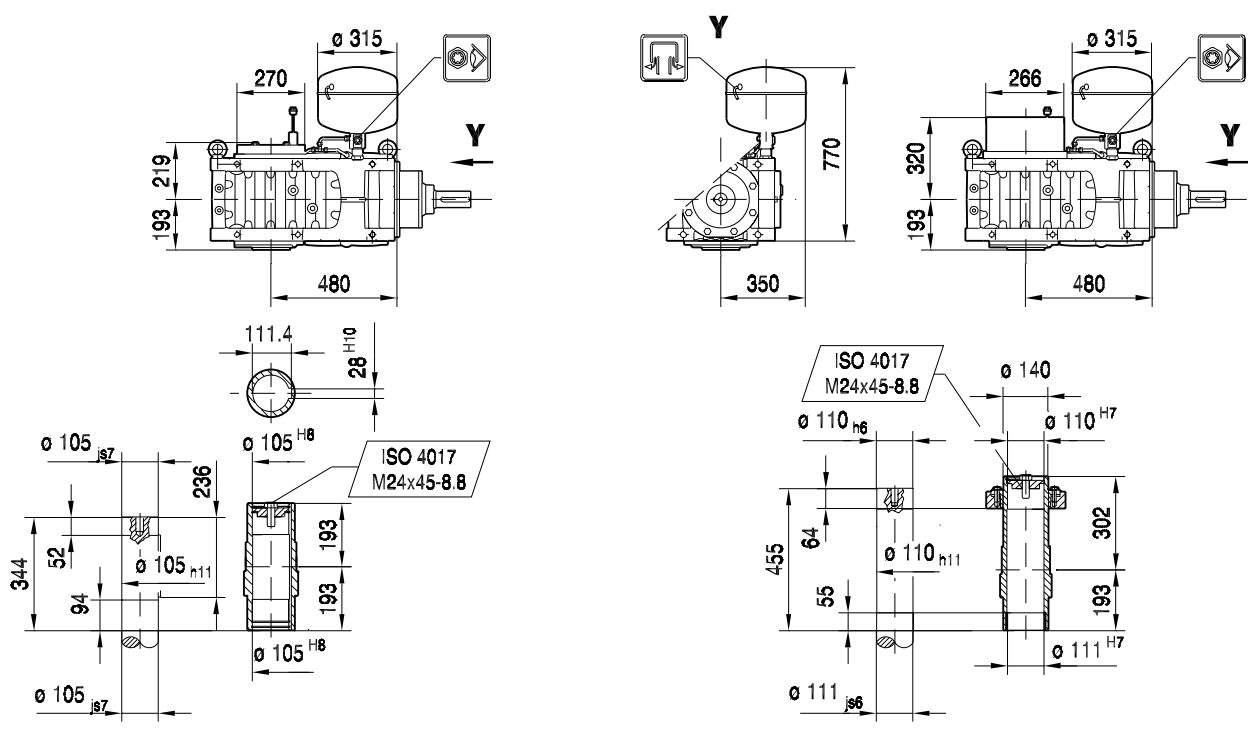
47 083 00 03
1(2)

381 kg
34 l

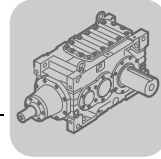


MC2RVHF04

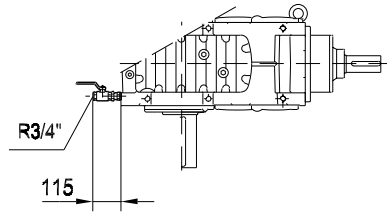
MC2RVHF04 /SD



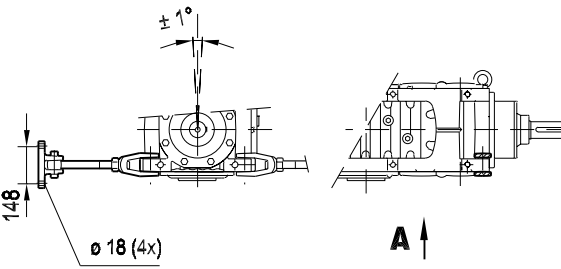
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



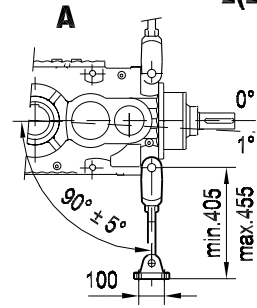
MC2RV..04
/ODV



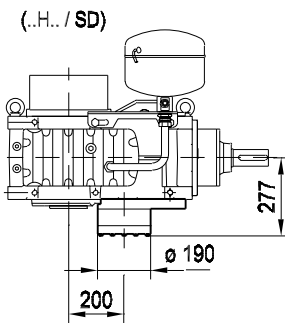
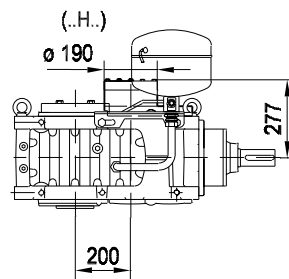
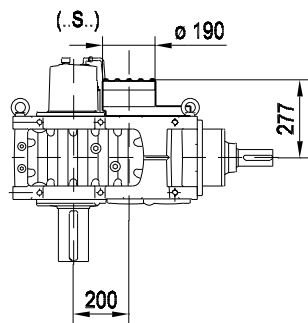
MC2RVHT 04



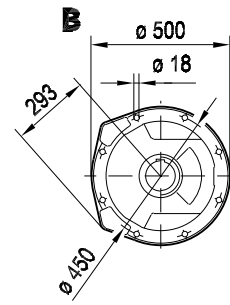
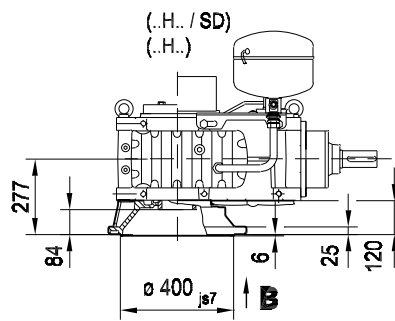
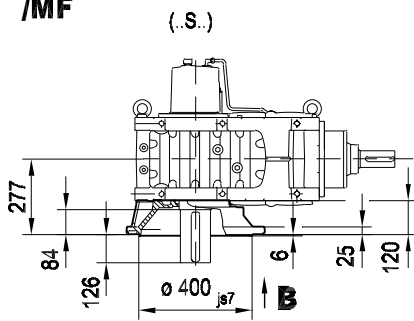
47 083 00 03
2(2)



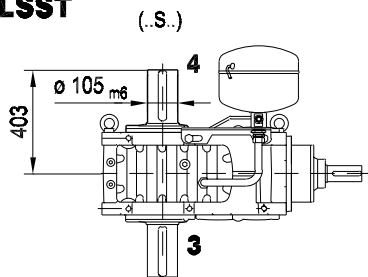
/BS



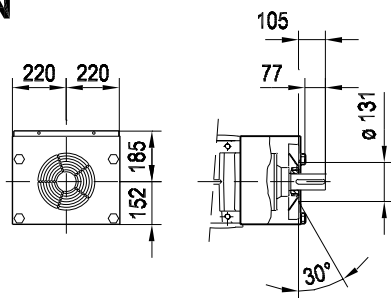
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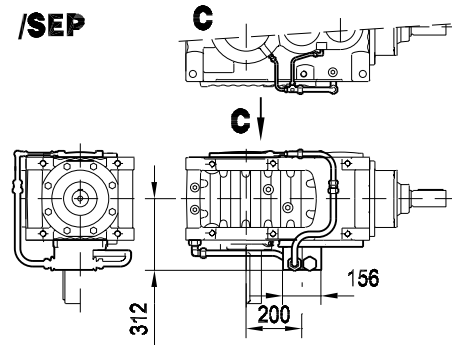
/LSST



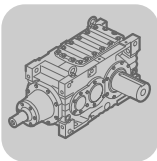
/FAN



/SEP



11

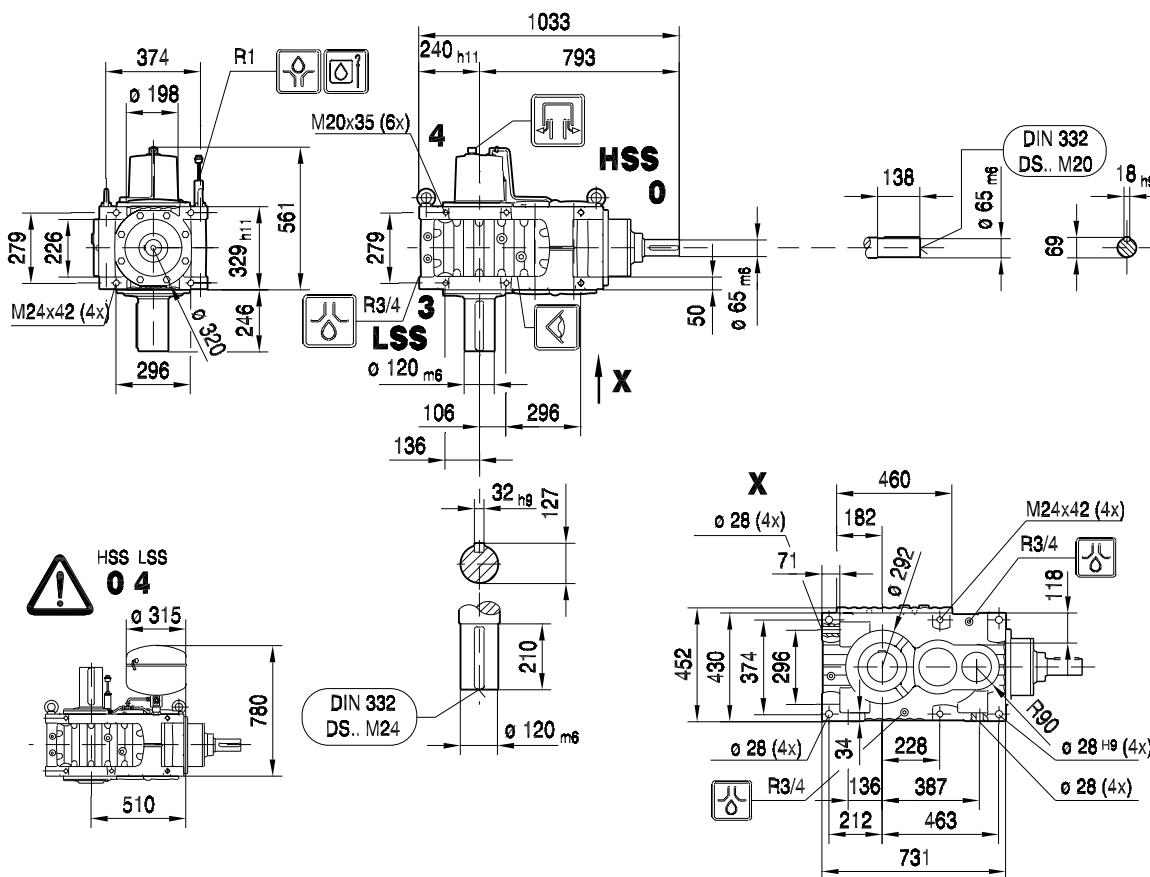


Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RV..

MC2RVSF05

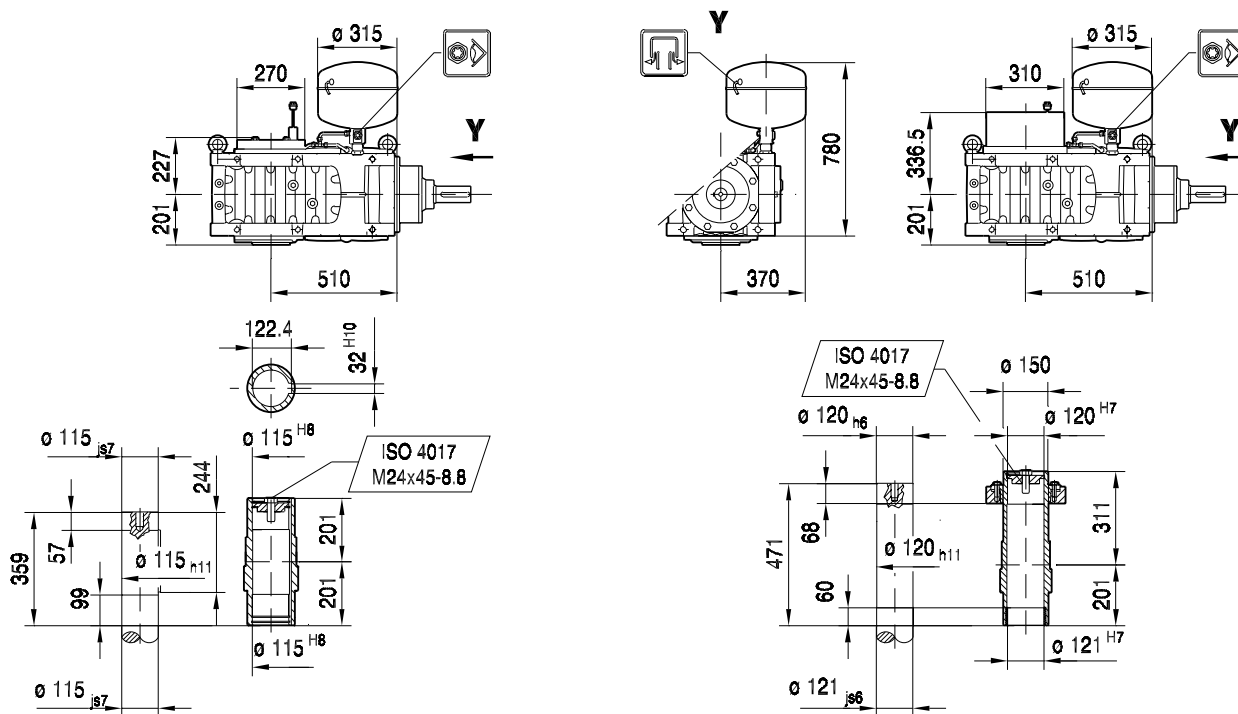
47 084 00 03
1(2)

505 kg
47 l

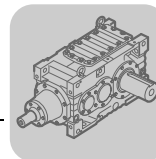


MC2RVHF05

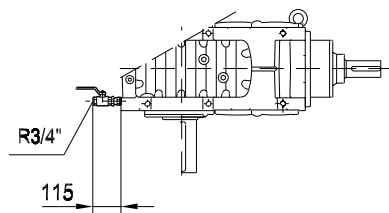
MC2RVHF05 /SD



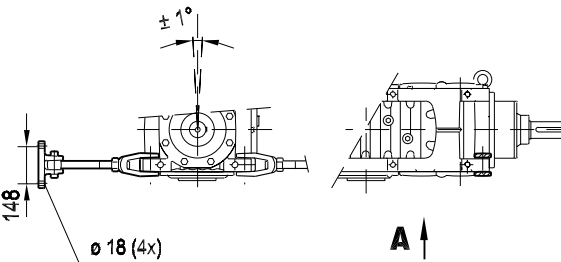
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



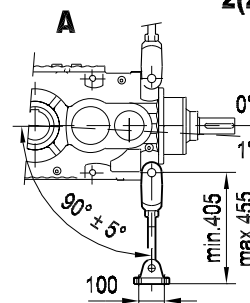
MC2RV..05
/ODV



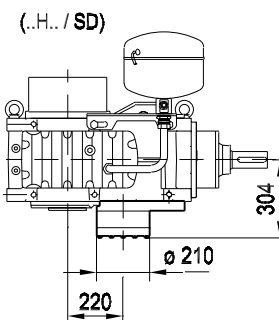
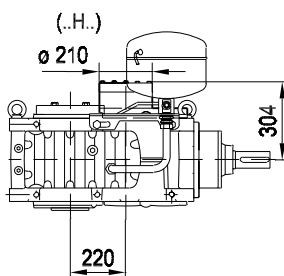
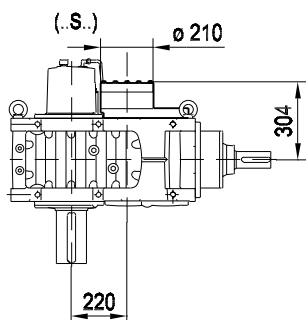
MC2RVHT 05



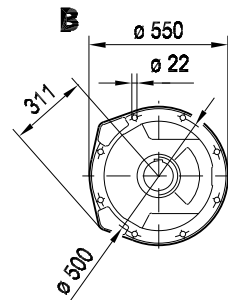
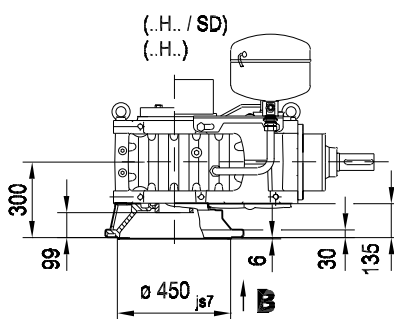
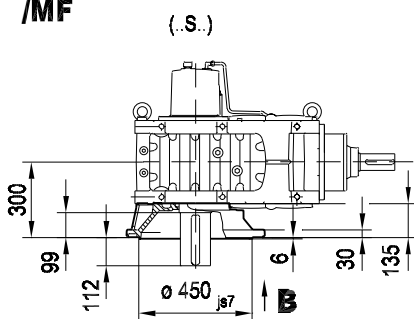
47 084 00 03
2(2)



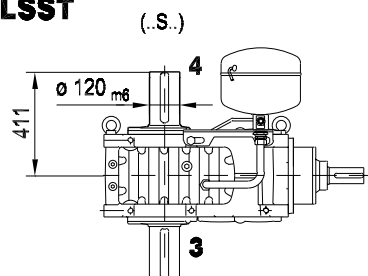
/BS



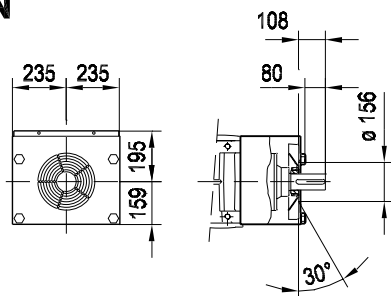
/MF



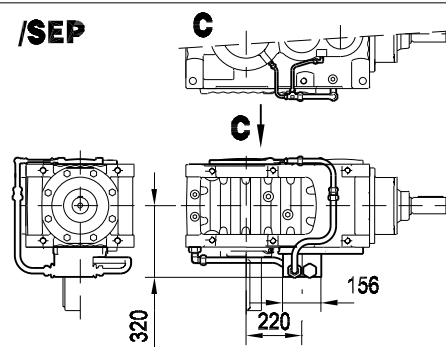
/LSST

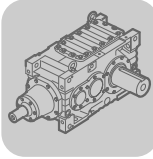


/FAN



/SEP



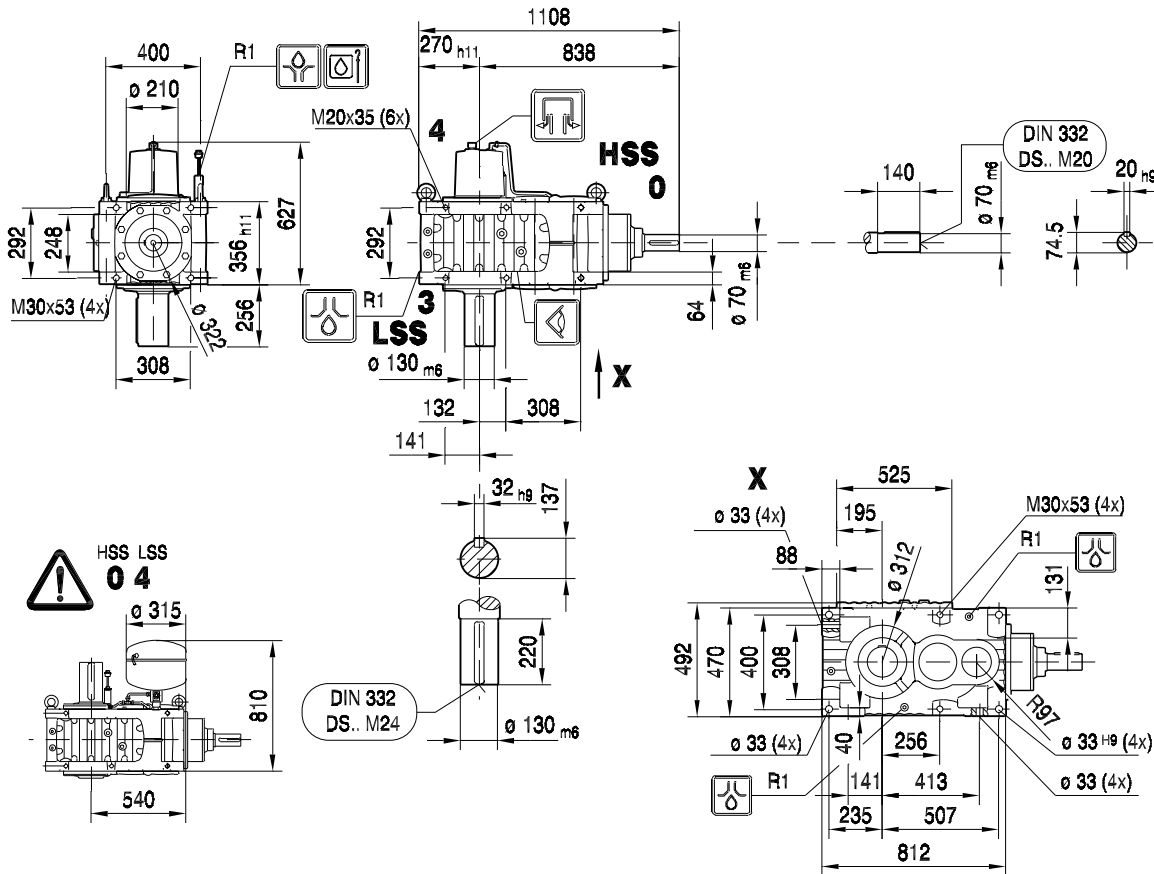


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

MC2RVSF06

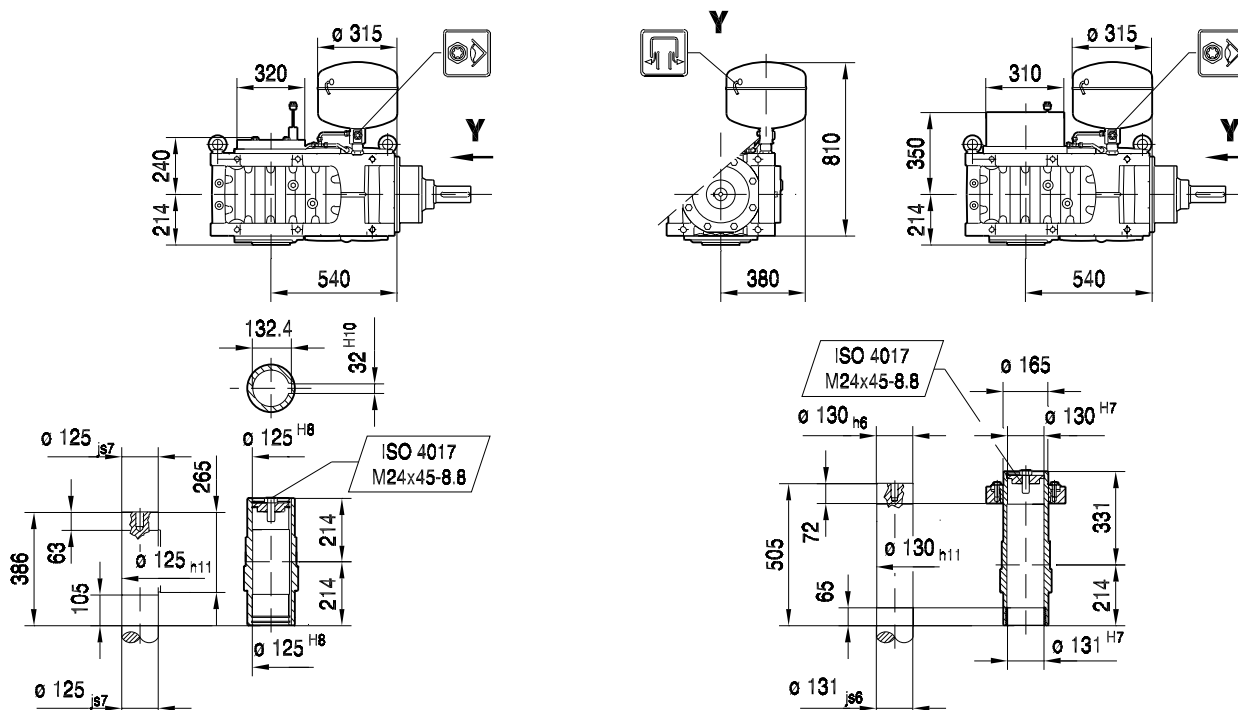
47 085 00 03
1(2)

615 kg
59 l

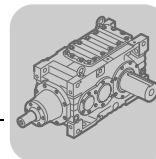


MC2RVHF06

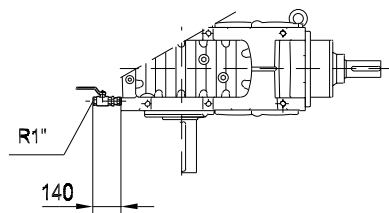
MC2RVHF06 /SD



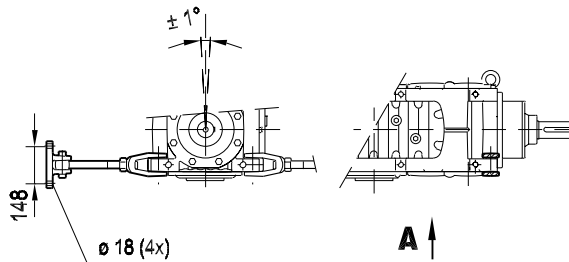
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



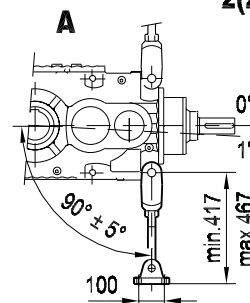
MC2RV..06
/ODV



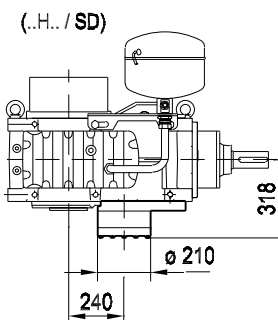
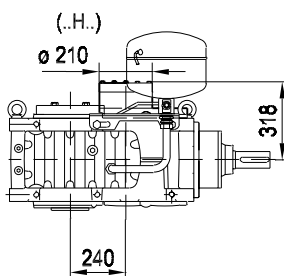
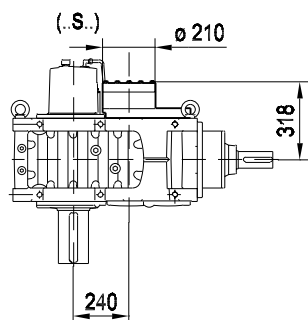
MC2RVHT 06



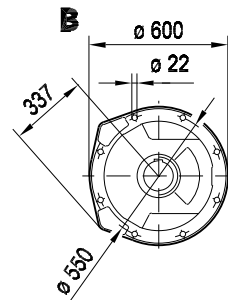
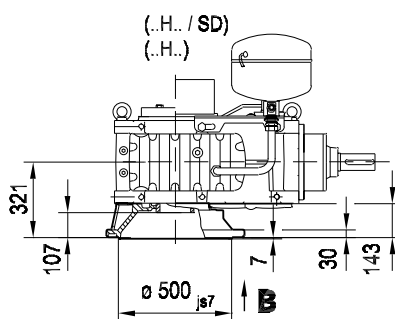
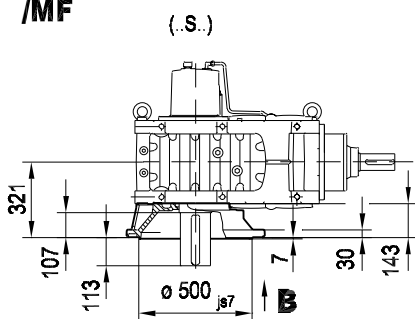
47 085 00 03
2(2)



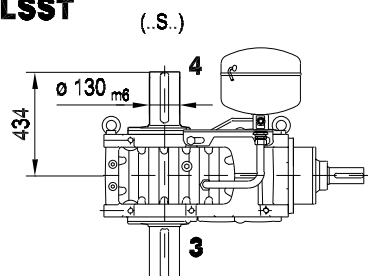
/BS



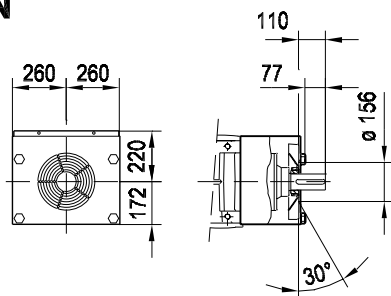
/MF



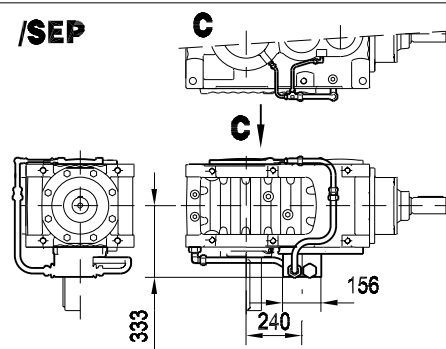
/LSST



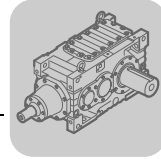
/FAN



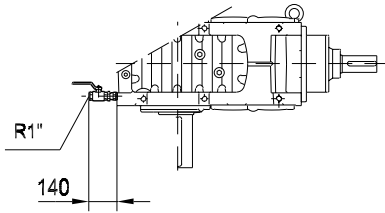
/SEP



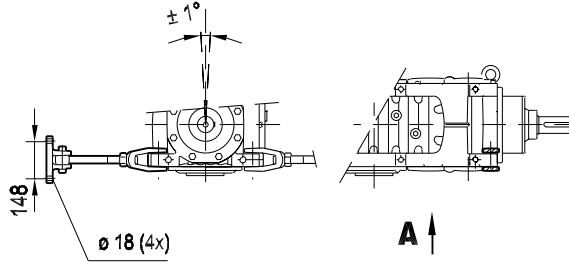
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



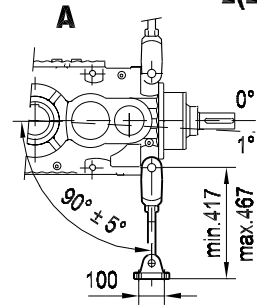
MC2RV..07
/ODV



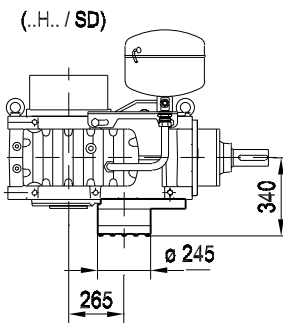
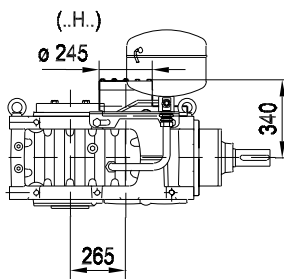
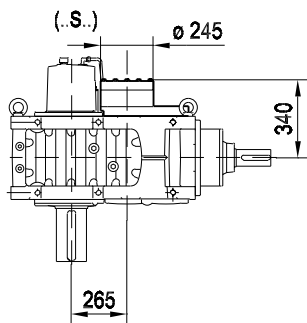
MC2RVHT 07



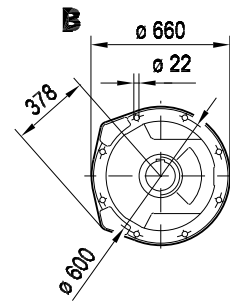
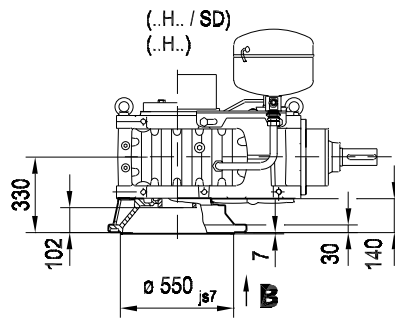
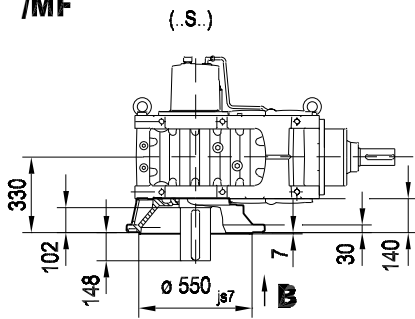
47 086 00 03
2(2)



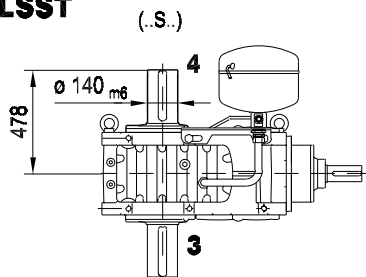
/BS



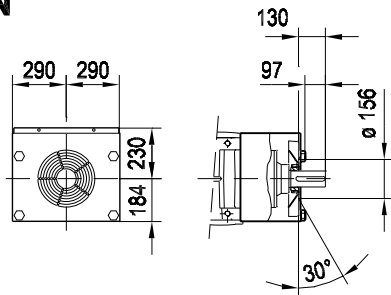
/MF



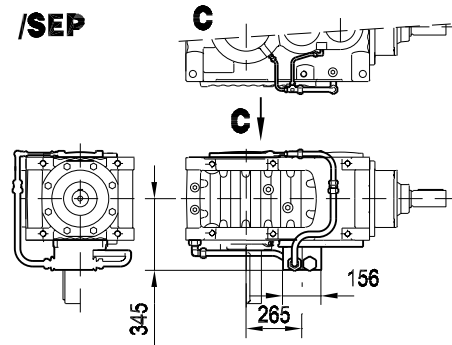
/LSST

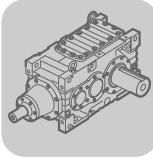


/FAN



/SEP



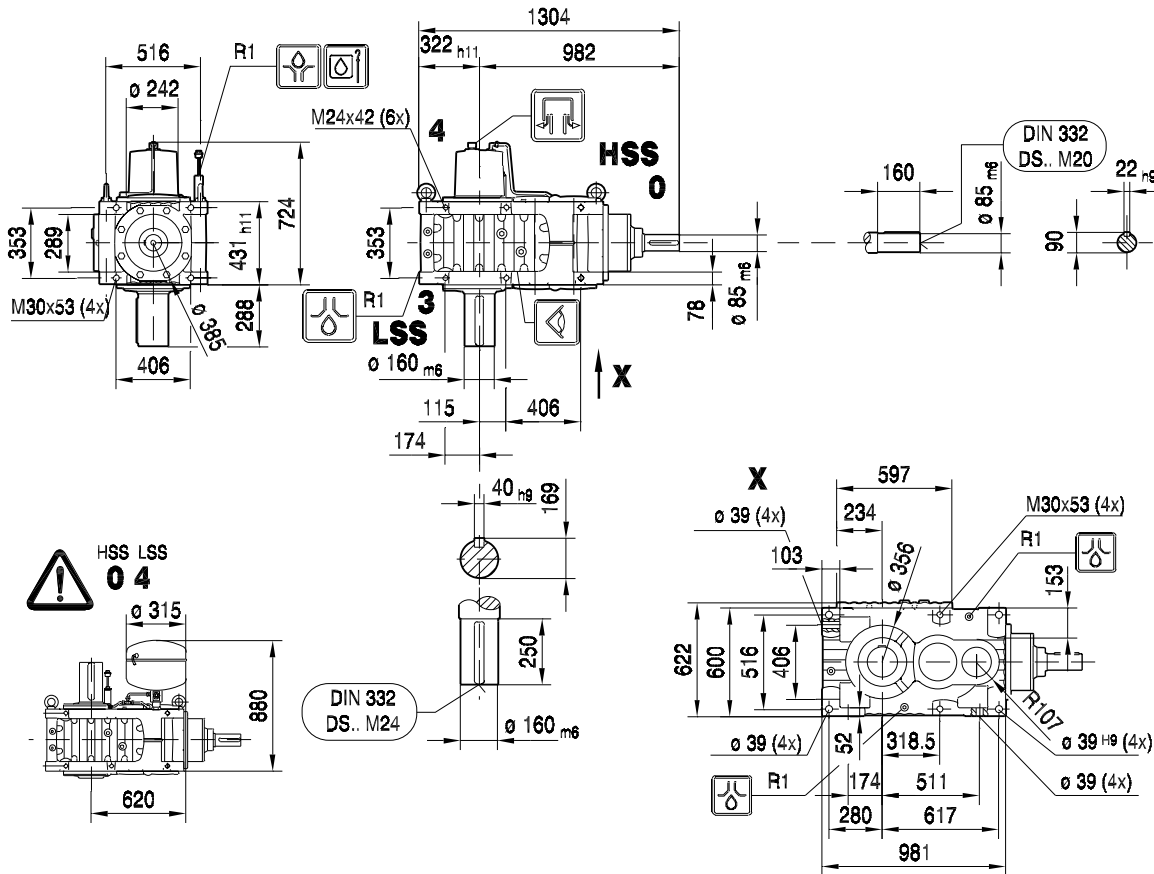


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

MC2RVSF08

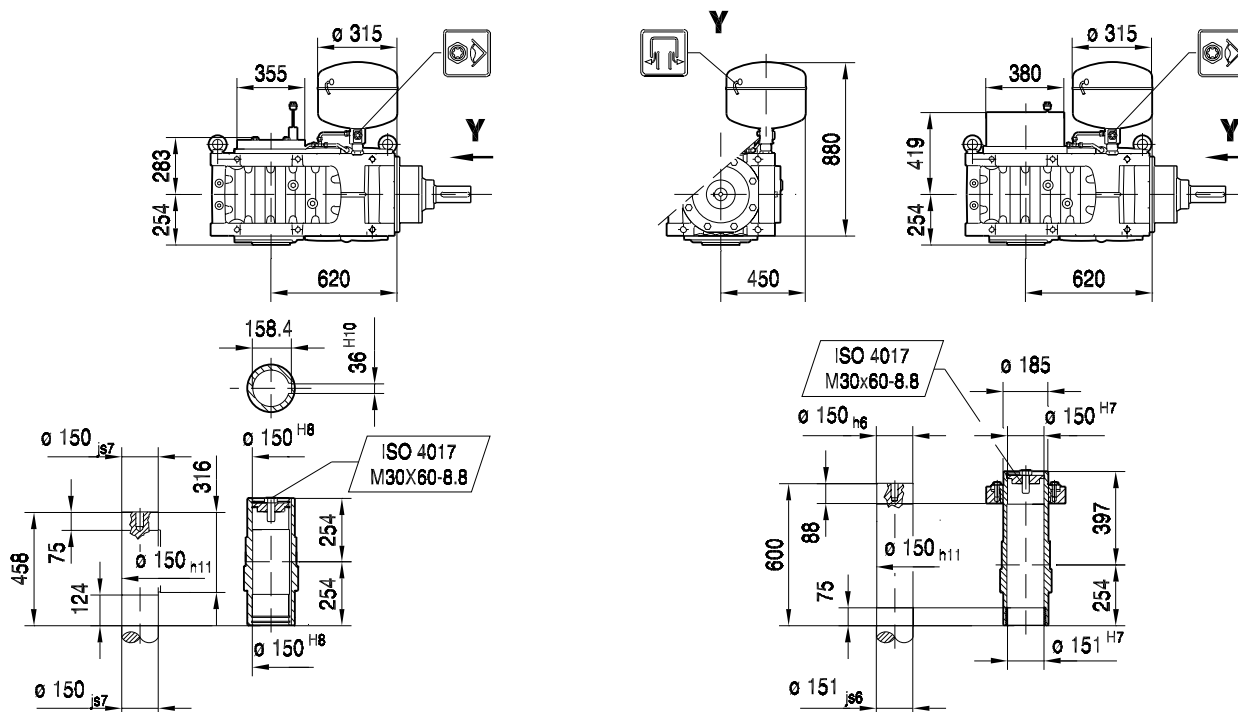
47 087 00 03
1(2)

1 055 kg
111 l

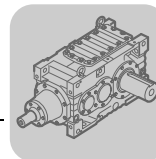


MC2RVHF08

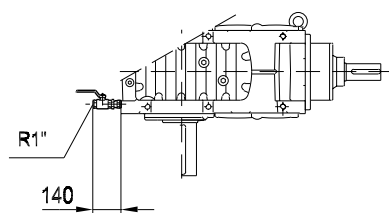
MC2RVHF08 /SD



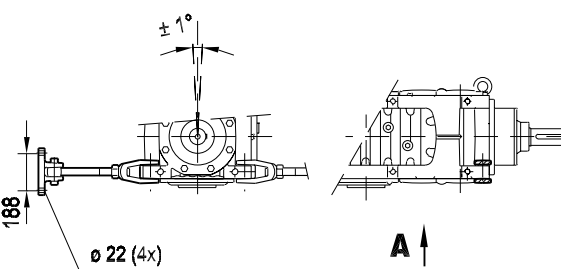
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



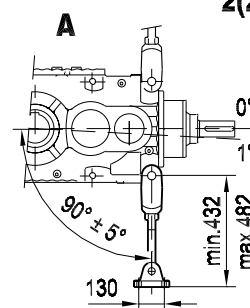
MC2RV..08
/ODV



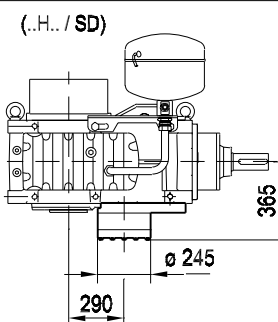
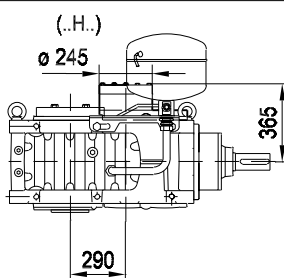
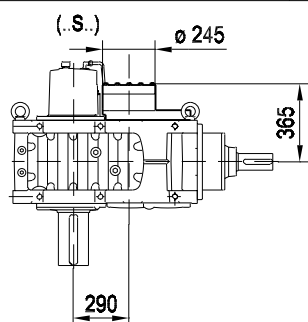
MC2RVHT 08



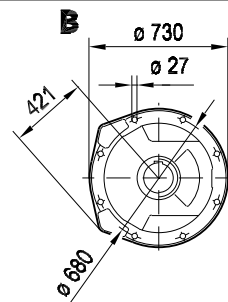
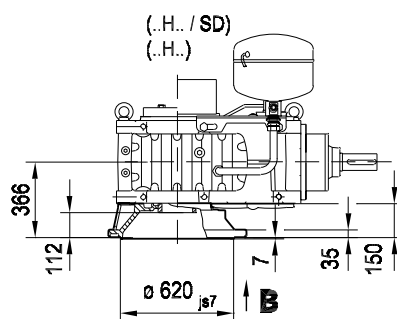
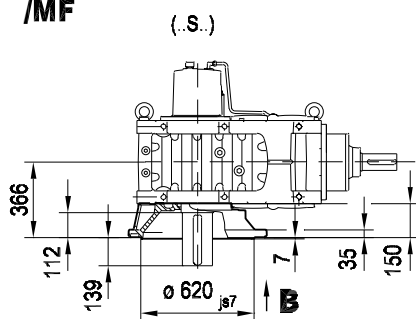
47 087 00 03
2(2)



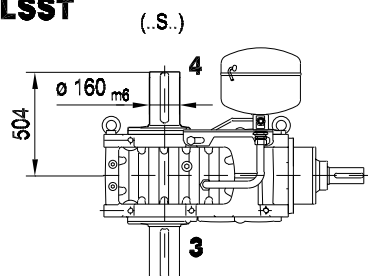
/BS



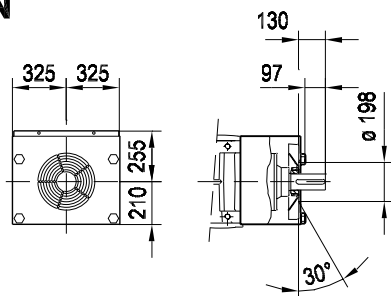
/MF



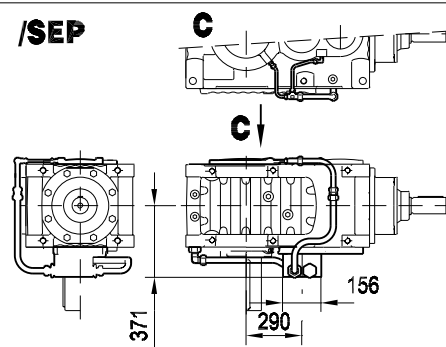
/LSST

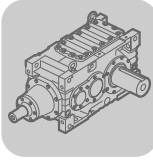


/FAN



/SEP



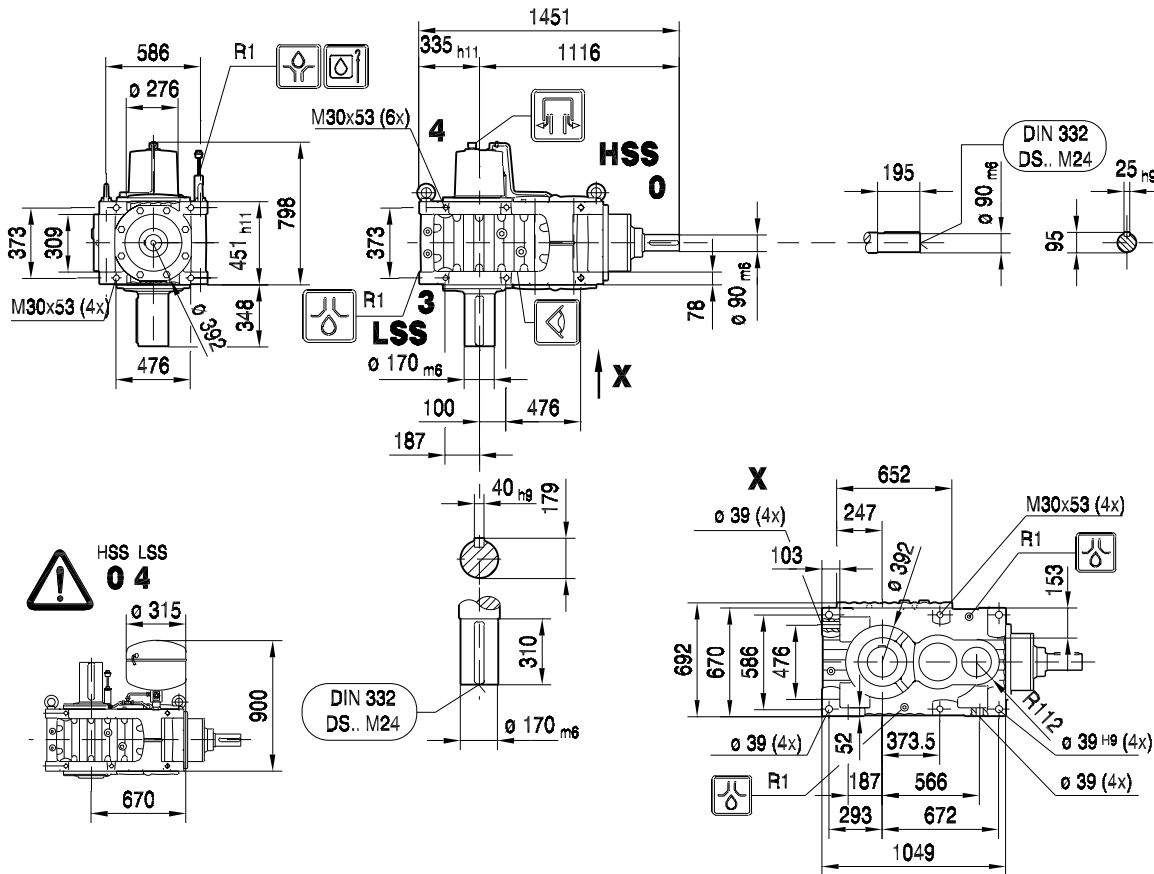


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..

MC2RVSF09

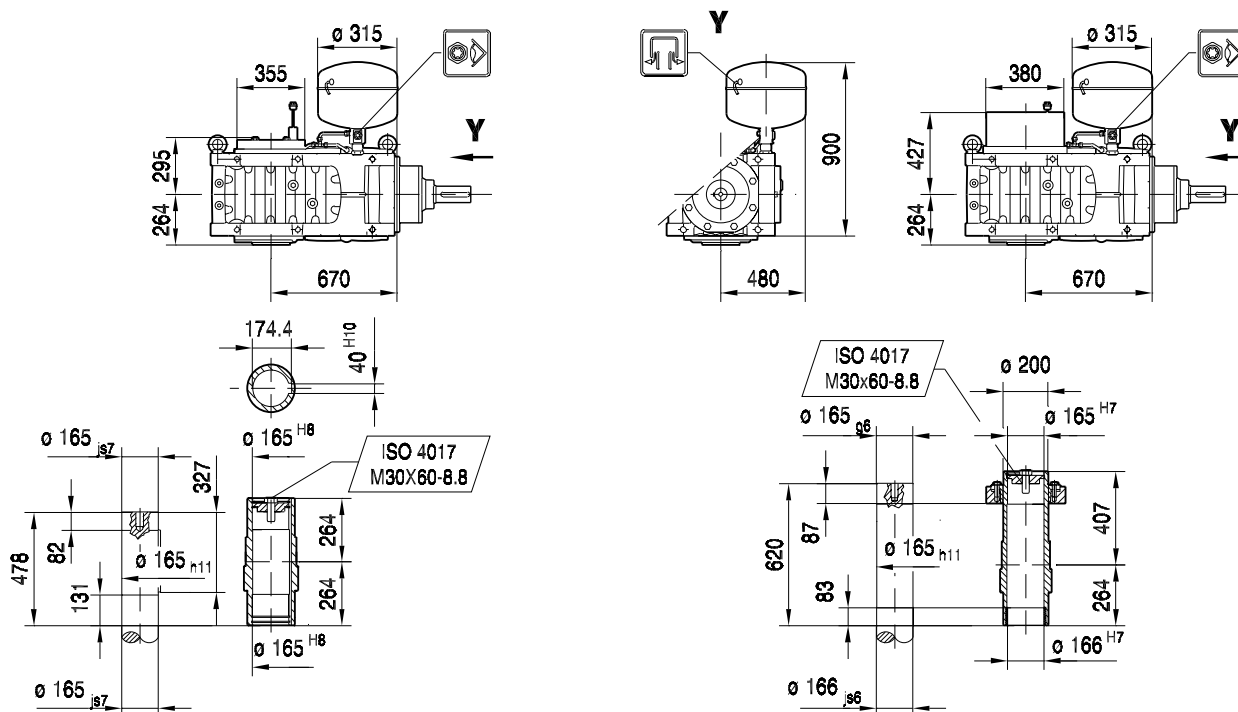
47 088 00 03
1(2)

1 330 kg
137 l

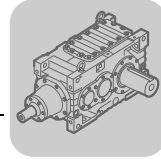


MC2RVHF09

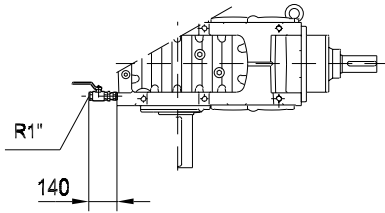
MC2RVHF09 /SD



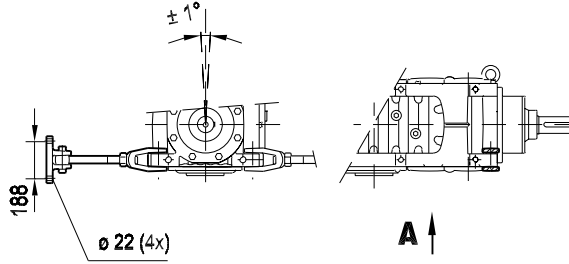
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



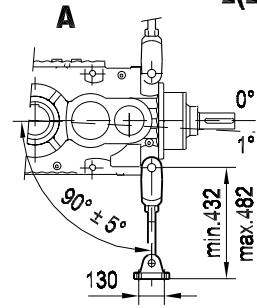
MC2RV..09
/ODV



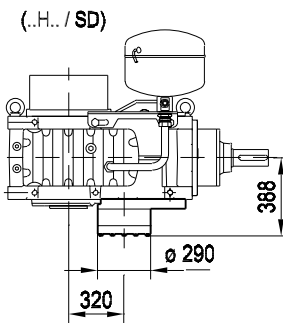
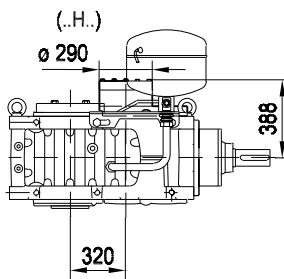
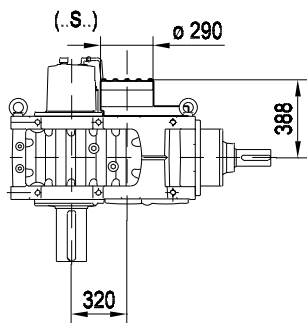
MC2RVHT 09



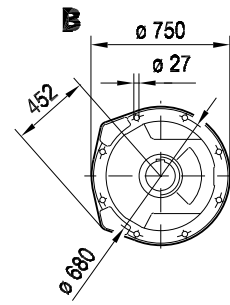
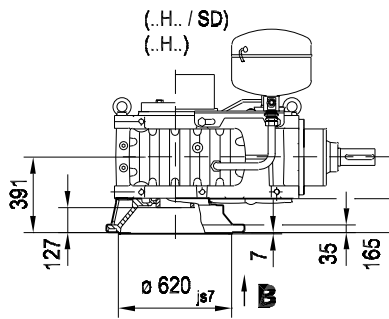
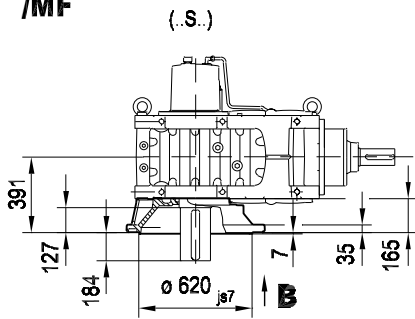
47 088 00 03
2(2)



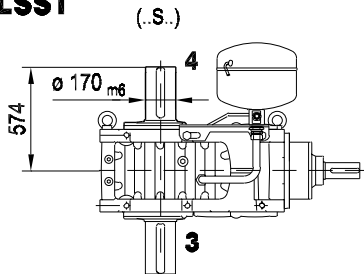
/BS



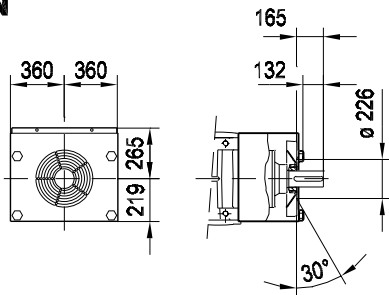
/MF



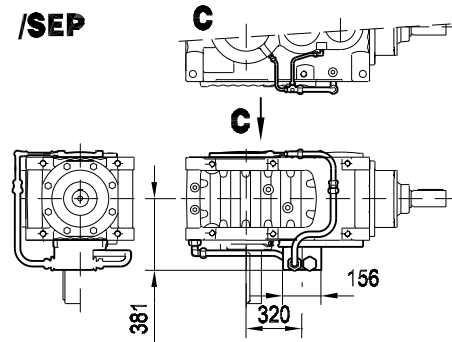
/LSST

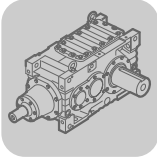


/FAN



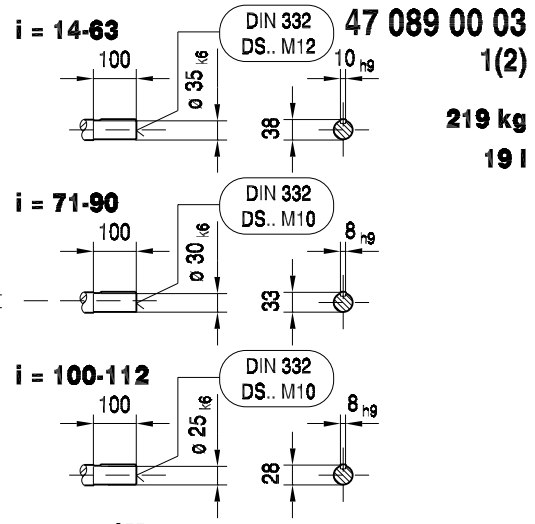
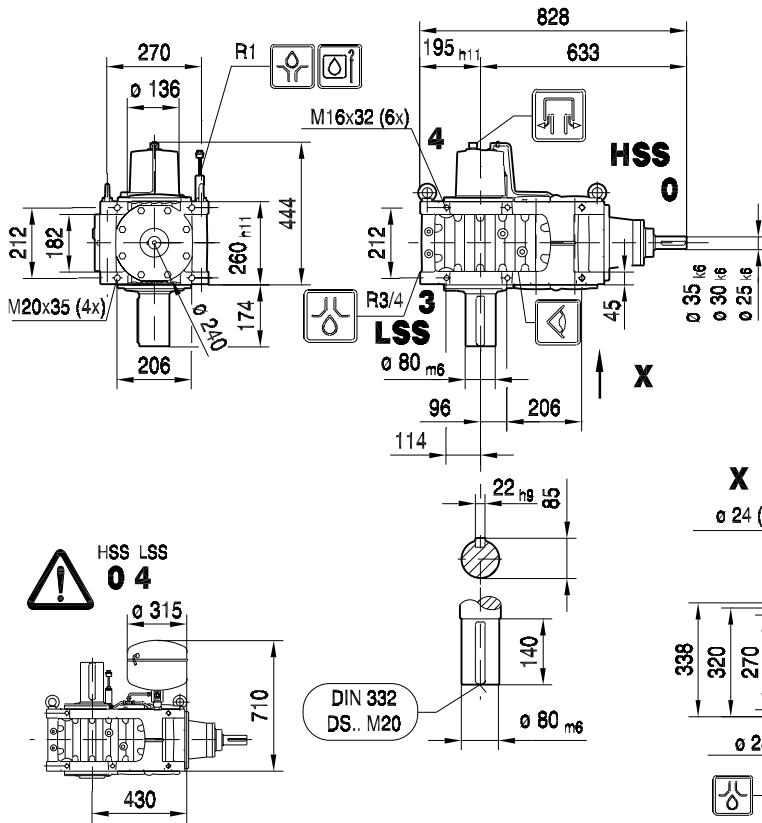
/SEP



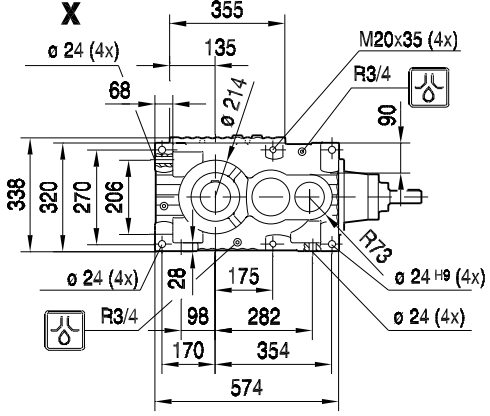


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

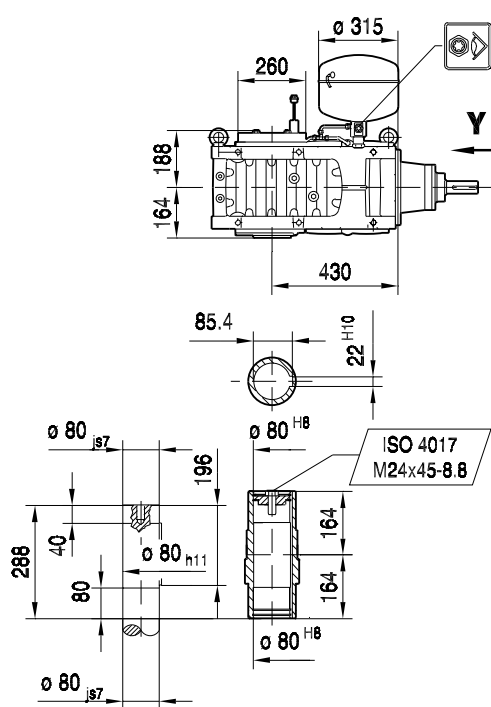
MC3RVSF02



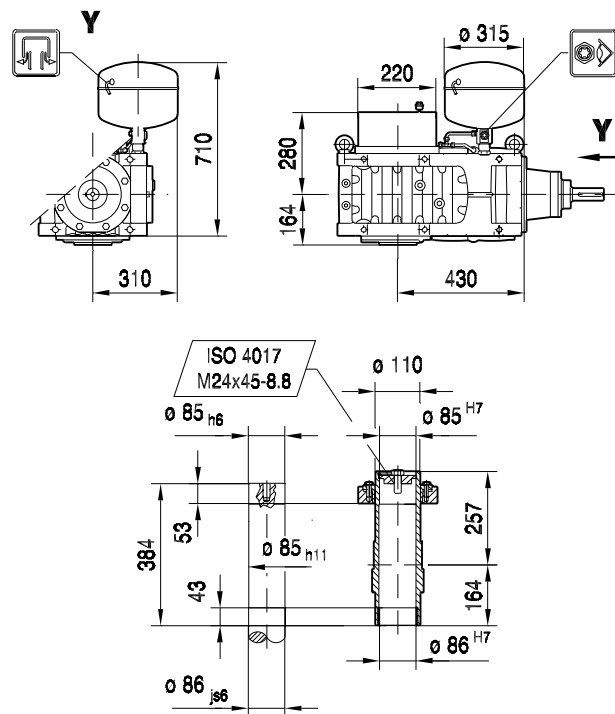
219 kg
19 l



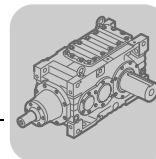
MC3RVHF02



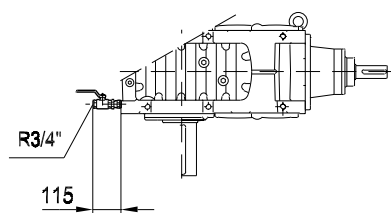
MC3RVHF02 /SD



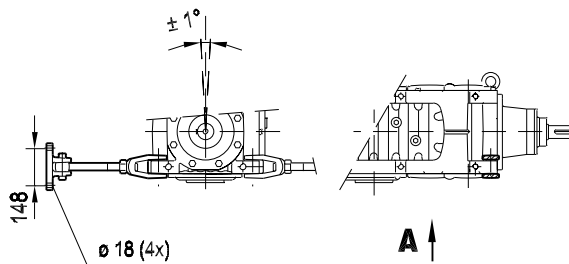
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



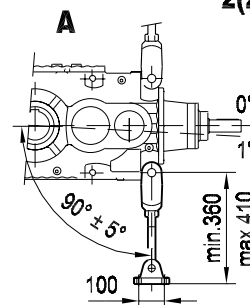
MC3RV..02
/ODV



MC3RVHT 03

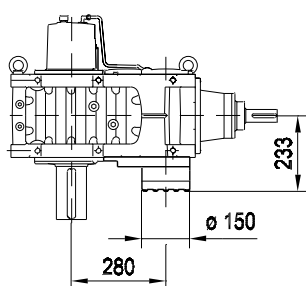


47 089 00 03
2(2)

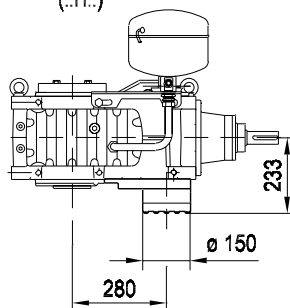


/BS

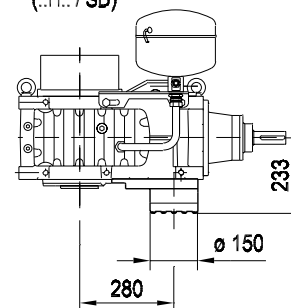
(.S..)



(.H..)

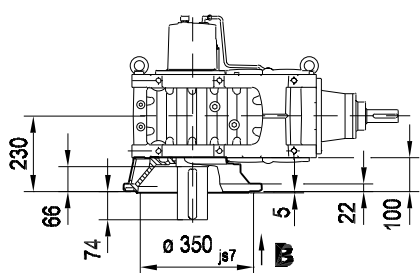


(.H.. / SD)

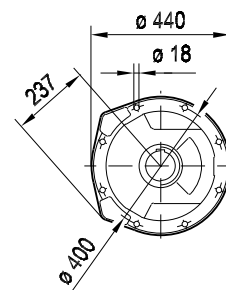
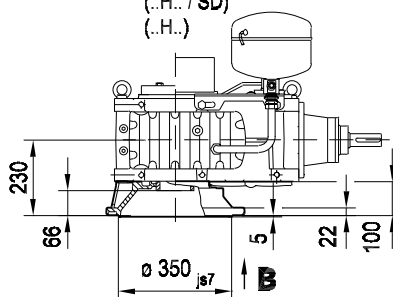


/MF

(.S..)

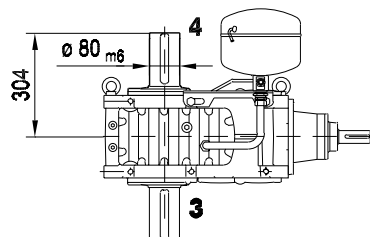


(.H.. / SD)
 (.H..)



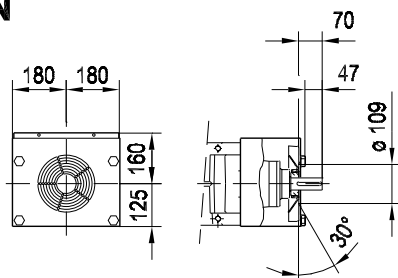
/LSST

(.S..)

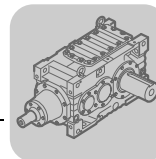


11

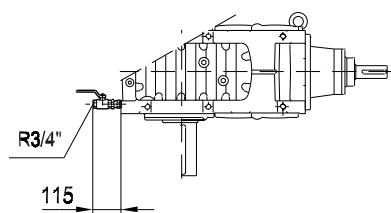
/FAN



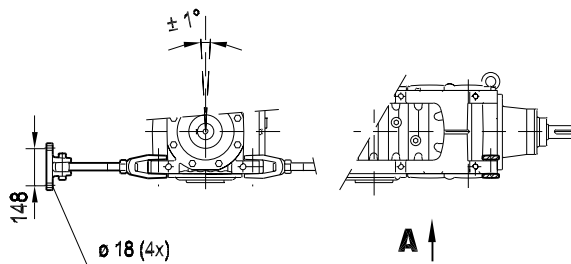
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



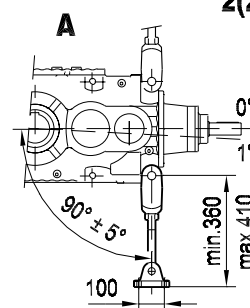
MC3RV..03
/ODV



MC3RVHT 03

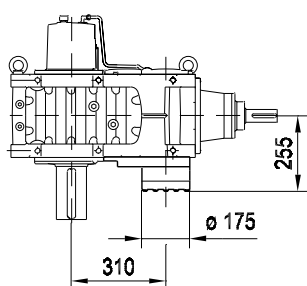


47 090 00 03
2(2)

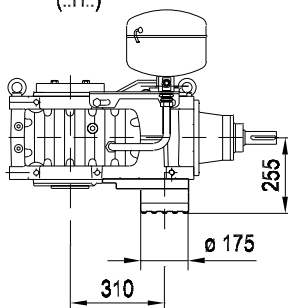


/BS

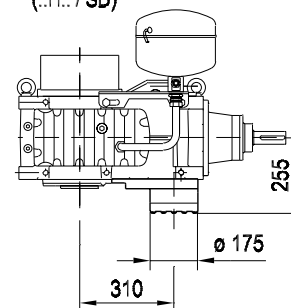
(.S..)



(..H..)

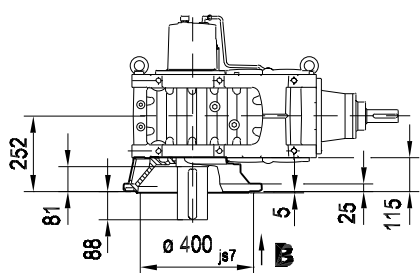


(..H.. / SD)



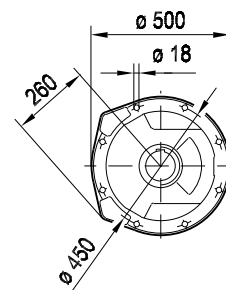
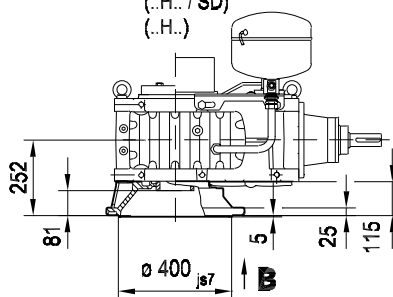
/MF

(.S..)



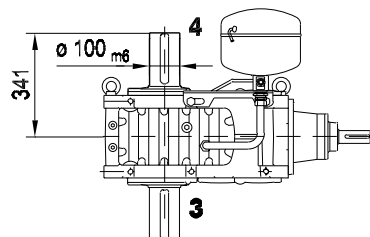
(..H.. / SD)

(..H..)



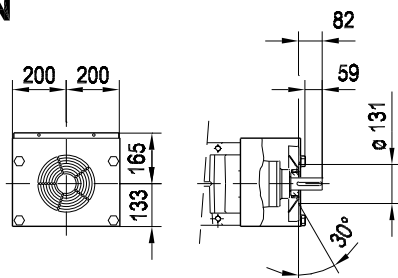
/LSST

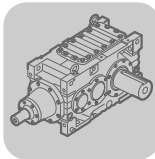
(.S..)



11

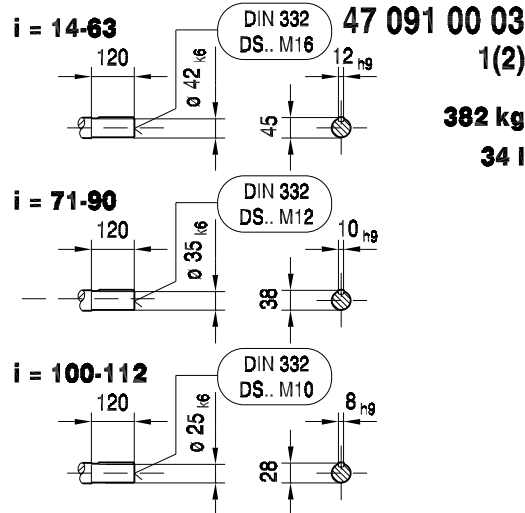
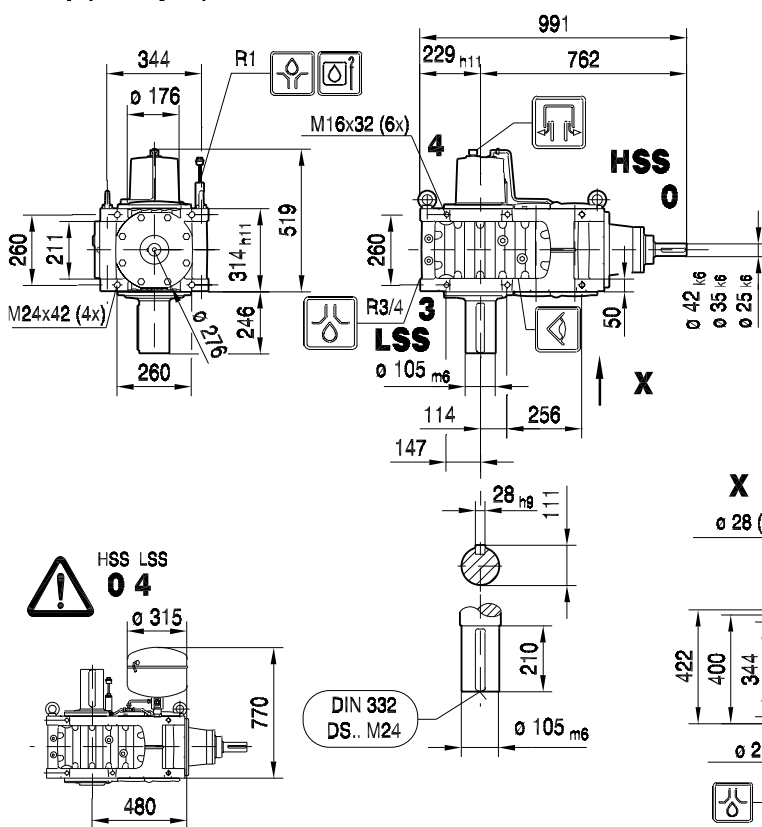
/FAN





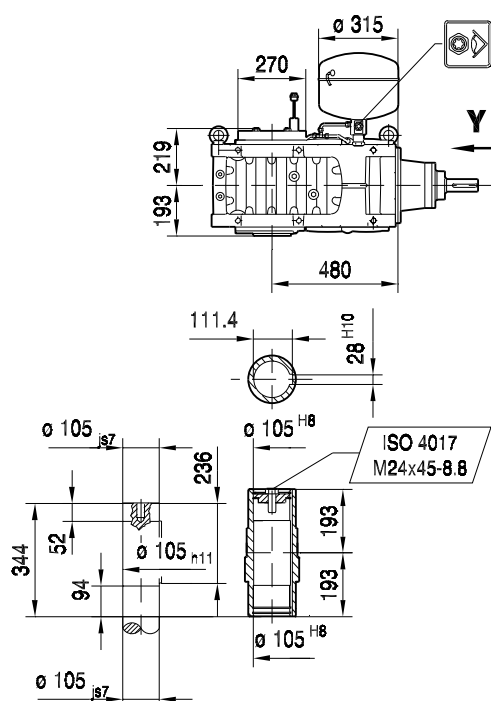
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..

MC3RVSF04

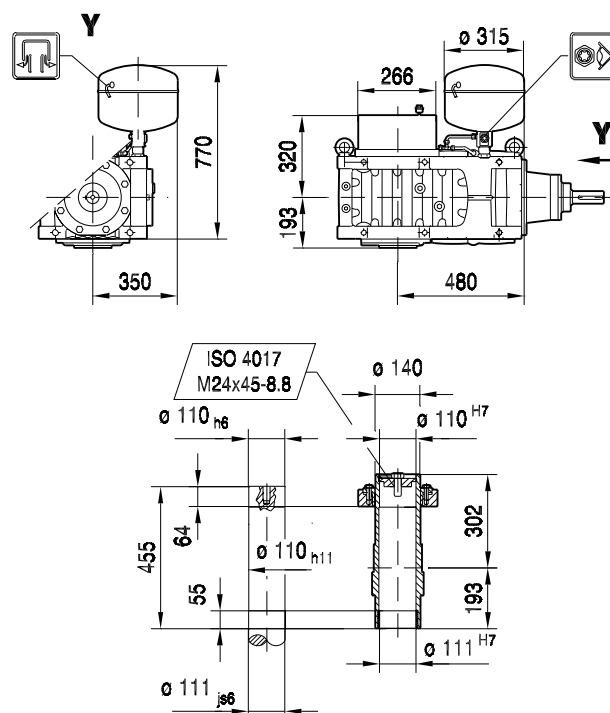


47 091 00 03
1(2)
382 kg
34 l

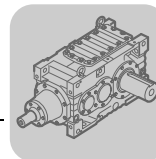
MC3RVHF04



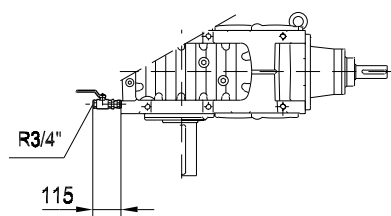
MC3RVHF04 /SD



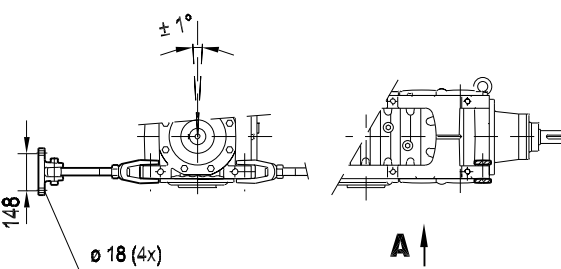
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



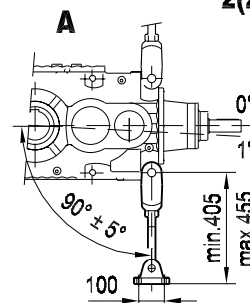
MC3RV..04
/ODV



MC3RVHT 04

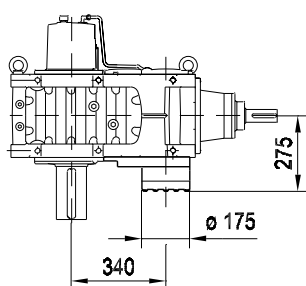


47 091 00 03
2(2)

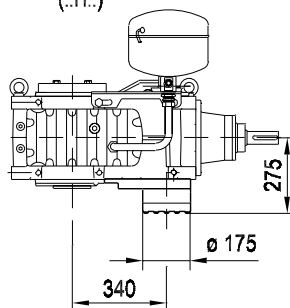


/BS

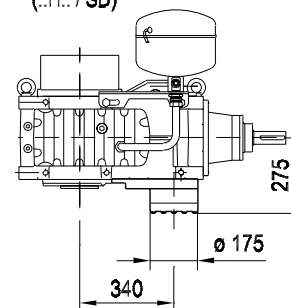
(.S..)



(.H..)

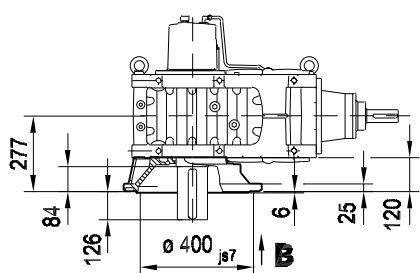


(.H.. / SD)

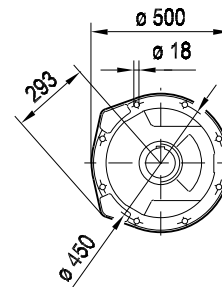
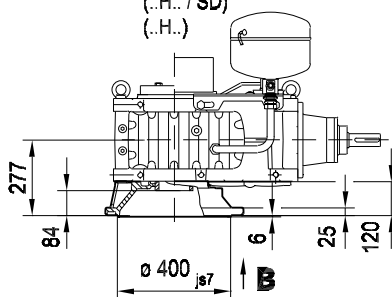


/MF

(.S..)

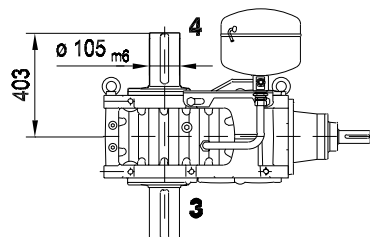


(.H.. / SD)
 (.H..)



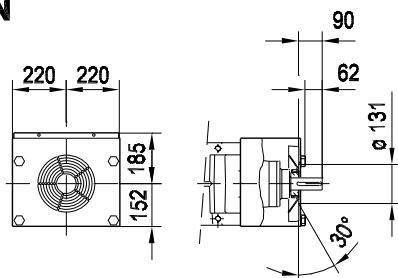
/LSST

(.S..)

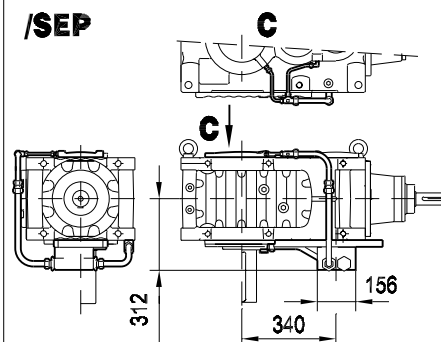


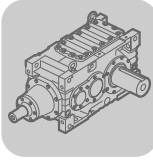
11

/FAN



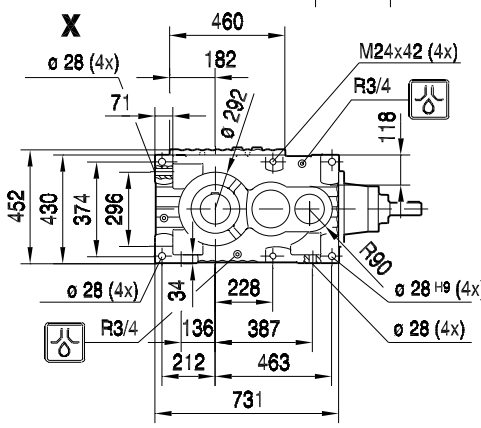
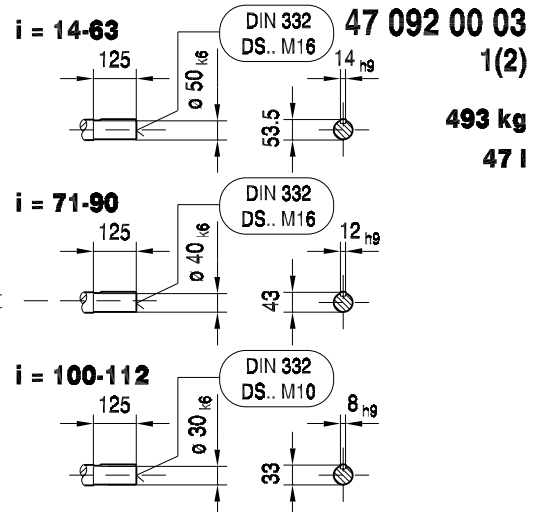
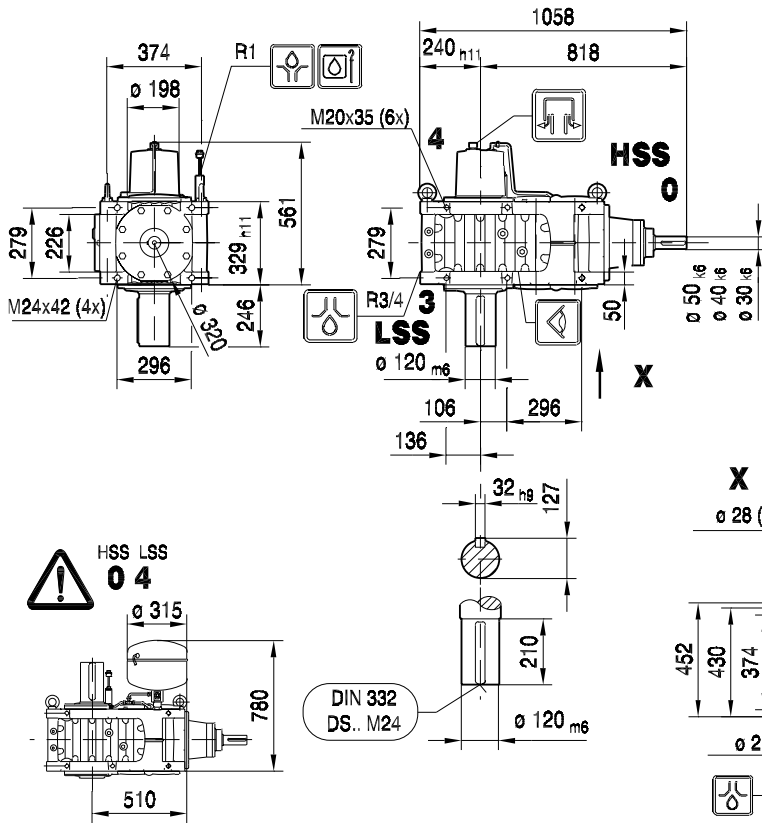
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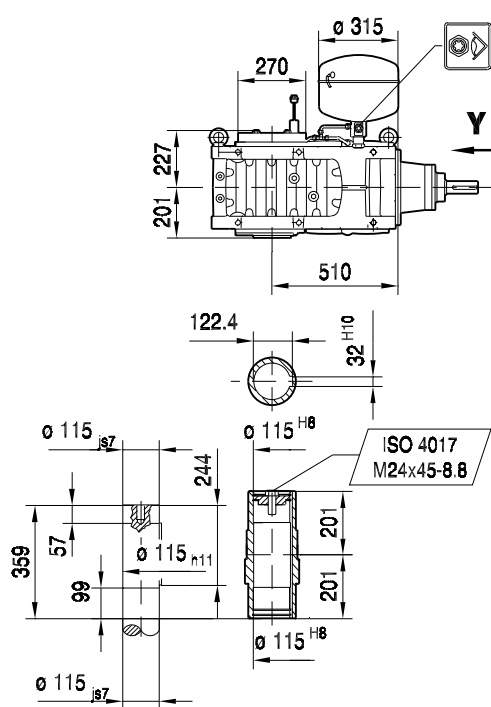


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

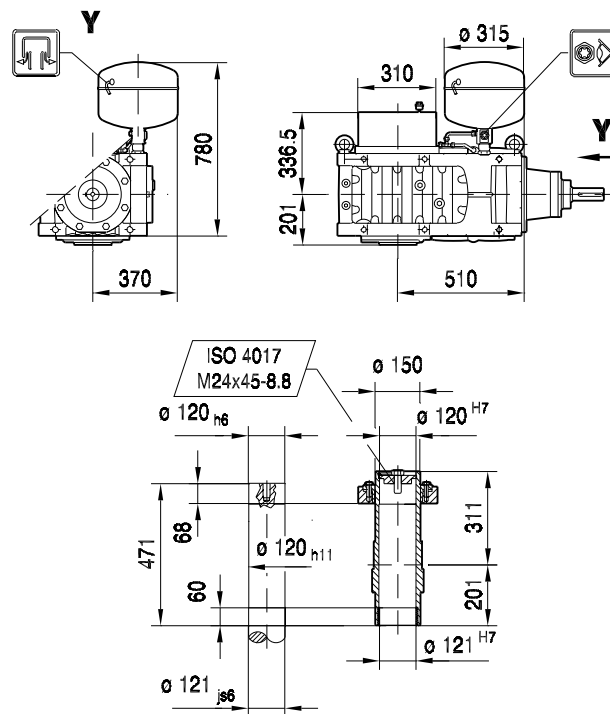
MC3RVSF05



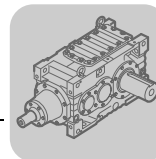
MC3RVHF05



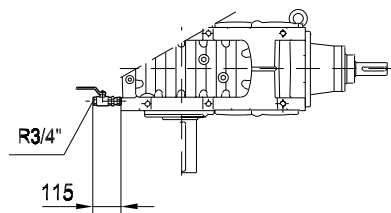
MC3RVHF05 /SD



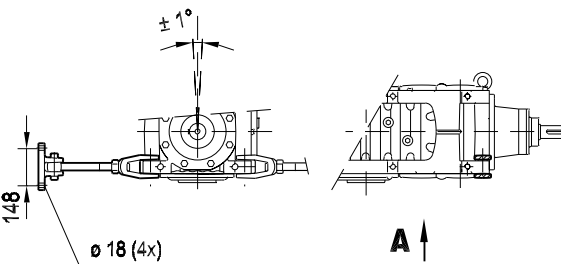
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



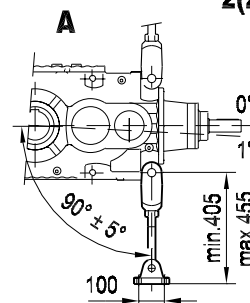
MC3RV..05
/ODV



MC3RVHT 05

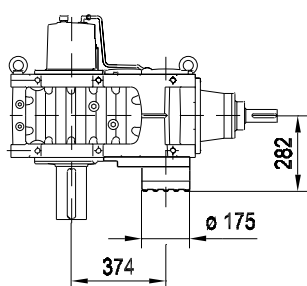


47 092 00 03
2(2)

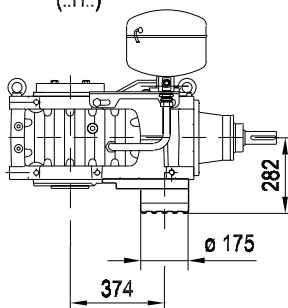


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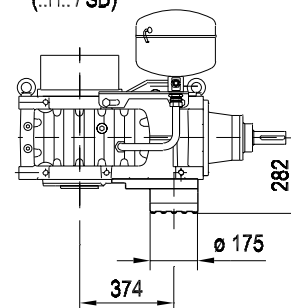
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(.H..)

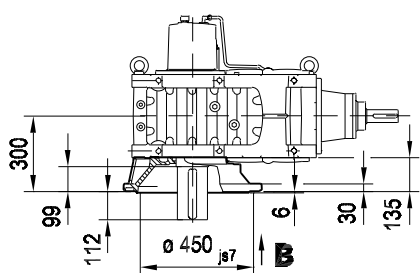


(.H.. / SD)



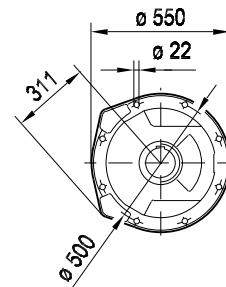
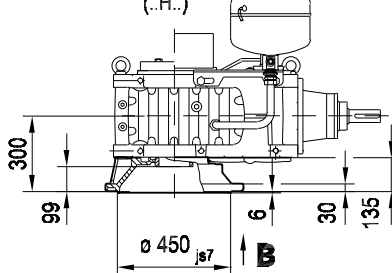
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(.S..)



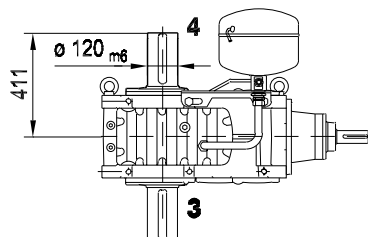
(.H.. / SD)

(.H..)



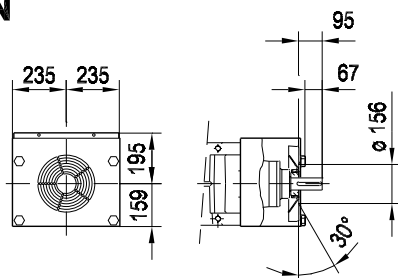
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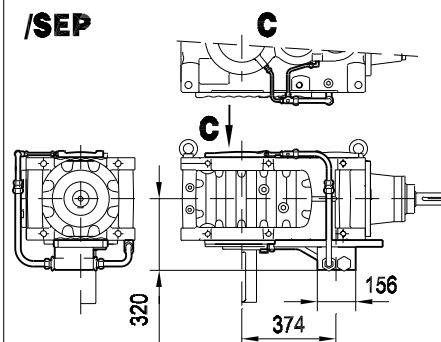


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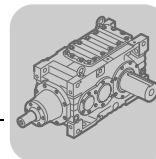
/FAN



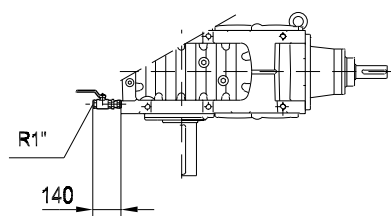
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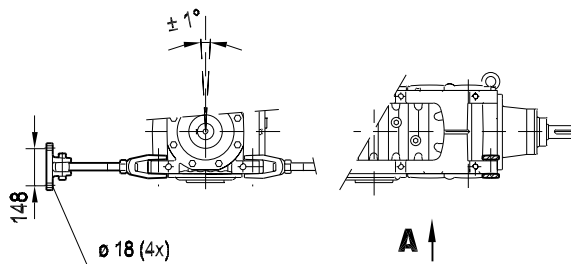
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



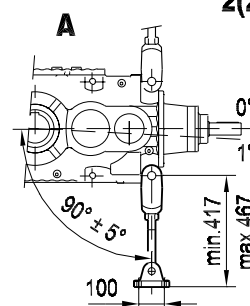
MC3RV..06
/ODV



MC3RVHT 06

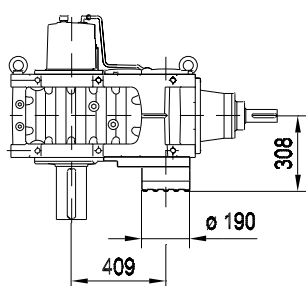


47 093 00 03
2(2)

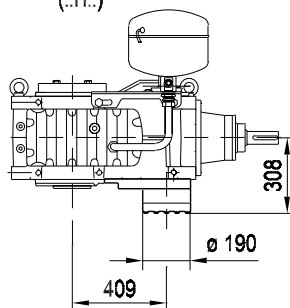


/BS

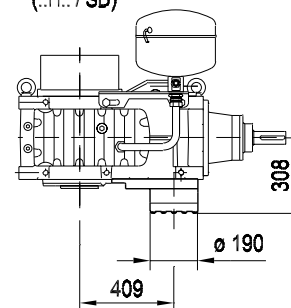
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(.H..)

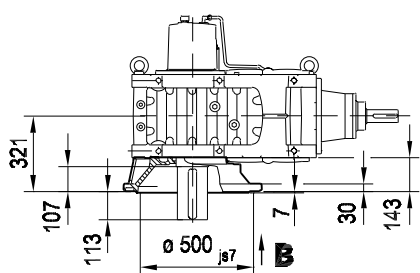


(.H.. / SD)

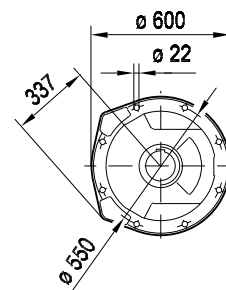
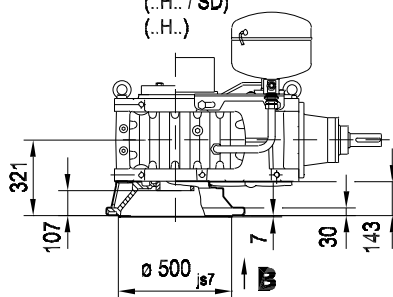


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(.S..)

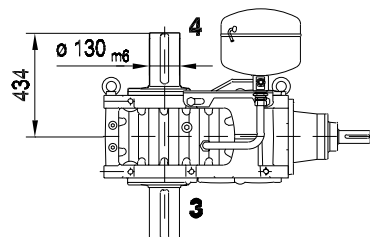


(.H.. / SD)
 (.H..)



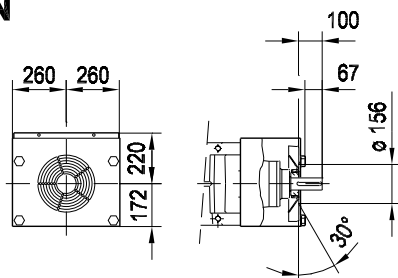
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(.S..)

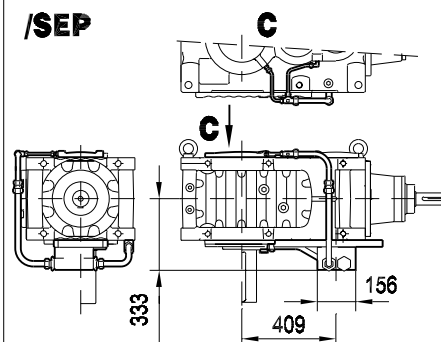


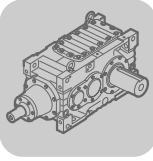
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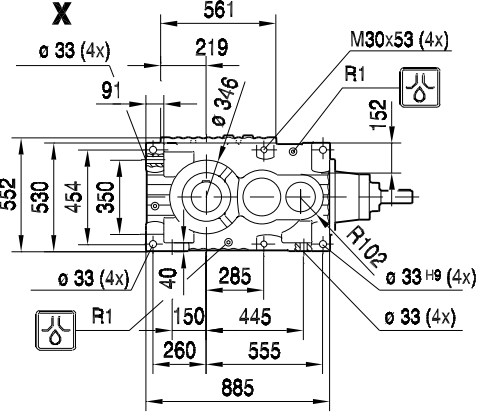
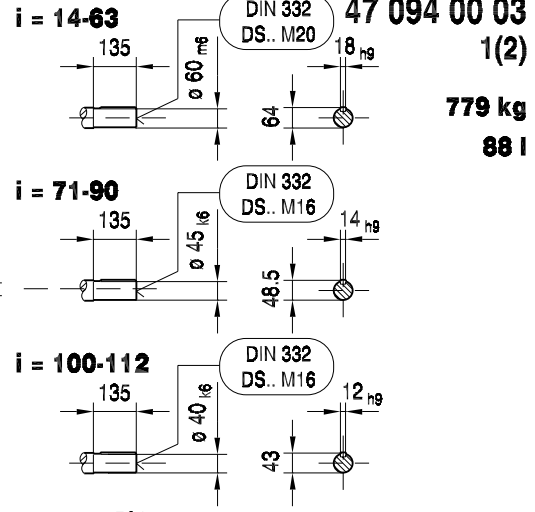
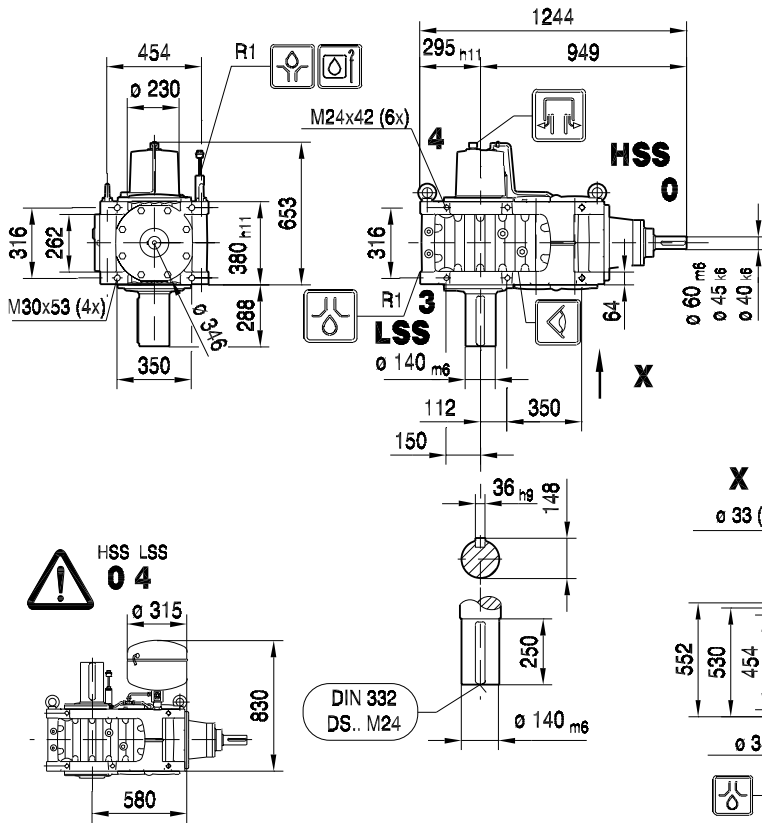
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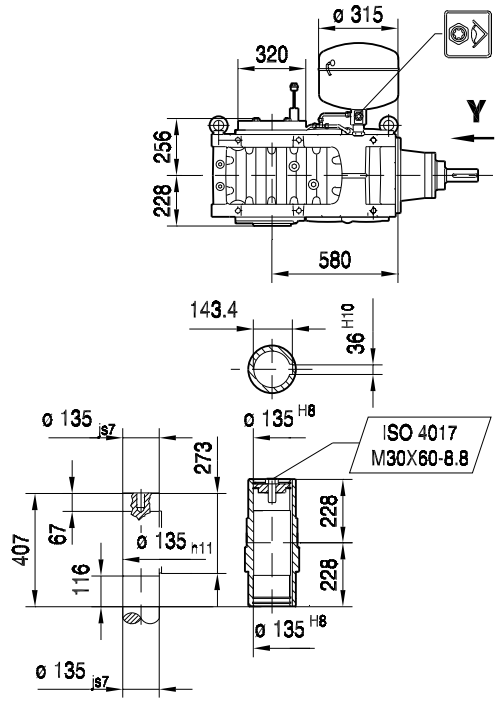


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..

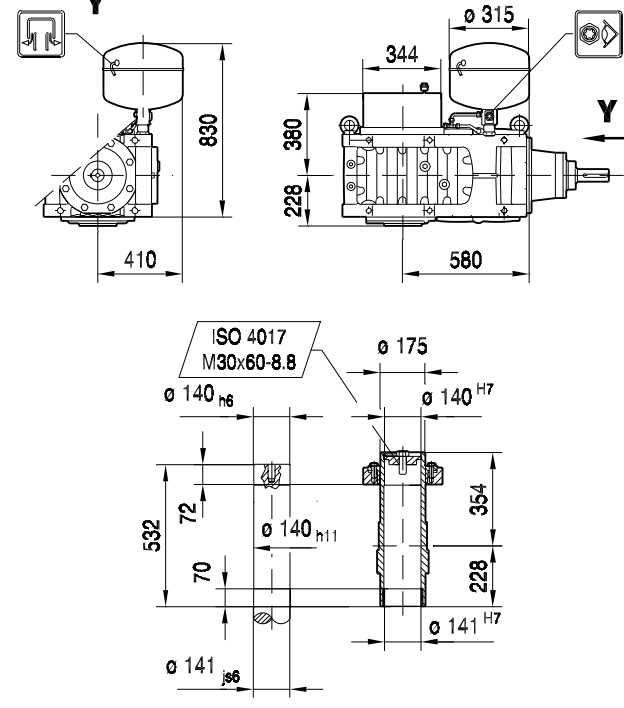
MC3RVSF07



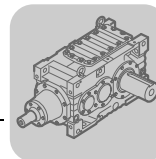
MC3RVHF07



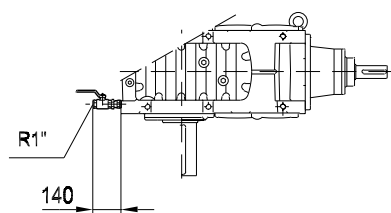
MC3RVHF07 /SD



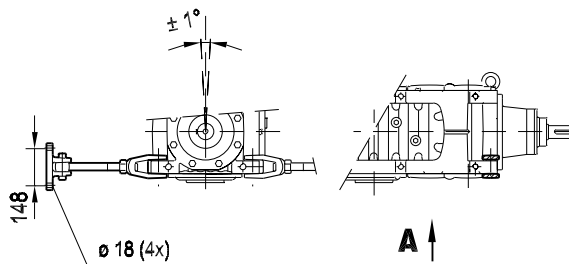
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



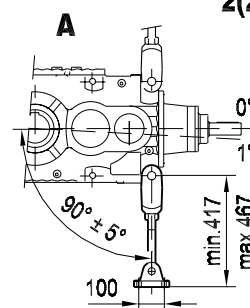
MC3RV..07
/ODV



MC3RVHT 07

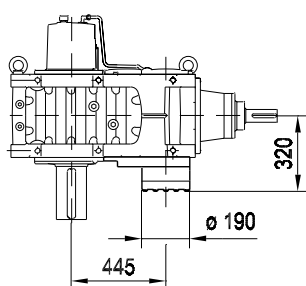


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2(2)

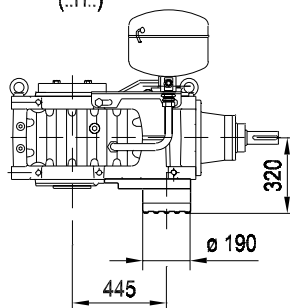


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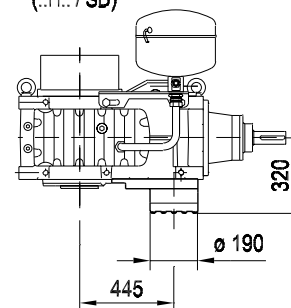
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(..H..)

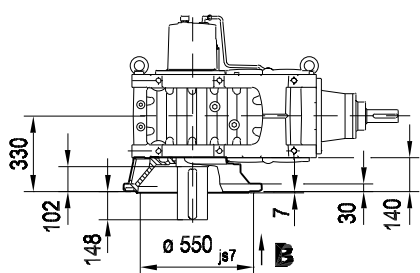


(..H.. / SD)



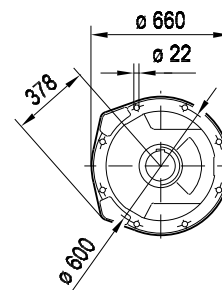
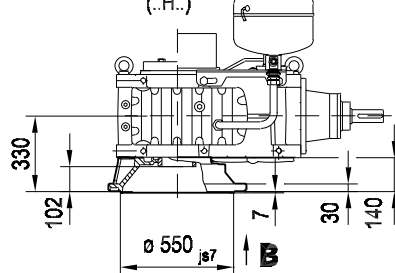
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(.S..)



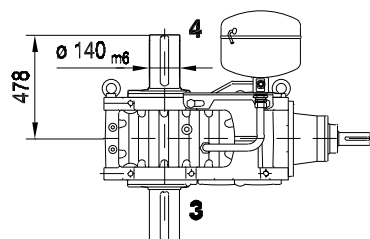
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(..H..)

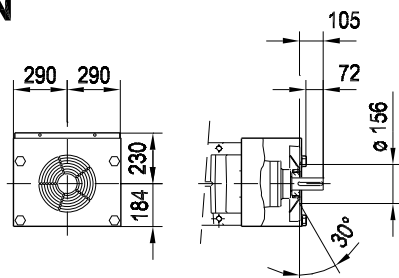


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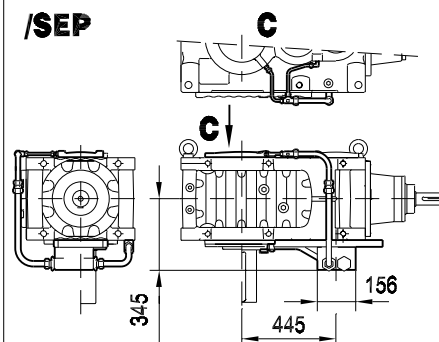
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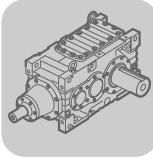
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/SEP

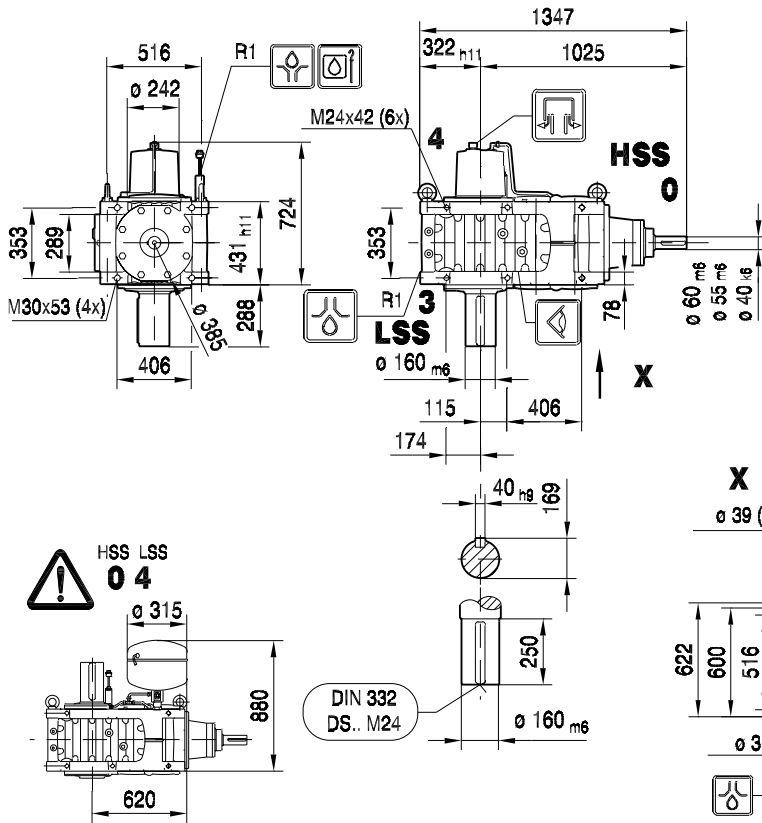


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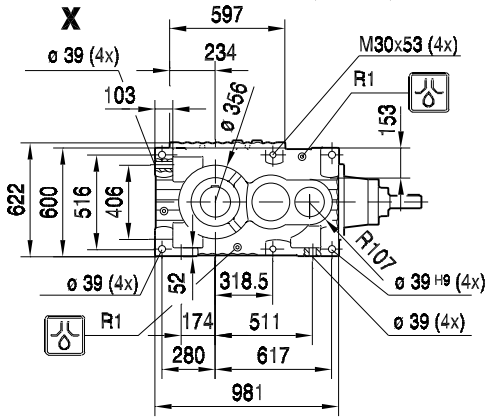


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RV..

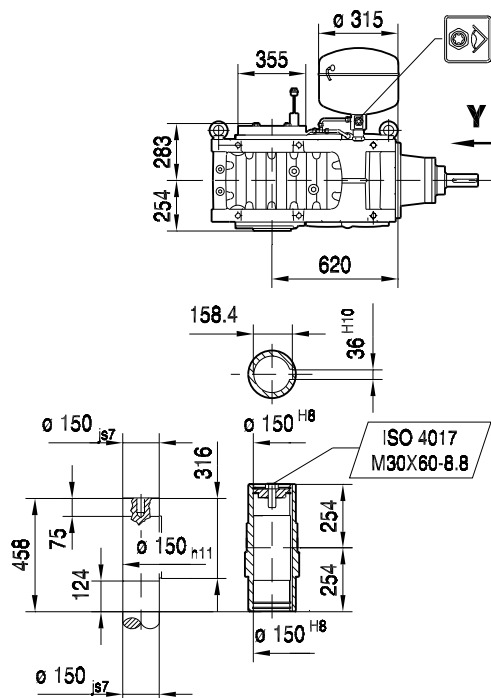
MC3RVSF08



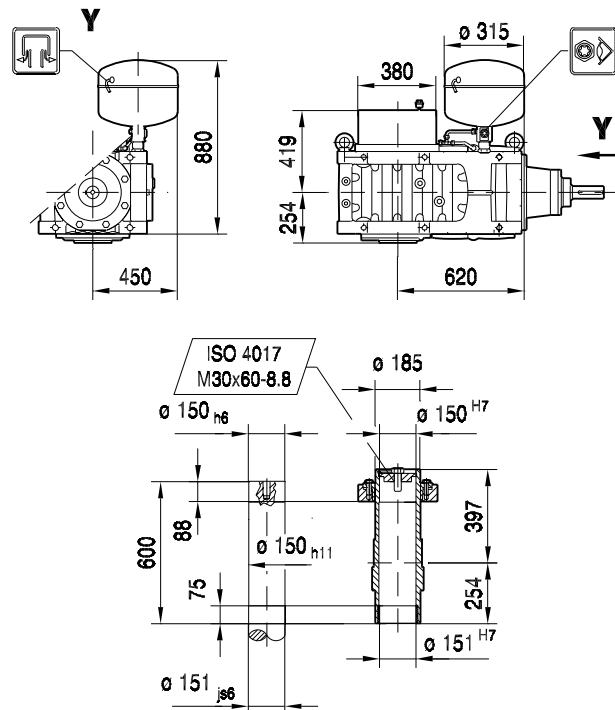
i = 14-63	DIN 332 DS.. M20	47 095 00 03
		1(2)
		1 037 kg
		111 l
i = 71-90	DIN 332 DS.. M20	
i = 100-112	DIN 332 DS.. M16	



MC3RVHF08

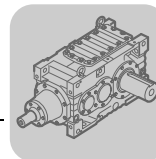


MC3RVHF08 /SD



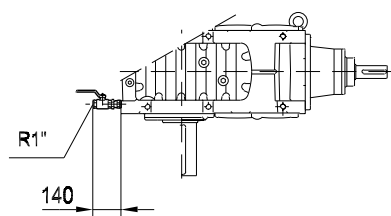
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RV..

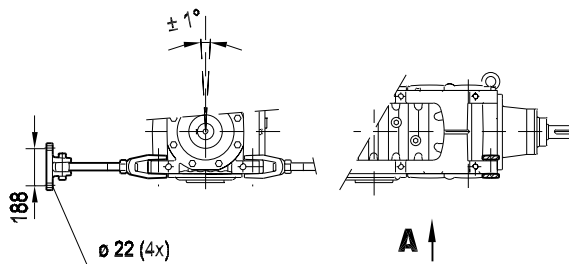


MC3RV..08

/ODV

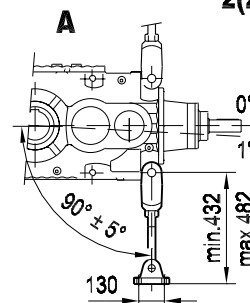


MC3RVHT 08



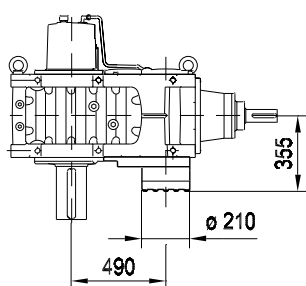
47 095 00 03

2(2)

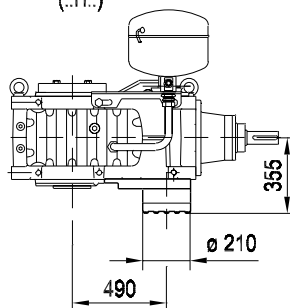


/BS

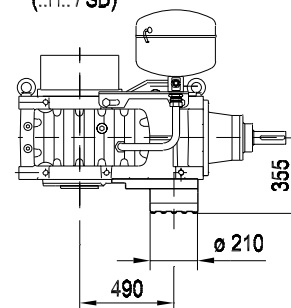
(.S..)



(.H..)

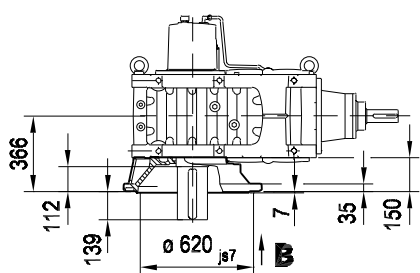


(.H.. / SD)



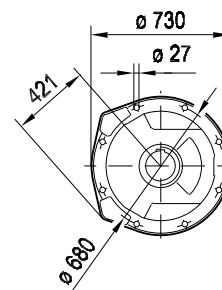
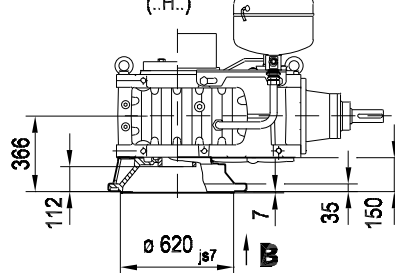
/MF

(.S..)



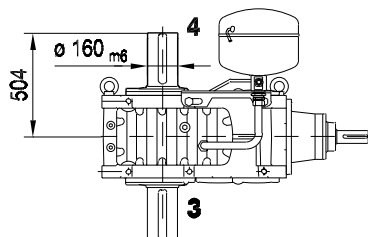
(.H.. / SD)

(.H..)

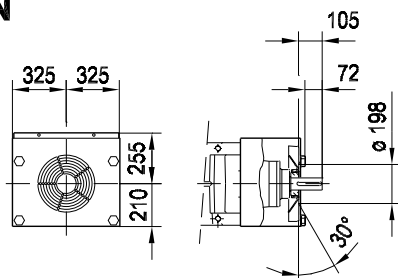


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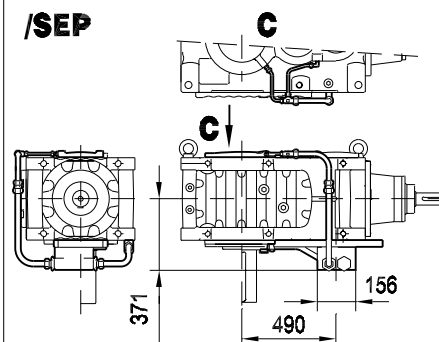
(.S..)

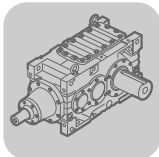


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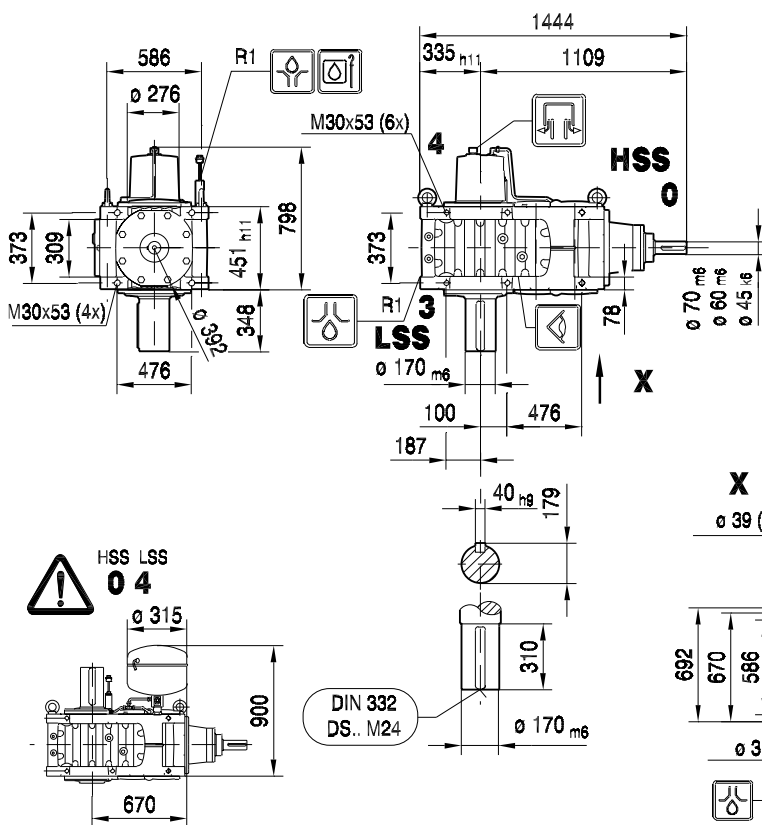
/SEP



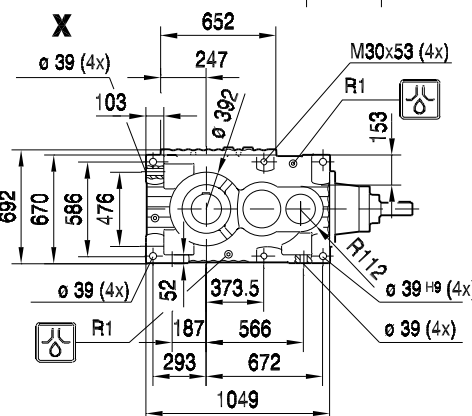


Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RV..

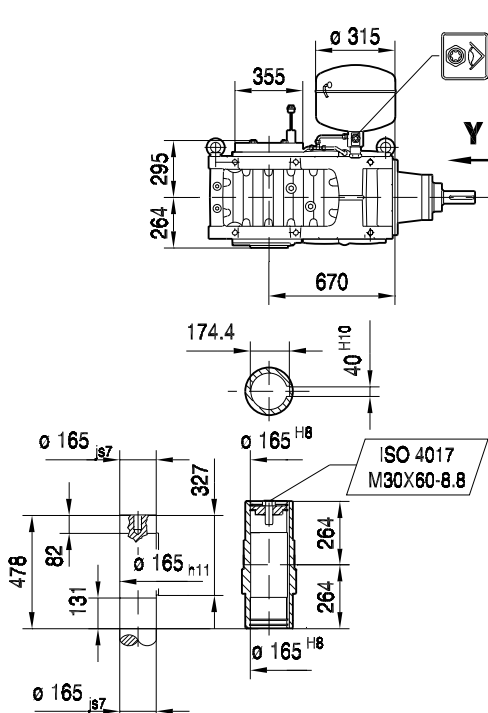
MC3RVSF09



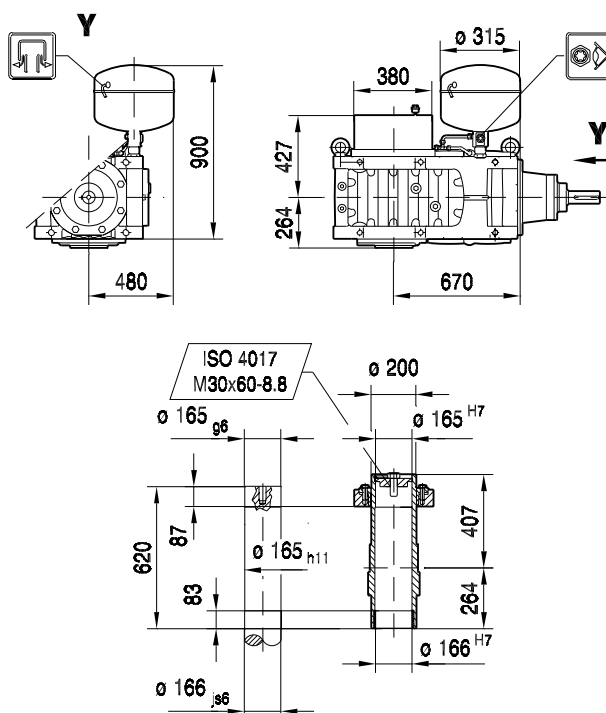
i = 14-63	DIN 332 DS.. M20	47 096 00 03 1(2)	1 299 kg 137 l
i = 71-90	DIN 332 DS.. M20		
i = 100-112	DIN 332 DS.. M16		



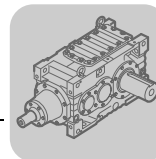
MC3RVHF09



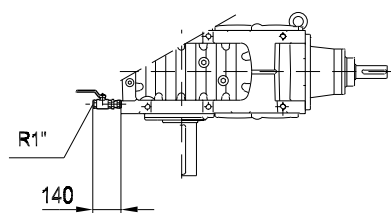
MC3RVHF09 /SD



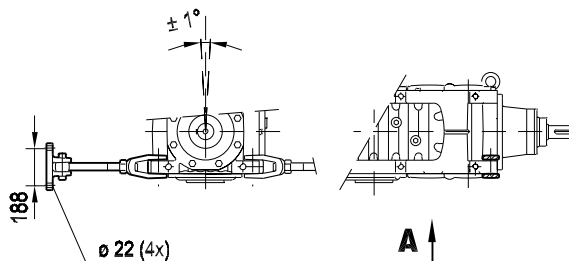
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RV..



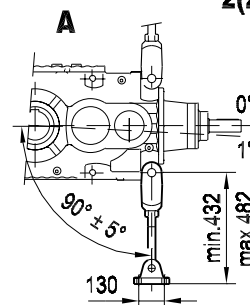
MC3RV..09
/ODV



MC3RVHT 09

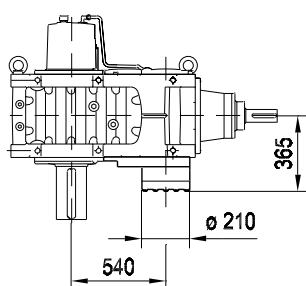


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2(2)

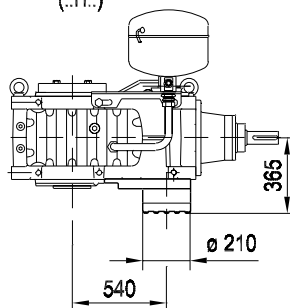


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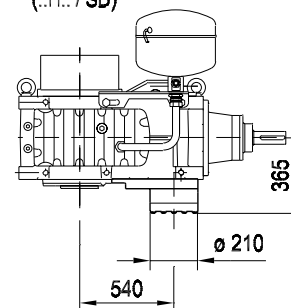
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(..H..)

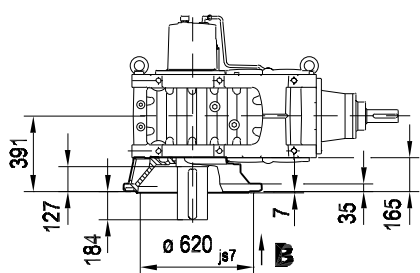


(..H.. / SD)

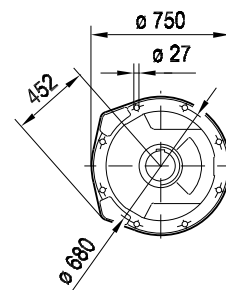
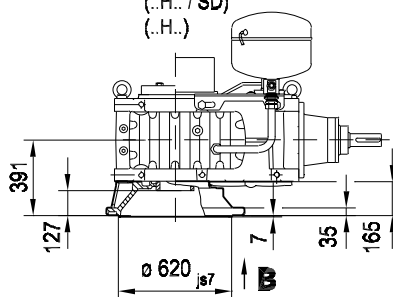


/MF

(.S..)

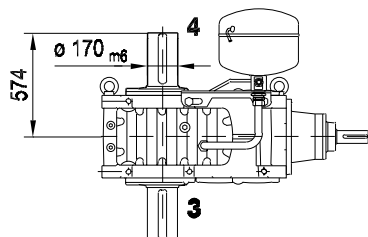


(..H.. / SD)
 (..H..)

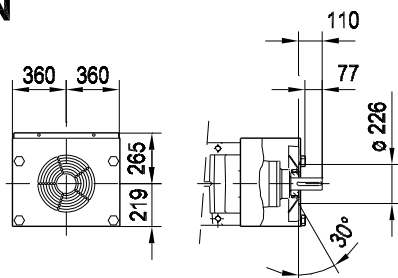


/LSST

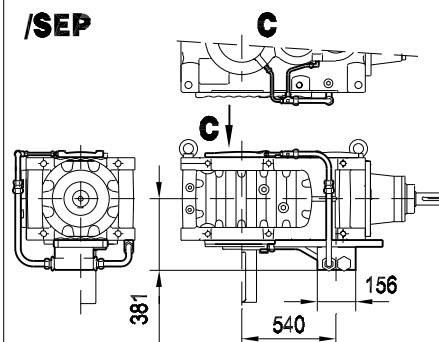
(.S..)



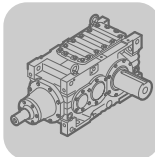
/FAN



/SEP



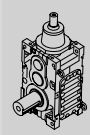

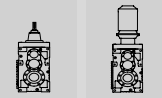
11

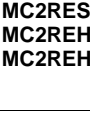




Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

11.4 Selection tables (detailed) MC.RE..

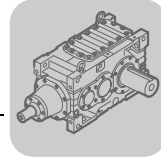
11.4.1 MC.RE..., n₁ = 1800 1/min

MC.RE..02, n ₁ = 1800 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	259	5.1	143	4.60	5.4	MC2RESF02 MC2REHF02 MC2REHT02	*)	*)	69	25	-	-	402	434		
8.00	8.05	224	5.5	132	5.1	6.8		*)	*)	74	29	-	-				
9.00	9.03	199	5.7	123	5.5	8.0		14	*)	77	32	-	-				
10.00	9.61	187	5.2	107	6.9	5.2		15	*)	79	34	-	-				
11.20	11.11	162	5.6	99	7.3	6.5		19	*)	82	38	-	-				
12.50	12.47	144	5.9	93	7.7	7.5	22	*)	85	41	-	-					
14.00	14.61	123	5.7	76	9.0	*)	MC3RESF02 MC3REHF02 MC3REHT02	18	*)	64	34	-	-	418	435		
16.00	16.90	107	6.6	76	7.5	*)		20	*)	66	36	-	-				
18.00	18.96	95	7.3	75	6.3	*)		22	*)	68	38	-	-				
20.00	20.31	89	7.2	70	5.7	0.91		23	*)	69	39	-	-				
22.50	23.49	77	7.9	66	5.4	1.47		25	8	71	41	-	-				
25.00	26.36	68	7.4	55	9.8	3.20		26	10	73	43	-	-				
28.00	29.43	61	8.0	53	7.9	3.50		28	11	74	44	-	-				
31.50	33.03	55	7.4	44	12.5	4.89		29	12	75	46	-	-				
35.50	37.38	48	6.8	36	17.5	6.2		31	14	77	47	-	-				
40.00	40.30	45	6.6	33	18.1	2.54		32	15	78	48	-	-				
45.00	45.22	40	7.5	33	16.7	2.48		33	16	79	50	-	-				
50.00	50.49	36	8.1	32	15.2	2.89		34	17	80	51	-	-				
56.00	56.66	32	7.6	27	19.8	4.38		35	18	82	52	-	-				
63.00	64.14	28	7.0	22	22.3	5.8		36	19	83	53	-	-				
71.00	70.97	25	8.1	23	20.6	1.63		29	12	69	39	-	-				
80.00	79.65	23	7.7	19	22.7	2.58	30	13	70	40	-	-					
90.00	90.15	20	7.1	15.6	22.7	3.59	31	14	71	42	-	-					
100.00	97.35	18	6.0	12.3	22.7	1.25	31	15	72	42	-	-					
112.00	110.19	16	6.8	12.3	22.7	1.25	32	16	73	43	-	-					

MC.RE..03, n ₁ = 1800 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	253	6.4	176	16.2	7.3	MC2RESF03 MC2REHF03 MC2REHT03	*)	*)	85	31	-	-	404	434		
8.00	8.04	224	6.8	165	16.8	8.5		*)	*)	90	36	-	-				
9.00	9.07	199	7.2	154	17.5	9.7		17	*)	94	40	-	-				
10.00	10.00	180	6.5	128	18.6	5.1		20	*)	97	43	-	-				
11.20	11.28	160	7.1	123	19.1	5.9		24	*)	101	47	-	-				
12.50	12.73	141	7.5	115	19.9	7.2	27	*)	105	50	-	-					
14.00	15.07	119	7.7	101	20.6	*)	MC3RESF03 MC3REHF03 MC3REHT03	23	*)	78	42	-	-	420	435		
16.00	17.00	106	8.7	101	20.8	*)		25	*)	81	44	-	-				
18.00	19.18	94	9.9	101	20.1	*)		27	*)	83	47	-	-				
20.00	20.57	88	10.0	96	18.2	0.455		28	*)	84	48	-	-				
22.50	23.20	78	11.3	96	16.0	0.453		30	10	86	50	-	-				
25.00	26.18	69	10.6	79	23.2	2.69		32	12	88	52	-	-				
28.00	29.60	61	11.4	76	20.9	3.19		34	14	90	54	-	-				
31.50	33.40	54	10.7	63	25.8	4.89		36	15	92	56	-	-				
35.50	35.08	51	10.7	60	26.3	2.47		36	16	93	57	-	-				
40.00	39.67	45	11.3	57	26.8	3.13		38	18	95	58	-	-				
45.00	44.75	40	10.8	48	29.1	4.71		40	19	96	60	-	-				
50.00	50.97	35	9.9	39	30.7	6.3		41	21	98	62	-	-				
56.00	57.30	31	10.9	38	30.7	4.54		43	22	99	63	-	-				
63.00	65.25	28	10.0	30	30.7	6.2		44	24	101	65	-	-				
71.00	69.86	26	10.6	30	30.7	0.063		35	14	84	48	-	-				
80.00	78.82	23	11.0	28	30.7	0.84	36	16	85	49	-	-					
90.00	89.76	20	10.1	22	30.7	2.48	38	17	87	51	-	-					
100.00	97.53	18	8.9	18.2	30.7	*)	38	18	88	51	-	-					
112.00	111.07	16	10.2	18.2	30.7	*)	40	19	89	53	-	-					

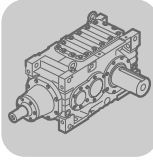
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RE..

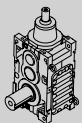




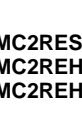


MC.RE..04, n ₁ = 1800 1/min							P _{TH}						15.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	7.29	247	8.5	225	18.5	7.0	MC2RESF04 MC2REHF04 MC2REHT04	*)	*)	106	40	-	-	406	434
8.00	8.20	219	8.9	210	19.4	8.7		*)	*)	111	45	-	-		
9.00	9.17	196	9.3	197	20.1	10.2		21	*)	116	49	-	-		
10.00	10.15	177	8.7	168	21.2	5.5		25	*)	120	53	-	-		
11.20	11.41	158	9.2	158	22.0	7.0		29	*)	125	58	-	-		
12.50	12.76	141	9.7	149	22.8	8.4	33	*)	129	62	-	-			
14.00	14.76	122	8.7	116	25.0	*)	MC3RESF04 MC3REHF04 MC3REHT04	27	*)	96	51	-	-	422	435
16.00	16.60	108	9.8	116	25.2	*)		30	*)	99	54	-	-		
18.00	18.56	97	10.9	116	25.4	*)		33	*)	101	57	-	-		
20.00	20.60	87	12.2	116	22.7	*)		35	*)	104	59	-	-		
22.50	23.17	78	13.7	116	20.1	*)		37	12	106	62	-	-		
25.00	25.90	69	14.9	113	18.8	*)		39	14	108	64	-	-		
28.00	29.65	61	15.9	105	16.6	0.89		42	17	111	67	-	-		
31.50	33.14	54	14.9	88	25.2	3.18		44	19	113	69	-	-		
35.50	34.63	52	13.1	75	30.7	2.88		45	19	114	70	-	-		
40.00	39.63	45	15.3	76	27.1	2.68		47	22	116	72	-	-		
45.00	44.30	41	14.9	67	32.3	4.25		49	24	118	74	-	-		
50.00	49.83	36	14.0	56	35.2	6.0		51	25	120	76	-	-		
56.00	55.99	32	14.0	50	35.3	4.63		52	27	122	78	-	-		
63.00	62.98	29	14.1	44	35.3	5.7		54	29	124	80	-	-		
71.00	68.90	26	13.3	38	35.3	1.85		43	18	103	59	-	-		
80.00	77.02	23	14.3	37	35.3	2.28	44	19	105	60	-	-			
90.00	86.63	21	14.3	33	35.3	3.59	46	21	106	62	-	-			
100.00	93.18	19	8.7	18.5	35.3	*)	47	21	107	63	-	-			
112.00	104.81	17	9.9	19	35.3	*)	48	23	109	64	-	-			

MC.RE..05, n ₁ = 1800 1/min							P _{TH}						20.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	7.10	254	11.7	318	13.0	5.8	MC2RESF05 MC2REHF05 MC2REHT05	*)	*)	119	43	-	-	408	434
8.00	7.99	225	12.3	299	13.7	8.1		*)	*)	124	49	-	-		
9.00	8.86	203	12.9	281	14.7	9.2		*)	*)	129	54	-	-		
10.00	9.87	182	12.0	237	16.9	6.8		27	*)	134	59	-	-		
11.20	11.11	162	12.7	223	17.6	8.9		32	*)	139	64	-	-		
12.50	12.33	146	13.3	211	18.6	9.7	36	*)	144	69	-	-			
14.00	14.68	123	12.0	160	23.4	*)	MC3RESF05 MC3REHF05 MC3REHT05	31	*)	108	58	-	-	424	436
16.00	16.53	109	13.5	160	22.1	*)		34	*)	111	61	-	-		
18.00	18.33	98	15.0	160	21.0	*)		36	*)	114	64	-	-		
20.00	20.22	89	15.3	148	19.7	0.83		39	*)	116	66	-	-		
22.50	22.76	79	17.2	148	17.7	0.83		42	*)	119	69	-	-		
25.00	25.25	71	19.1	148	16.1	0.83		44	15	122	72	-	-		
28.00	29.13	62	20.0	134	15.1	2.71		47	18	125	75	-	-		
31.50	32.32	56	19.8	120	19.6	4.71		49	21	127	77	-	-		
35.50	33.83	53	18.3	107	24.6	2.10		50	22	128	78	-	-		
40.00	39.03	46	19.5	99	23.1	3.55		53	24	131	81	-	-		
45.00	43.30	42	20.0	91	25.8	4.86		55	26	133	83	-	-		
50.00	48.74	37	18.5	75	33.5	7.6		57	28	135	85	-	-		
56.00	55.44	32	19.7	70	32.6	0.352		59	31	138	88	-	-		
63.00	62.40	29	18.7	59	37.0	2.75		61	32	140	90	-	-		
71.00	69.92	26	15.7	44	40.3	3.86		48	20	117	66	-	-		
80.00	77.56	23	17.4	44	41.0	3.86	50	22	118	68	-	-			
90.00	87.30	21	18.9	43	41.3	4.24	52	23	120	70	-	-			
100.00	93.84	19	13.2	28	41.3	2.40	53	24	121	71	-	-			
112.00	105.62	17	15.1	28	41.3	2.29	54	26	123	73	-	-			



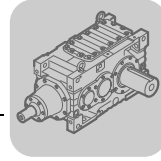
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

MC.RE..06, n ₁ = 1800 1/min							P _{TH} 25.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.74	267	14.7	422	17.4	4.19	MC2RESF06 MC2REHF06 MC2REHT06	*)	*)	139	49	-	-	410	434
8.00	7.80	231	15.7	390	18.9	7.5		*)	*)	147	57	-	-		
9.00	8.75	206	16.5	364	20.2	9.8		*)	*)	154	64	-	-		
10.00	9.64	187	15.1	307	24.2	5.4		31	*)	159	69	-	-		
11.20	11.15	161	16.2	285	25.8	8.4		39	*)	167	77	-	-		
12.50	12.52	144	17.1	268	26.9	10.5		44	*)	173	83	-	-		
14.00	14.09	128	14.4	200	31.5	1.17	MC3RESF06 MC3REHF06 MC3REHT06	35	*)	128	68	-	-	426	436
16.00	16.30	110	16.6	200	31.9	1.17		40	*)	133	73	-	-		
18.00	18.30	98	18.7	200	32.1	1.17		44	*)	136	76	-	-		
20.00	20.30	89	18.9	182	30.4	3.25		47	*)	139	79	-	-		
22.50	23.49	77	21.8	182	26.6	3.25		51	*)	144	84	-	-		
25.00	26.36	68	24.5	182	22.3	3.25		54	20	147	87	-	-		
28.00	28.78	63	25.2	171	20.9	4.51		56	22	149	89	-	-		
31.50	32.30	56	26.0	157	24.1	6.1		59	25	152	92	-	-		
35.50	35.53	51	23.7	132	35.9	5.3		61	27	155	95	-	-		
40.00	38.80	46	24.1	123	35.7	6.5		63	29	157	97	-	-		
45.00	43.54	41	26.2	119	34.5	7.1		66	31	159	99	-	-		
50.00	49.28	37	24.2	97	44.4	10.2		68	34	162	102	-	-		
56.00	55.31	33	24.1	86	45.3	7.8		71	36	165	105	-	-		
63.00	62.60	29	24.4	77	45.3	9.4		73	39	167	107	-	-		
71.00	68.96	26	21.9	63	45.3	4.31		58	24	139	79	-	-		
80.00	77.39	23	24.6	63	45.3	4.31	60	26	141	81	-	-			
90.00	87.60	21	24.8	56	45.3	5.9	62	28	144	84	-	-			
100.00	95.76	19	22.5	46	45.3	0.96	63	29	145	85	-	-			
112.00	108.39	17	25.0	46	45.3	1.17	65	31	147	87	-	-			

MC.RE..07, n ₁ = 1800 1/min							P _{TH} 33.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.84	263	18.1	511	22.0	8.2	MC2RESF07 MC2REHF07 MC2REHT07	*)	*)	170	60	-	-	412	434
8.00	7.70	234	19.1	479	23.2	10.9		*)	*)	178	69	-	-		
9.00	8.65	208	20.0	447	24.5	12.5		*)	*)	186	77	-	-		
10.00	9.74	185	18.7	376	29.3	9.1		39	*)	194	85	-	-		
11.20	10.96	164	19.9	354	30.5	11.6		46	*)	202	93	-	-		
12.50	12.32	146	20.9	332	31.7	13.4		53	*)	209	100	-	-		
14.00	14.18	127	19.3	266	34.8	*)	MC3RESF07 MC3REHF07 MC3REHT07	43	*)	155	83	-	-	428	437
16.00	15.97	113	21.7	266	35.0	*)		48	*)	160	87	-	-		
18.00	17.93	100	24.4	266	32.3	*)		52	*)	165	92	-	-		
20.00	19.94	90	23.4	229	35.8	2.12		56	*)	169	96	-	-		
22.50	22.45	80	26.3	229	32.0	2.12		60	*)	173	100	-	-		
25.00	25.22	71	29.6	229	27.1	2.12		64	*)	177	104	-	-		
28.00	28.38	63	29.0	200	31.8	5.7		67	26	181	108	-	-		
31.50	31.88	56	32.6	200	26.3	5.7		71	30	185	112	-	-		
35.50	33.79	53	29.4	172	39.4	1.36		73	31	186	113	-	-		
40.00	38.02	47	30.2	157	39.7	3.82		76	35	190	117	-	-		
45.00	42.71	42	33.9	157	34.2	3.82		79	38	193	120	-	-		
50.00	48.96	37	33.4	135	45.2	7.4		83	41	197	124	-	-		
56.00	53.98	33	31.1	114	51	5.3		85	44	200	127	-	-		
63.00	61.88	29	33.8	108	53	6.5		88	47	203	130	-	-		
71.00	70.77	25	25.5	71	53	*)		71	29	170	97	-	-		
80.00	79.49	23	28.6	71	53	*)	73	32	172	100	-	-			
90.00	91.12	20	32.8	71	53	*)	76	35	175	103	-	-			
100.00	96.17	19	29.3	60	53	0.464	77	36	177	104	-	-			
112.00	110.25	16	33.6	60	53	0.464	80	39	179	107	-	-			

Bevel-Helical Gear Units MC...R

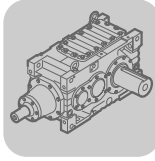
Selection tables (detailed) MC.RE..



MC.RE..08, n ₁ = 1800 1/min							P _{TH}						45.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	6.95	259	24.4	678	22.4	12.0	MC2RESF08 MC2REHF08 MC2REHT08	*)	*)	210	75	-	-	414	434
8.00	7.82	230	25.7	635	23.8	15.1		*)	*)	220	86	-	-		
9.00	8.88	203	27.1	590	25.3	16.4		*)	*)	231	97	-	-		
10.00	9.74	185	25.3	507	29.3	11.3		*)	*)	239	105	-	-		
11.20	10.96	164	26.8	477	30.6	14.9		56	*)	248	114	-	-		
12.50	12.45	145	28.4	445	32.1	16.4	66	*)	258	124	-	-			
14.00	14.48	124	24.9	336	40.1	*)	MC3RESF08 MC3REHF08 MC3REHT08	54	*)	192	103	-	-	430	437
16.00	16.30	110	28.0	336	40.0	*)		60	*)	198	108	-	-		
18.00	18.51	97	31.8	336	36.6	*)		65	*)	204	114	-	-		
20.00	20.25	89	30.1	291	40.2	2.78		69	*)	208	118	-	-		
22.50	22.80	79	33.9	291	36.8	2.78		74	*)	213	124	-	-		
25.00	25.89	70	38.5	291	32.1	2.78		79	*)	219	129	-	-		
28.00	29.06	62	37.5	252	36.9	6.8		84	33	223	134	-	-		
31.50	33.00	55	42.6	252	31.7	6.8		88	38	228	139	-	-		
35.50	34.90	52	39.4	223	42.1	2.91		90	40	230	141	-	-		
40.00	39.18	46	38.7	195	46.5	6.6		94	44	234	145	-	-		
45.00	44.49	40	43.9	195	41.4	6.6		99	48	239	149	-	-		
50.00	49.82	36	43.6	173	49.9	9.5		102	51	243	153	-	-		
56.00	56.62	32	45.8	160	47.9	1.58		106	55	247	157	-	-		
63.00	63.41	28	44.0	137	61	6.2		109	58	250	161	-	-		
71.00	70.39	26	37.0	104	67	4.22		87	36	209	119	-	-		
80.00	79.93	23	42.1	104	67	4.22		90	39	212	122	-	-		
90.00	89.53	20	44.7	98	67	5.4		93	42	215	126	-	-		
100.00	96.71	19	33.1	68	67	0.489	95	44	217	128	-	-			
112.00	108.32	17	37.6	68	67	0.267	98	47	220	130	-	-			

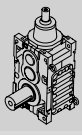



MC.RE..09, n ₁ = 1800 1/min							P _{TH}						55.0 kNm		
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH} [20]		P _{TH} [40]		P _{TH} [20]		P _{TH} [40]	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	6.85	263	33.6	945	28.8	10.2	MC2RESF09 MC2REHF09 MC2REHT09	*)	*)	240	*)	-	-	416	434
8.00	7.92	227	35.8	872	31.0	15.6		*)	*)	255	100	-	-		
9.00	8.89	202	37.6	815	32.7	19.4		*)	*)	267	112	-	-		
10.00	9.61	187	34.8	707	37.0	9.0		*)	*)	274	119	-	-		
11.20	11.11	162	37.3	655	39.2	14.2		66	*)	287	132	-	-		
12.50	12.47	144	39.3	614	41.1	18.3	76	*)	298	143	-	-			
14.00	14.28	126	29.8	407	51	*)	MC3RESF09 MC3REHF09 MC3REHT09	62	*)	221	117	-	-	432	437
16.00	16.52	109	34.4	407	52	*)		70	*)	229	126	-	-		
18.00	18.54	97	38.6	407	52	*)		76	*)	235	132	-	-		
20.00	19.70	91	37.8	375	53	3.08		79	*)	238	135	-	-		
22.50	22.78	79	43.7	375	54	3.08		86	*)	246	142	-	-		
25.00	25.57	70	49.1	375	50	3.08		91	*)	251	148	-	-		
28.00	28.12	64	47.8	332	55	8.3		95	37	256	153	-	-		
31.50	31.56	57	53.7	332	51	8.3		100	41	261	158	-	-		
35.50	34.47	52	50.2	288	61	4.41		104	45	265	162	-	-		
40.00	37.90	47	49.1	256	64	9.4		107	49	269	166	-	-		
45.00	42.54	42	55.1	256	63	9.4		112	53	274	170	-	-		
50.00	48.15	37	59.2	243	64	10.2		116	58	278	175	-	-		
56.00	54.72	33	57.3	207	70	8.2		121	62	283	180	-	-		
63.00	61.94	29	59.6	190	73	10.1		125	67	288	184	-	-		
71.00	68.22	26	51.4	149	80	4.49		99	40	239	136	-	-		
80.00	76.56	24	57.7	149	80	4.49		103	44	243	140	-	-		
90.00	86.65	21	60.1	137	80	6.3		106	48	247	144	-	-		
100.00	94.51	19	35.0	73	80	5.8	109	50	250	146	-	-			
112.00	106.98	17	40.1	74	80	5.7	112	54	253	150	-	-			


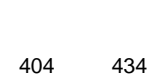


11



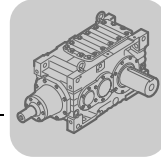
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

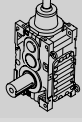





11.4.2 MC.RE..., n₁ = 1500 1/min

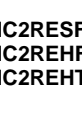
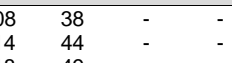




MC.RE..02, n ₁ = 1500 1/min								P _{TH}				8.0 kNm			
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	6.96	215	5.4	126	4.81	5.7	MC2RESF02 MC2REHF02 MC2REHT02	*)	*)	63	22	-	-	402	434
8.00	8.05	186	5.8	116	5.4	7.2		15	*)	67	26	-	-		
9.00	9.03	166	6.0	108	5.9	8.5		18	*)	70	29	-	-		
10.00	9.61	156	5.5	94	7.3	5.5		20	*)	72	31	-	-		
11.20	11.11	135	5.9	87	7.8	6.9		23	*)	76	34	-	-		
12.50	12.47	120	6.3	82	8.2	7.9	26	*)	78	37	-	-			
14.00	14.61	103	6.0	67	9.5	*)	MC3RESF02 MC3REHF02 MC3REHT02	21	*)	58	31	-	-	418	435
16.00	16.90	89	6.9	67	7.9	*)		23	*)	61	33	-	-		
18.00	18.96	79	7.3	63	8.3	0.54		25	8	62	35	-	-		
20.00	20.31	74	7.6	61	6.1	0.96		25	9	63	36	-	-		
22.50	23.49	64	7.9	55	7.5	2.08		27	11	65	38	-	-		
25.00	26.36	57	7.4	46	12.0	3.82		29	12	67	39	-	-		
28.00	29.43	51	8.0	45	10.2	4.11		30	13	68	41	-	-		
31.50	33.03	45	7.5	37	14.8	5.5		31	15	69	42	-	-		
35.50	37.38	40	6.9	30	19.3	6.8		33	16	71	43	-	-		
40.00	40.30	37	6.7	27	19.9	3.20		33	17	72	44	-	-		
45.00	45.22	33	7.6	28	19.2	3.12		35	18	73	46	-	-		
50.00	50.49	30	8.1	26	18.0	3.57		36	19	74	47	-	-		
56.00	56.66	26	7.6	22	21.9	5.00		37	20	75	48	-	-		
63.00	64.14	23	7.0	18.1	22.7	6.4		38	21	76	49	-	-		
71.00	70.97	21	8.1	19	22.7	2.05		30	14	64	36	-	-		
80.00	79.65	19	7.7	16.1	22.7	2.99		31	15	65	37	-	-		
90.00	90.15	17	7.1	13.1	22.7	4.00		32	16	66	38	-	-		
100.00	97.35	15	6.0	10.3	22.7	1.59	33	16	66	39	-	-			
112.00	110.19	14	6.8	10.3	22.7	1.59	34	17	67	40	-	-			

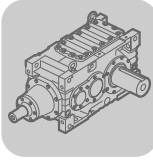
MC.RE..03, n ₁ = 1500 1/min								P _{TH}				11.0 kNm			
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}		P _{TH[20]}		P _{TH[40]}					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
		[1/min]	[kNm]	[kW]	[kN]	[kN]									
7.10	7.12	211	6.8	155	17.1	7.7	MC2RESF03 MC2REHF03 MC2REHT03	*)	*)	78	28	-	-	404	434
8.00	8.04	187	7.2	145	17.8	9.0		19	*)	82	32	-	-		
9.00	9.07	165	7.6	135	18.5	10.3		22	*)	86	36	-	-		
10.00	10.00	150	6.6	107	20.1	6.5		25	*)	89	39	-	-		
11.20	11.28	133	7.5	108	20.2	6.3		29	*)	92	42	-	-		
12.50	12.73	118	7.9	101	21.0	7.6	32	*)	96	46	-	-			
14.00	15.07	100	7.8	85	22.3	0.395	MC3RESF03 MC3REHF03 MC3REHT03	26	*)	72	38	-	-	420	435
16.00	17.00	88	8.8	85	22.5	0.396		28	*)	74	41	-	-		
18.00	19.18	78	9.9	85	22.6	0.396		30	10	76	43	-	-		
20.00	20.57	73	10.6	84	19.2	0.483		31	11	77	44	-	-		
22.50	23.20	65	11.4	80	19.5	1.15		33	13	79	46	-	-		
25.00	26.18	57	10.6	66	25.1	3.38		35	14	81	48	-	-		
28.00	29.60	51	11.4	63	25.1	3.93		37	16	83	50	-	-		
31.50	33.40	45	10.8	53	27.8	5.6		38	18	85	51	-	-		
35.50	35.08	43	10.7	51	28.4	3.16		39	18	85	52	-	-		
40.00	39.67	38	11.4	47	29.0	3.86		41	20	87	54	-	-		
45.00	44.75	34	10.9	40	30.7	5.4		42	22	89	55	-	-		
50.00	50.97	29	10.0	32	30.7	7.0		44	23	90	57	-	-		
56.00	57.30	26	11.0	32	30.7	5.2		45	24	92	58	-	-		
63.00	65.25	23	10.1	25	30.7	6.9		46	26	93	60	-	-		
71.00	69.86	21	10.7	25	30.7	0.58		37	16	77	44	-	-		
80.00	78.82	19	11.1	23	30.7	1.29		38	18	79	45	-	-		
90.00	89.76	17	10.2	19	30.7	2.96		39	19	80	47	-	-		
100.00	97.53	15	9.0	15.3	30.7	*)	40	20	81	47	-	-			
112.00	111.07	14	10.3	15.3	30.7	*)	41	21	82	49	-	-			

Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RE..



MC.RE..04, n ₁ = 1500 1/min							P _{TH}						15.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	206	8.9	197	19.7	7.5	MC2RESF04 MC2REHF04 MC2REHT04	*)	*)	97	35	-	-	406	434
8.00	8.20	183	9.4	185	20.4	9.2		24	*)	102	40	-	-		
9.00	9.17	164	9.9	174	21.2	10.8		28	*)	106	44	-	-		
10.00	10.15	148	9.2	148	22.4	5.8		32	*)	110	48	-	-		
11.20	11.41	131	9.7	139	23.3	7.4		36	*)	114	53	-	-		
12.50	12.76	118	10.3	131	24.1	8.9	39	*)	118	56	-	-			
14.00	14.76	102	9.2	102	26.4	*)	MC3RESF04 MC3REHF04 MC3REHT04	32	*)	88	47	-	-	422	435
16.00	16.60	90	10.3	102	26.7	*)		34	*)	91	49	-	-		
18.00	18.56	81	11.6	102	26.9	*)		36	11	93	52	-	-		
20.00	20.60	73	12.9	102	23.9	*)		38	13	95	54	-	-		
22.50	23.17	65	14.5	102	21.2	*)		41	16	98	56	-	-		
25.00	25.90	58	14.9	94	23.6	0.68		43	18	100	59	-	-		
28.00	29.65	51	15.9	88	21.3	1.71		45	20	102	61	-	-		
31.50	33.14	45	14.9	74	30.2	4.02		47	22	104	63	-	-		
35.50	34.63	43	13.2	63	33.2	3.69		48	23	105	64	-	-		
40.00	39.63	38	15.4	64	32.1	3.47		50	25	107	66	-	-		
45.00	44.30	34	15.0	56	34.9	5.1		52	26	109	68	-	-		
50.00	49.83	30	14.1	47	35.3	6.8		53	28	111	70	-	-		
56.00	55.99	27	14.1	41	35.3	5.4		55	30	113	72	-	-		
63.00	62.98	24	14.2	37	35.3	6.5		57	31	114	73	-	-		
71.00	68.90	22	13.3	32	35.3	2.63		45	20	95	54	-	-		
80.00	77.02	19	14.4	31	35.3	3.04	47	21	97	55	-	-			
90.00	86.63	17	14.4	27	35.3	4.25	48	23	98	57	-	-			
100.00	93.18	16	8.7	15.5	35.3	0.230	49	24	99	58	-	-			
112.00	104.81	14	10.0	15.7	35.3	0.131	50	25	100	59	-	-			

MC.RE..05, n ₁ = 1500 1/min							20.0 kNm								
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH} [20]		P _{TH} [40]					
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	211	12.3	280	13.8	6.2	MC2RESF05 MC2REHF05 MC2REHT05	*)	*)	108	38	-	-	408	434
8.00	7.99	188	13.0	263	14.4	8.6		*)	*)	114	44	-	-		
9.00	8.86	169	13.6	247	15.6	9.8		30	*)	118	49	-	-		
10.00	9.87	152	12.7	209	17.8	7.1		35	*)	123	53	-	-		
11.20	11.11	135	13.5	197	18.5	9.3		39	*)	128	58	-	-		
12.50	12.33	122	14.1	186	19.6	10.3	43	*)	132	62	-	-			
14.00	14.68	102	12.1	134	25.3	0.228	MC3RESF05 MC3REHF05 MC3REHT05	35	*)	99	53	-	-	424	436
16.00	16.53	91	13.6	134	25.2	0.229		38	*)	102	56	-	-		
18.00	18.33	82	15.1	134	24.2	0.227		41	*)	105	58	-	-		
20.00	20.22	74	15.3	124	23.3	2.01		43	15	107	61	-	-		
22.50	22.76	66	17.2	124	21.4	2.01		46	17	110	63	-	-		
25.00	25.25	59	19.1	124	19.9	2.01		48	19	112	66	-	-		
28.00	29.13	51	20.5	115	17.7	3.46		51	22	115	69	-	-		
31.50	32.32	46	19.8	100	23.6	5.8		53	24	117	71	-	-		
35.50	33.83	44	18.2	89	28.9	3.33		53	25	118	72	-	-		
40.00	39.03	38	19.5	82	27.4	4.71		56	28	121	74	-	-		
45.00	43.30	35	20.1	76	30.0	5.9		58	29	123	76	-	-		
50.00	48.74	31	18.6	63	36.1	8.7		60	31	125	78	-	-		
56.00	55.44	27	19.8	59	37.1	1.18		62	33	127	81	-	-		
63.00	62.40	24	18.8	50	39.7	3.56		64	35	129	82	-	-		
71.00	69.92	21	15.7	37	41.3	4.70		51	23	107	61	-	-		
80.00	77.56	19	17.4	37	41.3	4.70	53	24	109	63	-	-			
90.00	87.30	17	19.1	36	41.3	4.99	54	26	111	64	-	-			
100.00	93.84	16	13.4	23	41.3	2.91	55	27	112	65	-	-			
112.00	105.62	14	15.0	23	41.3	2.91	57	28	113	67	-	-			

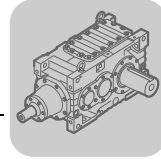


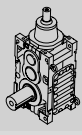


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

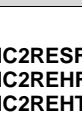


MC.RE..06, $n_1 = 1500$ 1/min							P_{TH}						25.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C	40 °C			
7.10	6.74	223	15.5	371	18.4	4.44	MC2RESF06 MC2REHF06 MC2REHT06	*)	*)	126	43	-	-	410	434
8.00	7.80	192	16.6	343	20.0	7.9		*)	*)	135	51	-	-		
9.00	8.75	171	17.4	320	21.3	10.4		36	*)	141	58	-	-		
10.00	9.64	156	16.0	270	25.6	5.7		40	*)	146	63	-	-		
11.20	11.15	135	17.2	250	27.2	8.9		47	*)	153	70	-	-		
12.50	12.52	120	18.1	235	28.4	11.1		52	*)	159	75	-	-		
14.00	14.09	106	14.3	166	34.1	2.60	MC3RESF06 MC3REHF06 MC3REHT06	41	*)	117	62	-	-	426	436
16.00	16.30	92	16.6	166	34.6	2.60		45	*)	122	66	-	-		
18.00	18.30	82	18.6	166	34.8	2.60		49	*)	125	70	-	-		
20.00	20.30	74	18.8	151	35.4	4.66		52	17	128	73	-	-		
22.50	23.49	64	21.8	151	32.9	4.66		55	21	132	77	-	-		
25.00	26.36	57	24.5	151	28.9	4.66		58	24	135	80	-	-		
28.00	28.78	52	25.1	142	27.5	5.9		60	26	137	82	-	-		
31.50	32.30	46	26.1	131	30.5	7.4		63	29	140	85	-	-		
35.50	35.53	42	23.7	110	41.7	6.6		65	31	142	87	-	-		
40.00	38.80	39	24.2	103	42.4	7.8		67	33	144	89	-	-		
45.00	43.54	34	26.3	100	41.3	8.4		69	35	147	91	-	-		
50.00	49.28	30	24.4	81	45.3	11.4		72	38	150	94	-	-		
56.00	55.31	27	24.2	72	45.3	9.0		74	40	152	96	-	-		
63.00	62.60	24	24.7	65	45.3	10.5		76	42	154	99	-	-		
71.00	68.96	22	21.9	52	45.3	5.3		61	27	128	73	-	-		
80.00	77.39	19	24.6	52	45.3	5.3		63	29	130	75	-	-		
90.00	87.60	17	25.0	47	45.3	6.8		65	31	133	77	-	-		
100.00	95.76	16	22.7	39	45.3	1.68		66	32	134	78	-	-		
112.00	108.39	14	25.3	38	45.3	1.90	68	34	136	80	-	-			

MC.RE..07, $n_1 = 1500$ 1/min							33.0 kNm								
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C	40 °C			
7.10	6.84	219	19.1	450	23.2	8.6	MC2RESF07 MC2REHF07 MC2REHT07	*)	*)	155	53	-	-	412	434
8.00	7.70	195	20.2	421	24.6	11.5		*)	*)	163	61	-	-		
9.00	8.65	173	21.1	394	25.8	13.2		43	*)	170	69	-	-		
10.00	9.74	154	19.9	332	30.7	9.5		50	*)	178	77	-	-		
11.20	10.96	137	21.0	312	32.1	12.2		56	*)	185	84	-	-		
12.50	12.32	122	22.2	293	33.3	14.1		63	*)	192	91	-	-		
14.00	14.18	106	19.3	221	37.7	*)	MC3RESF07 MC3REHF07 MC3REHT07	50	*)	143	75	-	-	428	437
16.00	15.97	94	21.7	221	38.0	*)		55	*)	147	80	-	-		
18.00	17.93	84	24.4	221	38.1	*)		59	*)	151	84	-	-		
20.00	19.94	75	24.7	202	37.9	2.27		62	21	155	88	-	-		
22.50	22.45	67	27.8	202	33.9	2.27		66	24	159	92	-	-		
25.00	25.22	59	31.2	202	28.7	2.27		69	28	163	95	-	-		
28.00	28.38	53	30.7	176	33.5	6.0		73	31	167	99	-	-		
31.50	31.88	47	34.4	176	27.7	6.0		76	35	170	102	-	-		
35.50	33.79	44	29.3	143	46.2	3.09		78	36	172	104	-	-		
40.00	38.02	39	30.7	133	46.1	5.0		81	39	175	107	-	-		
45.00	42.71	35	34.5	133	40.7	5.0		84	42	178	111	-	-		
50.00	48.96	31	33.6	113	52	8.9		87	46	182	114	-	-		
56.00	53.98	28	31.2	95	53	6.8		89	48	184	116	-	-		
63.00	61.88	24	33.9	90	53	8.0		92	51	187	120	-	-		
71.00	70.77	21	25.5	59	53	1.14		75	33	157	89	-	-		
80.00	79.49	19	28.7	59	53	1.14		77	36	159	91	-	-		
90.00	91.12	16	32.9	59	53	1.14		80	38	162	94	-	-		
100.00	96.17	16	29.3	50	53	1.48		81	39	163	95	-	-		
112.00	110.25	14	33.6	50	53	1.48	83	42	166	98	-	-			

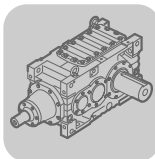
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RE..



MC.RE..08, n ₁ = 1500 1/min							P _{TH}						45.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	216	25.8	597	23.7	12.7		*)	*)	192	67	-	-		
8.00	7.82	192	27.2	559	25.0	16.0	MC2RESF08	*)	*)	201	77	-	-		
9.00	8.88	169	28.6	519	26.8	17.4	MC2REHF08	54	*)	212	87	-	-	414	434
10.00	9.74	154	26.8	447	30.8	11.8	MC2REHT08	61	*)	219	94	-	-		
11.20	10.96	137	28.3	420	32.3	15.7		69	*)	228	103	-	-		
12.50	12.45	120	30.0	392	33.9	17.3		78	*)	237	112	-	-		
14.00	14.48	104	26.4	296	42.4	*)		63	*)	176	93	-	-		
16.00	16.30	92	29.7	296	42.1	*)		68	*)	182	99	-	-		
18.00	18.51	81	33.7	296	38.4	*)		73	*)	188	104	-	-		
20.00	20.25	74	31.8	256	42.4	2.91		77	26	191	108	-	-		
22.50	22.80	66	35.9	256	38.8	2.91		81	31	196	113	-	-		
25.00	25.89	58	40.7	256	33.9	2.91		86	35	201	118	-	-		
28.00	29.06	52	39.7	222	38.8	7.1		90	40	206	123	-	-		
31.50	33.00	45	45.1	222	33.2	7.1		95	44	210	127	-	-		
35.50	34.90	43	41.5	196	44.6	3.11	MC3RESF08	97	46	212	129	-	-		
40.00	39.18	38	40.9	172	48.8	7.0	MC3REHF08	100	49	216	133	-	-	430	437
45.00	44.49	34	46.5	172	43.4	7.0	MC3REHT08	104	53	220	137	-	-		
50.00	49.82	30	43.9	145	58	11.2		108	57	224	141	-	-		
56.00	56.62	26	47.5	138	53	2.35		111	60	228	145	-	-		
63.00	63.41	24	44.3	115	66	7.8		114	63	231	148	-	-		
71.00	70.39	21	37.1	87	67	5.8		92	41	192	109	-	-		
80.00	79.93	19	42.1	87	67	5.8		95	44	196	113	-	-		
90.00	89.53	17	45.0	83	67	6.8		98	47	199	115	-	-		
100.00	96.71	16	33.4	57	67	1.31		99	49	200	117	-	-		
112.00	108.32	14	37.9	58	67	1.10		102	51	203	120	-	-		

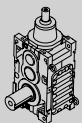






MC.RE..09, n ₁ = 1500 1/min							P _{TH}						55.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	219	35.5	832	30.4	10.8		*)	*)	219	*)	-	-		
8.00	7.92	189	37.8	768	32.7	16.4	MC2RESF09	*)	*)	233	90	-	-		
9.00	8.89	169	39.7	717	34.6	20.5	MC2REHF09	*)	*)	244	100	-	-	416	434
10.00	9.61	156	36.8	622	39.2	9.6	MC2REHT09	69	*)	251	107	-	-		
11.20	11.11	135	39.5	577	41.4	15.0		81	*)	263	120	-	-		
12.50	12.47	120	41.5	541	43.3	19.2		90	*)	273	129	-	-		
14.00	14.28	105	31.5	359	54	*)		72	*)	203	107	-	-		
16.00	16.52	91	36.4	359	55	*)		79	*)	210	115	-	-		
18.00	18.54	81	40.9	359	55	*)		84	*)	216	120	-	-		
20.00	19.70	76	40.0	330	56	3.20		87	*)	219	123	-	-		
22.50	22.78	66	46.2	330	57	3.20		94	35	226	130	-	-		
25.00	25.57	59	51.9	330	53	3.20		99	40	231	136	-	-		
28.00	28.12	53	50.6	293	58	8.7		103	44	236	140	-	-		
31.50	31.56	48	56.7	293	53	8.7		107	49	240	145	-	-		
35.50	34.47	44	53.0	253	64	4.75	MC3RESF09	111	52	244	148	-	-		
40.00	37.90	40	52.0	226	67	9.8	MC3REHF09	114	56	248	152	-	-	432	437
45.00	42.54	35	58.4	226	66	9.8	MC3REHT09	119	60	252	156	-	-		
50.00	48.15	31	59.4	203	71	11.5		123	64	257	161	-	-		
56.00	54.72	27	58.8	177	75	9.9		127	69	261	165	-	-		
63.00	61.94	24	59.8	159	79	11.3		131	72	265	170	-	-		
71.00	68.22	22	51.4	124	80	6.1		105	46	221	125	-	-		
80.00	76.56	20	57.7	124	80	6.1		108	50	224	128	-	-		
90.00	86.65	17	60.5	115	80	7.7		112	53	228	132	-	-		
100.00	94.51	16	35.2	61	80	6.4		114	55	230	135	-	-		
112.00	106.98	14	40.4	62	80	6.3		117	59	234	138	-	-		

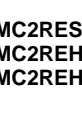






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Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

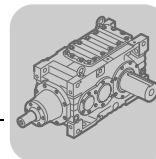
11.4.3 MC.RE..., n₁ = 1200 1/min

MC.RE..02, n ₁ = 1200 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	172	5.8	107	5.3	6.2	MC2RESF02 MC2REHF02 MC2REHT02	17	*)	57	19	-	-	402	434		
8.00	8.05	149	6.2	99	5.8	7.8		21	*)	61	23	-	-				
9.00	9.03	133	6.5	93	6.2	9.0		24	*)	63	26	-	-				
10.00	9.61	125	5.7	78	8.6	6.5		25	*)	65	27	-	-				
11.20	11.11	108	6.4	75	8.3	7.3		28	*)	68	31	-	-				
12.50	12.47	96	6.7	70	8.7	8.5		31	*)	71	33	-	-				
14.00	14.61	82	6.2	56	11.0	*)	MC3RESF02 MC3REHF02 MC3REHT02	24	7	53	28	-	-	418	435		
16.00	16.90	71	7.2	56	9.3	*)		26	9	55	30	-	-				
18.00	18.96	63	7.4	51	10.9	1.38		27	11	56	31	-	-				
20.00	20.31	59	8.1	52	6.4	1.01		28	11	57	32	-	-				
22.50	23.49	51	8.0	45	10.2	2.88		30	13	59	34	-	-				
25.00	26.36	46	7.5	37	14.9	4.63		31	14	60	35	-	-				
28.00	29.43	41	8.1	36	13.1	4.93		32	16	62	37	-	-				
31.50	33.03	36	7.6	30	17.9	6.3		34	17	63	38	-	-				
35.50	37.38	32	6.9	24	21.1	6.9		35	18	64	39	-	-				
40.00	40.30	30	6.7	22	21.8	4.08		36	19	65	40	-	-				
45.00	45.22	27	7.6	22	21.9	3.99		37	20	66	41	-	-				
50.00	50.49	24	8.1	21	21.7	4.46		38	21	67	42	-	-				
56.00	56.66	21	7.7	18.0	22.7	5.8		39	22	68	43	-	-				
63.00	64.14	19	7.1	14.6	22.7	6.9		40	23	69	44	-	-				
71.00	70.97	17	8.1	15.1	22.7	2.64		32	15	58	33	-	-				
80.00	79.65	15	7.8	13.0	22.7	3.53		33	16	59	34	-	-				
90.00	90.15	13	7.1	10.5	22.7	4.58		34	17	60	35	-	-				
100.00	97.35	12	6.2	8.4	22.7	1.98		35	18	60	35	-	-				
112.00	110.19	11	7.0	8.4	22.7	1.98	35	19	61	36	-	-					

MC.RE..03, n ₁ = 1200 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	168	7.3	133	18.2	8.1	MC2RESF03 MC2REHF03 MC2REHT03	22	*)	70	24	-	-	404	434		
8.00	8.04	149	7.7	124	19.0	9.6		25	*)	74	28	-	-				
9.00	9.07	132	8.1	116	19.7	10.9		29	*)	77	31	-	-				
10.00	10.00	120	6.6	86	22.0	8.3		32	*)	80	34	-	-				
11.20	11.28	106	7.5	87	22.2	8.0		35	*)	83	38	-	-				
12.50	12.73	94	8.5	87	22.4	8.1		38	*)	87	41	-	-				
14.00	15.07	80	7.8	68	24.4	1.38	MC3RESF03 MC3REHF03 MC3REHT03	30	9	65	34	-	-	420	435		
16.00	17.00	71	8.8	68	24.7	1.38		32	11	67	36	-	-				
18.00	19.18	63	10.0	68	24.9	1.38		34	13	69	38	-	-				
20.00	20.57	58	10.7	68	23.7	1.38		35	14	70	39	-	-				
22.50	23.20	52	11.5	65	24.3	2.04		36	16	72	41	-	-				
25.00	26.18	46	10.7	53	27.6	4.28		38	18	74	43	-	-				
28.00	29.60	41	11.4	50	28.1	4.89		40	19	75	45	-	-				
31.50	33.40	36	10.8	42	30.5	6.5		41	21	77	46	-	-				
35.50	35.08	34	10.8	41	30.7	4.04		42	21	78	47	-	-				
40.00	39.67	30	11.4	38	30.7	4.81		43	23	79	49	-	-				
45.00	44.75	27	10.9	32	30.7	6.3		45	24	81	50	-	-				
50.00	50.97	24	10.1	26	30.7	8.0		46	26	82	52	-	-				
56.00	57.30	21	11.1	25	30.7	6.1		47	27	83	53	-	-				
63.00	65.25	18	10.2	21	30.7	7.8		49	28	85	54	-	-				
71.00	69.86	17	10.7	20	30.7	1.25		39	19	70	40	-	-				
80.00	78.82	15	11.2	19	30.7	1.90		40	20	71	41	-	-				
90.00	89.76	13	10.3	15.1	30.7	3.62		41	21	73	42	-	-				
100.00	97.53	12	9.1	12.3	30.7	*)		42	22	73	43	-	-				
112.00	111.07	11	10.3	12.3	30.7	*)	43	23	75	44	-	-					

Bevel-Helical Gear Units MC...R

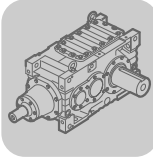
Selection tables (detailed) MC.RE..



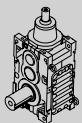








MC.RE..04, n₁ = 1200 1/min								P_{TH}						15.0 kNm	
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}									
								P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.29	165	9.6	170	20.9	7.9	MC2RESF04 MC2REHF04 MC2REHT04	28	*)	87	31	-	-	406	434
8.00	8.20	146	10.1	159	21.8	9.8		32	*)	91	35	-	-		
9.00	9.17	131	10.6	149	22.6	11.5		36	*)	96	39	-	-		
10.00	10.15	118	9.7	125	24.1	6.5		39	*)	99	43	-	-		
11.20	11.41	105	10.4	119	24.9	7.9		43	*)	103	47	-	-		
12.50	12.76	94	11.0	112	25.7	9.5		46	*)	107	50	-	-		
14.00	14.76	81	9.8	87	28.2	*)	MC3RESF04 MC3REHF04 MC3REHT04	36	11	79	42	-	-	422	435
16.00	16.60	72	11.1	87	28.5	*)		39	13	82	44	-	-		
18.00	18.56	65	12.4	87	28.7	*)		41	16	84	47	-	-		
20.00	20.60	58	13.1	83	28.7	0.208		43	17	86	49	-	-		
22.50	23.17	52	14.7	83	26.1	0.208		45	20	88	51	-	-		
25.00	25.90	46	14.9	75	29.7	1.79		47	21	90	53	-	-		
28.00	29.65	40	16.0	71	27.1	2.73		49	24	93	55	-	-		
31.50	33.14	36	15.0	59	33.9	5.1		51	25	95	57	-	-		
35.50	34.63	35	13.3	51	35.3	4.73		51	26	95	58	-	-		
40.00	39.63	30	15.5	51	35.3	4.51		53	28	97	60	-	-		
45.00	44.30	27	15.0	45	35.3	6.2		55	30	99	61	-	-		
50.00	49.83	24	14.2	38	35.3	7.9		56	31	101	63	-	-		
56.00	55.99	21	14.2	33	35.3	6.5		58	33	102	65	-	-		
63.00	62.98	19	14.4	30	35.3	7.5		59	34	104	66	-	-		
71.00	68.90	17	13.4	26	35.3	3.59		48	23	86	49	-	-		
80.00	77.02	16	14.4	25	35.3	4.01		49	24	88	50	-	-		
90.00	86.63	14	14.5	22	35.3	5.1		51	25	89	51	-	-		
100.00	93.18	13	8.9	12.6	35.3	0.65		51	26	90	52	-	-		
112.00	104.81	11	10.1	12.7	35.3	0.59	53	27	91	54	-	-			

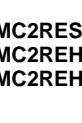








MC.RE..05, n₁ = 1200 1/min								P_{TH}						20.0 kNm	
i _N	i _{ex}	n ₂	M _{N2}	P _{N1}	F _{Ra}	F _{Re}									
								P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}	P _{TH[20]}	P _{TH[40]}		
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.10	169	13.2	239	14.8	6.7	MC2RESF05 MC2REHF05 MC2REHT05	30	*)	97	33	-	-	408	434
8.00	7.99	150	13.9	224	15.6	9.3		35	*)	102	39	-	-		
9.00	8.86	135	14.5	211	16.7	10.4		39	*)	106	43	-	-		
10.00	9.87	122	12.8	169	21.2	9.8		43	*)	111	47	-	-		
11.20	11.11	108	14.4	168	19.9	10.1		48	*)	115	52	-	-		
12.50	12.33	97	15.1	159	21.0	11.0		51	*)	119	55	-	-		
14.00	14.68	82	12.1	108	27.6	1.73	MC3RESF05 MC3REHF05 MC3REHT05	41	12	89	47	-	-	424	436
16.00	16.53	73	13.6	108	28.1	1.73		43	15	92	50	-	-		
18.00	18.33	65	15.1	108	28.5	1.73		46	17	95	52	-	-		
20.00	20.22	59	15.3	99	28.0	3.58		48	19	97	54	-	-		
22.50	22.76	53	17.2	99	26.3	3.58		50	22	99	57	-	-		
25.00	25.25	48	19.1	99	25.0	3.58		52	24	101	59	-	-		
28.00	29.13	41	20.5	92	23.0	5.0		55	26	104	62	-	-		
31.50	32.32	37	20.0	81	28.3	7.2		57	28	106	64	-	-		
35.50	33.83	35	18.2	71	34.2	4.85		57	29	107	65	-	-		
40.00	39.03	31	19.5	66	33.1	6.2		60	31	110	67	-	-		
45.00	43.30	28	20.2	62	35.4	7.3		62	33	111	69	-	-		
50.00	48.74	25	18.8	51	39.3	10.1		63	35	113	71	-	-		
56.00	55.44	22	19.9	47	40.5	2.24		65	37	115	73	-	-		
63.00	62.40	19	19.0	40	41.3	4.59		67	38	117	75	-	-		
71.00	69.92	17	15.7	30	41.3	5.8		54	26	97	55	-	-		
80.00	77.56	15	17.4	30	41.3	5.8		56	27	99	57	-	-		
90.00	87.30	14	19.2	29	41.3	6.0		57	29	101	58	-	-		
100.00	93.84	13	13.5	19	41.3	3.58		58	30	101	59	-	-		
112.00	105.62	11	15.4	19	41.3	3.46	59	31	103	61	-	-			

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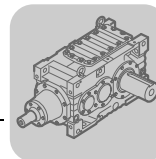


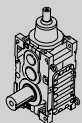


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

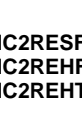


MC.RE..06, n ₁ = 1200 1/min							P _{TH}						25.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C				
7.10	6.74	178	16.6	317	19.6	4.74	MC2RESF06 MC2REHF06 MC2REHT06	34	*)	113	37	-	-	410	434		
8.00	7.80	154	17.8	294	21.3	8.4		41	*)	121	45	-	-				
9.00	8.75	137	18.6	274	22.9	11.1		46	*)	127	51	-	-				
10.00	9.64	125	17.0	229	27.7	6.4		51	*)	131	55	-	-				
11.20	11.15	108	18.4	214	29.1	9.5		57	*)	138	62	-	-				
12.50	12.52	96	19.4	201	30.4	11.9		62	*)	143	67	-	-				
14.00	14.09	85	14.4	133	37.3	4.28	MC3RESF06 MC3REHF06 MC3REHT06	48	14	106	55	-	-	426	436		
16.00	16.30	74	16.7	133	37.9	4.28		52	18	110	59	-	-				
18.00	18.30	66	18.7	133	38.3	4.28		55	21	113	62	-	-				
20.00	20.30	59	18.9	122	39.0	6.3		57	23	116	65	-	-				
22.50	23.49	51	21.9	122	39.4	6.3		61	27	120	69	-	-				
25.00	26.36	46	24.6	122	36.7	6.3		63	29	122	72	-	-				
28.00	28.78	42	25.1	114	36.1	7.7		65	31	125	74	-	-				
31.50	32.30	37	26.2	106	38.7	9.0		68	34	127	76	-	-				
35.50	35.53	34	23.7	88	45.3	8.4		70	36	129	78	-	-				
40.00	38.80	31	24.2	82	45.3	9.6		72	37	131	80	-	-				
45.00	43.54	28	26.6	80	45.3	10		74	40	133	83	-	-				
50.00	49.28	24	24.6	66	45.3	13.0		76	42	136	85	-	-				
56.00	55.31	22	24.3	58	45.3	10.6		78	44	138	87	-	-				
63.00	62.60	19	24.9	52	45.3	12.1		80	46	140	89	-	-				
71.00	68.96	17	21.9	42	45.3	6.7		65	31	116	66	-	-				
80.00	77.39	16	24.6	42	45.3	6.7		67	33	118	68	-	-				
90.00	87.60	14	25.2	38	45.3	8.0		68	34	120	70	-	-				
100.00	95.76	13	22.9	31	45.3	2.65		70	36	122	71	-	-				
112.00	108.39	11	25.4	31	45.3	2.92	71	37	124	73	-	-					

MC.RE..07, n ₁ = 1200 1/min							P _{TH}						33.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C				
7.10	6.84	176	20.4	385	24.8	9.2	MC2RESF07 MC2REHF07 MC2REHT07	42	*)	139	46	-	-	412	434		
8.00	7.70	156	21.6	361	26.2	12.3		49	*)	146	54	-	-				
9.00	8.65	139	22.6	337	27.5	14.0		56	*)	153	61	-	-				
10.00	9.74	123	21.0	281	33.6	10.7		62	*)	160	68	-	-				
11.20	10.96	109	22.5	267	34.4	13.1		69	*)	167	74	-	-				
12.50	12.32	97	23.6	249	35.9	15.1		74	*)	173	81	-	-				
14.00	14.18	85	19.2	177	41.4	1.62	MC3RESF07 MC3REHF07 MC3REHT07	58	*)	129	67	-	-	428	437		
16.00	15.97	75	21.7	177	41.9	1.62		62	21	133	71	-	-				
18.00	17.93	67	24.3	177	42.1	1.62		66	24	137	75	-	-				
20.00	19.94	60	25.0	163	42.8	4.12		69	28	140	79	-	-				
22.50	22.45	53	28.1	163	41.8	4.12		73	31	144	82	-	-				
25.00	25.22	48	31.6	163	36.8	4.12		76	34	148	86	-	-				
28.00	28.38	42	32.7	150	36.0	6.4		79	38	151	89	-	-				
31.50	31.88	38	36.3	148	31.4	6.8		82	41	154	92	-	-				
35.50	33.79	36	29.5	115	51	5.1		84	42	156	94	-	-				
40.00	38.02	32	30.9	107	52	7.0		86	45	159	97	-	-				
45.00	42.71	28	34.7	107	51	7.0		89	48	162	100	-	-				
50.00	48.96	25	33.9	91	53	10.8		92	51	165	103	-	-				
56.00	53.98	22	31.3	76	53	8.8		94	53	167	105	-	-				
63.00	61.88	19	34.2	73	53	9.9		97	56	170	108	-	-				
71.00	70.77	17	25.5	47	53	2.68		79	38	142	80	-	-				
80.00	79.49	15	28.6	47	53	2.68		81	40	144	83	-	-				
90.00	91.12	13	32.8	47	53	2.68		84	42	147	85	-	-				
100.00	96.17	12	29.3	40	53	2.79		85	43	148	86	-	-				
112.00	110.25	11	33.6	40	53	2.79	87	46	150	89	-	-					

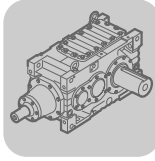
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RE..



MC.RE..08, n ₁ = 1200 1/min							P _{TH}						45.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	173	27.6	511	25.3	13.6	MC2RESF08 MC2REHF08 MC2REHT08	53	*)	172	58	-	-	414	434
8.00	7.82	153	29.1	478	26.9	17.1		61	*)	181	67	-	-		
9.00	8.88	135	30.7	444	28.6	18.5		70	*)	190	77	-	-		
10.00	9.74	123	28.6	382	33.1	12.7		77	*)	197	83	-	-		
11.20	10.96	109	30.3	360	34.4	16.7		84	*)	205	91	-	-		
12.50	12.45	96	32.0	335	36.3	18.6	92	*)	213	100	-	-			
14.00	14.48	83	28.1	253	45.3	*)	MC3RESF08 MC3REHF08 MC3REHT08	72	*)	159	84	-	-	430	437
16.00	16.30	74	31.7	253	45.2	*)		77	26	164	89	-	-		
18.00	18.51	65	36.0	253	41.3	*)		82	31	170	94	-	-		
20.00	20.25	59	34.0	218	45.6	3.20		85	35	173	97	-	-		
22.50	22.80	53	38.2	218	41.7	3.20		90	39	178	102	-	-		
25.00	25.89	46	43.4	218	36.5	3.20		94	43	182	106	-	-		
28.00	29.06	41	42.4	190	41.7	7.6		98	47	186	111	-	-		
31.50	33.00	36	46.9	185	38.9	8.4		102	51	191	115	-	-		
35.50	34.90	34	42.1	159	53	5.1		104	53	192	117	-	-		
40.00	39.18	31	43.7	147	52	7.5		107	56	196	120	-	-		
45.00	44.49	27	47.3	140	52	8.8		111	60	200	124	-	-		
50.00	49.82	24	44.3	117	65	13.4		114	63	203	127	-	-		
56.00	56.62	21	47.7	111	64	4.64		117	66	207	131	-	-		
63.00	63.41	19	44.8	93	67	9.8		120	69	210	134	-	-		
71.00	70.39	17	37.0	69	67	7.8		97	46	174	99	-	-		
80.00	79.93	15	42.1	69	67	7.8		100	49	178	102	-	-		
90.00	89.53	13	45.3	67	67	8.7		103	52	180	104	-	-		
100.00	96.71	12	33.8	46	67	2.39	104	54	182	106	-	-			
112.00	108.32	11	38.2	46	67	2.20	107	56	185	109	-	-			

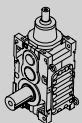






MC.RE..09, n ₁ = 1200 1/min							P _{TH}						55.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	175	37.9	712	32.5	11.5	MC2RESF09 MC2REHF09 MC2REHT09	*)	*)	197	*)	-	-	416	434
8.00	7.92	151	40.4	657	35.0	17.5		72	*)	210	79	-	-		
9.00	8.89	135	42.4	614	37.0	21.9		81	*)	219	88	-	-		
10.00	9.61	125	39.3	532	41.9	10.3		87	*)	226	95	-	-		
11.20	11.11	108	42.1	493	44.4	16.1		98	*)	237	106	-	-		
12.50	12.47	96	44.4	463	46.3	20.6	106	*)	246	115	-	-			
14.00	14.28	84	33.6	306	58	*)	MC3RESF09 MC3REHF09 MC3REHT09	83	*)	183	96	-	-	432	437
16.00	16.52	73	38.9	306	59	*)		89	31	190	103	-	-		
18.00	18.54	65	43.6	306	59	*)		95	36	196	108	-	-		
20.00	19.70	61	42.8	283	60	3.36		97	39	198	111	-	-		
22.50	22.78	53	49.5	283	61	3.36		103	45	205	117	-	-		
25.00	25.57	47	55.5	283	57	3.36		108	49	210	122	-	-		
28.00	28.12	43	54.0	250	62	9.4		112	53	213	126	-	-		
31.50	31.56	38	60.6	250	57	9.4		116	57	218	131	-	-		
35.50	34.47	35	55.5	212	70	6.1		119	60	221	134	-	-		
40.00	37.90	32	55.5	193	72	10.5		122	64	225	137	-	-		
45.00	42.54	28	62.3	193	71	10.5		126	68	229	141	-	-		
50.00	48.15	25	60.0	164	78	13.0		130	72	233	146	-	-		
56.00	54.72	22	59.0	142	80	11.5		134	75	237	150	-	-		
63.00	61.94	19	60.2	128	80	12.9		138	79	241	154	-	-		
71.00	68.22	18	51.4	99	80	8.0		111	53	200	113	-	-		
80.00	76.56	16	57.7	99	80	8.0		114	56	203	116	-	-		
90.00	86.65	14	60.5	92	80	9.0		118	59	207	120	-	-		
100.00	94.51	13	35.6	50	80	7.3	120	61	209	122	-	-			
112.00	106.98	11	40.8	50	80	7.2	123	64	212	125	-	-			

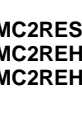






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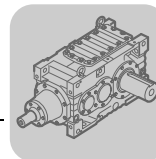
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

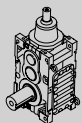


11.4.4 MC.RE..., n₁ = 1000 1/min

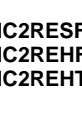


MC.RE..02, n ₁ = 1000 1/min							P _{TH}						8.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.96	144	6.1	95	5.5	6.5	MC2RESF02 MC2REHF02 MC2REHT02	22	*)	52	17	-	-	402	434		
8.00	8.05	124	6.5	87	6.0	8.2		25	*)	56	21	-	-				
9.00	9.03	111	6.8	82	6.5	9.5		28	*)	58	23	-	-				
10.00	9.61	104	5.8	66	10.4	7.8		29	*)	60	25	-	-				
11.20	11.11	90	6.7	65	9.0	7.9		32	7	63	28	-	-				
12.50	12.47	80	7.1	62	9.2	8.9		34	9	65	30	-	-				
14.00	14.61	68	6.3	47	13.1	0.87	MC3RESF02 MC3REHF02 MC3REHT02	26	10	49	25	-	-	418	435		
16.00	16.90	59	7.3	47	11.5	0.87		28	11	51	27	-	-				
18.00	18.96	53	7.4	43	13.1	2.05		30	13	52	29	-	-				
20.00	20.31	49	8.6	46	6.9	1.08		30	14	53	30	-	-				
22.50	23.49	43	8.0	37	12.6	3.57		32	15	55	31	-	-				
25.00	26.36	38	7.5	31	17.4	5.3		33	16	56	33	-	-				
28.00	29.43	34	8.1	30	15.8	5.7		34	18	57	34	-	-				
31.50	33.03	30	7.6	25	20.5	6.9		36	19	58	35	-	-				
35.50	37.38	27	7.0	20	22.7	6.9		37	20	59	36	-	-				
40.00	40.30	25	6.7	18.5	22.7	4.79		37	21	60	37	-	-				
45.00	45.22	22	7.7	19	22.7	4.69		38	22	61	38	-	-				
50.00	50.49	20	8.1	17.7	22.7	5.2		39	23	62	39	-	-				
56.00	56.66	18	7.8	15.1	22.7	6.5		40	23	63	40	-	-				
63.00	64.14	16	7.1	12.2	22.7	6.9		41	24	64	41	-	-				
71.00	70.97	14	8.1	12.6	22.7	3.14		34	17	53	30	-	-				
80.00	79.65	13	7.9	10.9	22.7	4.00		34	18	54	31	-	-				
90.00	90.15	11	7.2	8.8	22.7	4.95		35	18	55	32	-	-				
100.00	97.35	10	6.2	7.1	22.7	2.32		36	19	56	32	-	-				
112.00	110.19	9.1	7.0	7.0	22.7	2.34	37	20	57	33	-	-					

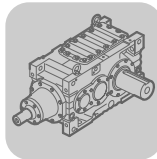
MC.RE..03, n ₁ = 1000 1/min							P _{TH}						11.0 kNm				
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}			
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	7.12	140	7.7	117	19.2	8.5	MC2RESF03 MC2REHF03 MC2REHT03	27	*)	64	22	-	-	404	434		
8.00	8.04	124	8.1	109	20.0	10.2		31	*)	68	25	-	-				
9.00	9.07	110	8.6	102	20.8	11.6		34	*)	71	29	-	-				
10.00	10.00	100	6.6	72	23.6	9.8		36	*)	74	31	-	-				
11.20	11.28	89	7.6	73	23.9	9.6		39	8	77	34	-	-				
12.50	12.73	79	8.7	74	24.0	9.3		42	11	80	37	-	-				
14.00	15.07	66	7.8	57	26.3	2.19	MC3RESF03 MC3REHF03 MC3REHT03	33	12	60	31	-	-	420	435		
16.00	17.00	59	8.8	57	26.7	2.19		34	14	62	33	-	-				
18.00	19.18	52	10.0	57	26.9	2.19		36	16	64	35	-	-				
20.00	20.57	49	10.7	57	26.3	2.19		37	17	65	36	-	-				
22.50	23.20	43	11.5	54	27.2	2.81		39	18	66	38	-	-				
25.00	26.18	38	10.8	45	29.8	5.0		40	20	68	40	-	-				
28.00	29.60	34	11.5	42	30.4	5.7		42	21	70	41	-	-				
31.50	33.40	30	10.9	36	30.7	7.3		43	23	71	43	-	-				
35.50	35.08	29	10.9	34	30.7	4.81		44	23	72	43	-	-				
40.00	39.67	25	11.4	32	30.7	5.6		45	25	73	45	-	-				
45.00	44.75	22	11.0	27	30.7	7.1		47	26	75	46	-	-				
50.00	50.97	20	10.1	22	30.7	8.7		48	28	76	48	-	-				
56.00	57.30	17	11.1	21	30.7	6.9		49	29	77	49	-	-				
63.00	65.25	15	10.2	17.2	30.7	8.6		50	30	78	50	-	-				
71.00	69.86	14	10.7	16.9	30.7	1.81		41	20	65	37	-	-				
80.00	78.82	13	11.2	15.7	30.7	2.48		42	21	66	38	-	-				
90.00	89.76	11	10.3	12.7	30.7	4.12		43	22	67	39	-	-				
100.00	97.53	10	9.1	10.3	30.7	0.210		44	23	68	40	-	-				
112.00	111.07	9.0	10.5	10.4	30.7	0.127	45	24	69	41	-	-					

Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RE..

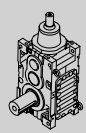








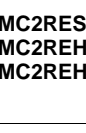






MC.RE..04, n ₁ = 1000 1/min							P _{TH}						15.0 kNm																																																																																																																																																																																																																																																									
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}																																																																																																																																																																																																																																																								
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C																																																																																																																																																																																																																																																									
7.10	7.29	137	10.1	149	22.2	8.5	MC2RESF04 MC2REHF04 MC2REHT04	34	*)	80	27	-	-	406	434																																																																																																																																																																																																																																																							
8.00	8.20	122	10.7	140	23.0	10.3		38	*)	84	32	-	-																																																																																																																																																																																																																																																									
9.00	9.17	109	11.2	131	23.9	12.1		42	*)	88	35	-	-																																																																																																																																																																																																																																																									
10.00	10.15	99	10.0	107	25.8	7.7		45	*)	91	39	-	-																																																																																																																																																																																																																																																									
11.20	11.41	88	10.8	103	26.5	8.8		49	11	95	42	-	-																																																																																																																																																																																																																																																									
12.50	12.76	78	11.6	98	27.2	10.1	52	14	98	46	-	-	14.00	14.76	68	10.1	75	30.1	*)	MC3RESF04 MC3REHF04 MC3REHT04	40	15	73	38	-	-	422	435	16.00	16.60	60	11.4	75	30.4	*)	42	17	76	41	-	-	18.00	18.56	54	12.7	75	30.7	*)	44	19	78	43	-	-	20.00	20.60	49	13.0	69	31.2	1.20	46	21	80	45	-	-	22.50	23.17	43	14.7	69	31.3	1.20	48	23	82	47	-	-	25.00	25.90	39	14.9	63	33.0	2.74	50	24	84	49	-	-	28.00	29.65	34	16.1	59	32.2	3.60	52	26	86	51	-	-	31.50	33.14	30	15.0	49	35.3	6.1	53	28	87	53	-	-	35.50	34.63	29	13.3	42	35.3	5.6	54	29	88	53	-	-	40.00	39.63	25	15.5	43	35.3	5.4	56	31	90	55	-	-	45.00	44.30	23	15.0	37	35.3	7.1	57	32	92	57	-	-	50.00	49.83	20	14.3	32	35.3	8.8	59	34	93	58	-	-	56.00	55.99	18	14.2	28	35.3	7.4	60	35	95	60	-	-	63.00	62.98	16	14.4	25	35.3	8.4	62	36	96	61	-	-	71.00	68.90	15	13.3	21	35.3	4.47	50	25	80	45	-	-	80.00	77.02	13	14.3	20	35.3	4.87	51	26	81	46	-	-	90.00	86.63	12	14.6	19	35.3	5.8	52	27	82	47	-	-	100.00	93.18	11	9.0	10.6	35.3	1.06	53	28	83	48	-	-	112.00	104.81	9.5	10.2	10.7	35.3	0.98	54	29	84	49	-	-
14.00	14.76	68	10.1	75	30.1	*)	MC3RESF04 MC3REHF04 MC3REHT04	40	15	73	38	-	-	422	435																																																																																																																																																																																																																																																							
16.00	16.60	60	11.4	75	30.4	*)		42	17	76	41	-	-																																																																																																																																																																																																																																																									
18.00	18.56	54	12.7	75	30.7	*)		44	19	78	43	-	-																																																																																																																																																																																																																																																									
20.00	20.60	49	13.0	69	31.2	1.20		46	21	80	45	-	-																																																																																																																																																																																																																																																									
22.50	23.17	43	14.7	69	31.3	1.20		48	23	82	47	-	-																																																																																																																																																																																																																																																									
25.00	25.90	39	14.9	63	33.0	2.74		50	24	84	49	-	-																																																																																																																																																																																																																																																									
28.00	29.65	34	16.1	59	32.2	3.60		52	26	86	51	-	-																																																																																																																																																																																																																																																									
31.50	33.14	30	15.0	49	35.3	6.1		53	28	87	53	-	-																																																																																																																																																																																																																																																									
35.50	34.63	29	13.3	42	35.3	5.6		54	29	88	53	-	-																																																																																																																																																																																																																																																									
40.00	39.63	25	15.5	43	35.3	5.4		56	31	90	55	-	-																																																																																																																																																																																																																																																									
45.00	44.30	23	15.0	37	35.3	7.1		57	32	92	57	-	-																																																																																																																																																																																																																																																									
50.00	49.83	20	14.3	32	35.3	8.8		59	34	93	58	-	-																																																																																																																																																																																																																																																									
56.00	55.99	18	14.2	28	35.3	7.4		60	35	95	60	-	-																																																																																																																																																																																																																																																									
63.00	62.98	16	14.4	25	35.3	8.4		62	36	96	61	-	-																																																																																																																																																																																																																																																									
71.00	68.90	15	13.3	21	35.3	4.47		50	25	80	45	-	-																																																																																																																																																																																																																																																									
80.00	77.02	13	14.3	20	35.3	4.87		51	26	81	46	-	-																																																																																																																																																																																																																																																									
90.00	86.63	12	14.6	19	35.3	5.8		52	27	82	47	-	-																																																																																																																																																																																																																																																									
100.00	93.18	11	9.0	10.6	35.3	1.06	53	28	83	48	-	-																																																																																																																																																																																																																																																										
112.00	104.81	9.5	10.2	10.7	35.3	0.98	54	29	84	49	-	-																																																																																																																																																																																																																																																										

MC.RE..05, n ₁ = 1000 1/min							P _{TH}						20.0 kNm																																																																																																																																																																																																																																																									
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}																																																																																																																																																																																																																																																								
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C																																																																																																																																																																																																																																																									
7.10	7.10	141	13.9	210	15.6	7.1	MC2RESF05 MC2REHF05 MC2REHT05	38	*)	89	30	-	-	408	434																																																																																																																																																																																																																																																							
8.00	7.99	125	14.7	197	16.4	9.8		42	*)	94	35	-	-																																																																																																																																																																																																																																																									
9.00	8.86	113	15.4	186	17.5	11.0		46	*)	98	39	-	-																																																																																																																																																																																																																																																									
10.00	9.87	101	12.9	142	24.1	11.4		50	*)	102	43	-	-																																																																																																																																																																																																																																																									
11.20	11.11	90	14.7	143	22.4	11.3		54	*)	106	47	-	-																																																																																																																																																																																																																																																									
12.50	12.33	81	15.9	140	22.1	11.6	57	15	110	51	-	-	14.00	14.68	68	12.1	90	29.7	3.07	MC3RESF05 MC3REHF05 MC3REHT05	45	16	82	43	-	-	424	436	16.00	16.53	61	13.6	90	30.2	3.07	47	19	85	46	-	-	18.00	18.33	55	15.1	90	30.6	3.07	49	21	87	48	-	-	20.00	20.22	49	15.3	82	31.3	4.89	51	23	89	50	-	-	22.50	22.76	44	17.2	82	30.5	4.89	54	25	92	52	-	-	25.00	25.25	40	19.1	82	29.3	4.89	56	27	94	54	-	-	28.00	29.13	34	20.5	76	27.5	6.3	58	30	96	57	-	-	31.50	32.32	31	20.1	68	32.7	8.4	60	31	98	59	-	-	35.50	33.83	30	18.2	59	36.8	6.2	60	32	99	60	-	-	40.00	39.03	26	19.5	55	37.8	7.6	63	34	101	62	-	-	45.00	43.30	23	20.4	52	39.1	8.5	64	36	103	64	-	-	50.00	48.74	21	18.9	43	41.3	11.4	66	38	105	65	-	-	56.00	55.44	18	20.0	40	41.3	3.17	68	39	107	67	-	-	63.00	62.40	16	19.1	34	41.3	5.5	69	41	108	69	-	-	71.00	69.92	14	15.6	25	41.3	6.7	57	28	90	51	-	-	80.00	77.56	13	17.4	25	41.3	6.7	58	29	92	52	-	-	90.00	87.30	11	19.3	24	41.3	6.8	59	31	93	54	-	-	100.00	93.84	11	13.6	16.0	41.3	4.12	60	32	94	55	-	-	112.00	105.62	9.5	15.6	16.2	41.3	4.02	61	33	95	56	-	-
14.00	14.68	68	12.1	90	29.7	3.07	MC3RESF05 MC3REHF05 MC3REHT05	45	16	82	43	-	-	424	436																																																																																																																																																																																																																																																							
16.00	16.53	61	13.6	90	30.2	3.07		47	19	85	46	-	-																																																																																																																																																																																																																																																									
18.00	18.33	55	15.1	90	30.6	3.07		49	21	87	48	-	-																																																																																																																																																																																																																																																									
20.00	20.22	49	15.3	82	31.3	4.89		51	23	89	50	-	-																																																																																																																																																																																																																																																									
22.50	22.76	44	17.2	82	30.5	4.89		54	25	92	52	-	-																																																																																																																																																																																																																																																									
25.00	25.25	40	19.1	82	29.3	4.89		56	27	94	54	-	-																																																																																																																																																																																																																																																									
28.00	29.13	34	20.5	76	27.5	6.3		58	30	96	57	-	-																																																																																																																																																																																																																																																									
31.50	32.32	31	20.1	68	32.7	8.4		60	31	98	59	-	-																																																																																																																																																																																																																																																									
35.50	33.83	30	18.2	59	36.8	6.2		60	32	99	60	-	-																																																																																																																																																																																																																																																									
40.00	39.03	26	19.5	55	37.8	7.6		63	34	101	62	-	-																																																																																																																																																																																																																																																									
45.00	43.30	23	20.4	52	39.1	8.5		64	36	103	64	-	-																																																																																																																																																																																																																																																									
50.00	48.74	21	18.9	43	41.3	11.4		66	38	105	65	-	-																																																																																																																																																																																																																																																									
56.00	55.44	18	20.0	40	41.3	3.17		68	39	107	67	-	-																																																																																																																																																																																																																																																									
63.00	62.40	16	19.1	34	41.3	5.5		69	41	108	69	-	-																																																																																																																																																																																																																																																									
71.00	69.92	14	15.6	25	41.3	6.7		57	28	90	51	-	-																																																																																																																																																																																																																																																									
80.00	77.56	13	17.4	25	41.3	6.7		58	29	92	52	-	-																																																																																																																																																																																																																																																									
90.00	87.30	11	19.3	24	41.3	6.8		59	31	93	54	-	-																																																																																																																																																																																																																																																									
100.00	93.84	11	13.6	16.0	41.3	4.12	60	32	94	55	-	-																																																																																																																																																																																																																																																										
112.00	105.62	9.5	15.6	16.2	41.3	4.02	61	33	95	56	-	-																																																																																																																																																																																																																																																										

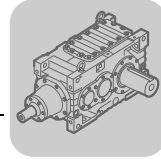


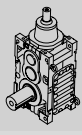


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

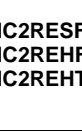


MC.RE..06, $n_1 = 1000$ 1/min							P_{TH}						25.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C		40 °C		
7.10	6.74	148	17.6	280	20.6	4.94	MC2RESF06 MC2REHF06 MC2REHT06	43	*)	104	33	-	-	410	434
8.00	7.80	128	18.7	258	22.7	9.0		49	*)	111	40	-	-		
9.00	8.75	114	19.7	241	24.1	11.8		55	*)	116	46	-	-		
10.00	9.64	104	17.6	198	30.5	7.6		59	*)	121	50	-	-		
11.20	11.15	90	19.3	187	31.2	10.4		65	*)	127	56	-	-		
12.50	12.52	80	20.5	177	32.1	12.5		69	18	132	61	-	-		
14.00	14.09	71	14.3	111	40.2	5.9	MC3RESF06 MC3REHF06 MC3REHT06	53	19	98	50	-	-	426	436
16.00	16.30	61	16.6	111	41.0	5.9		56	22	102	54	-	-		
18.00	18.30	55	18.6	111	41.4	5.9		59	25	105	57	-	-		
20.00	20.30	49	18.8	101	42.2	8.0		62	28	107	60	-	-		
22.50	23.49	43	21.8	101	42.8	8.0		65	31	111	63	-	-		
25.00	26.36	38	24.5	101	43.0	8.0		67	33	113	66	-	-		
28.00	28.78	35	25.1	95	43.4	9.2		69	35	115	68	-	-		
31.50	32.30	31	26.4	89	45.3	10.4		71	37	118	70	-	-		
35.50	35.53	28	23.7	73	45.3	9.9		73	39	119	72	-	-		
40.00	38.80	26	24.2	68	45.3	11.1		75	41	121	74	-	-		
45.00	43.54	23	26.7	67	45.3	11.4		77	43	123	76	-	-		
50.00	49.28	20	24.9	55	45.3	14.4		79	45	126	79	-	-		
56.00	55.31	18	24.5	49	45.3	12.0		81	47	128	81	-	-		
63.00	62.60	16	25.1	44	45.3	13.4		83	49	130	83	-	-		
71.00	68.96	15	22.0	35	45.3	7.8		68	34	108	61	-	-		
80.00	77.39	13	24.7	35	45.3	7.8		69	35	110	62	-	-		
90.00	87.60	11	25.4	32	45.3	9.1		71	37	111	64	-	-		
100.00	95.76	10	23.0	26	45.3	3.52	72	38	113	66	-	-			
112.00	108.39	9.2	25.7	26	45.3	3.74	74	40	114	67	-	-			

MC.RE..07, $n_1 = 1000$ 1/min							P_{TH}						33.0 kNm		
i_N	i_{ex}	n_2	M_{N2}	P_{N1}	F_{Ra}	F_{Re}									
								$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$	$P_{TH[20]}$	$P_{TH[40]}$		
		[1/min]	[kNm]	[kW]	[kN]	[kN]	20 °C		40 °C		20 °C		40 °C		
7.10	6.84	146	21.6	339	26.1	9.7	MC2RESF07 MC2REHF07 MC2REHT07	53	*)	127	41	-	-	412	434
8.00	7.70	130	22.8	317	27.7	13.0		59	*)	134	48	-	-		
9.00	8.65	116	23.9	297	29.2	14.8		66	*)	141	55	-	-		
10.00	9.74	103	21.8	242	36.0	12.2		72	*)	147	61	-	-		
11.20	10.96	91	23.4	231	37.1	14.5		78	*)	154	68	-	-		
12.50	12.32	81	25.0	220	37.5	15.9		83	*)	160	74	-	-		
14.00	14.18	71	19.2	147	44.7	3.55	MC3RESF07 MC3REHF07 MC3REHT07	64	23	119	62	-	-	428	437
16.00	15.97	63	21.6	147	45.2	3.55		68	26	123	65	-	-		
18.00	17.93	56	24.3	147	45.6	3.55		71	30	126	69	-	-		
20.00	19.94	50	24.9	135	46.5	6.1		74	33	130	72	-	-		
22.50	22.45	45	28.0	135	46.8	6.1		78	36	133	76	-	-		
25.00	25.22	40	31.5	135	45.3	6.1		81	39	136	79	-	-		
28.00	28.38	35	33.1	127	43.1	8.0		84	42	140	82	-	-		
31.50	31.88	31	36.6	125	39.1	8.4		87	45	143	85	-	-		
35.50	33.79	30	29.4	95	53	7.1		88	47	144	87	-	-		
40.00	38.02	26	30.7	89	53	9.0		91	49	147	90	-	-		
45.00	42.71	23	34.5	89	53	9.0		93	52	150	92	-	-		
50.00	48.96	20	34.1	76	53	12.6		96	55	153	95	-	-		
56.00	53.98	19	31.4	64	53	10.5		98	57	155	97	-	-		
63.00	61.88	16	34.4	61	53	11.5		101	59	157	100	-	-		
71.00	70.77	14	25.5	40	53	3.99		83	41	131	74	-	-		
80.00	79.49	13	28.7	40	53	3.99		85	43	134	76	-	-		
90.00	91.12	11	32.9	40	53	3.99		87	46	136	79	-	-		
100.00	96.17	10	29.3	33	53	3.94	88	46	137	80	-	-			
112.00	110.25	9.1	33.6	33	53	3.94	90	49	139	82	-	-			

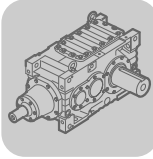
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RE..



MC.RE..08, n ₁ = 1000 1/min							P _{TH}						45.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.95	144	29.1	449	26.8	14.4	MC2RESF08 MC2REHF08 MC2REHT08	66	*)	158	52	-	-	414	434
8.00	7.82	128	30.7	420	28.4	18.1		74	*)	166	61	-	-		
9.00	8.88	113	32.4	391	30.2	19.6		82	*)	175	69	-	-		
10.00	9.74	103	29.7	331	36.2	14.6		88	*)	181	76	-	-		
11.20	10.96	91	31.8	315	36.8	18.0		96	*)	189	83	-	-		
12.50	12.45	80	33.9	295	38.4	19.6		103	*)	197	91	-	-		
14.00	14.48	69	29.4	220	48.1	*)	MC3RESF08 MC3REHF08 MC3REHT08	80	29	147	76	-	-	430	437
16.00	16.30	61	33.1	220	48.5	*)		84	33	152	81	-	-		
18.00	18.51	54	37.6	220	44.6	*)		89	38	157	86	-	-		
20.00	20.25	49	36.0	193	47.9	3.29		92	41	160	89	-	-		
22.50	22.80	44	40.5	193	43.8	3.29		96	45	164	94	-	-		
25.00	25.89	39	46.0	193	38.3	3.29		100	49	168	98	-	-		
28.00	29.06	34	44.7	167	44.0	8.1		104	53	172	102	-	-		
31.50	33.00	30	47.2	155	46.8	10.3		107	57	176	106	-	-		
35.50	34.90	29	42.3	133	61	7.0		109	58	178	108	-	-		
40.00	39.18	26	46.0	129	56	8.0		112	61	181	111	-	-		
45.00	44.49	22	47.8	118	61	10.6		116	65	185	115	-	-		
50.00	49.82	20	44.7	98	67	15.2		119	68	188	118	-	-		
56.00	56.62	18	48.1	93	67	6.5		122	71	191	121	-	-		
63.00	63.41	16	45.0	78	67	11.6		124	74	194	124	-	-		
71.00	70.39	14	37.1	58	67	9.5		101	51	161	91	-	-		
80.00	79.93	13	42.1	58	67	9.5		104	53	164	94	-	-		
90.00	89.53	11	45.6	56	67	10.3		107	56	167	97	-	-		
100.00	96.71	10	34.0	39	67	3.36		108	57	169	98	-	-		
112.00	108.32	9.2	38.6	39	67	3.14	110	59	171	100	-	-			

MC.RE..09, n ₁ = 1000 1/min							P _{TH}						55.0 kNm		
i _N	i _{ex}	n ₂ [1/min]	M _{N2} [kNm]	P _{N1} [kW]	F _{Ra} [kN]	F _{Re} [kN]		P _{TH[20]}		P _{TH[40]}		P _{TH[20]}		P _{TH[40]}	
								20 °C	40 °C	20 °C	40 °C	20 °C	40 °C		
7.10	6.85	146	40.1	627	34.3	12.1	MC2RESF09 MC2REHF09 MC2REHT09	75	*)	180	*)	-	-	416	434
8.00	7.92	126	42.7	578	36.9	18.5		86	*)	193	71	-	-		
9.00	8.89	112	44.8	540	39.2	23.1		95	*)	202	80	-	-		
10.00	9.61	104	41.1	464	45.1	11.6		101	*)	208	86	-	-		
11.20	11.11	90	44.5	434	46.9	17.0		111	*)	219	97	-	-		
12.50	12.47	80	46.9	408	48.8	21.7		119	*)	227	105	-	-		
14.00	14.28	70	35.5	270	61	*)	MC3RESF09 MC3REHF09 MC3REHT09	91	33	169	87	-	-	432	437
16.00	16.52	61	41.1	270	62	*)		98	39	175	94	-	-		
18.00	18.54	54	46.1	270	62	*)		102	44	180	99	-	-		
20.00	19.70	51	45.1	248	63	3.71		105	46	183	102	-	-		
22.50	22.78	44	52.1	248	64	3.71		111	52	189	108	-	-		
25.00	25.57	39	58.5	248	60	3.71		115	56	194	113	-	-		
28.00	28.12	36	57.1	220	66	9.8		118	60	197	116	-	-		
31.50	31.56	32	64.1	220	60	9.8		122	64	202	120	-	-		
35.50	34.47	29	55.6	177	75	9.1		125	67	205	123	-	-		
40.00	37.90	26	58.7	170	76	11.1		128	70	208	127	-	-		
45.00	42.54	24	64.7	167	77	11.7		132	73	212	131	-	-		
50.00	48.15	21	60.1	137	80	14.4		136	77	216	134	-	-		
56.00	54.72	18	59.3	119	80	12.9		139	81	220	138	-	-		
63.00	61.94	16	60.4	107	80	14.3		143	84	223	142	-	-		
71.00	68.22	15	51.5	83	80	9.2		116	57	185	104	-	-		
80.00	76.56	13	57.8	83	80	9.2		119	60	188	107	-	-		
90.00	86.65	12	60.5	76	80	10.2		122	63	192	110	-	-		
100.00	94.51	11	35.9	42	80	8.0		124	65	194	113	-	-		
112.00	106.98	9.3	41.1	42	80	7.9	127	68	197	116	-	-			

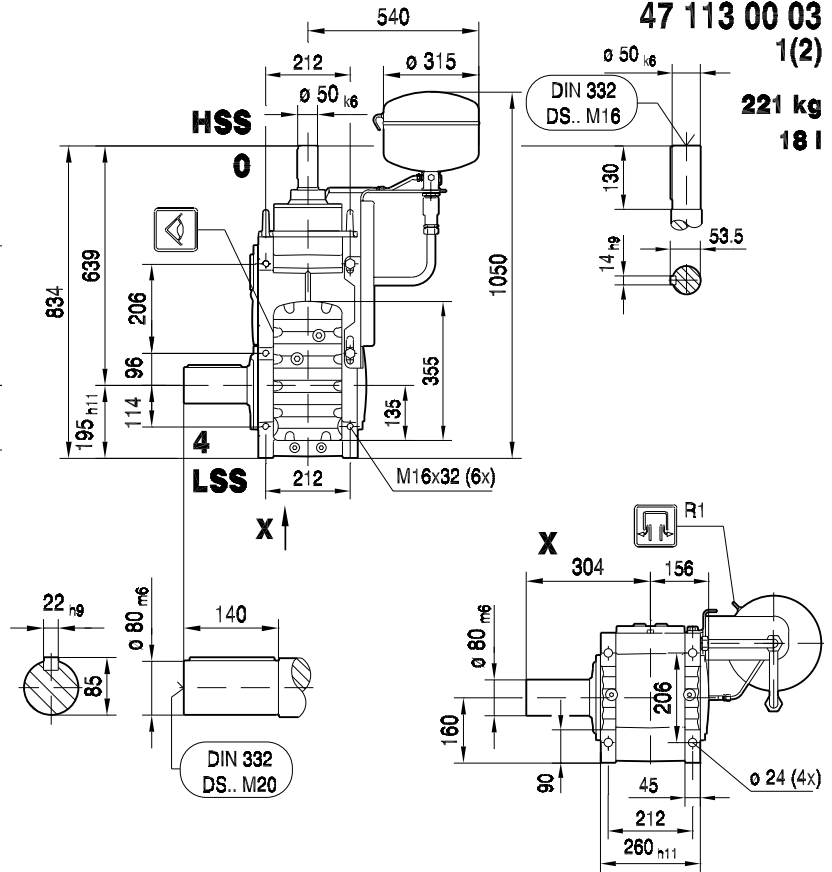
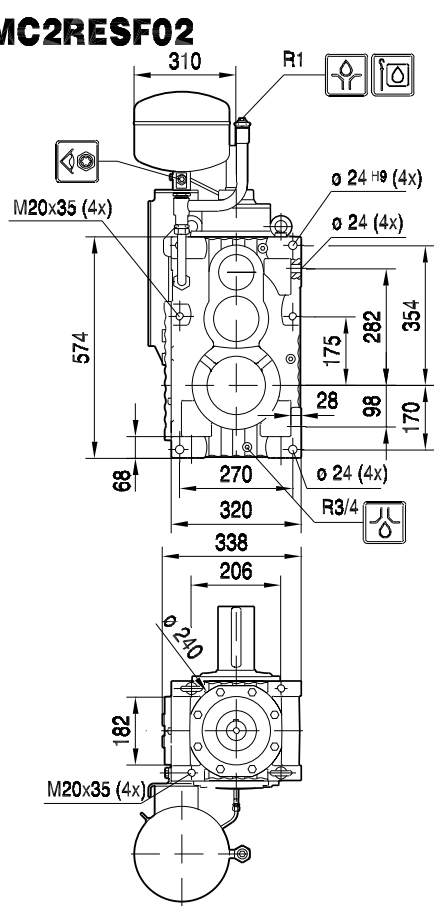
11



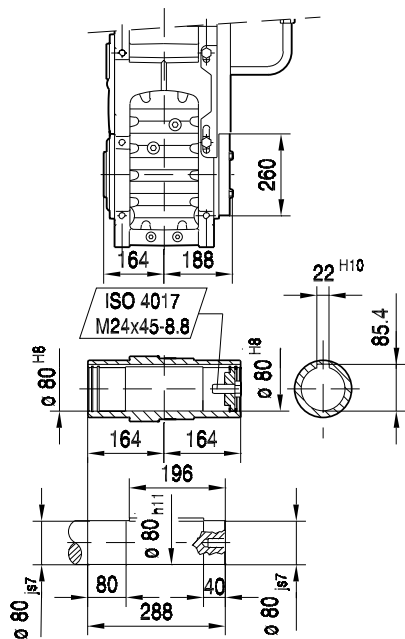
Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

11.4.5 MC.RE.. [mm]

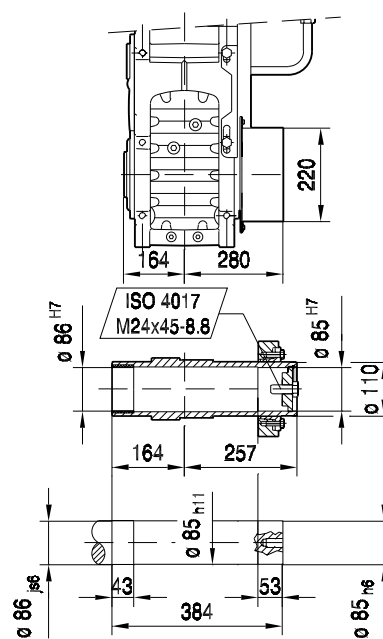
MC2RESF02



MC2REHF02

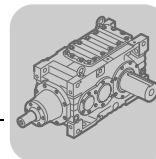


MC2REHF02 /SD



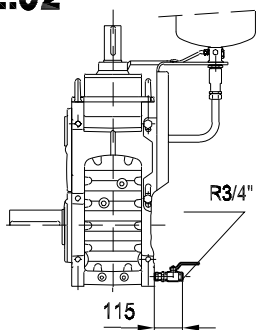
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RE..

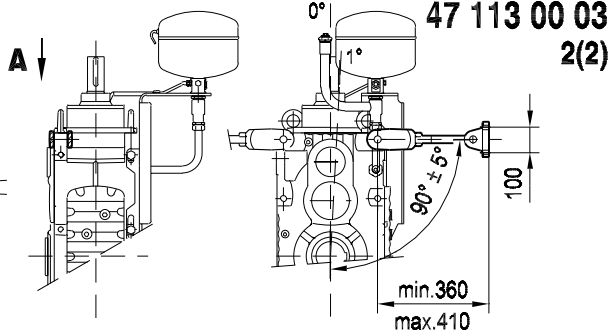
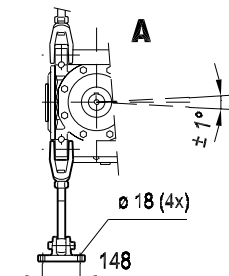


MC2RE..02

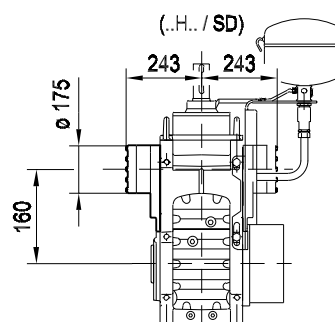
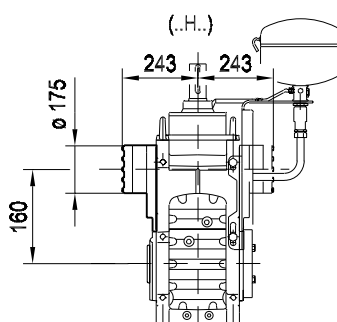
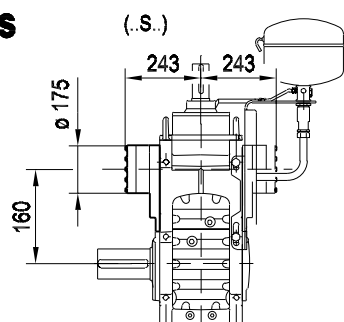
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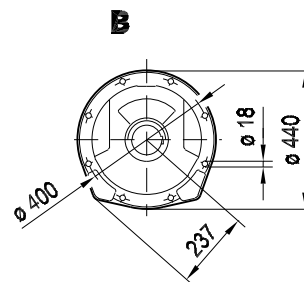
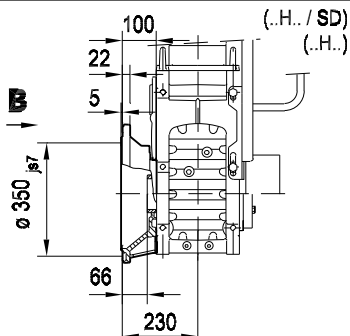
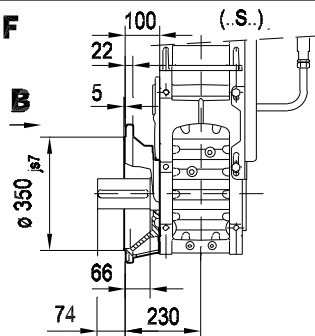
MC2REH T 02



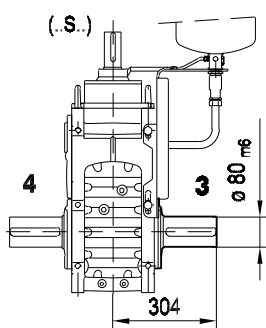
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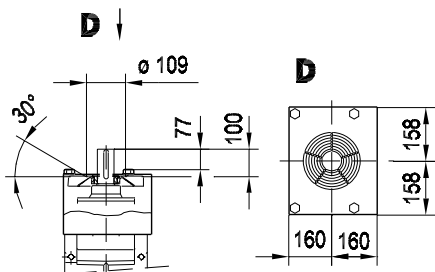
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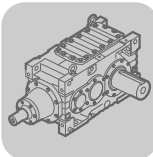


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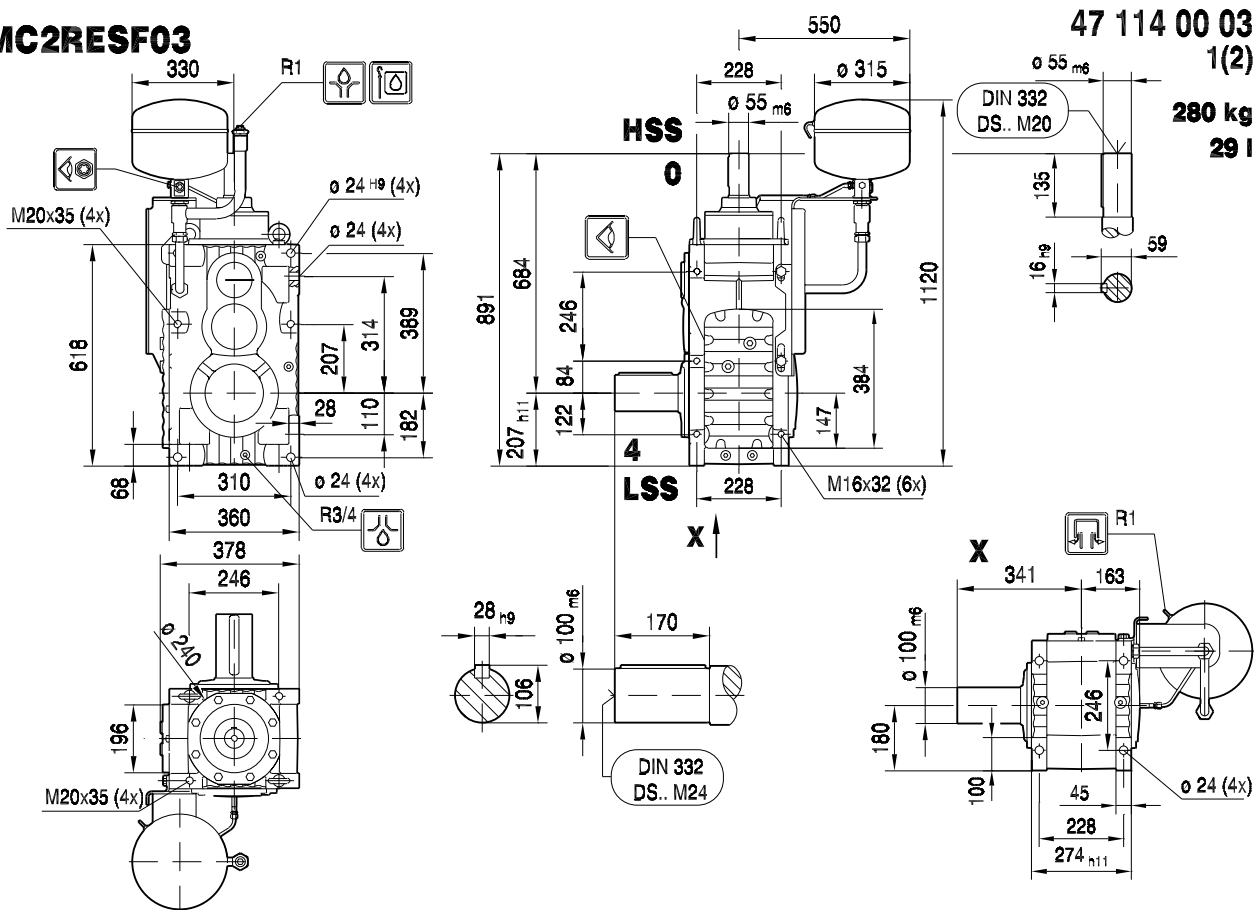
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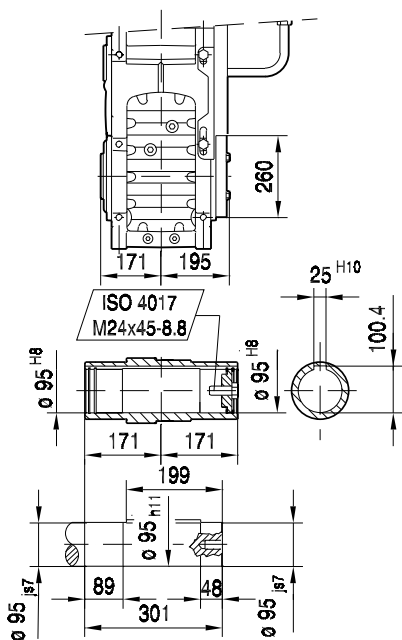
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

MC2RESF03

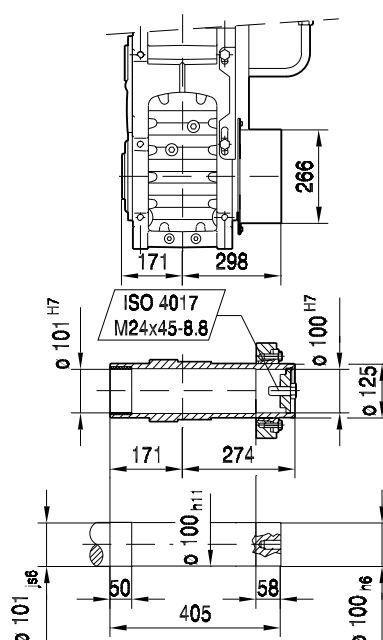


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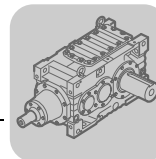
MC2REHF03



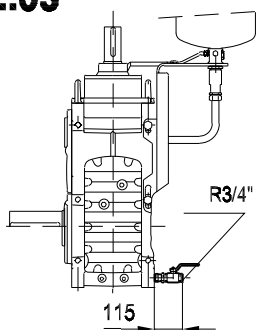
MC2REHF03 /SD



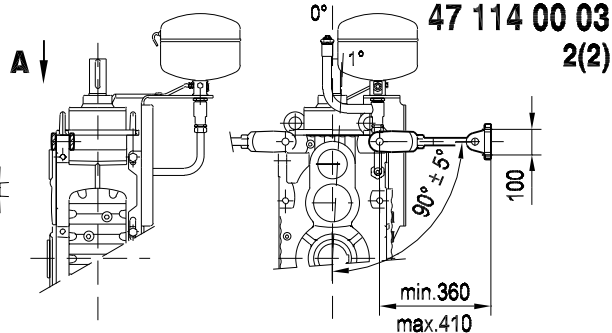
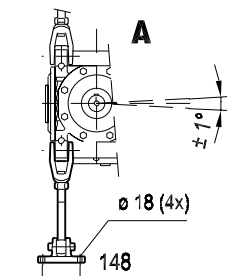
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..



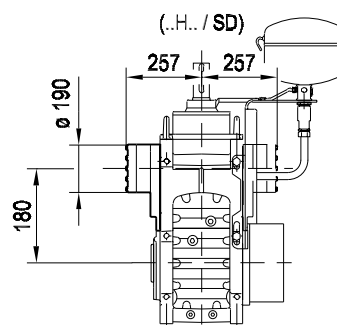
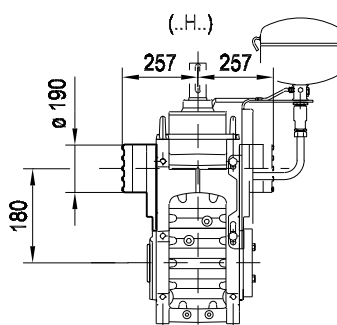
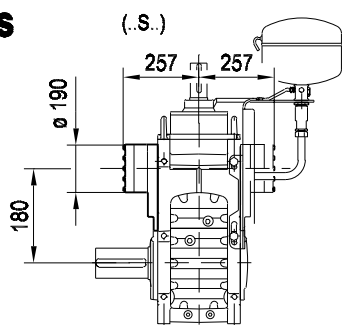
MC2RE..03
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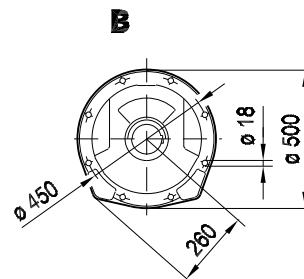
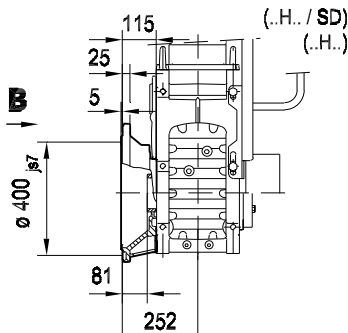
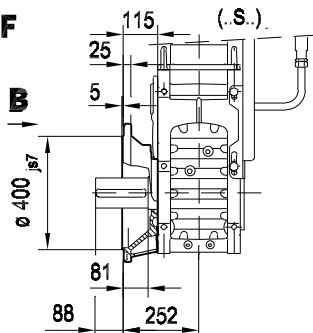
MC2REH T 03



/BS



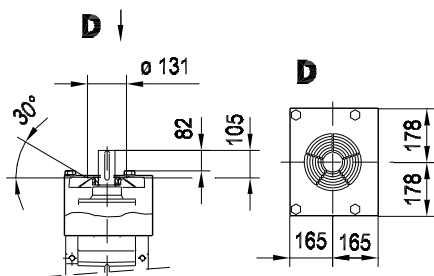
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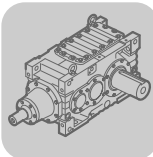


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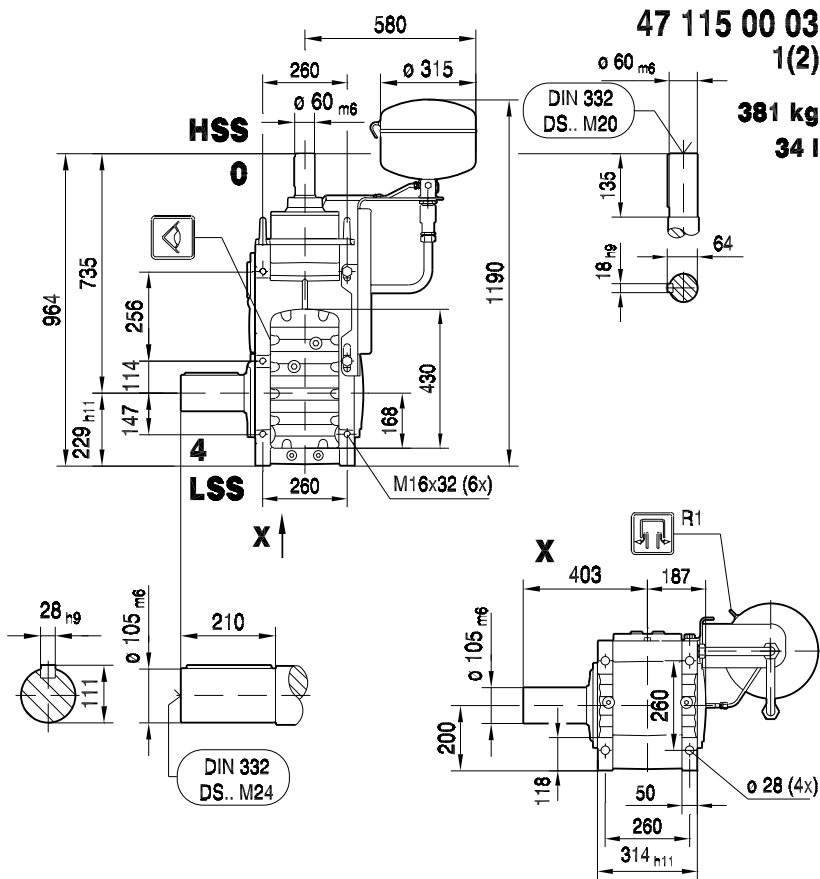
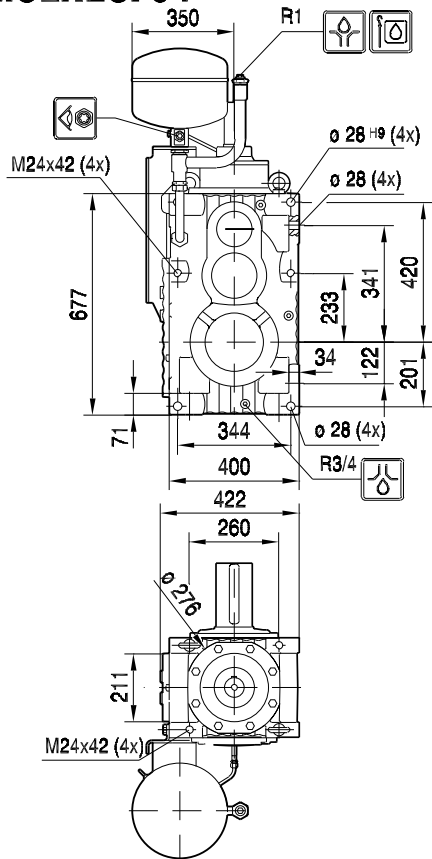
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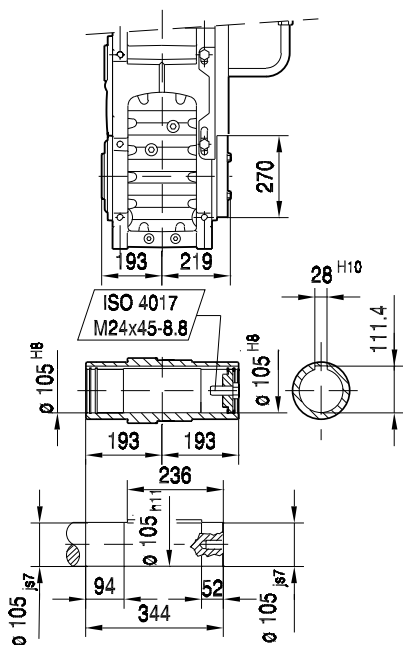


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

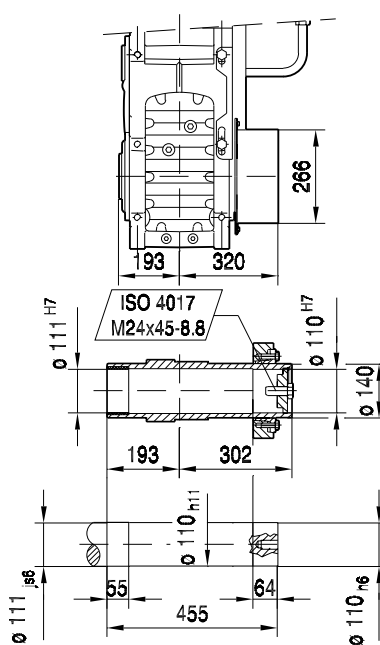
MC2RESF04



MC2REHF04

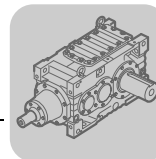


MC2REHF04 /SD

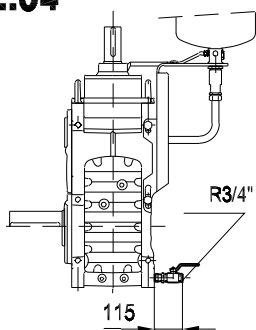


Bevel-Helical Gear Units MC...R

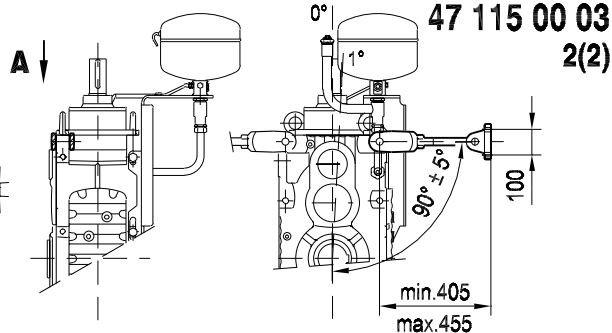
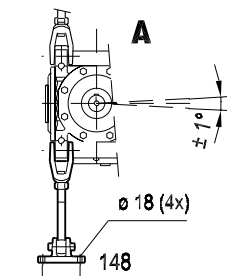
Selection tables (detailed) MC.RE..



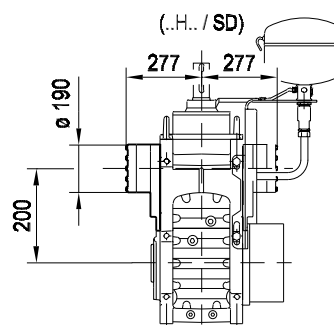
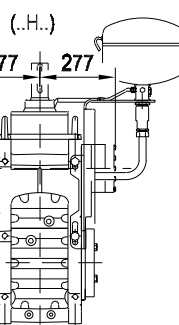
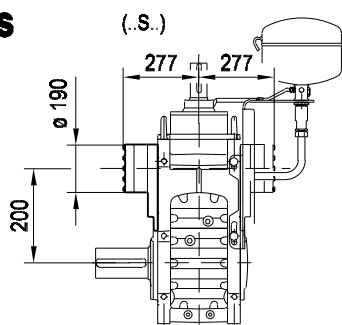
MC2RE..04 /ODV



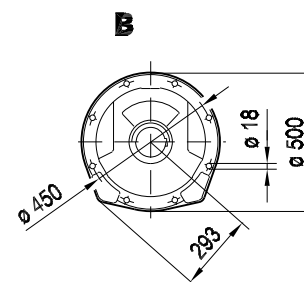
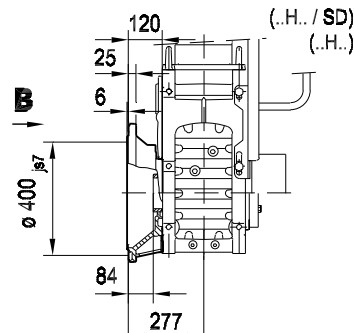
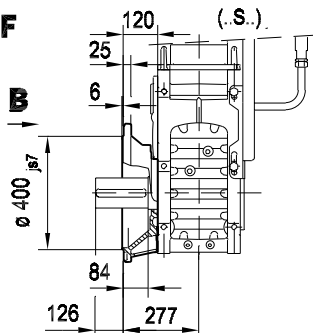
MC2REH T 04



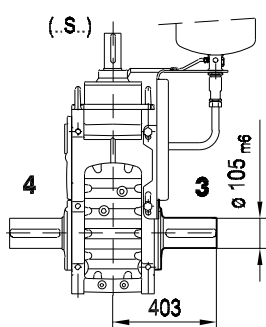
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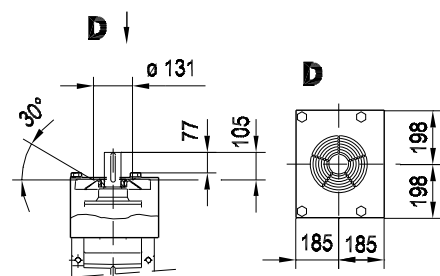
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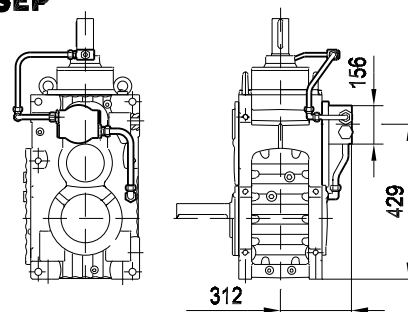
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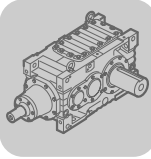


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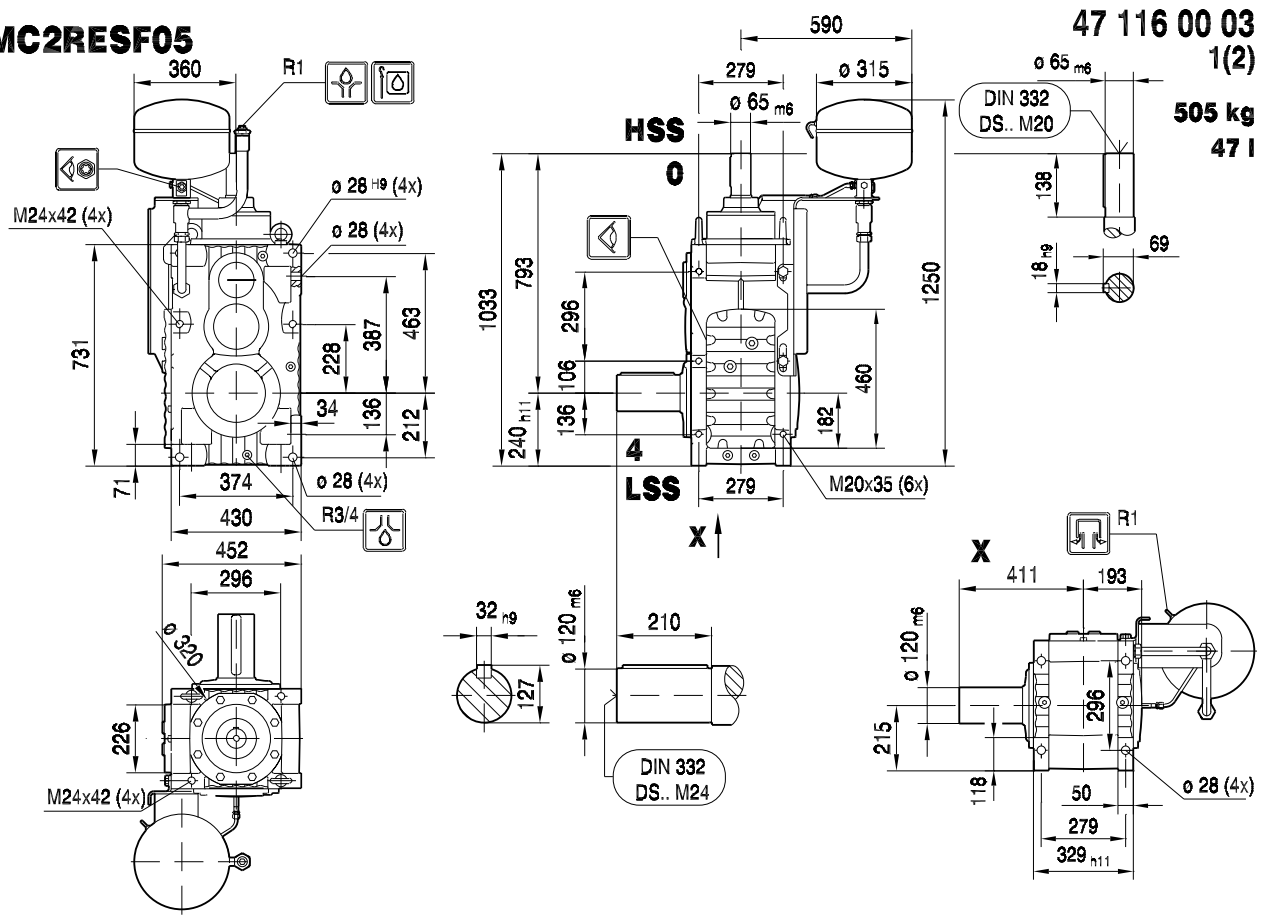
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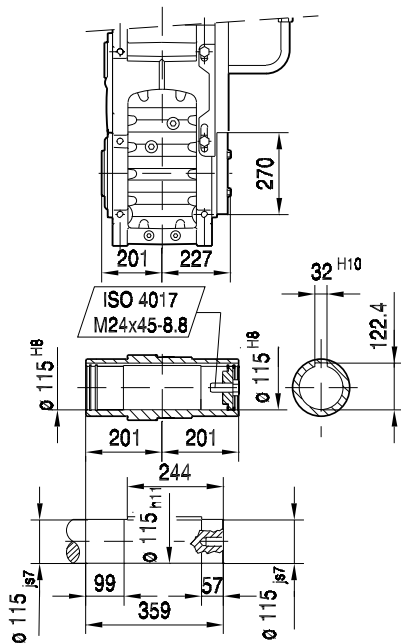


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

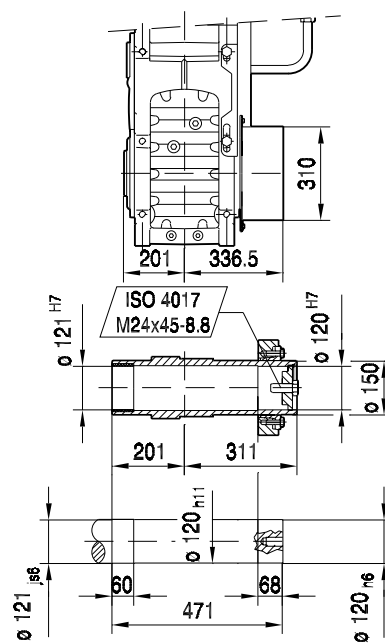
MC2RESF05



MC2REHF05

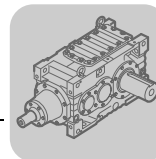


MC2REHF05 /SD

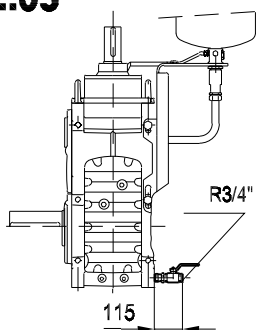


Bevel-Helical Gear Units MC...R

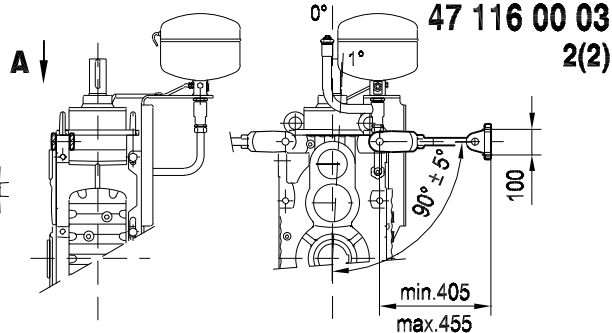
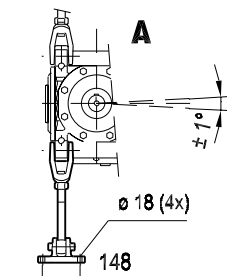
Selection tables (detailed) MC.RE..



MC2RE..05 /ODV

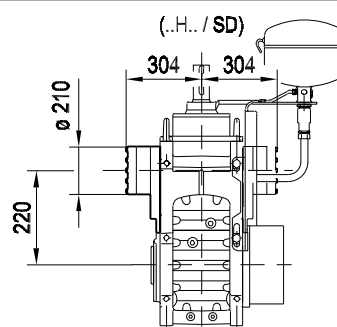
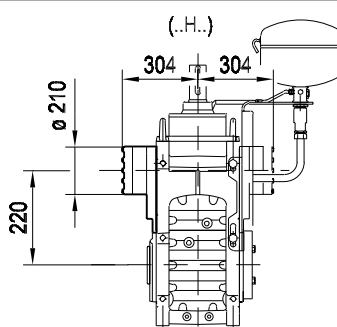
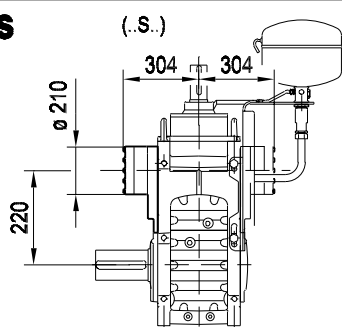


MC2REH T 05

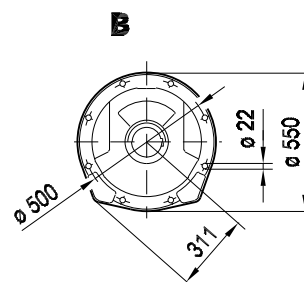
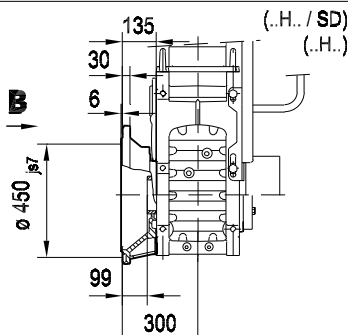
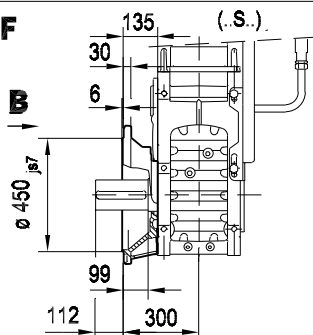


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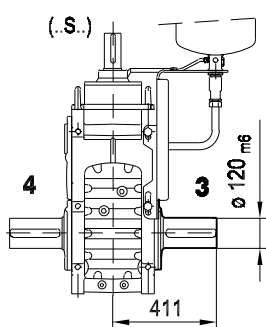
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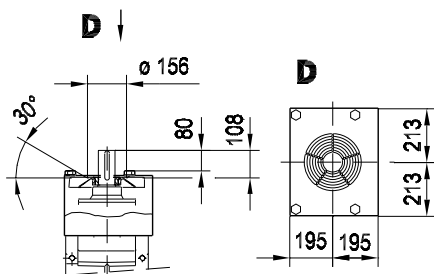
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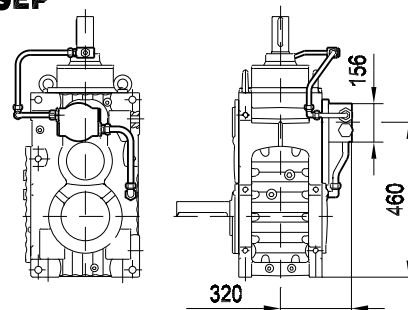
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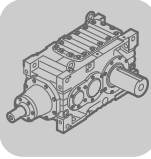


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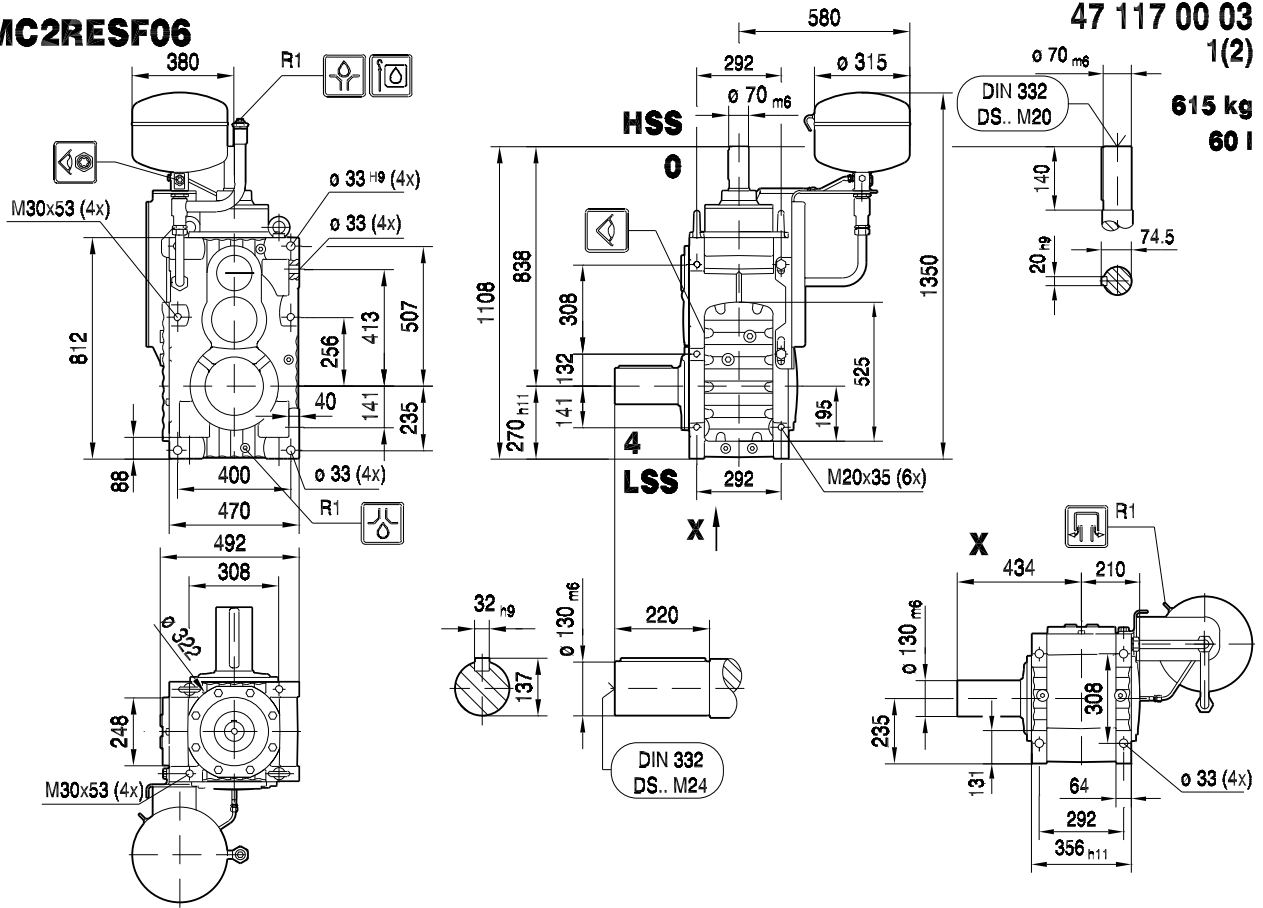
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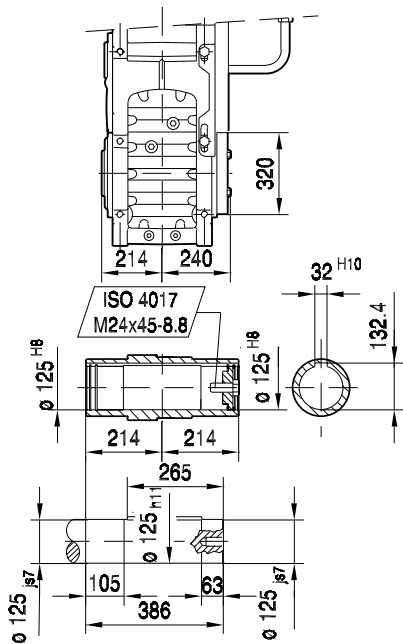


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

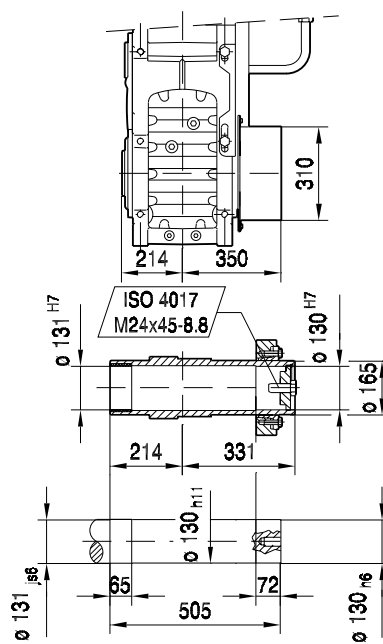
MC2RESF06



MC2REHF06

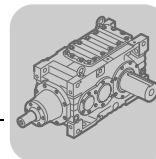


MC2REHF06 /SD



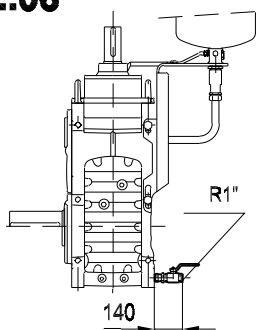
Bevel-Helical Gear Units MC...R

Selection tables (detailed) MC.RE..

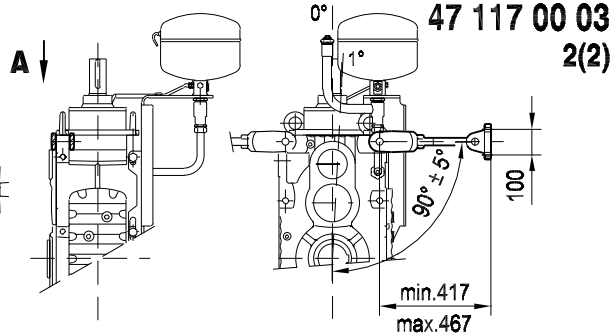
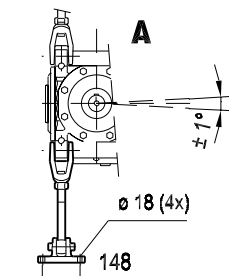


MC2RE..06

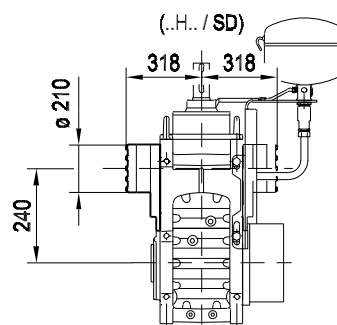
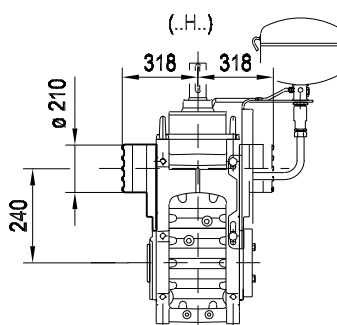
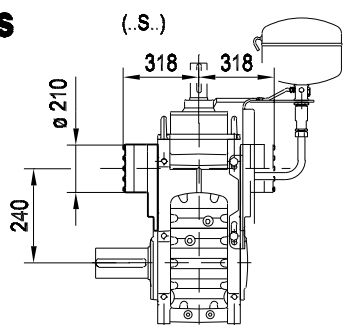
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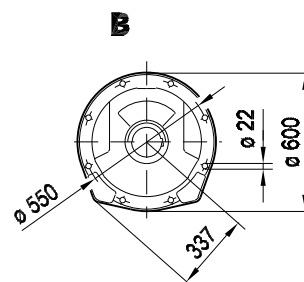
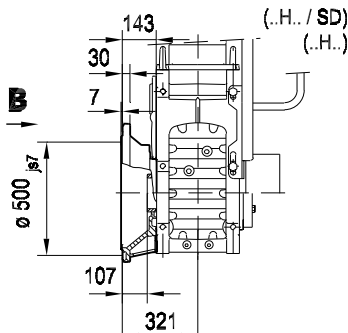
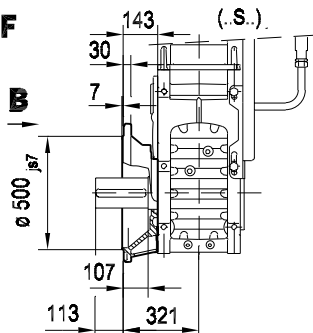
MC2REH T 06



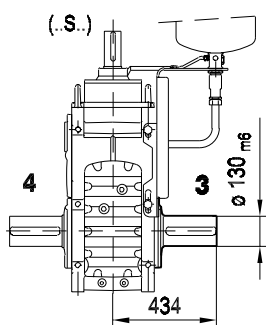
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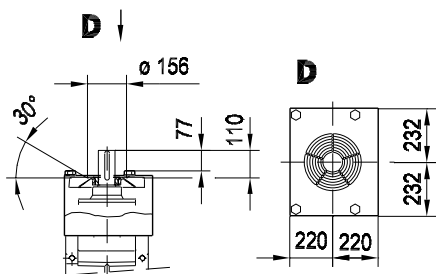
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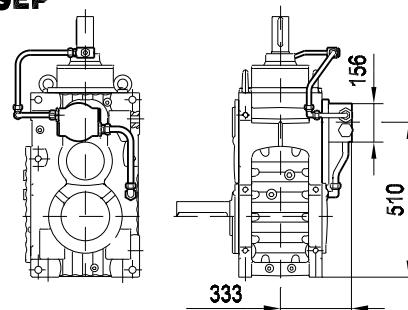
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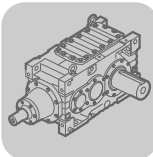


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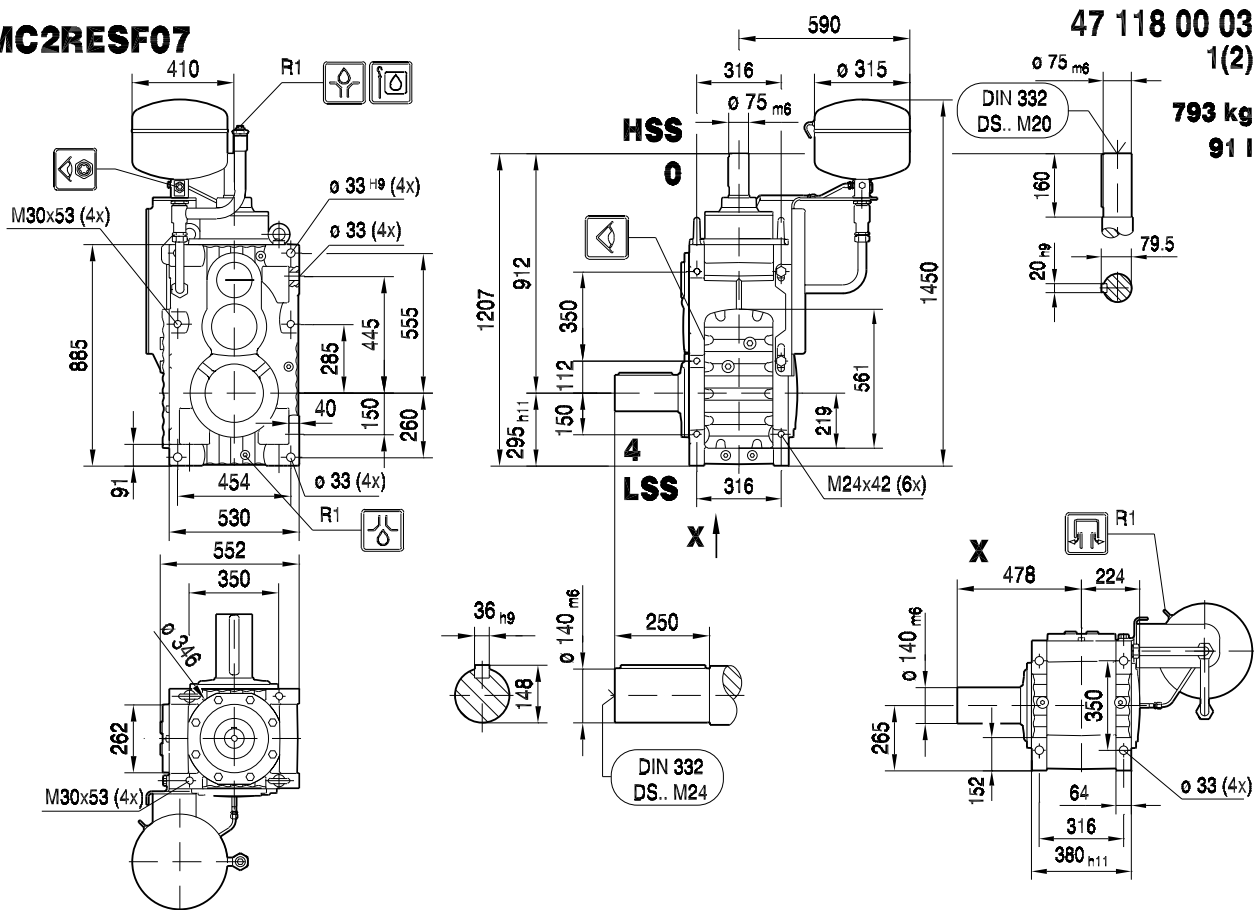
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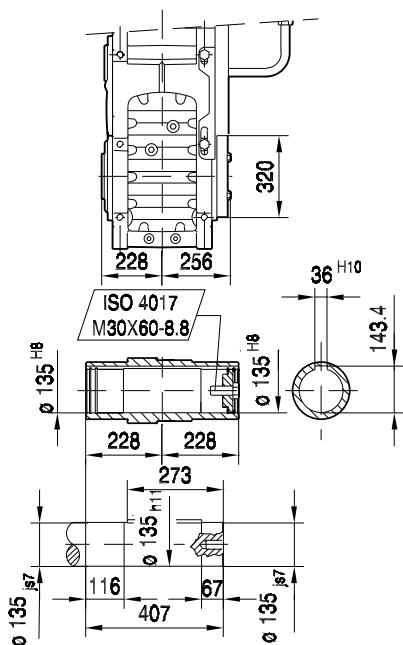


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

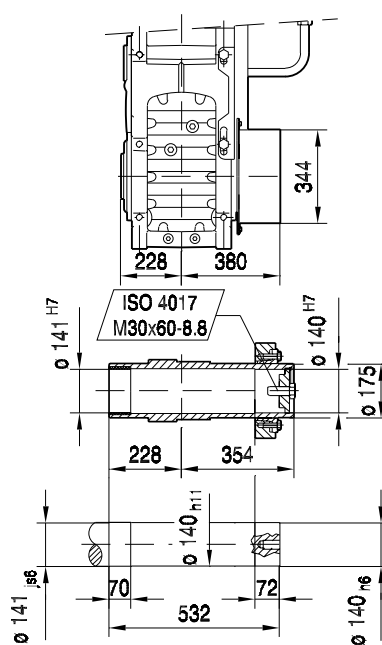
MC2RESF07



MC2REHF07

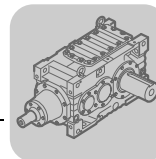


MC2REHF07 /SD

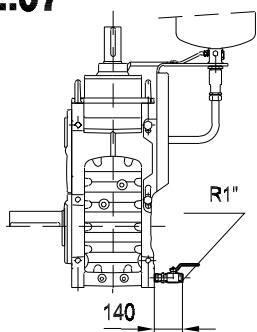


Bevel-Helical Gear Units MC...R

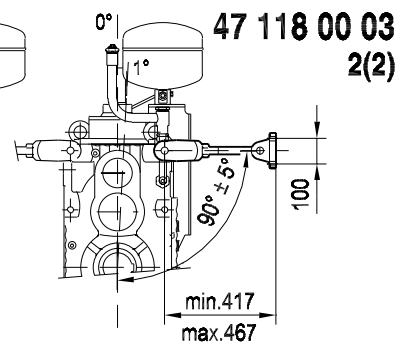
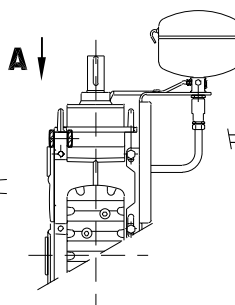
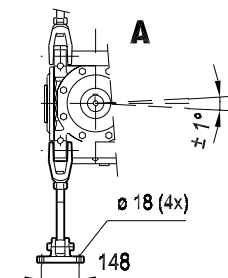
Selection tables (detailed) MC.RE..



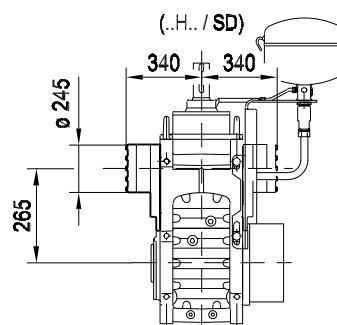
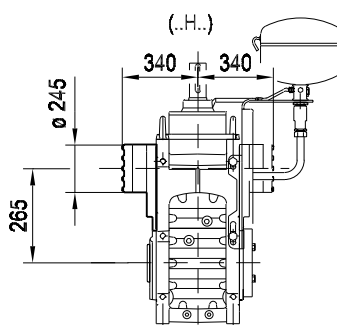
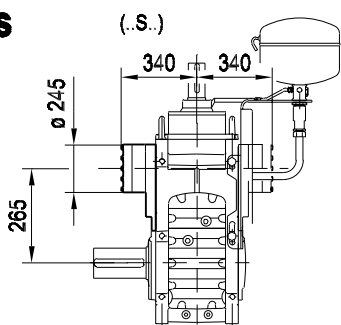
MC2RE..07 /ODV



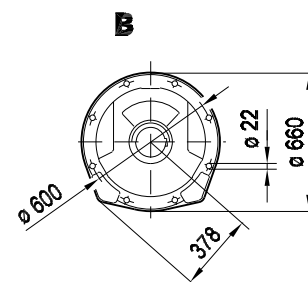
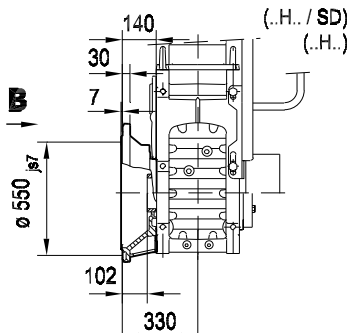
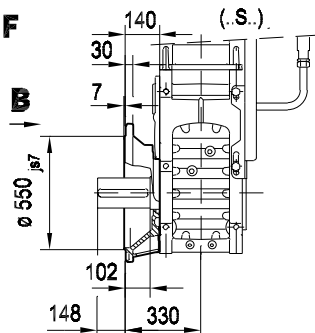
MC2REH T 07



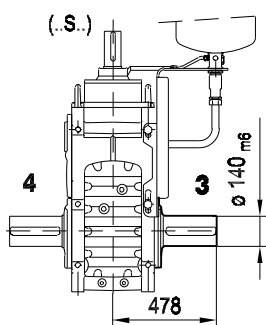
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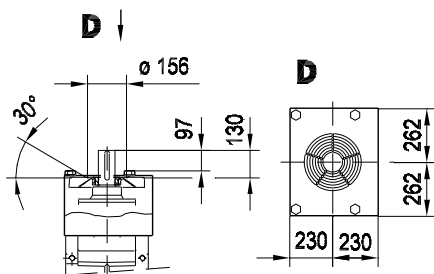
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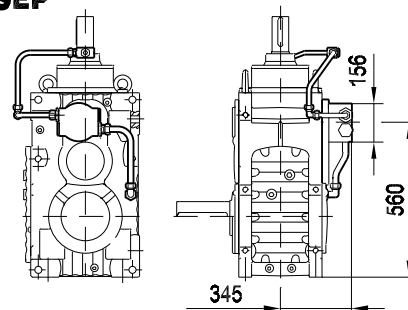
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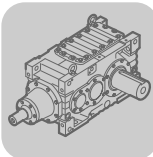


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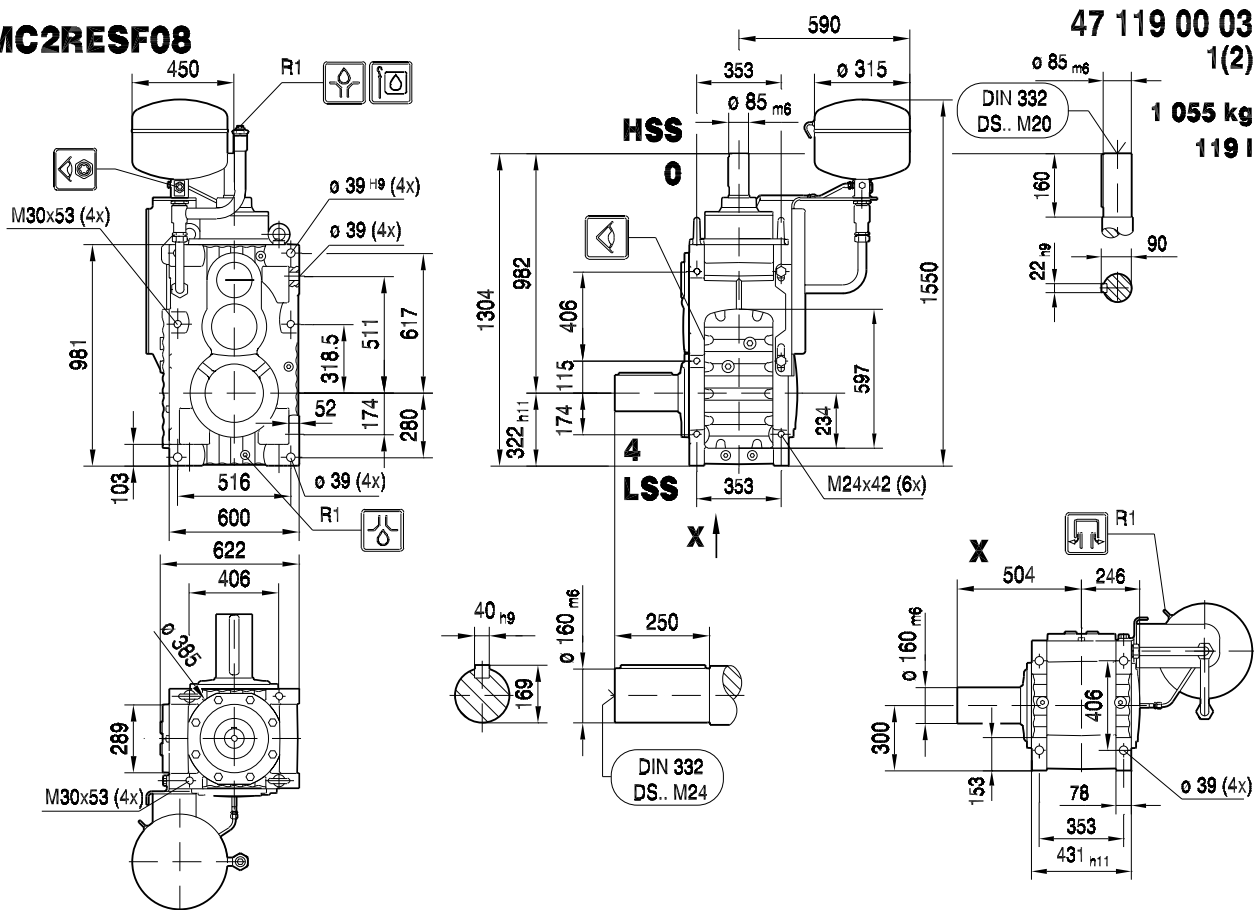
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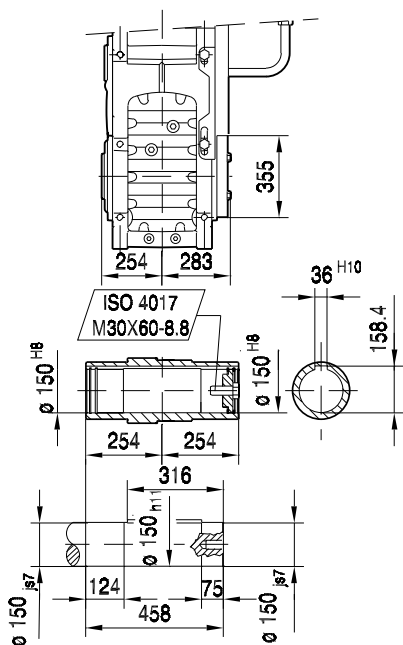


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

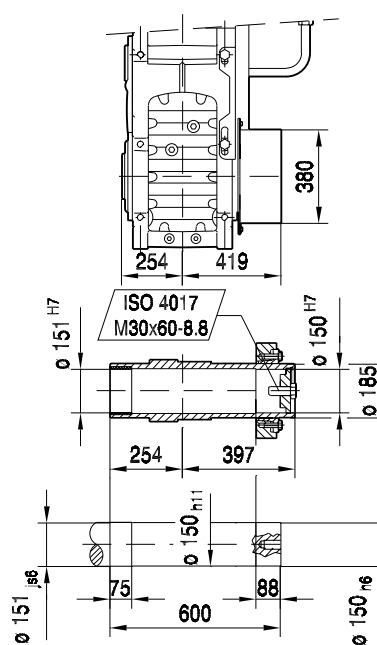
MC2RESF08



MC2REHF08

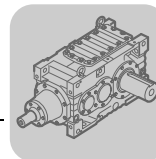


MC2REHF08 /SD

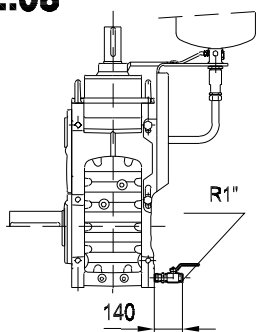


Bevel-Helical Gear Units MC...R

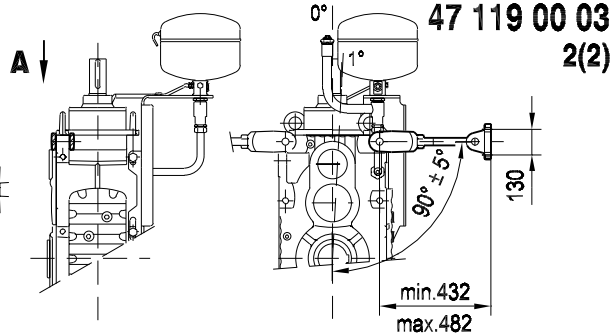
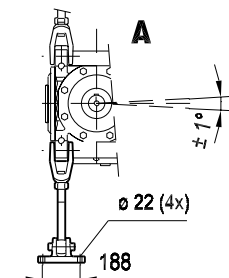
Selection tables (detailed) MC.RE..



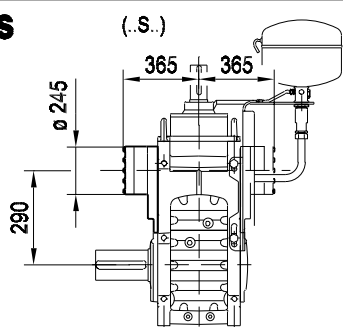
MC2RE..08 /ODV



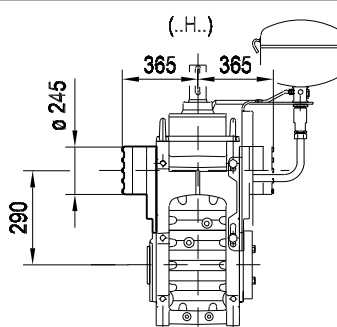
MC2REH T 08



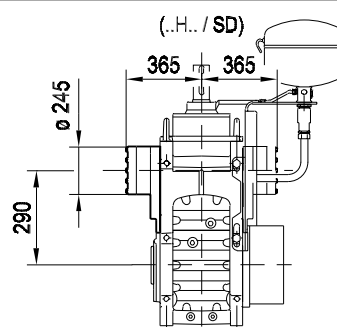
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(.S.)

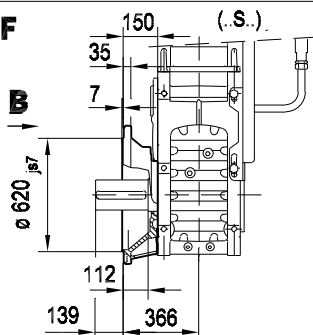


(.H.)

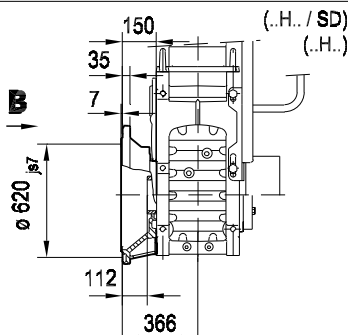


(.H./SD)

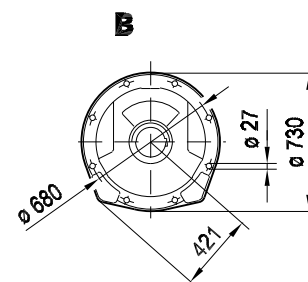
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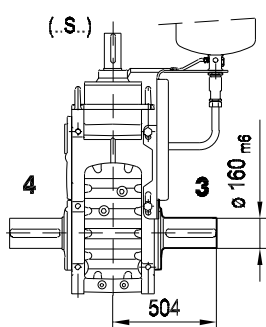
(.S.)



(.H./SD)
(.H.)

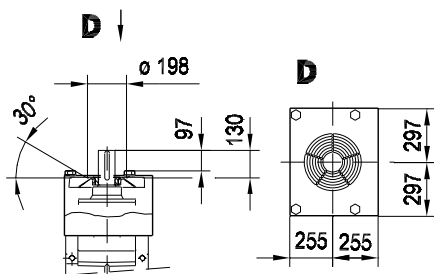


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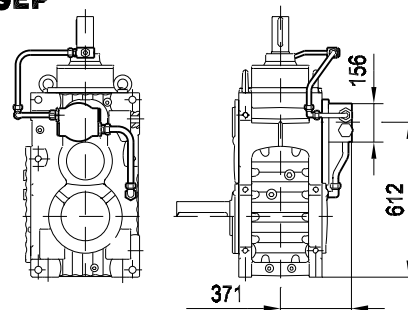


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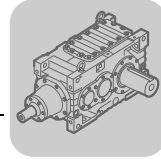
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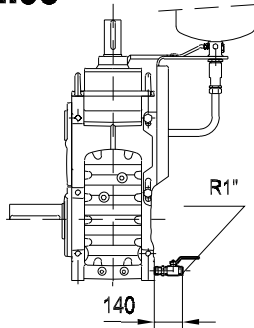
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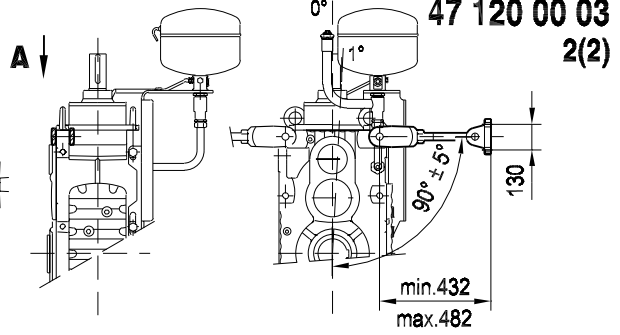
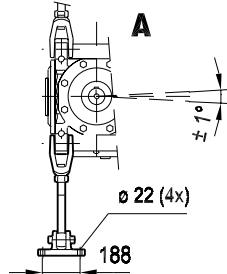
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..



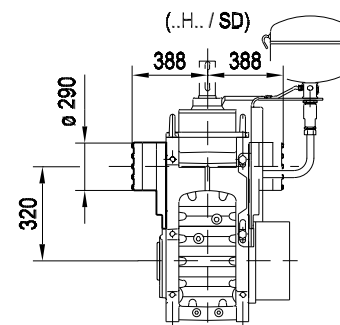
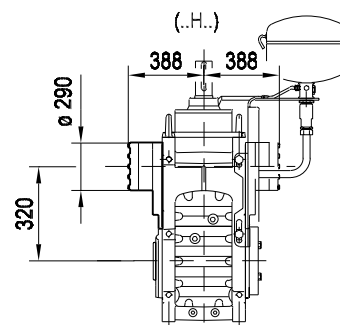
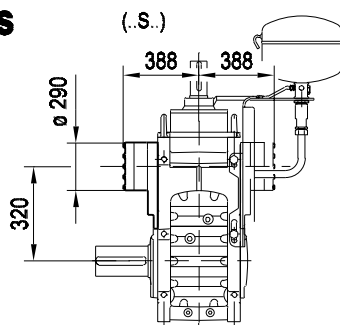
MC2RE..09
/ODV



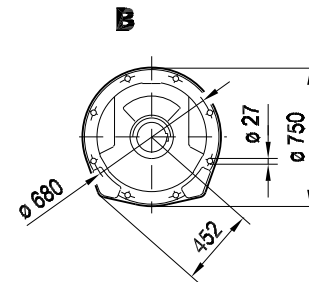
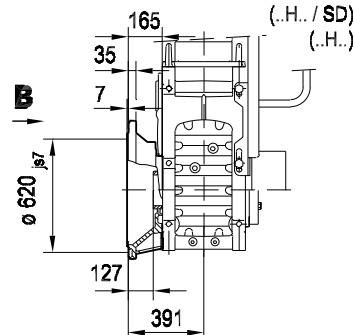
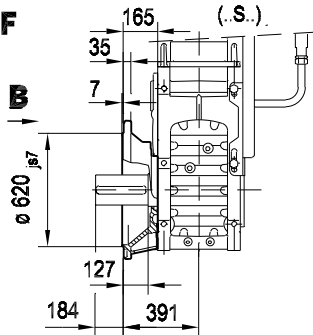
MC2REH T 09



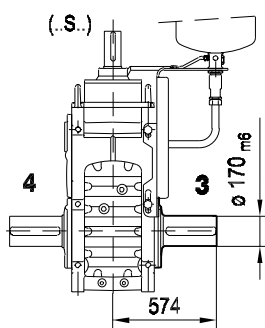
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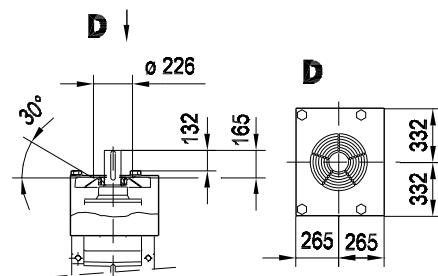
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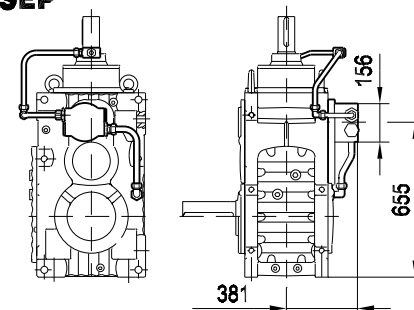
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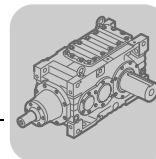


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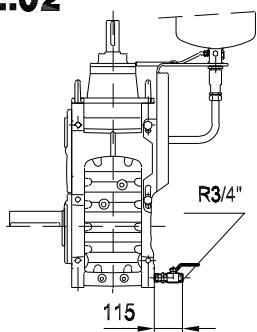


Bevel-Helical Gear Units MC...R

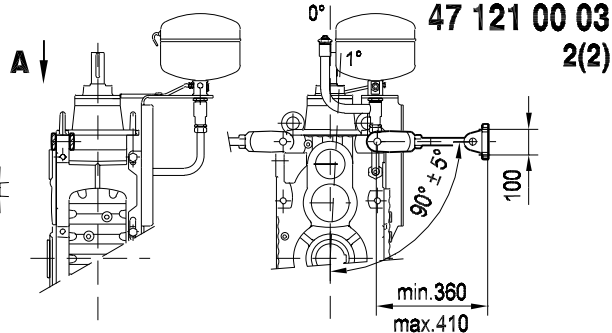
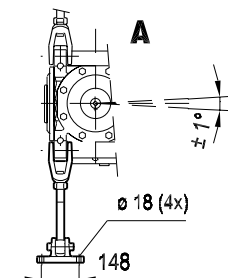
Selection tables (detailed) MC.RE..



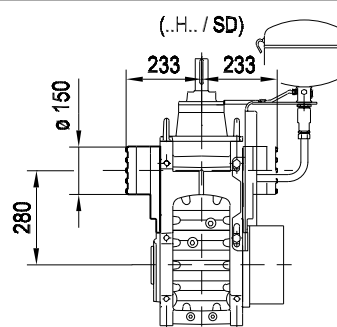
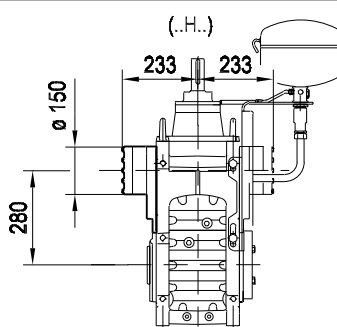
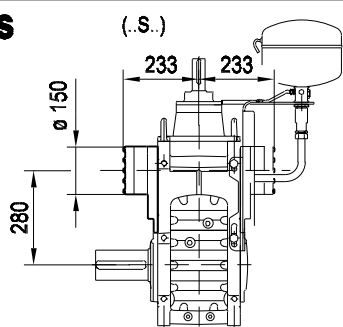
MC3RE..02 /ODV



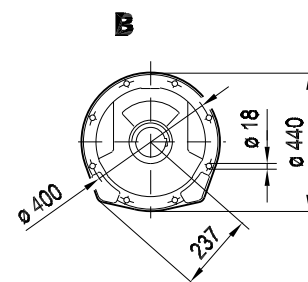
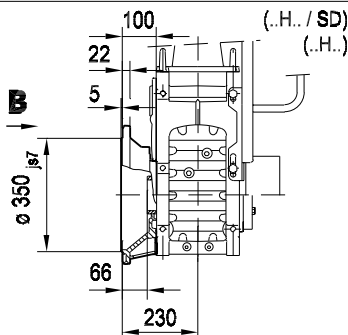
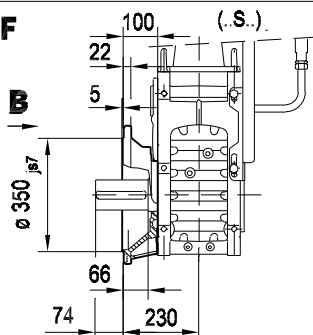
MC3REH T 03



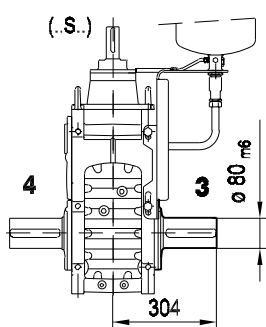
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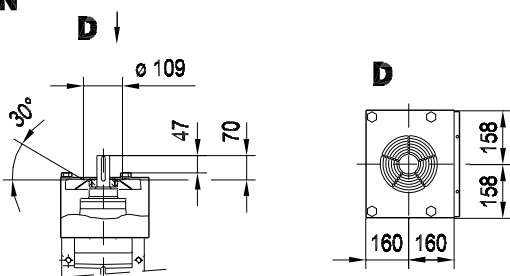
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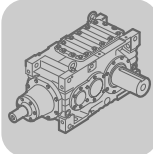


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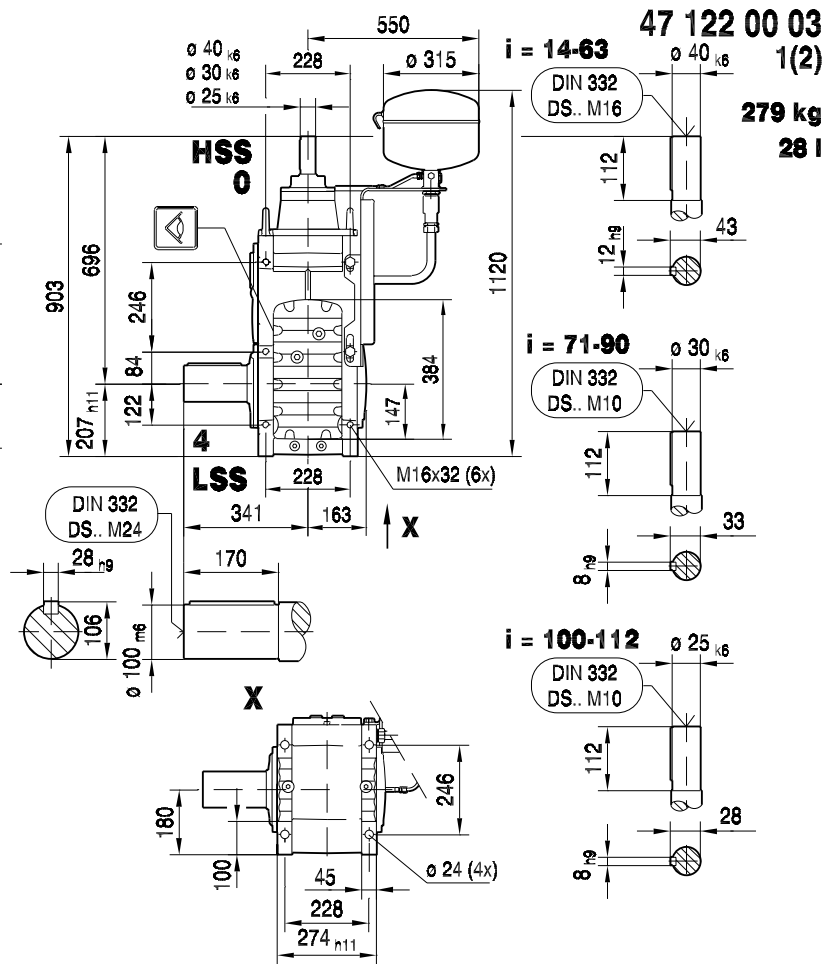
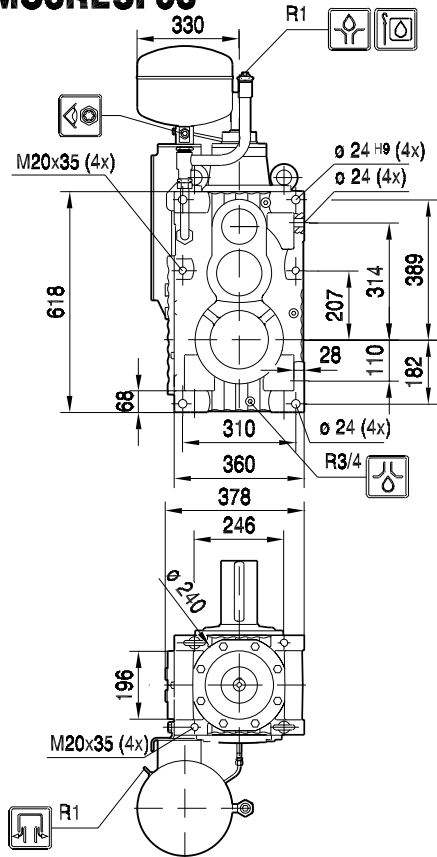
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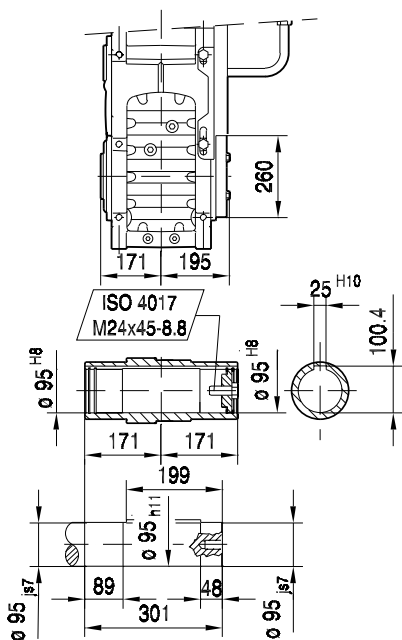


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

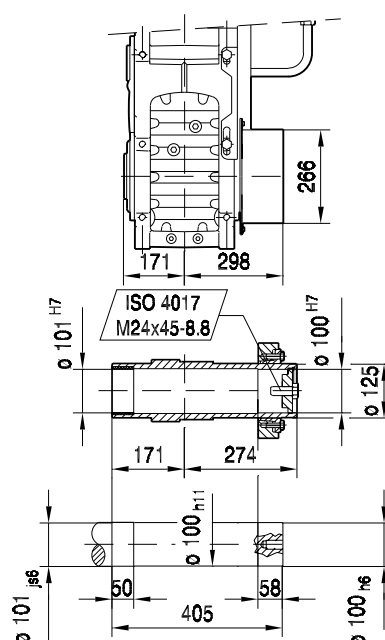
MC3RESF03



MC3REHF03

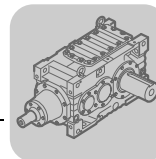


MC3REHF03 /SD

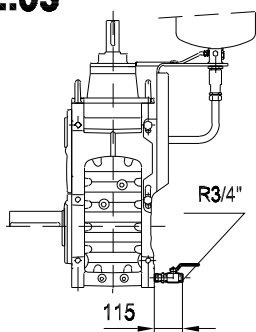


Bevel-Helical Gear Units MC...R

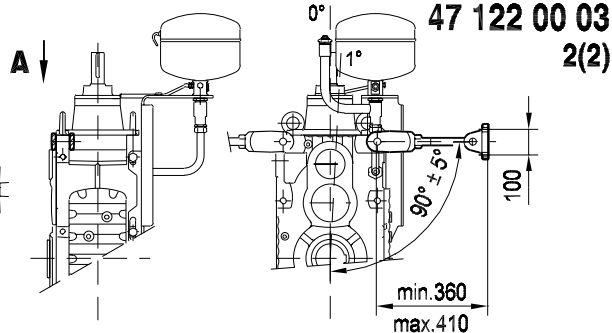
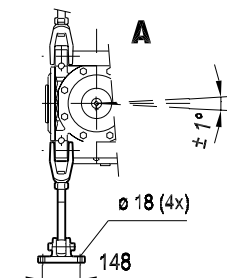
Selection tables (detailed) MC.RE..



MC3RE..03 /ODV

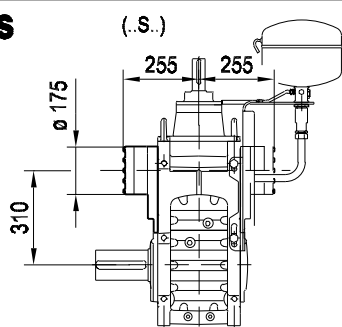


MC3REH T 03

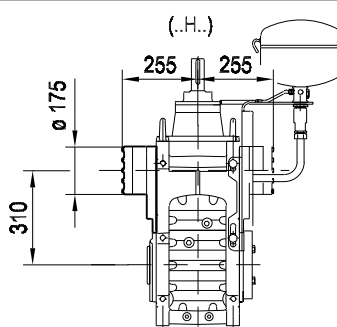


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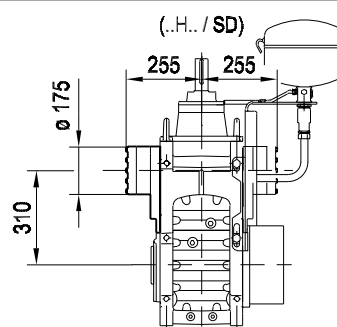
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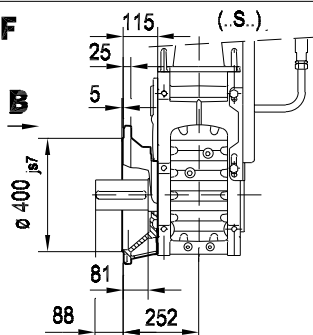


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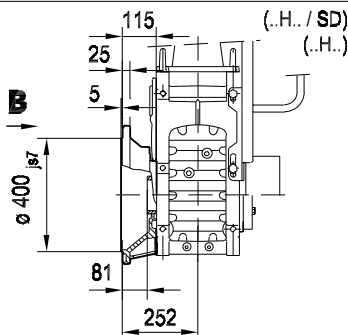


(.H. / SD)

/MF

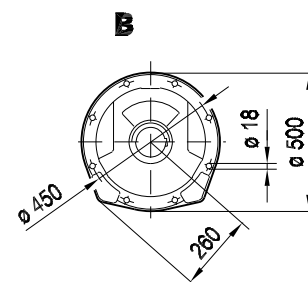


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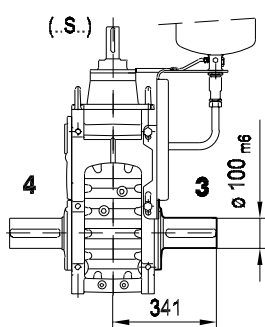


(.H. / SD)

(.H.)

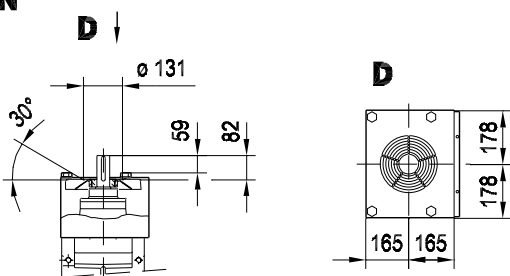


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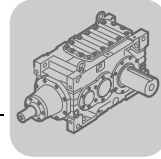
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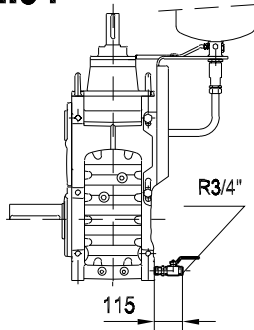
D ↓

D

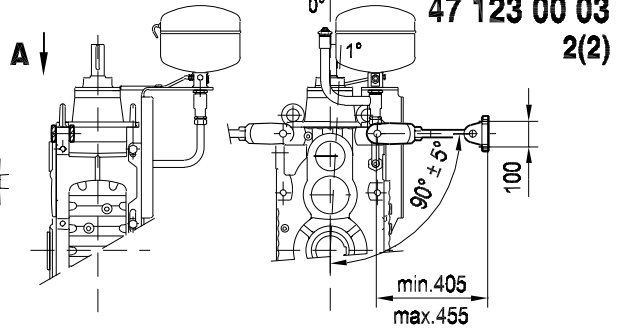
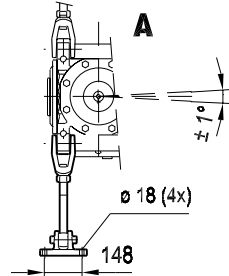
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..



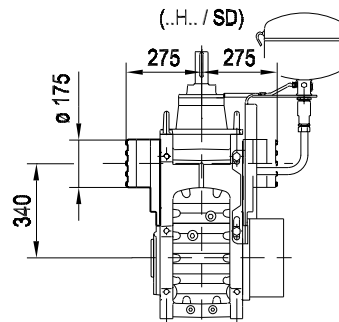
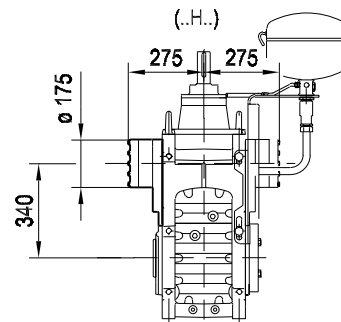
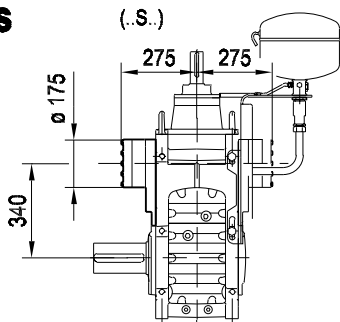
MC3RE..04
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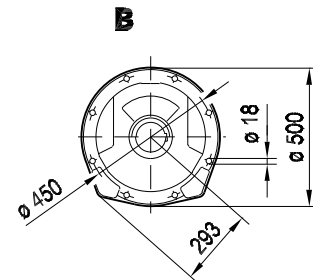
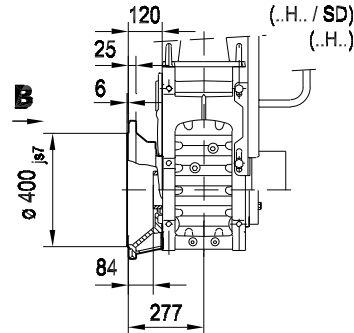
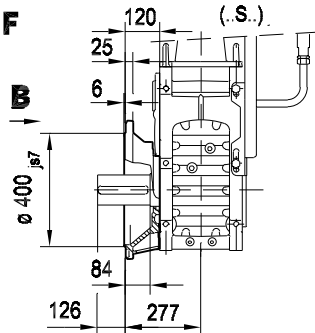
MC3REH T 04



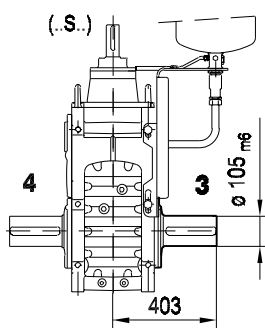
/BS



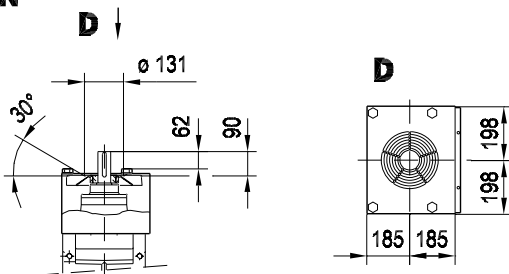
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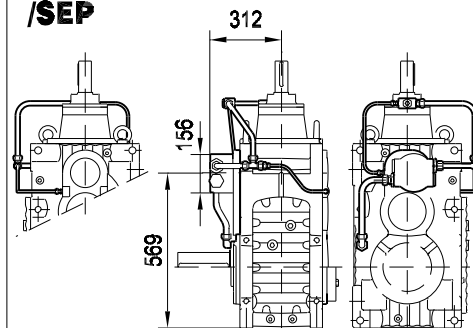
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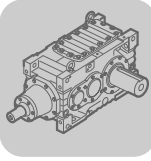


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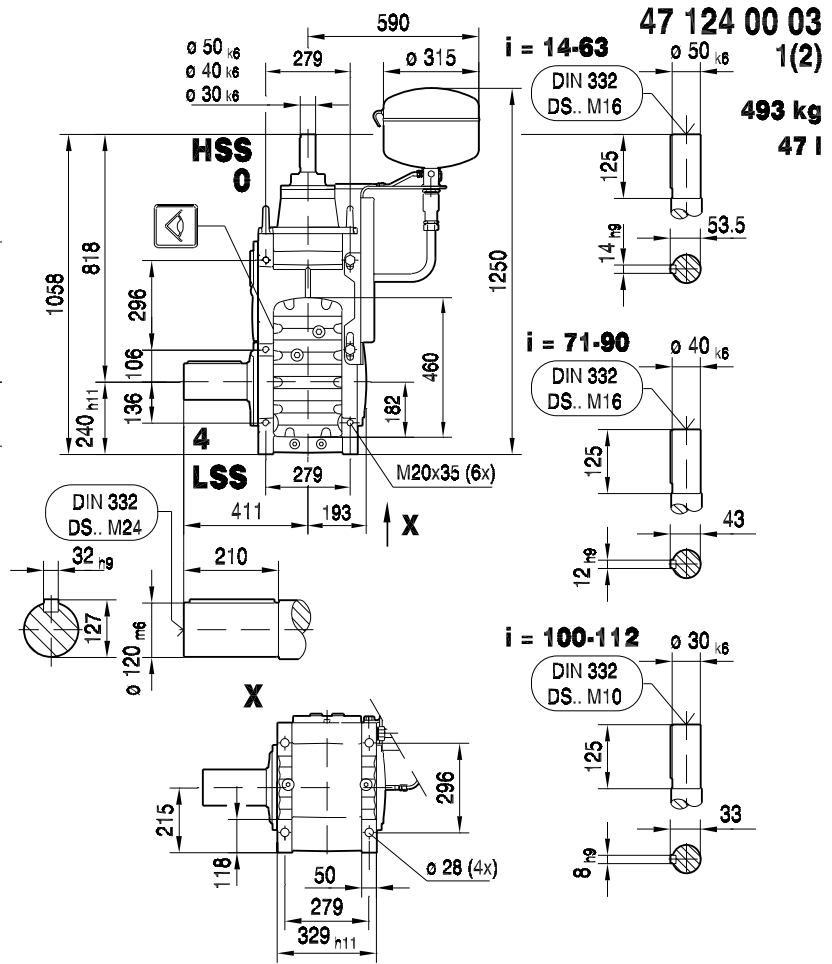
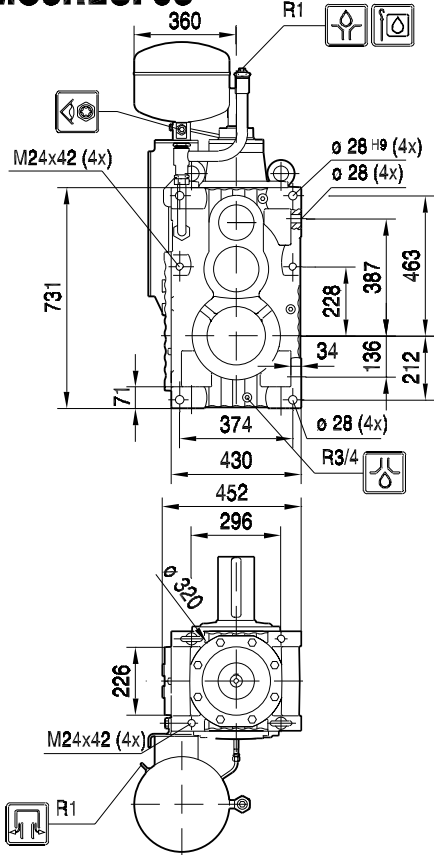
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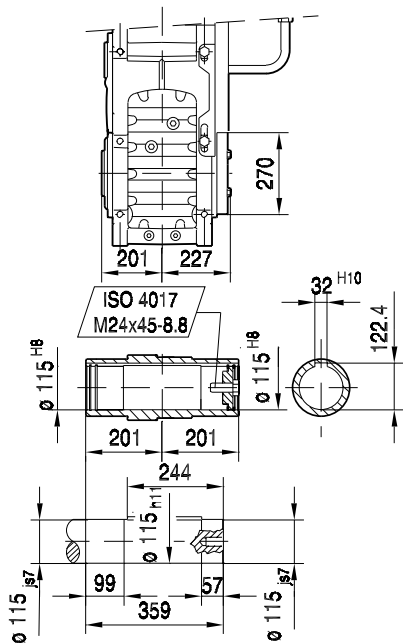


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

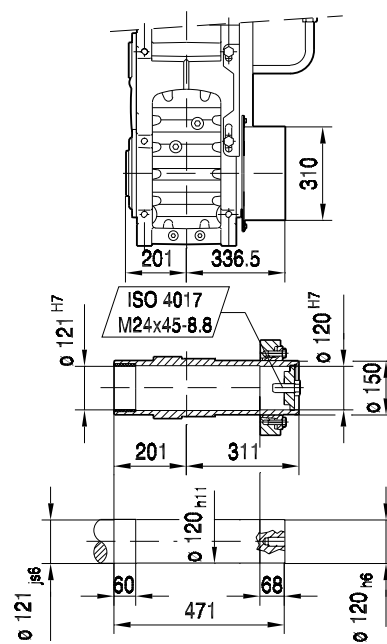
MC3RESF05



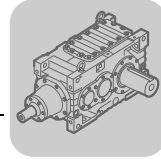
MC3REHF05



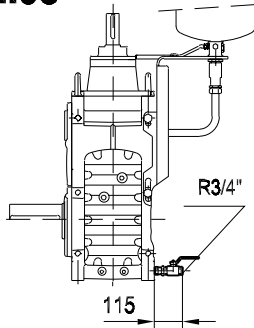
MC3REHF05 /SD



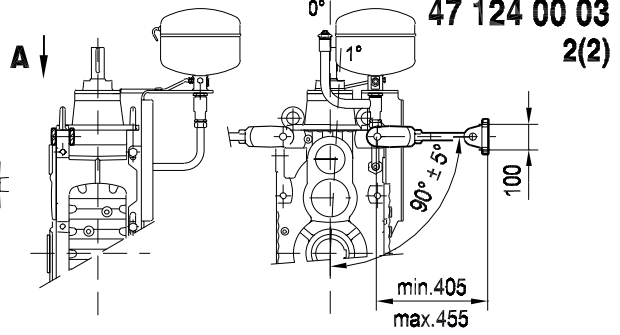
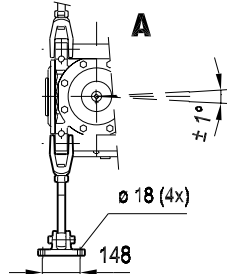
Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..



MC3RE..05
/ODV

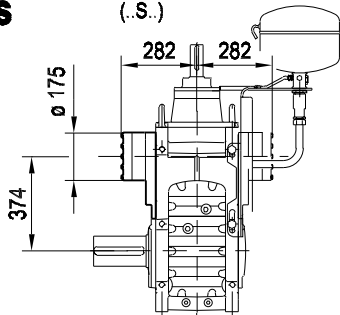


MC3REH T 05

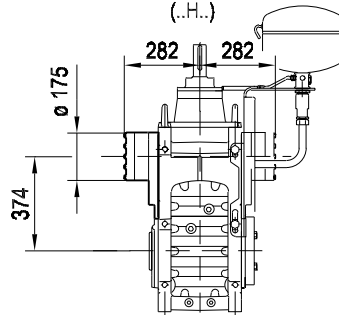


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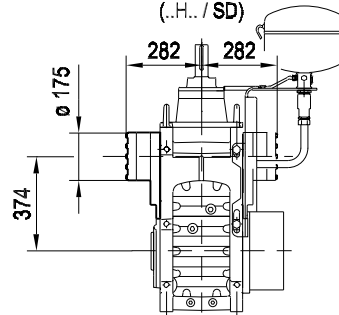
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(.H..)

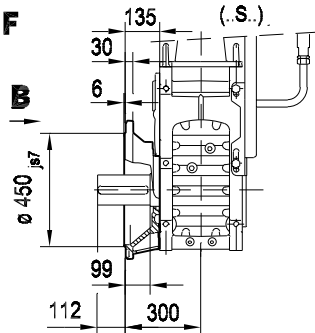


(.H.. / SD)

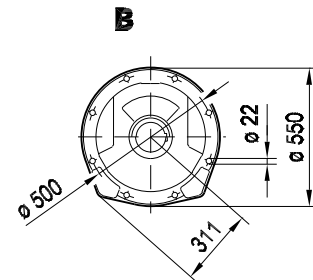
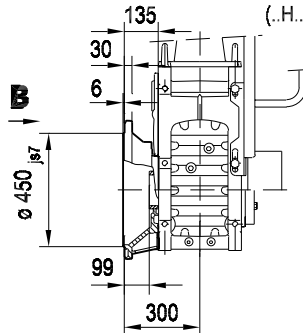


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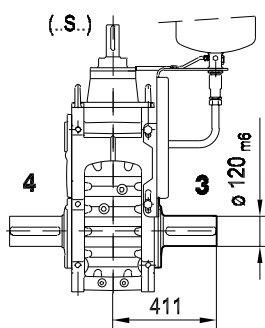


(.H.. / SD)
 (.H..)



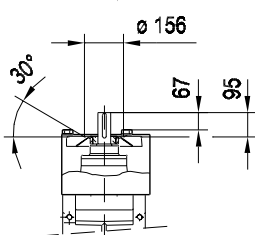
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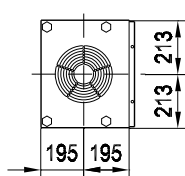


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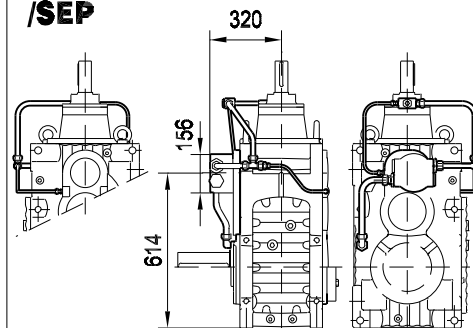
D ↓

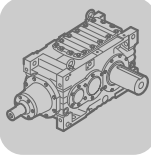


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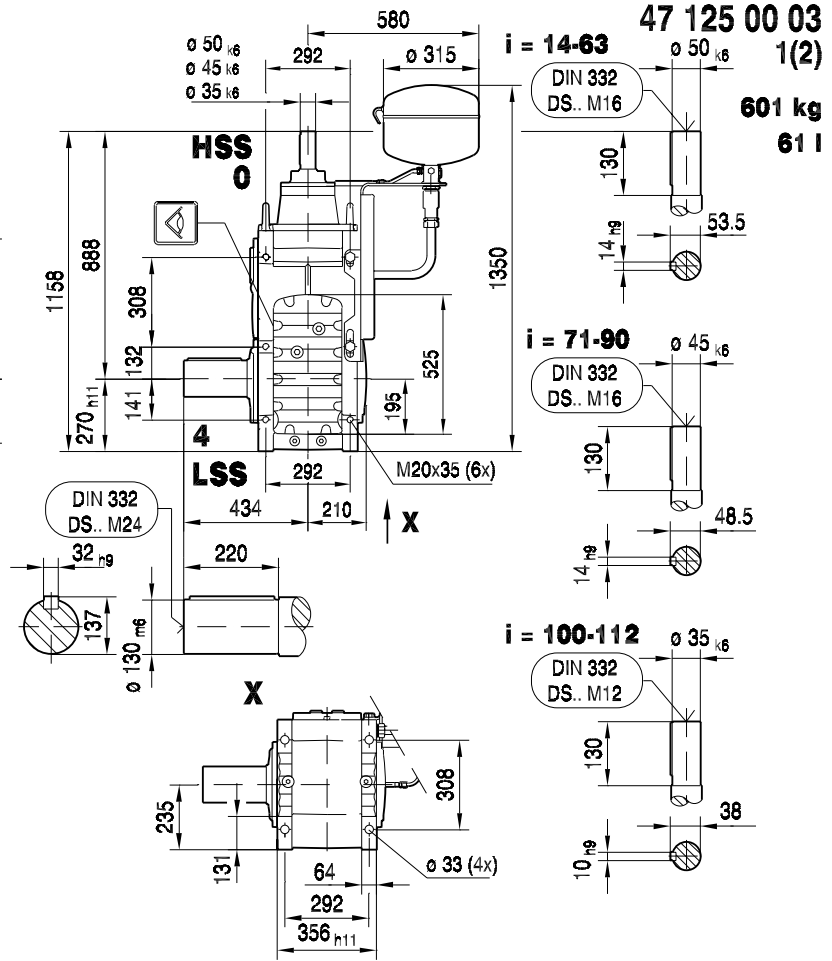
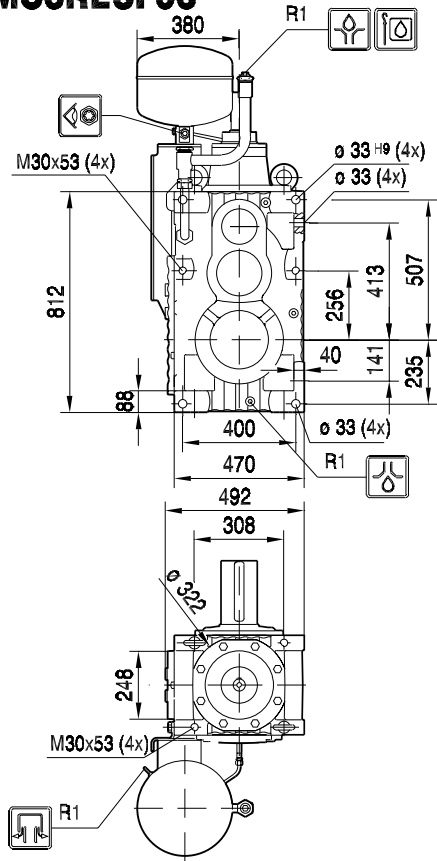
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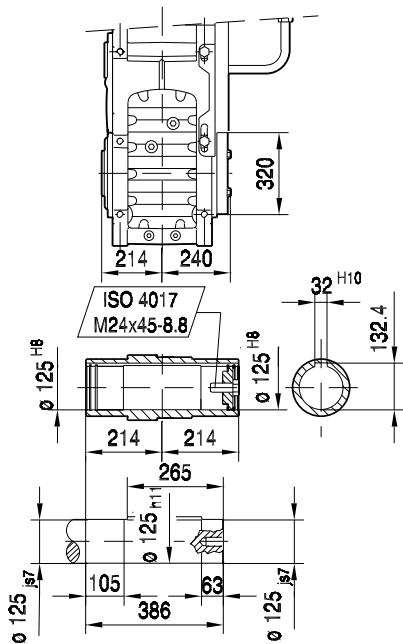


Bevel-Helical Gear Units MC...R
 Selection tables (detailed) MC.RE..

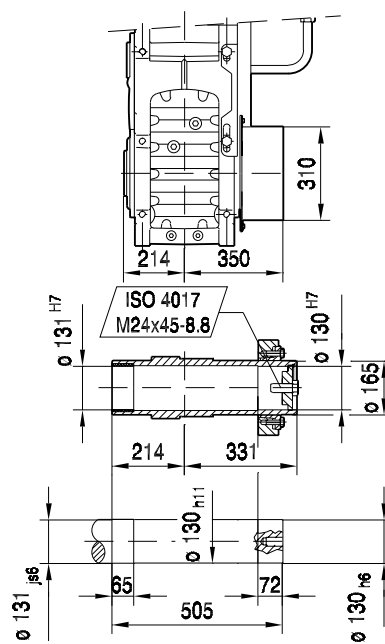
MC3RESF06



MC3REHF06

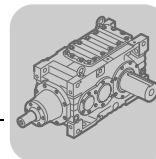


MC3REHF06 /SD

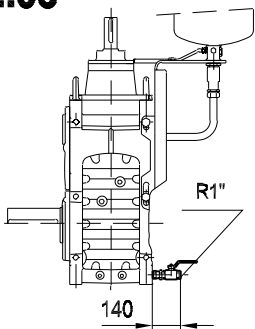


Bevel-Helical Gear Units MC...R

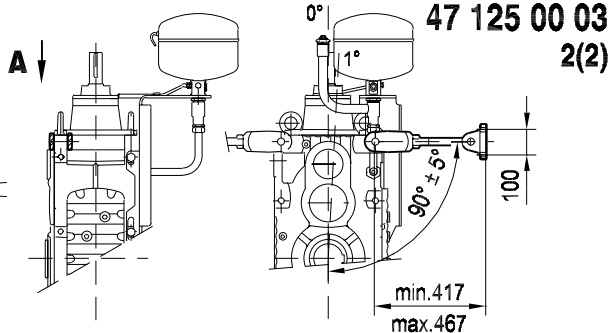
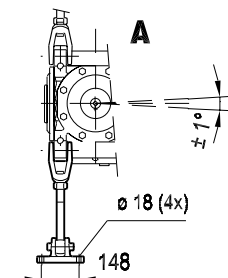
Selection tables (detailed) MC.RE..



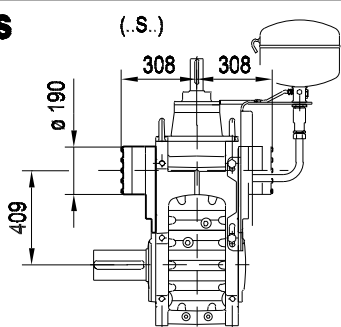
MC3RE..06 /ODV



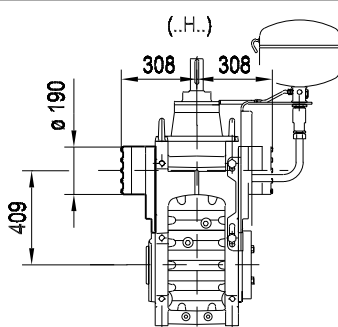
MC3REH T 06



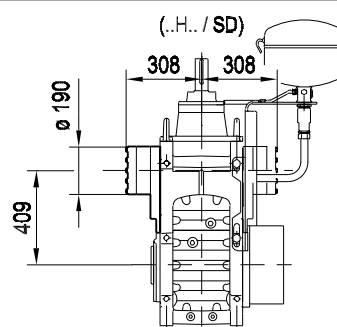
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(.S.)

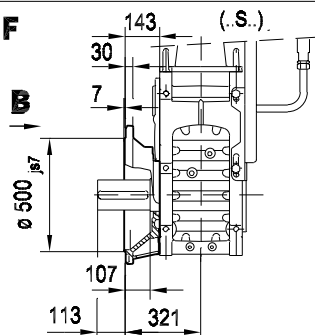


(.H..)

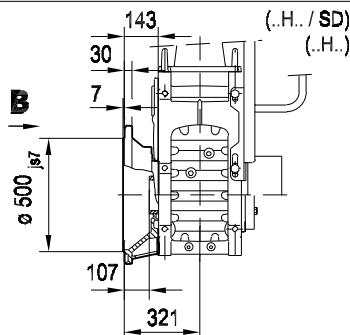


(.H.. / SD)

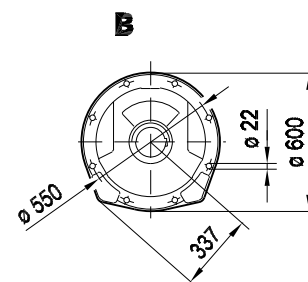
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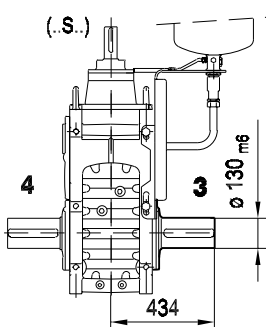
(.S.)



(.H.. / SD)
(.H..)

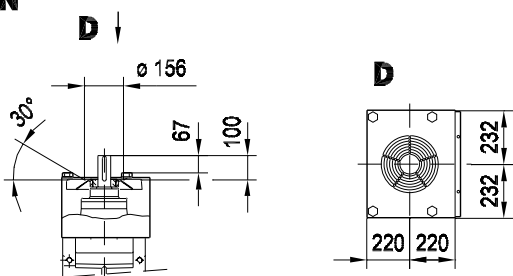


/LSST

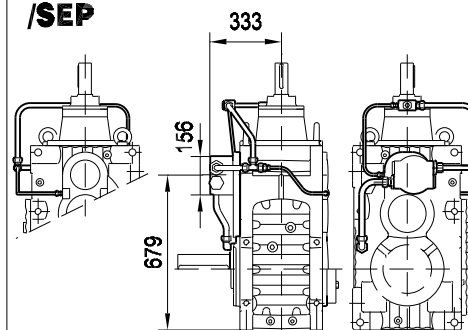


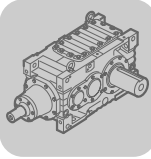
(.S.)

/FAN



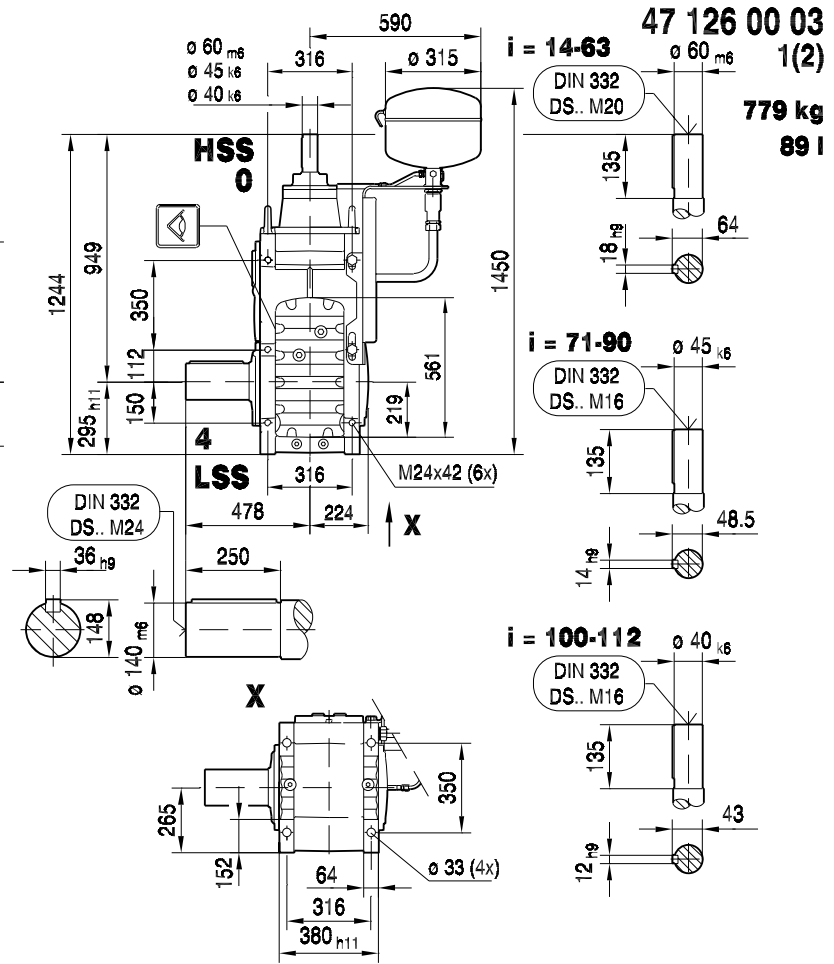
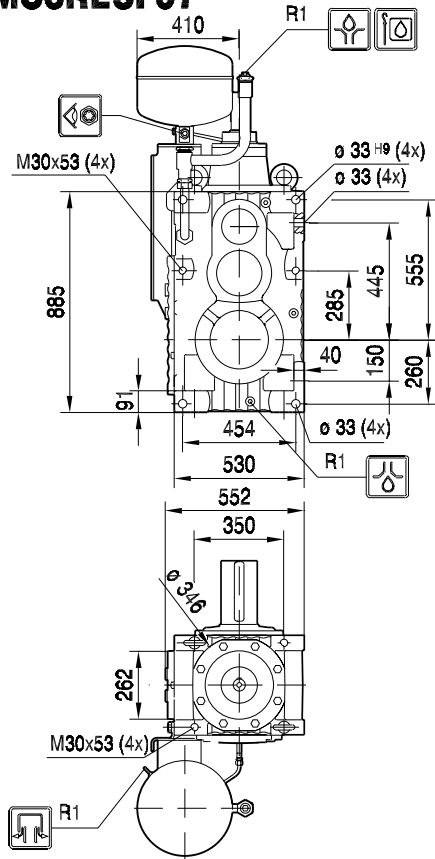
/SEP



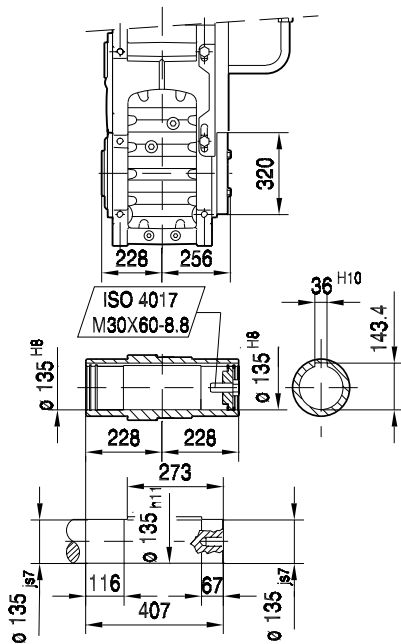


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

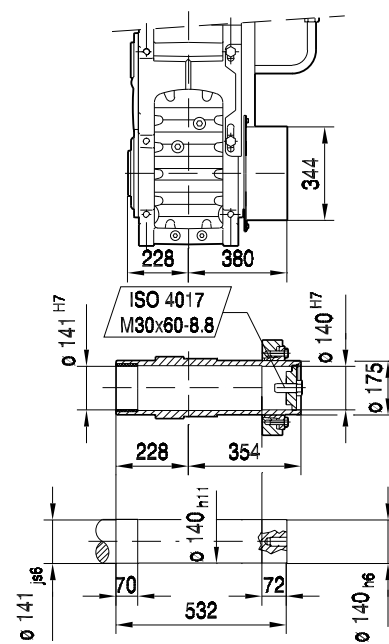
MC3RESF07



MC3REHF07

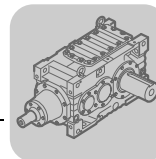


MC3REHF07 /SD

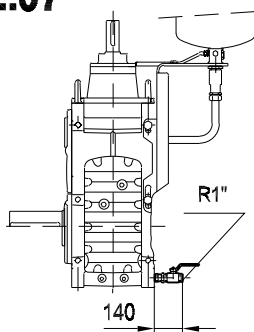


Bevel-Helical Gear Units MC...R

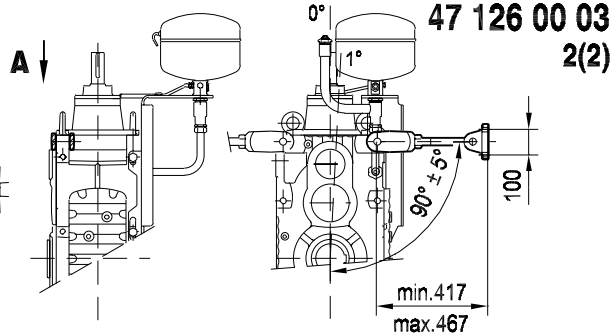
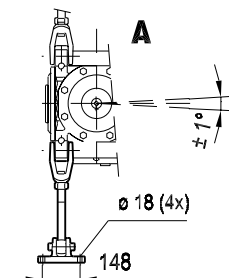
Selection tables (detailed) MC.RE..



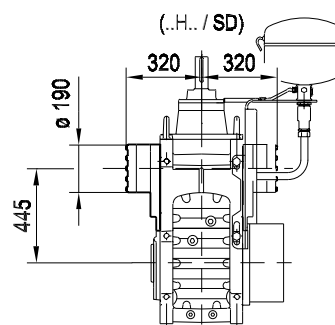
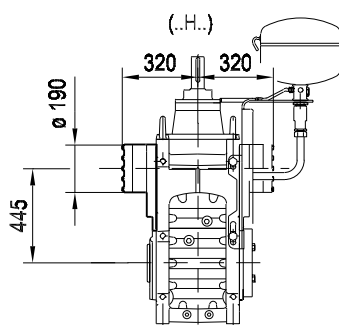
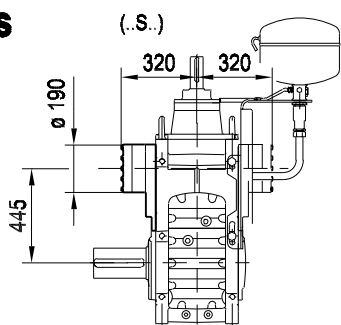
MC3RE..07 /ODV



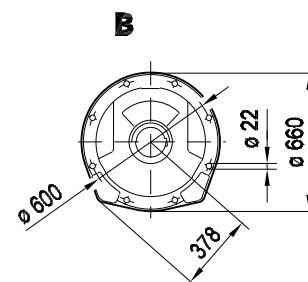
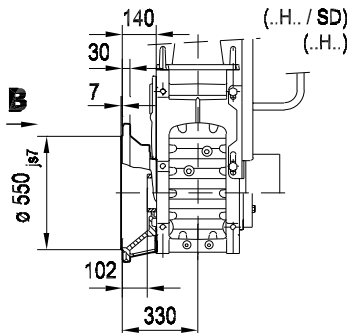
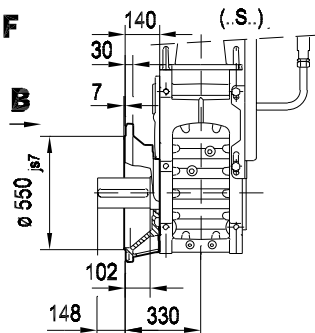
MC3REH T 07



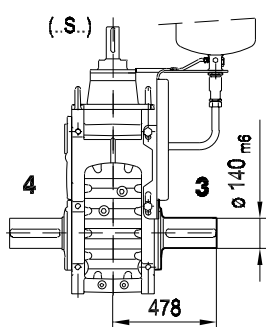
/BS



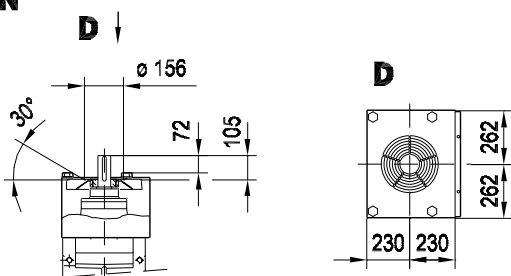
/MF



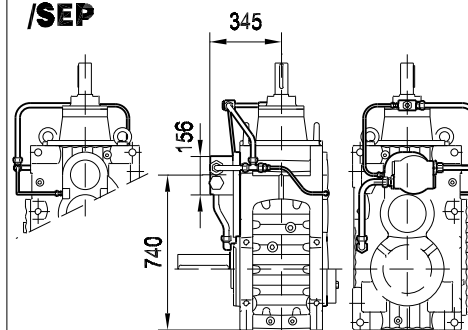
/LSST



/FAN

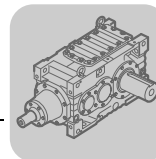


/SEP

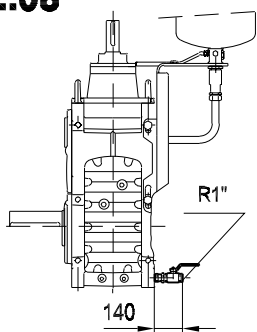


Bevel-Helical Gear Units MC...R

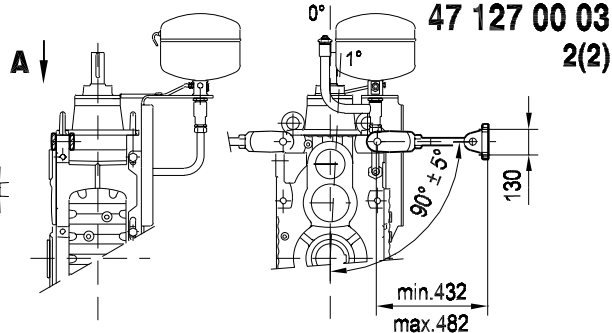
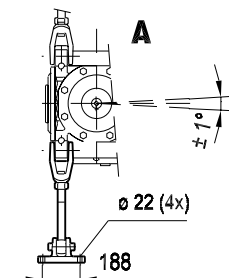
Selection tables (detailed) MC.RE..



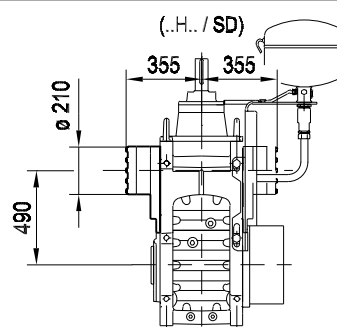
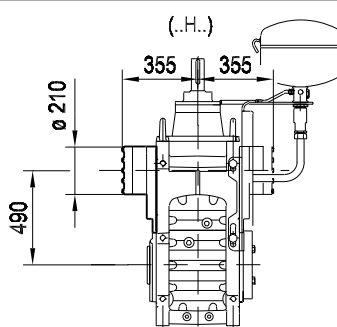
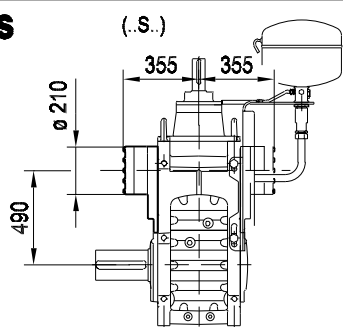
MC3RE..08 /ODV



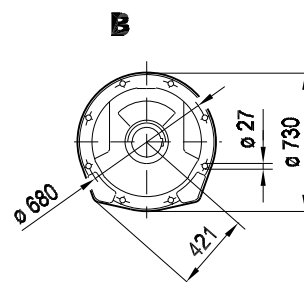
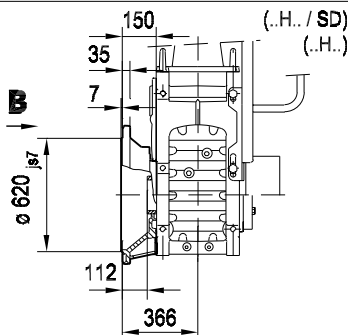
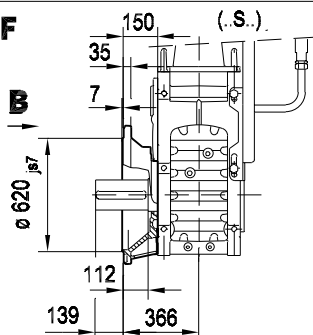
MC3REH T 08



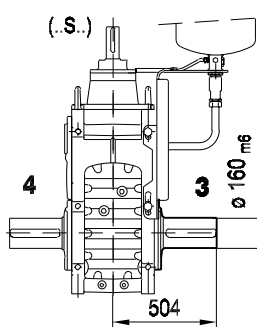
/BS



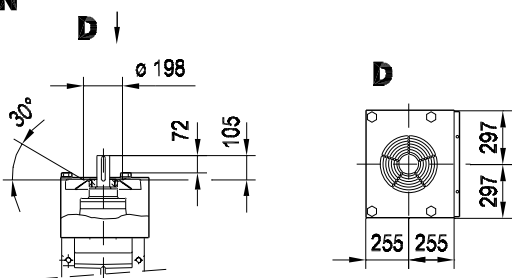
/MF



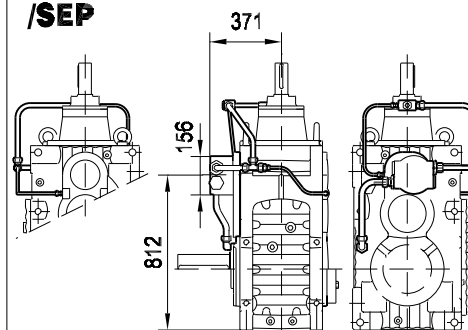
/LSST

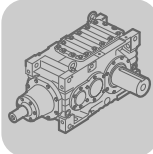


/FAN



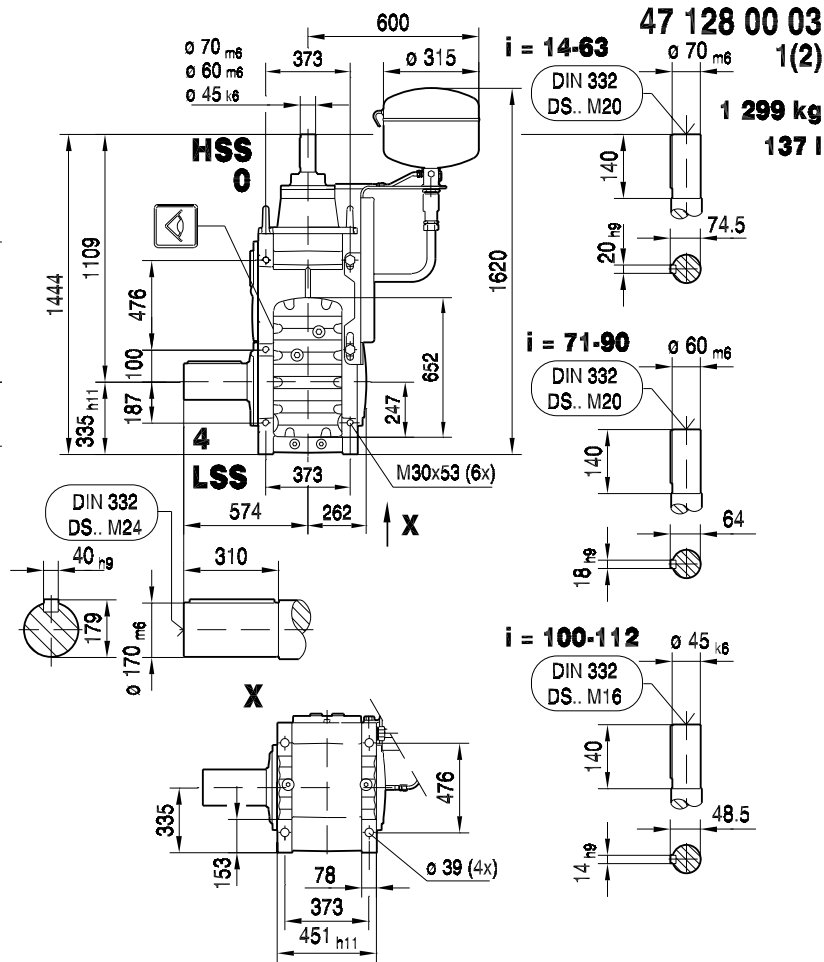
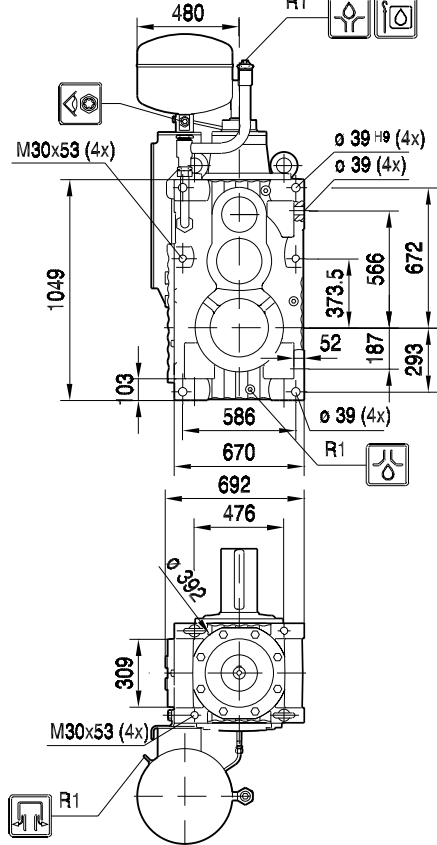
/SEP



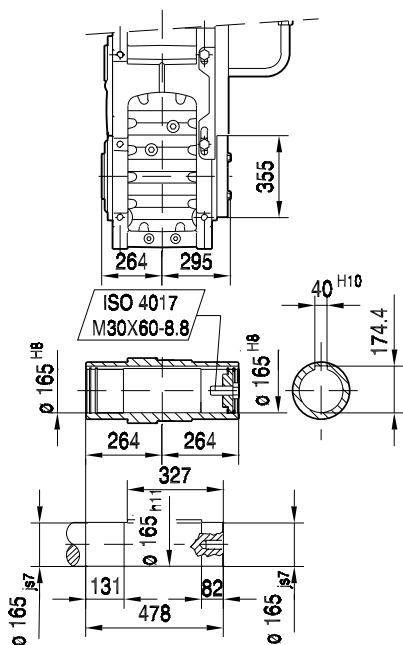


Bevel-Helical Gear Units MC...R
Selection tables (detailed) MC.RE..

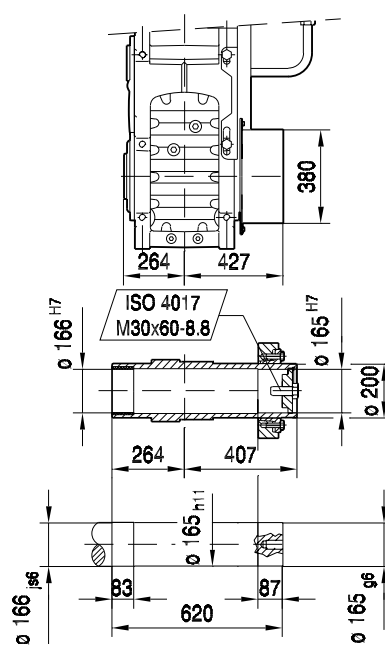
MC3RESF09



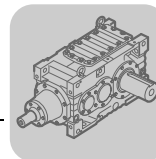
MC3REHF09



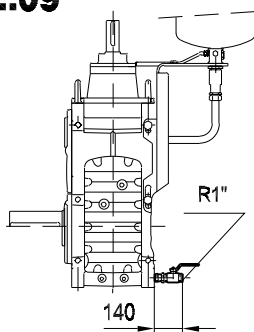
MC3REHF09 /SD



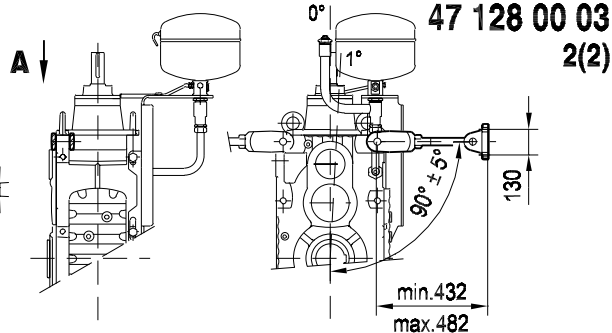
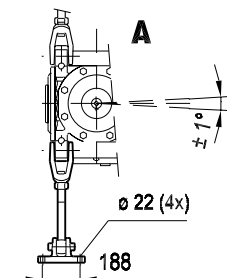
Bevel-Helical Gear Units MC...R Selection tables (detailed) MC.RE..



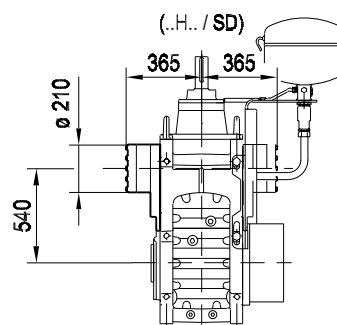
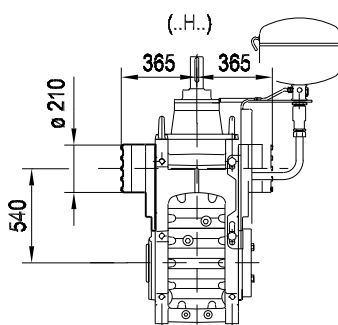
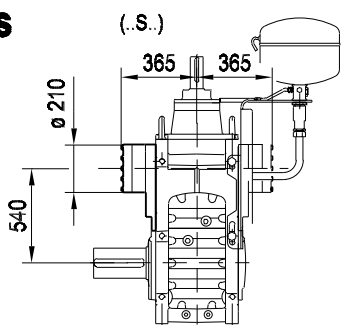
MC3RE..09 /ODV



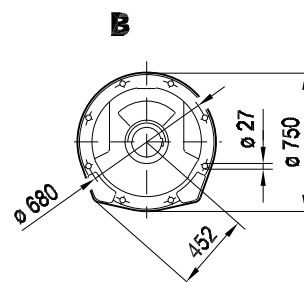
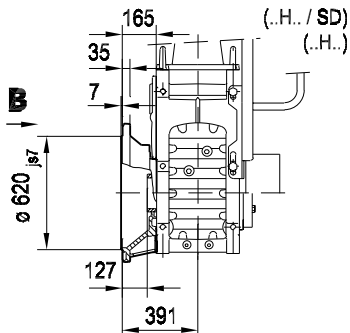
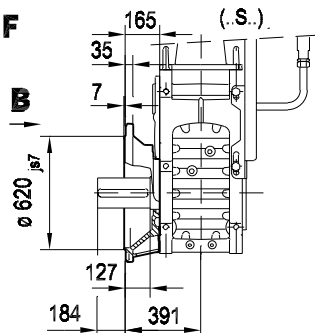
MC3REH T 09



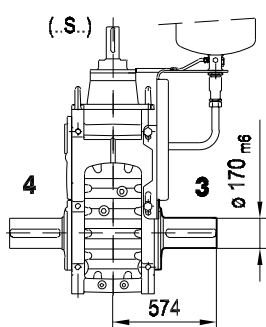
/BS



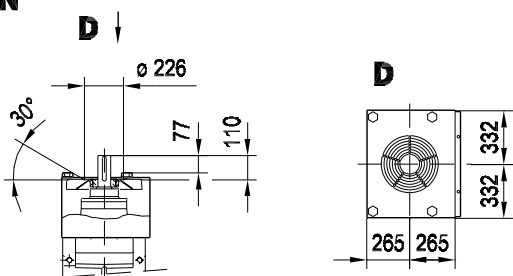
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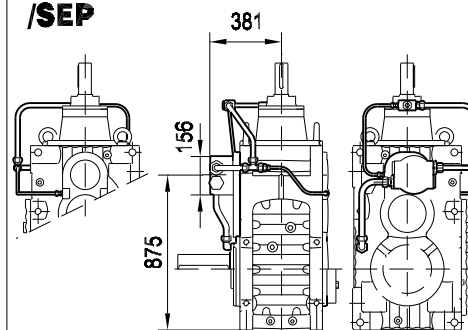
/LSST



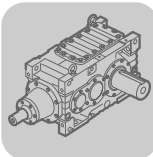
/FAN



/SEP



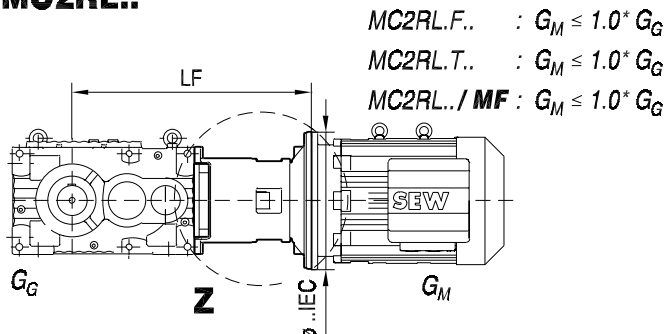
11



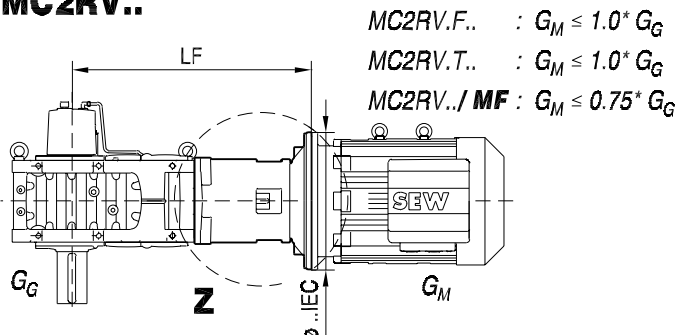
Bevel-Helical Gear Units MC...R
Motor adapter MC.R..

11.5 Motor adapter MC.R..

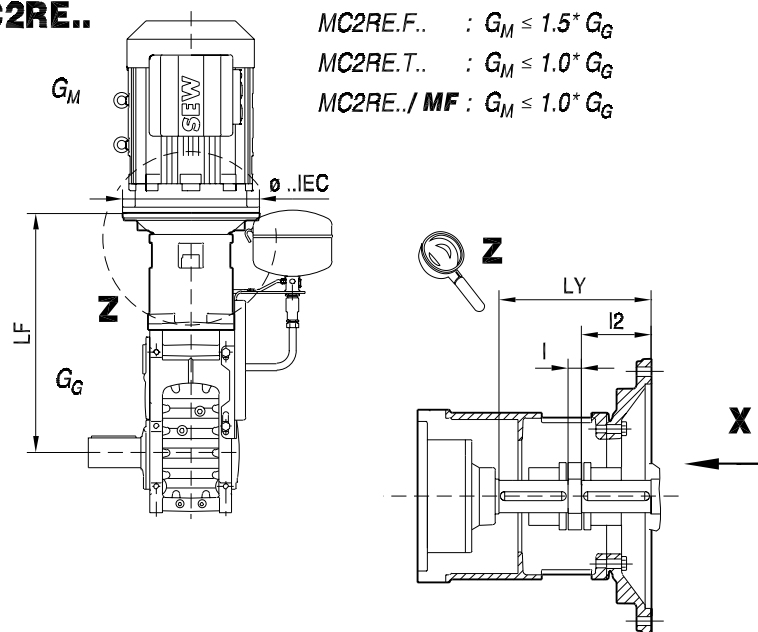
MC2RL..



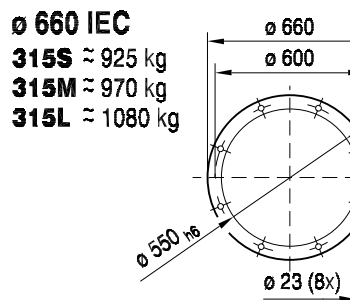
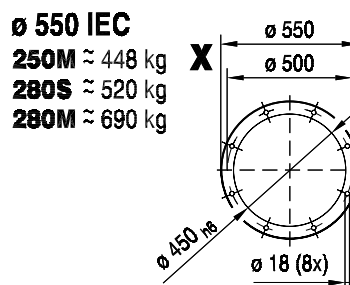
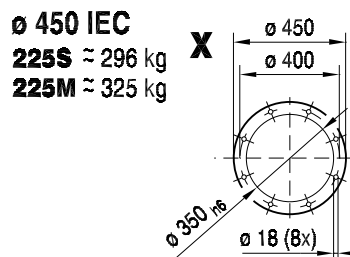
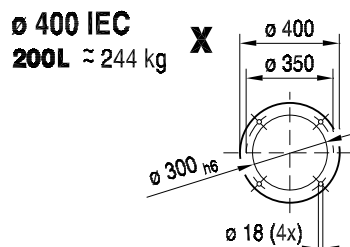
MC2RV..



MC2RE..

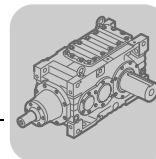


47 159 00 03

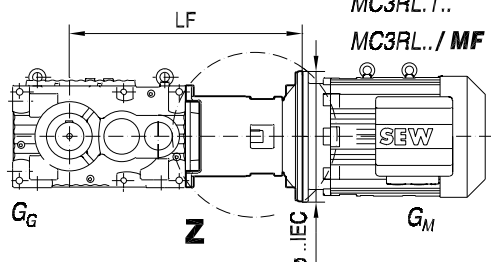


(→ 131)	MC2R..02	MC2R..03	MC2R..04		MC2R..05	MC2R..06	MC2R..07	MC2R..08	MC2R..09
	200L	225S 225M	225M	250M	250M 280S 280M	280S 280M	315S 315M 315L	315M 315L	315L
ø .. IEC	400	450	450	550	550	550	660	660	660
I2	110	140	140	140	140	140	170	170	170
LF	774.5	849.5	900	900	960	1003	1107	1177	1311.5
LY	265.5	300.5	300	300	305	305	355	355	390.5
I	25	25	25	25	25	25	25	25	25

Bevel-Helical Gear Units MC...R Motor adapter MC.R..



MC3RL..

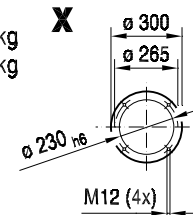


MC3RL.F.. : $G_M \leq 1.0^* G_G$
 MC3RL.T.. : $G_M \leq 1.0^* G_G$
 MC3RL../MF : $G_M \leq 1.0^* G_G$

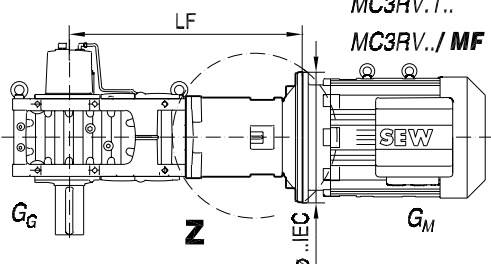
47 160 00 03

ø 300 IEC

132S ≈ 65 kg
 132M ≈ 79 kg



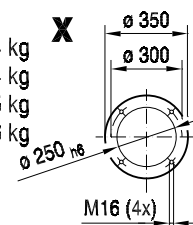
MC3RV..



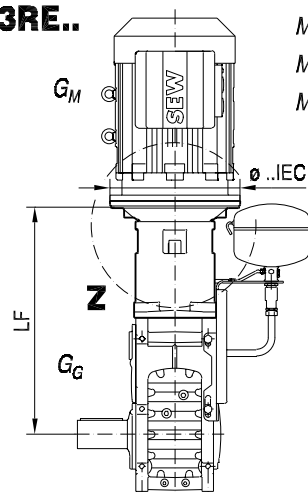
MC3RV.F.. : $G_M \leq 1.0^* G_G$
 MC3RV.T.. : $G_M \leq 1.0^* G_G$
 MC3RV../MF : $G_M \leq 0.75^* G_G$

ø 350 IEC

160M ≈ 84 kg
 160L ≈ 124 kg
 180M ≈ 175 kg
 180L ≈ 186 kg



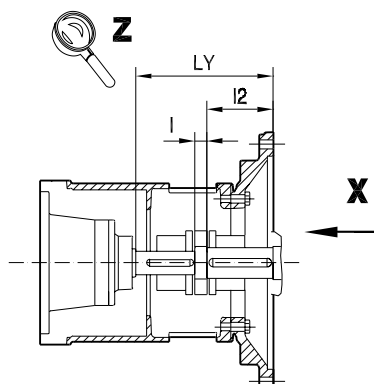
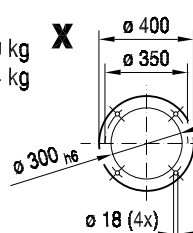
MC3RE..



MC3RE.F.. : $G_M \leq 1.5^* G_G$
 MC3RE.T.. : $G_M \leq 1.0^* G_G$
 MC3RE../MF : $G_M \leq 1.0^* G_G$

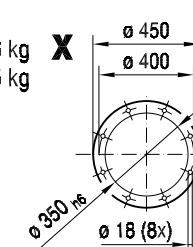
ø 400 IEC

200M ≈ 220 kg
 200L ≈ 244 kg



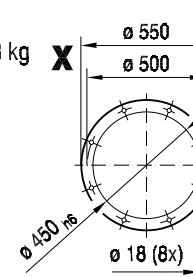
ø 450 IEC

225S ≈ 296 kg
 225M ≈ 325 kg

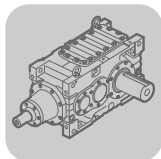


ø 550 IEC

250M ≈ 448 kg

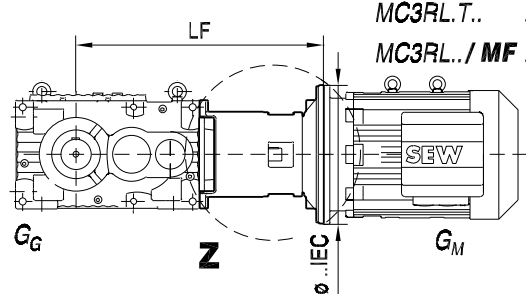


(→ 131)	MC3R..02				MC3R..03					MC3R..04			
	132S 132M	160M 160L 180M 180L	200M 200L	225S	132M	160M 160L 180M 180L	200M 200L	225S 225M	250M	160M 160L 180M 180L	200M 200L	225S 225M	250M
ø .. IEC	300	350	400	450	300	350	400	450	550	350	400	450	550
I2	80	110	110	140	80	110	110	140	140	110	110	140	140
LF	716	768	768	798	779.5	831.5	831.5	861.5	861.5	897	897	927	927
LY	183	235	235	265	195.5	247.5	247.5	277.5	277.5	255	255	285	285
I	3	25	25	25	3	25	25	25	25	25	25	25	25



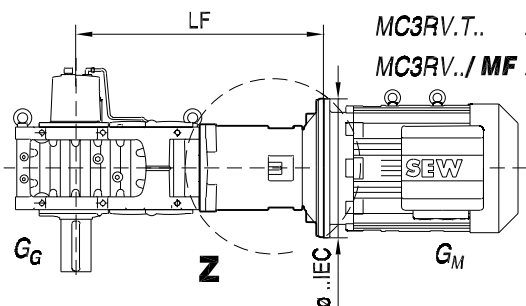
Bevel-Helical Gear Units MC...R
Motor adapter MC.R..

MC3RL..



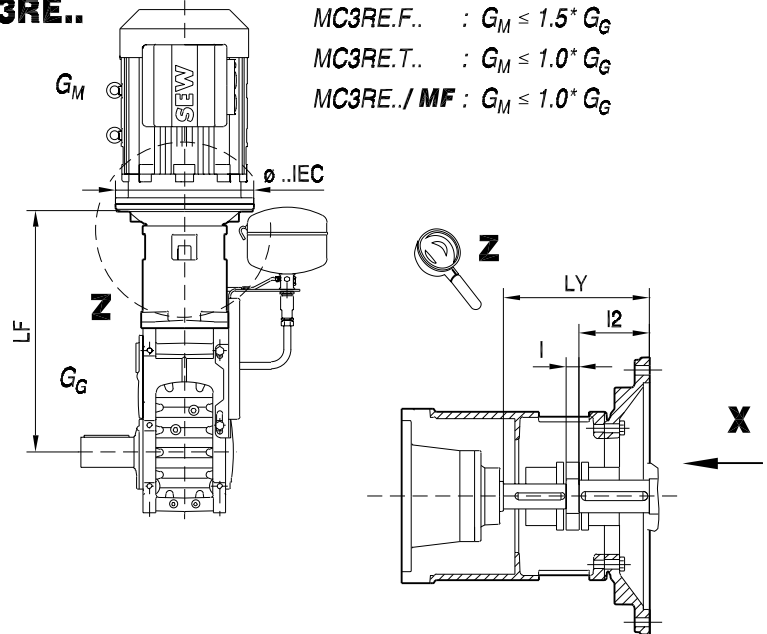
MC3RL.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3RL.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3RL../MF : $G_M \leq 1.0 \cdot G_G$

MC3RV..



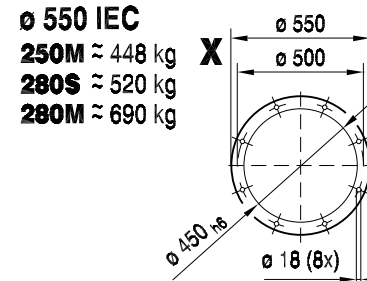
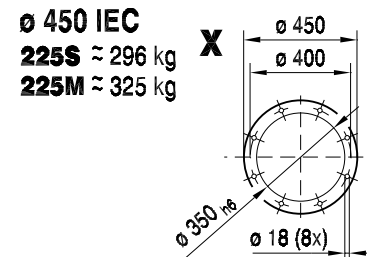
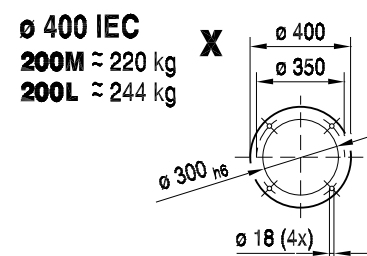
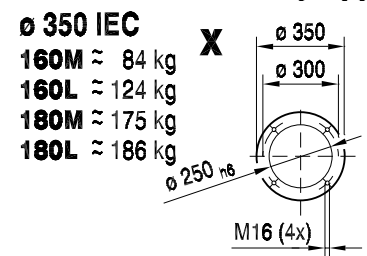
MC3RV.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3RV.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3RV../MF : $G_M \leq 0.75 \cdot G_G$

MC3RE..



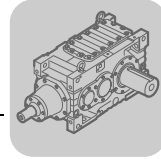
MC3RE.F.. : $G_M \leq 1.5 \cdot G_G$
 MC3RE.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3RE../MF : $G_M \leq 1.0 \cdot G_G$

47 161 00 03

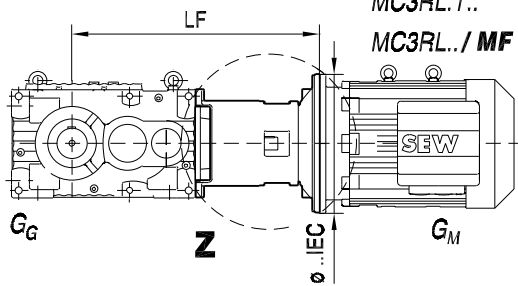


(→ 131)	MC3R..05				MC3R..06			
	160M 160L 180M 180L	200M 200L	225S 225M	250M 280S 280M	180M 180L	200M 200L	225S 225M	250M 280S 280M
ø .. IEC	350	400	450	550	350	400	450	550
I2	110	110	140	140	110	110	140	140
LF	953.5	953.5	983.5	983.5	1023.5	1023.5	1053.5	1053.5
LY	260.5	260.5	290.5	290.5	265.5	265.5	295.5	295.5
I	25	25	25	25	25	25	25	25

Bevel-Helical Gear Units MC...R Motor adapter MC.R..

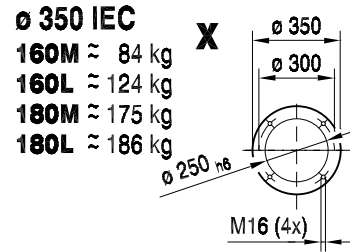


MC3RL..

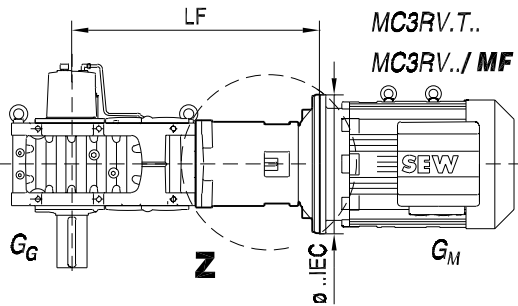


MC3RL.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3RL.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3RL../MF : $G_M \leq 1.0 \cdot G_G$

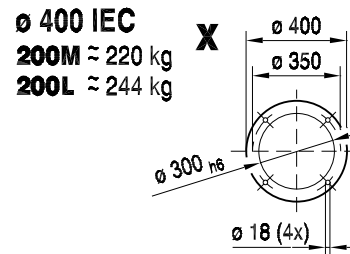
47 162 00 03



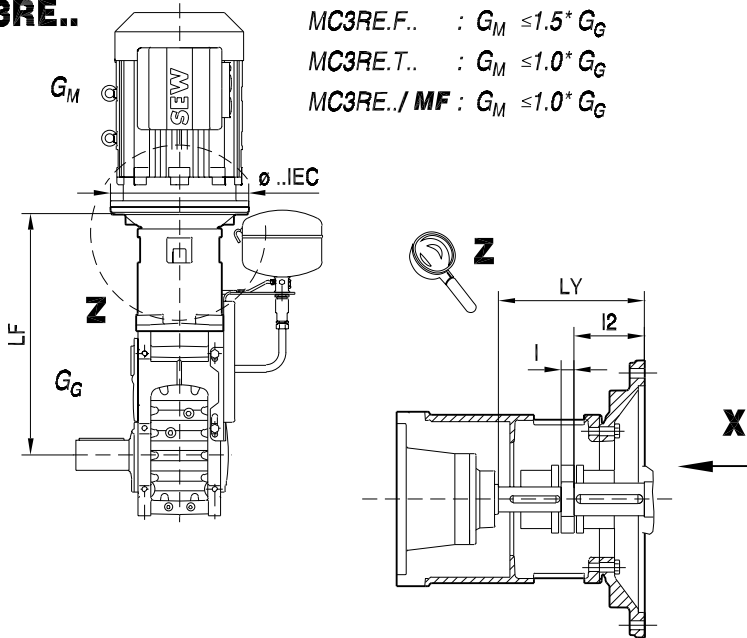
MC3RV..



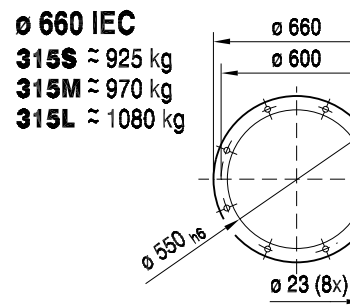
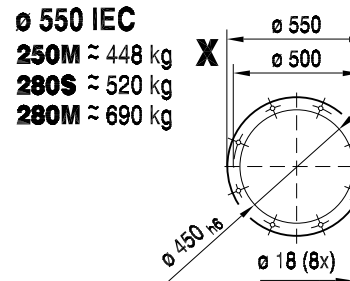
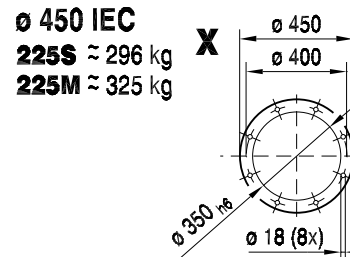
MC3RV.F.. : $G_M \leq 1.0 \cdot G_G$
 MC3RV.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3RV../MF : $G_M \leq 0.75 \cdot G_G$



MC3RE..

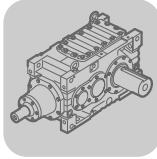


MC3RE.F.. : $G_M \leq 1.5 \cdot G_G$
 MC3RE.T.. : $G_M \leq 1.0 \cdot G_G$
 MC3RE../MF : $G_M \leq 1.0 \cdot G_G$



(→ 131)	MC3R..07					MC3R..08				MC3R..09			
	180L	200M 200L	225S 225M	250M 280S 280M	315S 315M 315L	200M 200L	225S 225M	250M 280S 280M	315S 315M 315L	200M 200L	225S 225M	250M 280S 280M	315S 315M 315L
ø .. IEC	350	400	450	550	660	400	450	550	660	400	450	550	660
I2	110	110	140	140	170	110	140	140	170	110	140	140	170
LF	1084.5	1084.5	1114.5	1114.5	1144.5	1160	1190	1190	1220	1276	1306	1306	1336
LY	270.5	270.5	300.5	300.5	330.5	270	300	300	330	300	337	337	367
I	25	25	25	25	25	25	25	25	25	25	25	25	25

11

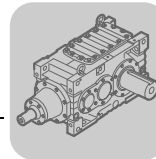


Bevel-Helical Gear Units MC...R
 Selection tables (short form) MC.R..

11.6 Selection tables (short form) MC.R..

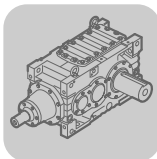
Size MC2R	n ₁ 1/min	Nominal gear unit power P _{N1} in [kW]					
		Nominal Ratio i _N					
		7.1	8	9	10	11.2	12.5
02	1800	144	133	124	107	99.2	93
	1500	127	117	109	94.1	87.3	81.9
	1200	108	100	93.6	78.2	74.7	70.1
	1000	95.5	88.1	82.4	65.5	65.2	61.7
03	1800	177	166	155	128	123	115
	1500	156	146	136	107	108	101
	1200	134	125	117	86	87	86.6
	1000	118	110	103	71.9	72.8	73.8
04	1800	227	212	199	168	158	149
	1500	199	187	175	148	139	131
	1200	171	160	150	125	119	112
	1000	150	141	132	107	103	98.3
05	1800	321	301	283	237	223	211
	1500	282	265	249	209	197	186
	1200	241	226	213	169	168	159
	1000	212	199	188	142	143	140
06	1800	425	393	367	306	284	267
	1500	374	346	323	269	250	235
	1200	320	296	276	229	214	201
	1000	282	260	243	198	187	177
07	1800	515	483	451	375	353	331
	1500	454	425	397	331	311	292
	1200	388	364	340	280	266	249
	1000	342	320	299	242	231	220
08	1800	684	640	595	506	476	444
	1500	602	564	523	446	419	391
	1200	515	482	448	381	359	334
	1000	453	424	394	330	314	294
09	1800	953	879	822	706	654	613
	1500	839	774	723	621	576	540
	1200	718	662	619	531	492	462
	1000	632	583	544	463	433	407

Bevel-Helical Gear Units MC...R Selection tables (short form) MC.R..



Size MC3R	n ₁ 1/min	Nominal gear unit power P _{N1} in [kW]									
		Nominal Ratio i _N									
		14	16	18	20	22.5	25	28	31.5	35.5	40
02	1800	77.4	77.4	76.3	68.2	66.8	55.7	53.8	44.8	36.4	32.8
	1500	68.1	68.1	64	60	56	46.7	45.1	37.6	30.5	27.5
	1200	56.7	56.7	51.5	51.4	45.1	37.6	36.3	30.3	24.6	22.1
	1000	47.4	47.4	43.2	45.2	37.8	31.5	30.3	25.4	20.6	18.5
03	1800	102	102	102	96.7	96.7	80.2	76.4	63.5	60.4	56.7
	1500	85.5	85.5	85.5	85.1	81.2	67.2	63.7	53.2	50.6	47.3
	1200	68.7	68.7	68.7	68.7	65.4	54.1	51	42.9	40.8	37.9
	1000	57.4	57.4	57.4	57.4	54.8	45.4	42.6	36	34.2	31.6
04	1800	117	117	117	117	117	114	106	89.2	75.2	76.4
	1500	103	103	103	103	103	94.9	88.6	74.4	62.9	64
	1200	88.2	88.2	88.2	83.7	83.7	76	71.4	59.6	50.6	51.5
	1000	75.5	75.5	75.5	69.7	69.7	63.4	59.9	49.7	42.4	43.1
05	1800	162	162	162	150	150	150	136	121	107	98.7
	1500	136	136	136	125	125	125	116	101	88.9	82.3
	1200	109	109	109	99.8	99.8	99.8	92.6	81.8	71.1	65.8
	1000	90.8	90.8	90.8	83.2	83.2	83.2	77.2	68.5	59.3	54.8
06	1800	202	202	202	184	184	184	173	159	132	123
	1500	168	168	168	153	153	153	144	133	110	103
	1200	135	135	135	123	123	123	115	107	87.8	82.1
	1000	112	112	112	102	102	102	95.9	89.9	73.2	68.5
07	1800	269	269	269	232	232	232	202	202	172	157
	1500	224	224	224	204	204	204	178	178	143	133
	1200	179	179	179	165	165	165	152	150	115	107
	1000	149	149	149	137	137	137	128	126	95.5	88.8
08	1800	340	340	340	294	294	294	255	255	223	195
	1500	300	300	300	259	259	259	225	225	196	172
	1200	256	256	256	221	221	221	192	187	159	147
	1000	223	223	223	195	195	195	169	157	133	129
09	1800	412	412	412	379	379	379	336	336	288	256
	1500	363	363	363	334	334	334	296	296	253	226
	1200	310	310	310	286	286	286	253	253	212	193
	1000	273	273	273	251	251	251	223	223	177	170

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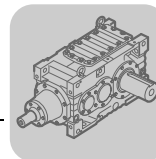


Bevel-Helical Gear Units MC...R
Selection tables (short form) MC.R..

Size MC3R	n ₁ 1/min	Nominal gear unit power P _{N1} in [kW]								
		Nominal Ratio i _N								
		45	50	56	63	71	80	90	100	112
02	1800	33	31.7	26.6	21.6	22.6	19.2	15.6	12.3	12.3
	1500	27.7	26.5	22.3	18.1	18.9	16.1	13.1	10.3	10.3
	1200	22.3	21.2	18	14.6	15.1	13	10.5	8.38	8.37
	1000	18.7	17.7	15.1	12.2	12.6	10.9	8.82	7.07	7.05
03	1800	47.8	38.6	37.7	30.4	30.2	27.7	22.4	18.2	18.2
	1500	40.1	32.4	31.6	25.5	25.2	23.3	18.8	15.3	15.3
	1200	32.3	26.1	25.5	20.6	20.2	18.8	15.1	12.3	12.3
	1000	27.1	21.9	21.4	17.2	16.9	15.7	12.7	10.3	10.4
04	1800	66.8	55.8	49.6	44.5	38.2	36.9	32.7	18.5	18.7
	1500	55.8	46.8	41.5	37.3	31.9	30.8	27.4	15.5	15.7
	1200	44.7	37.7	33.4	30.1	25.6	24.7	22.1	12.6	12.7
	1000	37.3	31.6	28	25.2	21.3	20.5	18.6	10.6	10.7
05	1800	91.2	75.3	70.3	59.3	44.4	44.4	42.9	27.9	28.3
	1500	76.4	63.1	58.8	49.7	37	37	36	23.5	23.8
	1200	61.6	50.9	47.3	40.1	29.6	29.6	29	19	19.3
	1000	51.7	42.6	39.6	33.6	24.6	24.6	24.3	16	16.2
06	1800	119	97	86.2	77.2	62.9	62.9	56	46.4	45.7
	1500	99.7	81.5	72.1	64.9	52.4	52.4	47.1	39	38.4
	1200	80.4	65.9	58	52.5	41.9	41.9	38	31.5	30.9
	1000	67.4	55.4	48.6	44	35	35	31.9	26.4	26
07	1800	157	135	114	108	71.2	71.2	71.2	60.2	60.2
	1500	133	113	95.1	90.3	59.4	59.4	59.4	50.2	50.2
	1200	107	91.3	76.4	72.8	47.5	47.5	47.5	40.2	40.2
	1000	88.8	76.5	63.9	61	39.6	39.6	39.6	33.5	33.5
08	1800	195	173	160	137	104	104	98.6	67.7	68.6
	1500	172	145	138	115	86.7	86.7	82.8	56.9	57.6
	1200	140	117	111	93	69.3	69.3	66.7	46	46.5
	1000	118	98.4	93.2	77.9	57.8	57.8	55.9	38.6	39.1
09	1800	256	243	207	190	149	149	137	73.1	74.1
	1500	226	203	177	159	124	124	115	61.4	62.2
	1200	193	164	142	128	99.3	99.3	91.9	49.6	50.3
	1000	167	137	119	107	82.8	82.8	76.6	41.7	42.2

Bevel-Helical Gear Units MC...R

Selection tables (short form) MC.R..



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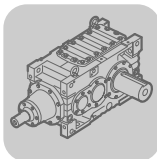
Size MC2R	Exact Ratios i_{ex}					
	Nominal Ratio i_N					
	7.1	8	9	10	11.2	12.5
02	6.961	8.050	9.034	9.605	11.107	12.465
03	7.124	8.036	9.067	10.000	11.281	12.727
04	7.293	8.203	9.170	10.147	11.414	12.759
05	7.096	7.987	8.861	9.873	11.114	12.329
06	6.739	7.798	8.752	9.638	11.152	12.516
07	6.835	7.697	8.646	9.736	10.963	12.315
08	6.946	7.821	8.882	9.736	10.963	12.449
09	6.852	7.924	8.893	9.605	11.107	12.465

Size MC3R	Exact Ratios i_{ex}									
	Nominal Ratio i_N									
	14	16	18	20	22.5	25	28	31.5	35.5	40
02	14.611	16.896	18.962	20.312	23.489	26.361	29.430	33.028	37.384	40.296
03	15.069	16.999	19.179	20.568	23.203	26.178	29.602	33.397	35.077	39.666
04	14.757	16.600	18.555	20.600	23.171	25.901	29.646	33.139	34.627	39.632
05	14.681	16.526	18.333	20.217	22.758	25.246	29.130	32.315	33.829	39.033
06	14.089	16.303	18.297	20.299	23.489	26.361	28.782	32.302	35.533	38.796
07	14.177	15.965	17.933	19.937	22.450	25.218	28.377	31.876	33.791	38.024
08	14.477	16.302	18.512	20.249	22.802	25.892	29.063	33.002	34.901	39.175
09	14.282	16.516	18.536	19.703	22.784	25.570	28.121	31.559	34.467	37.904

Size MC3R	Exact Ratios i_{ex}									
	Nominal Ratio i_N									
	45	50	56	63	71	80	90	100	112	
02	45.224	50.488	56.661	64.135	70.968	79.647	90.152	97.346	110.185	
03	44.751	50.966	57.295	65.252	69.861	78.817	89.764	97.527	111.072	
04	44.302	49.827	55.993	62.976	68.901	77.019	86.625	93.184	104.806	
05	43.301	48.739	55.438	62.400	69.916	77.560	87.300	93.838	105.622	
06	43.540	49.283	55.306	62.600	68.956	77.388	87.595	95.757	108.387	
07	42.712	48.963	53.983	61.883	70.765	79.490	91.123	96.173	110.247	
08	44.485	49.823	56.617	63.411	70.393	79.934	89.526	96.711	108.316	
09	42.539	48.150	54.720	61.937	68.215	76.556	86.653	94.514	106.979	

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11



Bevel-Helical Gear Units MC...R
Selection tables (short form) MC.R..

Size MC2R	Nominal gear unit torque M_{N2} in kNm Calculated with $n_1 = 1000$ 1/min					
	Nominal Ratio i_N					
	7.1	8	9	10	11.2	12.5
02	6.16	6.57	6.89	5.82	6.71	7.12
03	7.76	8.2	8.63	6.66	7.61	8.7
04	10.1	10.7	11.2	10.1	10.9	11.6
05	14	14.7	15.4	13	14.8	16
06	17.6	18.8	19.7	17.7	19.3	20.5
07	21.6	22.8	23.9	21.9	23.5	25
08	29.2	30.7	32.4	29.7	31.9	33.9
09	40.1	42.8	44.9	41.2	44.6	46.9

Size MC3R	Nominal gear unit torque M_{N2} in kNm Calculated with $n_1 = 1000$ 1/min								
	Nominal Ratio i_N								
	14	16	18	20	22.5	25	28	31.5	35.5
02	6.32	7.3	7.47	8.37	8.1	7.58	8.12	7.66	7.03
03	7.9	8.91	10	10.8	11.6	10.8	11.5	11	10.9
04	10.2	11.4	12.8	13.1	14.7	15	16.2	15	13.4
05	12.2	13.7	15.2	15.3	17.3	19.2	20.5	20.2	18.3
06	14.4	16.7	18.7	18.9	21.9	24.5	25.2	26.5	23.7
07	19.3	21.8	24.4	25	28.1	31.6	33.1	36.6	29.4
08	29.5	33.2	37.7	36	40.5	46	44.8	47.3	42.2
09	35.6	41.2	46.2	45.2	52.2	58.6	57.1	64	55.8

Size MC3R	Nominal gear unit torque M_{N2} in kNm Calculated with $n_1 = 1000$ 1/min									
	Nominal Ratio i_N									
	40	45	50	56	63	71	80	90	100	112
02	6.8	7.7	8.14	7.81	7.16	8.16	7.91	7.26	6.27	7.09
03	11.4	11.1	10.2	11.2	10.3	10.7	11.3	10.4	9.19	10.5
04	15.6	15.1	14.4	14.3	14.5	13.4	14.4	14.7	8.97	10.2
05	19.5	20.4	19	20	19.1	15.7	17.4	19.4	13.7	15.6
06	24.2	26.8	24.9	24.5	25.1	22	24.7	25.4	23.1	25.7
07	30.8	34.6	34.2	31.5	34.4	25.5	28.7	32.9	29.4	33.6
08	46.2	47.7	44.7	48.1	45.1	37.1	42.1	45.7	34.1	38.6
09	58.7	64.7	60.2	59.4	60.3	51.5	57.8	60.5	35.9	41.2



12 Abbreviation Key and Index

12.1 Abbreviation Key

α	Application angle of radial load	°
f_1	Altitude factor (= Correction factor for calculating the thermal rating of the gear unit)	-
f_2	Mounting possibility factor (= Correction factor for calculating the thermal rating of the gear unit)	-
F_F	Peak factor	-
f_L	Lubrication factor (= Correction factor for calculating the thermal rating of the gear unit)	-
F_{R1}	Existing radial load on HSS (distance from shaft shoulder has to be specified)	kN
F_{R2}	Existing radial load on LSS (distance from shaft shoulder has to be specified)	kN
F_{Ra}	Permitted radial load in the middle of LSS	kN
F_{Re}	Permitted radial load in the middle of HSS	kN
F_S	Gear unit service factor = $M_{N2} / M_{K2} = P_{N1} / P_{K1}$	-
f_T	Ambient temperature factor (= Correction factor for calculating the thermal rating of the gear unit)	-
η	Efficiency	-
H	Installation altitude above sea level	m
HSS	High speed shaft of the gear unit	-
i	Reduction ratio	-
i_{ex}	Exact gear unit reduction ratio	-
i_N	Nominal gear unit (reduction) ratio	-
IP...	Enclosure of electrical equipment	-
ϑ_{amb}	Ambient temperature	°C
$L_{h min.}$	Minimum required bearing lifetime of the gear unit	h
LSS	Low speed shaft of the gear unit	-
M_{K1}	Input torque (= operating torque on gear unit input)	kNm
$M_{K1 max}$	Peak input torque	kNm
M_{K2}	Output torque (= operating torque on LSS)	kNm
$M_{K2 max}$	Peak output torque	kNm
$M_{K2 zul}$	Permitted peak torque on the gear unit output	kNm
M_M	Nominal motor torque	kNm
M_{N2}	Nominal gear unit torque	kNm
n_1	Input speed (HSS)	1/min
n_2	Output speed (LSS)	1/min
n_M	Motor speed	1/min
P_{K1}	Input power (= operating power on HSS)	kW
$P_{K1 max}$	Peak input power on HSS	kW
$P_{K1 zul}$	Permitted peak power on the gear unit input	kW
P_{K2}	Output power (= operating power on gear unit output)	kW
P_M	Nominal motor power	kW
P_{N1}	Nominal gear unit power	kW
P_T	Thermal rating of the gear unit at existing ambient conditions	kW
P_{TH}	Nominal thermal rating of the gear unit at defined ambient conditions	kW
$P_{TH [20]}$	Nominal thermal rating of the gear unit at 20 °C ambient temperature, no forced cooling	kW
$P_{TH [20]F}$	Nominal thermal rating of the gear unit at 20 °C ambient temperature, 1 fan	kW
$P_{TH [20]FF}$	Nominal thermal rating of the gear unit at 20 °C ambient temperature, 2 fans	kW

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Index

$P_{TH [40]}$	Nominal thermal rating of the gear unit at 40 °C ambient temperature, no forced cooling	kW
$P_{TH [40]F}$	Nominal thermal rating of the gear unit at 40 °C ambient temperature, 1 fan	kW
$P_{TH [40]FF}$	Nominal thermal rating of the gear unit at 40 °C ambient temperature, 2 fans	kW
U_{aux}	Voltage of auxiliary supply	V
U_{mains}	Voltage of mains supply	V
x	Application distance of radial load from shaft shoulder	mm



12.2 Index

B		Oil-water-cooler with motor pump	99
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