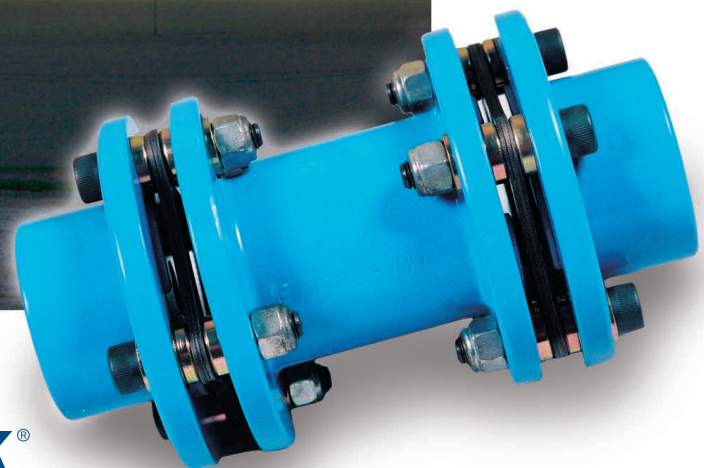


Flexible Couplings Series PWFS



 **Lamiflex**[®]
Couplings

An Altra Industrial Motion Company

Coupling Blades

The Powerflex flexible coupling blades are designed for the reliable transmission of the mechanical force of a driver (turbine, electric motor, etc.) to a driven machine.

Powerflex couplings are especially suitable for applications such as centrifugal pumps, compressors, fans, generators, cooling towers, machine tools, paper machines and printing.

Floppy disks are manufactured with stainless steel as well as excellent corrosion resistance and flexibility to allow accommodate angular misalignment up to $1/2^\circ$, ensuring that the reaction forces in the bearings of equipment are minimized.

The coupling requires no lubrication and is virtually free of periodic maintenance. Properly installed and aligned coupling blades are designed to provide infinite lifetime durability.

The units are flexible self-centering devices requiring no special limitation shaft axial float. The units are provided as a unified set including all blades and attachment parts (bolts, nuts, etc.).

Reducing the number of loose parts and simplifying installation and replacement, Powerflex couplings blades are now available in a much larger range of sizes and styles for most applications. On request some special applications can be designed to meet specific requirements.



Advantages of Powerflex Coupling Blades

- Lubrication free
- High reliability
- Reduced maintenance
- No mechanical wear pieces
- Without looseness?
- Operates at high temperatures
- Flexible units designed for infinite life
- Easy visual inspection
- High level of inherent balancing
- Corrosion protection with phosphate
- High resistance 300 Series flexible units manufactured in stainless steel

Series PWFS

Advantages of Couplings Blades Powerflex

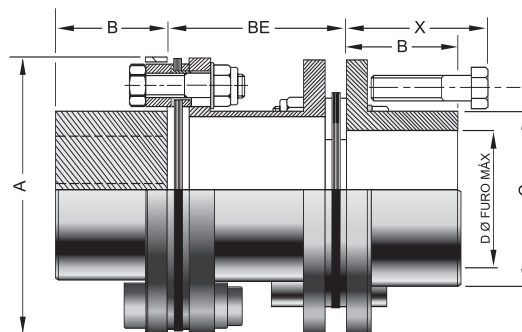
- Low Cost - It's simple construction and efficient use of materials provides competitive prices compared with other types of couplings.
- High absorption capacity of misalignments - limits axial and lateral misalignment expanded simplify installation and alignment.
- Easy to Assemble - no special tools, installation does not require any complex assembly requirements.
- Easy Maintenance - no worn parts, no lubrication, no plastic parts or rubber rings without an o'ring.
- Materials Noble - Blades are made with stainless steel 300, high series resistance and other components in carbon steel with corrosion protective phosphoste.

Presentation of PWFS Couplings

PWFS couplings are designed to meet the demand for flexible blade coupling configurations with more economic advantages of a reduced number of parts, free of grease, consisting of a way to reduce maintenance costs and long service life.

It consists of three main parts: two cubes and a central spacer mounted with 2 Flexible Units can be installed or removed, simplifying maintenance. The Units Flexible blades and fixing screws ensure a good balancing inherent AGMA Class 8 factory default.

The tolerance of the screws and plugs overload ensure superior performance and trouble free operation. The high tolerance to misalignment makes installation simple and less critical alignment. For specifications that require higher speeds or for applications where it is required the full specification of API 610, contact us about other models of our product line.



Dimensional Data

Technical Data

Coupling Size	Rating (HP/1000 RPM)	Rotation Maximum (RPM)	Weight (BE min.) Kg (3)	Weight p/ metro extra Kg.	Time Inertia kg* m2 (3)	Time Inertia kg* m2 (p/ metro extra)	Maximum Axial mm.	Maximum Desal. Parallel (c/ 1/2° ang.) mm. (1)
PWFS-4	4	5000	1.009	4.05	0.00056	0.0014	2	1
PWFS-12	12	5000	2.533	5.715	0.00258	0.0038	3	1
PWFS-28	28	4500	4.582	7.047	0.0068	0.0071	3.5	1
PWFS-40	40	4000	7.764	9.156	0.0167	0.0156	4.5	1
PWFS-110	110	4000	14.278	12.041	0.04845	0.0355	5.5	1
PWFS-230	230	3600	25.275	18.034	0.11413	0.0573	6	1
PWFS-350	350	3600	32.315	15.259	0.188	0.0722	7.5	1
PWFS-540	540	3600	25.063	13.515	0.13087	0.0635	3	1
PWFS-750	750	3600	37.827	17.479	0.18034	0.1085	3.5	1.5
PWFS-1000	1000	3600	48.53	21.578	0.4034	0.294	4	1.5
PWFS-1500	1500	3600	64.9	30.537	0.62867	0.2774	5	1.5
PWFS-2000	2000	3600	50.883	37.51	0.4	0.2686	2.5	1.5
PWFS-2500	2500	2000	64.415	44.884	0.6128	0.3728	3	1.5
PWFS-4000	4000	2000	104.316	61.684	1.34768	0.7316	4	1.5
PWFS-5500	5500	2000	148.131	70.476	2.44876	1.0903	4.5	1.5
PWFS-8000	8000	1800	214.3	94.946	4.44338	1.7997	4.5	1.5
PWFS-12000	12000	1800	319.327	148.536	8.611	3.745	5.5	1.5
PWFS-16000	16000	1500	415.748	183.191	13.78672	5.4881	6.5	2
PWFS-20000	20000	1500	520.203	224.321	19.80726	8.0877	7	2
PWFS-30000	30000	1200	831.5	229.845	46.24689	12.5011	8.5	2

Notes:

1. Maximum Angular misalignment: 1/2o per unit flexible.
2. Maximum Hole D based on standard rectangular braces DIN / BS.
3. Weight and inertia couplings with bore Maximus
Cubes - Standard and BE minimum.

Remarks:

- Flexible Unit includes: 1 unit of blades and parts fixation (screws, bolts and dowels).
- All couplings are supplied with pilot bore. for holes and finished keyway consult factory.
- Proper installation and alignment of couplings are essential for a reliable performance of the machines.
- In assembly it's recommended values initial alignment does not exceed 10% of the maximum values of the table above.

Data Dimensions (in mm)

Coupling Size	A	B	C	D-furo Maximum (2)	X	BE Minimum	BE-Standard			
PWFS-4	74	30	40	30	40	40	100 (3.5 pol.)	140 (5 pol.)	-	-
PWFS-12	97	37	55	40	62	56	100 (3.5 pol.)	140 (5 pol.)	-	-
PWFS-28	117	48	67	50	76	70	100 (3.5 pol.)	140 (5 pol.)	-	-
PWFS-40	144	55	85	57	82	76	100 (3.5 pol.)	140 (5 pol.)	180 (7 pol.)	-
PWFS-110	175	75	110	76	98	88	100 (3.5 pol.)	140 (5 pol.)	180 (7 pol.)	250 (10 pol.)
PWFS-230	204	90	125	90	123	100	100	140 (5 pol.)	180 (7 pol.)	250 (10 pol.)
PWFS-350	228	95	146	100	124	100	100	140 (5 pol.)	180 (7 pol.)	250 (10 pol.)
PWFS-540	222	97	140	102	-	122	-	140 (5 pol.)	180 (7 pol.)	250 (10 pol.)
PWFS-750	248	108	160	116	-	138	-	140	180 (7 pol.)	250 (10 pol.)
PWFS-1000	272	117	178	130	-	151	-	-	180 (7 pol.)	250 (10 pol.)
PWFS-1500	297	132	196	138	-	158	-	-	180 (7 pol.)	250 (10 pol.)
PWFS-2000	266	127	177	127	-	129	-	140	180 (7 pol.)	250 (10 pol.)
PWFS-2500	292	138	190	139	-	139	-	140	180 (7 pol.)	250 (10 pol.)
PWFS-4000	341	165	227	163	-	155	-	-	180 (7 pol.)	250 (10 pol.)
PWFS-5500	384	188	260	186	-	170	-	-	180 (7 pol.)	250 (10 pol.)
PWFS-8000	429	207	288	208	-	197	-	-	-	250 (10 pol.)
PWFS-12000	486	242	335	242	-	218	-	-	-	250 (10 pol.)
PWFS-16000	535	263	366	263	-	238	-	-	-	250 (10 pol.)
PWFS-20000	571	290	402	288	-	248	-	-	-	250 (10 pol.)
PWFS-30000	683	349	486	349	-	276	-	-	-	300

Selection Procedure

- Determine the service factor suitable for the application.
- Determine the rating HP/1000 rpm using the formula: Power = Hp/1000rpm HP x Service Factor x 1000 RPM
- Select Data Table if the Technical coupling has a rating equal to or greater than that calculated above.
- Check if the maximum bore of the coupling chosen is equal to or greater than the diameters of the axles of the equipment. Otherwise, choose a larger size coupling.
- Check the total length and outer diameter of the coupling and ensure that it will not interfere with the protective pipes and other equipment rentals.
- Check the capabilities of rotations and balancing specific needs.
- Specify the distances between axles (BE), choose a standard stock spacer if possible.

Table Factors Service

Application	Suggested Factor & Repair
Agitators	1.3
Centrifugal Pumps	1.0
Fuso Pumps, Lobe	1.5
Reciprocating Pumps	2.0
Centrifugal Blowers	1.0
Blowers and lobes	1.5
Compressores Centrifugos	1.0
Reciprocating Compressors	2.0
Screw Compressors	1.5
Centrifugal Fans	1.0
Fans for Cooling Towers	1.5
Generators	1.0
Calenders and Roll Press	2.0
Drying Cylinders	1.75
Rebobinadeiras- Rewinders	2.0
Light carriers	1.5
Heavy Transporters	1.75

Electromagnetic Clutches and Brakes**Warner Electric**

Electromagnetic Clutches and Brakes

New Hartford, CT - USA
1-800-825-6544

For application assistance:
1-800-825-9050

St Barthelemy d'Anjou, France
+33 (0) 2 41 21 24 24

Precision Electric Coils and Electromagnetic Clutches and Brakes

Columbia City, IN - USA
1-260-244-6183

Matrix International

Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes

Brechin, Scotland
+44 (0) 1356 602000

New Hartford, CT - USA
1-800-825-6544

Inertia Dynamics

Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes

New Hartford, CT - USA
1-800-800-6445

Linear Products**Warner Linear**

Linear Actuators

Belvidere, IL - USA
1-800-825-6544

For application assistance:
1-800-825-9050

St Barthelemy d'Anjou, France
+33 (0) 2 41 21 24 24

Couplings**Ameridrives Couplings**

Mill Spindles, Ameriflex, Ameridisc

Erie, PA - USA
1-814-480-5000

Gear Couplings

San Marcos, TX - USA
1-800-458-0887

Bibby Turboflex

Disc, Gear, Grid Couplings, Overload Clutches

Dewsbury, England
+44 (0) 1924 460801

Boksburg, South Africa
+27 11 918 4270

TB Wood's

Elastomeric Couplings

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

General Purpose Disc Couplings

San Marcos, TX - USA
1-888-449-9439

Ameridrives Power Transmission

Universal Joints, Drive Shafts, Mill Gear Couplings

Green Bay, WI - USA
1-920-593-2444

Huco Dynatork

Precision Couplings and Air Motors

Hertford, England
+44 (0) 1992 501900

Chambersburg, PA - USA
1-888-829-6637

Lamiflex Couplings

Flexible Couplings, Bearing Isolators, and Coupling Guards

São Paulo, SP - Brasil
(11) 5679-6533

Heavy Duty Clutches and Brakes**Wichita Clutch**

Pneumatic Clutches and Brakes

Wichita Falls, TX - USA
1-800-964-3262

Bedford, England
+44 (0) 1234 350311

Twiflex Limited

Caliper Brakes and Thrusters

Twickenham, England
+44 (0) 20 8894 1161

Industrial Clutch

Pneumatic and Oil Immersed Clutches and Brakes

Waukesha, WI - USA
1-262-547-3357

Gearing**Boston Gear**

Enclosed and Open Gearing, Electrical and Mechanical P.T. Components

Charlotte, NC - USA
1-800-825-6544

For application assistance:
1-800-816-5608

Bauer Gear Motor

Gearred Motors

Esslingen, Germany
+49 (711) 3518 0

Somerset, NJ - USA
1-732-469-8770

Nuttall Gear and Delroyd Worm Gear

Worm Gear and Helical Speed Reducers

Niagara Falls, NY - USA
1-716-298-4100

Overrunning Clutches**Formsprag Clutch**

Overrunning Clutches and Holdbacks

Warren, MI - USA
1-800-348-0881 – Press #1

For application assistance:
1-800-348-0881 – Press #2

Marland Clutch

Roller Ramp and Sprag Type Overrunning Clutches and Backstops

South Beloit, IL - USA
1-800-216-3515

Stieber Clutch

Overrunning Clutches and Holdbacks

Heidelberg, Germany
+49 (0) 6221 30 47 0

Belted Drives and Sheaves**TB Wood's**

Belted Drives

Chambersburg, PA - USA
1-888-829-6637 – Press #5

For application assistance:
1-888-829-6637 – Press #7

Engineered Bearing Assemblies**Kilian Manufacturing**

Engineered Bearing Assemblies

Syracuse, NY - USA
1-315-432-0700

For information concerning our sales offices in Asia Pacific check our website
www.altramotion.com.cn



www.lamiflexcouplings.com

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