

# Wind power drives

**JAURE®**



**EMERSON™**  
Industrial Automation





## **MOVING YOUR BUSINESS FORWARD**

JAURE is leading the Wind Turbine coupling sector by experience, manufacturing program, close cooperation and testing with Windmill manufacturers. We make customized windmill couplings since the early beginning of the Wind Turbine business development in Europe. Now, with more than 20 years of experience, we remain fully committed to the Wind Industry as a special business area in our company.









Latest generation coupling solutions for the Wind Industry. Highly reliable couplings that respond to the most demanding requirements during the entire lifetime of Wind Turbines, lowering its total COE. Jaure offers the widest range of solutions and technologies available in the market.

**COMPOLINK®** Composite Link coupling for high misalignment and long service life.

**LAMIDISC®** Non lubricated torsionally stiff all-steel disc pack coupling.

**IXILFLEX®** Bidirectional rubber link coupling for high misalignment.

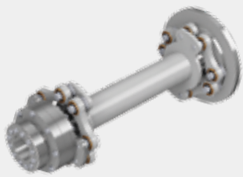
**JFTL** Torque limiters to protect the drive train from peak torques.

**MT** Very compact gear couplings for Wind Turbine applications.

Windmill couplings typically include all components at the HSS such as torque limiters (JFTL), brake disc, spacers (electrically insulating available), and different types of connections to the shafts, offering a complete package to fit each specific Windturbine.

Our program includes torsionally flexible and torsionally rigid couplings, covering the whole range of power from 300 Kw up to 7 Mw (and beyond) at all speeds (HS, MS and LS).

# Ixilflex



## **JAURE® RUBBER LINK-TYPE COUPLING**

Bidirectional Ixilflex® for high misalignment.

The IXILFLEX® link type coupling absorbs the misalignment through bushes that are linked to alternate flanges. Those bushes are made through the vulcanisation of rubber to metal parts under high precompression. IXILFLEX® bidirectional couplings offer high misalignment capacity with very low restoring forces. Rubber elements

can be inspected visually and they allow an easy replacement of the flexible elements if necessary.

Thousands of IXILFLEX® couplings have been installed in different Wind Turbines in the 300KW-3MW range with great success and keep running smoothly after many years of service.



# JFTL



## **JAURE® FRICTION TORQUE LIMITERS**

JFTL Torque Limiters for Drive Train Protection.

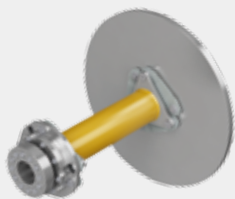
Protection of the complete drive train from the peak loads coming from the generator have been a requirement for most of the mainstream Wind turbines in the market during the last decade. This has been typically done through the integration of a Torque Limiter into the HSS coupling.

JAURE developed the JFTL Torque Limiter in order to guarantee the high accuracy and reliability required for a torque limiter by modern wind turbines.





# Compolink



## **JAURE® COMPOSITE COUPLING**

Highly flexible and corrosion free Compolink®.

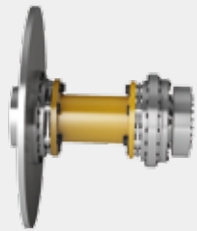


The composite link coupling developed by JAURE, is the result of combining the best features found in steel disc and elastomeric couplings. This coupling was specially designed for Modern Wind Turbine applications and is the result of the extensive knowledge and experience of Jaure with Composite materials. High misalignment capacity, high torsional stiffness and a long service life without any maintenance requirement make the COMPOLINK a unique coupling for windmills, especially for MMw and offshore applications. Compolink couplings are being used successfully both onshore and offshore in turbines of up to 7 MW.





# Lamidisc



## **JAURE® DISC-PACK COUPLING**

Maintenance-free All-steel Lamidisc®.

JAURE has been manufacturing LAMIDISC couplings for many years and many different applications. Lamidisc couplings are high torque density couplings which allow going with a very compact solution in certain Wind Turbine designs. It requires no lubrication or maintenance and it has no backlash (torsionally stiff).

Special coatings protect the disc-pack from corrosion.

They can be combined with composite tubes alternatively to steel spacer in case electrical insulation is required.



# Low Speed Applications



## **JAURE® HYDRAULIC RIGID COUPLING**

JHC® couplings for rigid connections of the input Shaft.

Different types of technologies are being developed in the Wind Industry which require high torque density couplings to cope with the low speeds and high torques found in the main shaft and other Medium Speed configurations. Jaure has an extended experience in Heavy-duty applications both in flexible and rigid couplings.

## Service

Jaure products are user friendly products which require very little or none maintenance at all, allowing high capacity factors. Stocks of the replaceable elements are kept in order to guarantee a short delivery time in case of urgencies. Skilled technical staff is at our customer's ready availability for Field Service as well.





# Test benches



## **JAURE® GEAR COUPLING**

MT® series of extremely compact Gear couplings or LS applications.

Modern Wind turbines are required to be extremely reliable during its complete lifetime, which requires that all the equipment is tested under the most severe conditions in very sophisticated test benches.

Jaure is the leader coupling supplier for Wind Industry Test Benches for both the LS and HS shafts, by supplying highly engineered solutions. Our extensive knowledge, wide product portfolio and close cooperation with Engineerings at the forefront of the Test Bench Industry allowed this success story.





# Jaure manufacturing program



Product Brand Name	MT	LAMIDISC®	TCB / TCB-S	AL-S / AL-SD / ALD	RECORD
Type & Description	Gear	Disc pack	Barrel (drum type)	Gear spindles	Grid / spring type

## INDUSTRY APPLICATION

Metals & Heavy duty	•	•	•	•	•
Minerals & Mills	•	•	•		•
Crane & Hoisting	•	•	•		•
Pulp & Paper	•	•			•
Petrochemical / Oil & Gas	•	•			•
Cooling Towers		•			
Machine Tools		•			
Marine	•	•	•		
Wind Turbines	•	•			
Test Benches	•	•			
Railway	•	•			



Special safety heavy duty gas nitrided gears



LAMIDISC® Safety coupling on test bench Incl. SAFESET® (SAFESET® from VOITH TURBO)



Type Approvals (Marine & Wind).

## COUPLINGS



**JAUFLEX®**

**IXILFLEX®**

**COMPOLINK®**

**JFTL TORQUE  
LIMITER**

**JCFS**

**JHC**

Elastic

Elastic Link

Composite Link

Torque Limiter

Composite Shafts

Hydraulic fit  
(shaft couplings)

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Carbon Fibre Shaft combined with LAMIDISC® coupling.



Torque monitoring on wind turbines.



Double-gear couplings for railway.

# Kop-Flex & Jaure manufacturing program

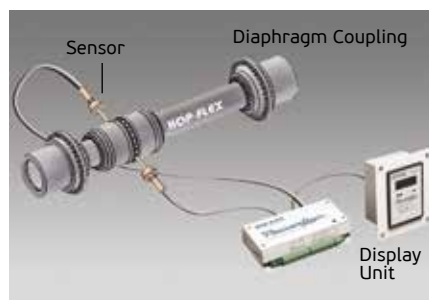
## COUPLINGS



Product Brand Name	MAX-C ®	HIGH PERFORMANCE PROGRAM			KOP-FLEX GREASE	SERVICE
Type & Description	Heavy duty elastic coupling	GEAR	DISC	DIAPHRAGM	Gear coupling / spindle grease	Repair & maintenance program

### INDUSTRY APPLICATION

Metals & Heavy duty	•				•	•
Minerals & Mills	•				•	•
Crane & Hoisting	•				•	•
Pulp & Paper					•	•
Petrochemical / Oil & Gas	•	•	•	•	•	•
Cooling Towers					•	•
Machine Tools					•	•
Marine	•	•	•	•	•	•
Wind Turbines	•				•	•
Test Benches	•	•	•	•	•	•
Railway	•	•			•	•



Powerlign® Torque Monitoring.



High Performance Solutions.



# Global presence

## MANUFACTURING FACILITIES & ENGINEERING CENTERS



JAURE® & KOP-FLEX® engineered couplings are designed, manufactured, sold and serviced worldwide, with service provided from specification right through to installation.

All JAURE® & KOP-FLEX® facilities around the globe are state of the art, with access

to a large and experienced engineering staff focused on providing solutions for our customers' requirements.

A dedicated global sales and service team assists you to find the best choice and manage all your coupling needs.



JAURE®. Zizurkil. Spain.



Pune, India.



Nove Mesto, Slovakia.



Zhangzhou, China.



KOP-FLEX®. Baltimore, USA.



Rexdale / Toronto, Canada.



Apocadaca, México.

# JAURE®

JAURE S.A.  
Ernio bidea, s/n  
20159 ZIZURKIL  
(Gipuzkoa) SPAIN

Phone: +34 943 69 00 54  
Fax: +34 943 69 02 95

e-mail: [infojaure@emerson-ept.com](mailto:infojaure@emerson-ept.com)  
[www.jaure.com](http://www.jaure.com)  
[www.kopflex.com](http://www.kopflex.com)



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**KOP-FLEX®**

**MCGILL®**

*Morse*

**ROLLWAY®**

**SEALMASTER®**

**SYSTEM™  
PLAST**

#### APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Emerson Power Transmission Corporation and its divisions with respect to the use of products and components is given in good faith and without charge, and Emerson assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk. For a copy of our Standard Terms and Conditions of Sale, Disclaimers of Warranty, Limitation of Liability and Remedy, please contact Customer Service at 1-800-626-2120. These terms and conditions of sale, disclaimers and limitations of liability apply to any person who may buy, acquire or use an Emerson Power Transmission Corporation product referred to herein, including any person who buys from a licensed distributor of these branded products. Morse is a registered trademark of Borg-Warner Corporation, used herein under exclusive license. Browning, Compolink, Emerson, Emerson Industrial Automation, Ixiflex, Jaure, Kop-Flex, Lamidisc, McGill, Sealmaster and System Plast are trademarks of Emerson Electric Co. or one of its affiliated companies.