

Jaure News

GENERAL INDUSTRY • WIND • MARINE • METALS & HEAVY DUTY

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Jaure latest projects in HRM

Jaure's worldwide presence and experience in steel mills put into place state of the art technology for the most demanding projects. Below some examples of the latest Jaure project activities worldwide.

Continuous Strip Production

After five successful years of operation at the first ESP line, this technology came back with a new project recently commissioned. Jaure was awarded with the gear spindles, high speed shear couplings and shear u-joints for the first 3 lines of this new mill. The project was enlarged and Jaure recently got the spindle order of 2 additional lines.

Jaure gear spindles and couplings are successfully installed in the mill with a total milling capacity of 5.95 million Tons per year of thin-gauge hot rolled strip.



Continuous strip production spindles



Spindles in operation



Shear pin motor couplings



Continuous strip production spindles on site

Pilger tube mill motor coupling

As a solution for an application with high regular shocks and high power demand, Jaure installed a high elastic Max-C coupling in combination with a Safety coupling. The 6.384 kNm power coupling is working since 2 years ago in perfect shape. The Max-C coupling provides excellent resilience and damping, increases the drive train lifetime and needs no routine maintenance.



Max-C high elastic coupling

7 stand hot finishing mill spindles

Additionally, Jaure participated in the modernization of a 7 stand hot finishing mill with carburized spindles and main motor couplings. The investment helped the steel producer to strengthen its position as technology leader for premium flat rolled carbon steel products.

Engineered telescopic carburized gear spindles have been installed in one of the most demanding applications in Europe.



Telescopic carburized gear spindles

4 stand hot aluminium finishing mill spindles

Jaure supplied 10 carburized gear spindles for a new 4 stand Aluminium Mill. The mill during phase I has an annual production capacity of 60.000 Tons. The rolled aluminium sheet, used in such items as beverage cans, automotive heat exchangers and electrical components, targets to meet the expected demand growth in Southeast Asia.



Aluminium mill spindles

Jaure latest projects in CRM

5 stands 4 high tandem mill revamping

Jaure participated successfully in the revamping of a flat sheet cold rolling mill built in 1970. The excellent performance of Jaure cold mill spindles helps the mill to produce 1550mm wide sheet with a reduction from 3.5mm to 0.3mm.

Jaure provided an integral support by the collaboration on the diagnostics, design proposals, spindle supply, installation supervision and maintenance recommendations.



Installation supervision



Spindles ready for shipment

Jaure latest projects in ladle cranes

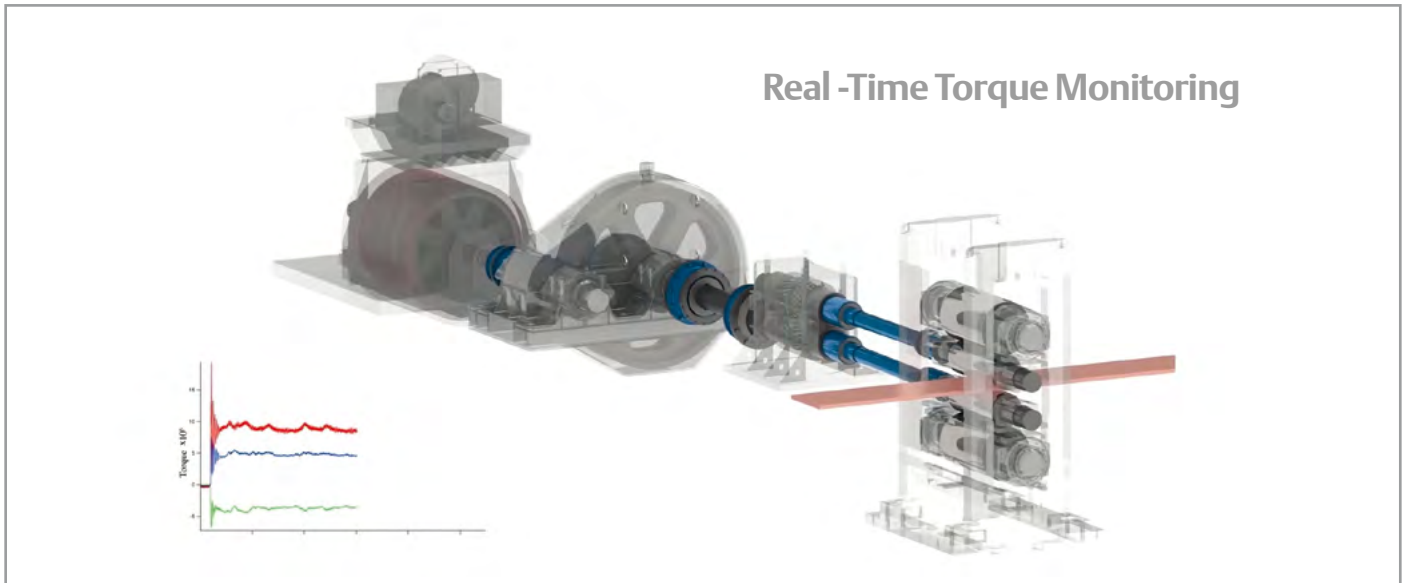
Barrel couplings for major projects worldwide

As a market leader of couplings for Ladle Cranes, Jaure collaborates with the main crane manufacturers. Steel mills worldwide benefit of Jaure coupling performance and developments.

Retrofitting of obsolete equipment increasing safety factors, electronic wear indicator supply for preventive maintenance improvement and installation support are some of the products and services in place around the world.



Torque monitoring & Service NEW



Real-Time Torque Monitoring

Avoiding downtime is critical

Jaure and Kop-Flex can help you recognize significant savings in these applications:

- Hot mills
- Cold mills
- Edger drives
- Bridle rolls
- Levellers

System tuning

In many cases, rolling stands are subject to frequent mechanical failures and motor problems causing unplanned downtime and expensive repairs. By installing strain gage telemetry systems on gear spindles, actual torque measurements can be collected. TAF values can then be measured and evaluated for peak torques and their effect on the power transmission components.

The largest reduction in TAF's can usually be achieved by installing damping style couplings or modifying spacer type couplings from a tubular to a solid design. Damping style couplings and spacer stiffness changes can result in a reduction of peak torques and increase reliability of the drive train.

Drive train monitoring

The emergence of high strength steels has reduced rolling mill drive train reliability due to the increased rolling forces required to process these new products.

Reducing the peak torques and vibratory torques is one approach to prolong the life of drive train components and can be accomplished by altering the system torsional dynamics.

Jaure and Kop-Flex torque monitoring services can demonstrate how to model the dynamic torsional response, normalize the model with empirical data and evaluate the effectiveness of increased dampings and stiffness changes.



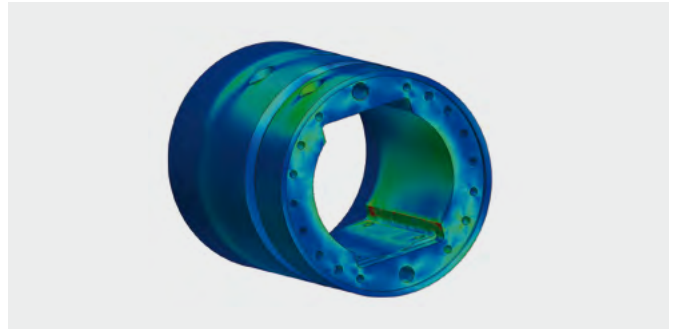
Let the experts provide you with both an analysis and a recommendation

Unfortunately, no mechanical product can last forever and couplings are no exception. While jaure products are designed and built to last, many applications are so severe that rapid wear and/or coupling damage may occur.

Jaure and Kop-Flex has the largest and most experienced engineering staff in the industry, with an arsenal of modern analysis tools at our disposal including FEA and a staff dedicated to coupling service. Let our technical experts provide recommendations on how to help prevent coupling problems and premature drive train failures.

Jaure and Kop-Flex service centers offer:

- Real Time drive train monitoring
- Repair and refurbishment
- Expert failure analysis
- Cost savings through consultation
- Field technical support



Lifecycle



Diagnostics | Education | Design | Installation | Monitoring | Repair

JAURE[®] POWER TRANSMISSION SOLUTIONS

REGAL



Your mill in top shape.

Jaure provides state of the art solutions and services to ensure the optimum performance of steel and non ferrous plants during their complete lifetime. Jaure is the Lifecycle partner of your mill.

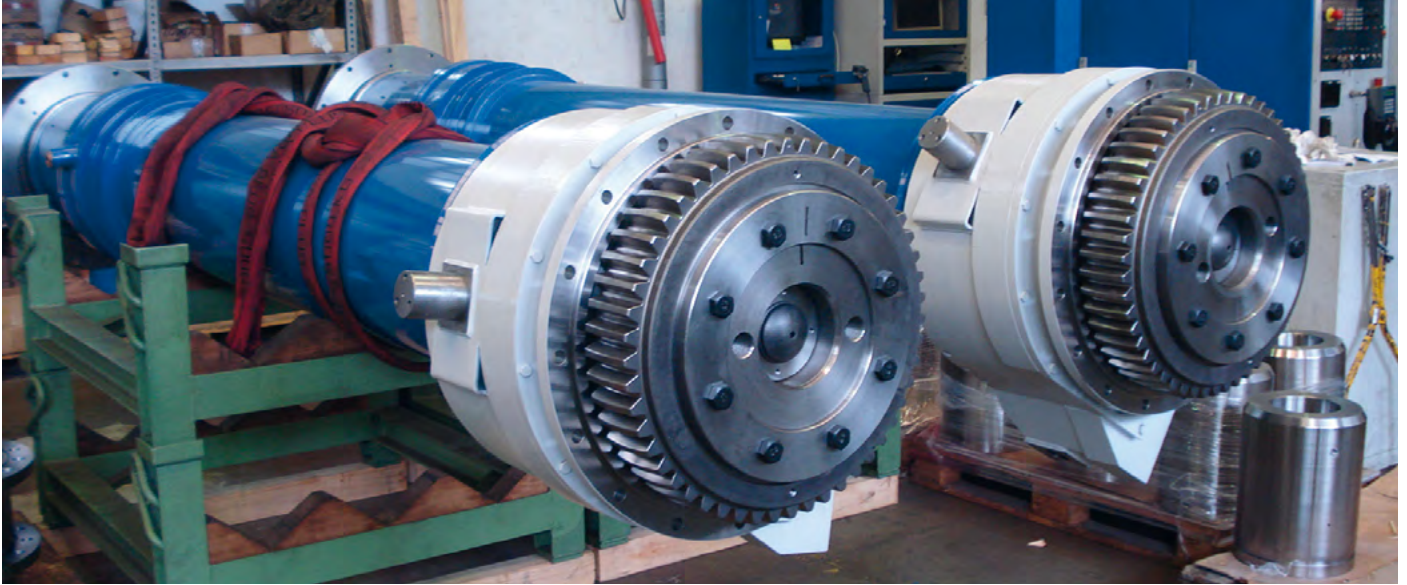
- Real time drive train monitoring
- Repair and refurbishment
- Expert failure analysis
- Cost savings through consultation
- Field technical support and service

Lifecycle



Diagnostics | Education | Design | Installation | Monitoring | Repair

Jaure Continuous Oil Lub Spindles



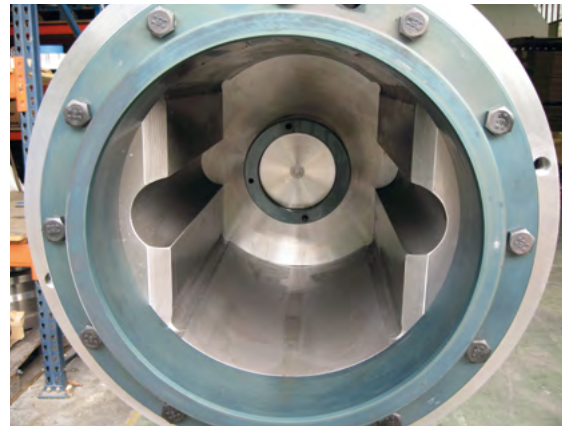
The actual market conditions drive the steel mills to the upgrading and modernization of their equipment. The main targets normally are to broaden the product mix with higher strength steels, reduce the final blade thickness or to increase the plant profitability.

For reliable operations, performance and maintenance of the gear spindles are key in any rolling mill. Traditionally, grease type gear spindles are in place but a new generation of oil lubricated gear spindles is bringing additional advantages and helping the mill work in a more reliable way.

Jaure continuous oil lubricated spindles provide the following advantages:

- Longer gearing life
- Easy maintenance
- Limited environmental pollution

Contact Jaure sales team to work on the most suitable proposal for your needs.



Jaure Hydraulic Shaft Couplings

Types JHC & JHC-HF

High Friction Type Brochure NEW

We are glad to present our NEW Hydraulic Shrink Couplings JHC & JHC –HF brochure.

Two versions of the JHC and the high friction type JHC-HF couplings are available on demand: Shaft to Flange connection or Shaft to Shaft connection.

The JHC-HF solution enhances the properties of the JHC design to a further level. By increasing friction between its main parts, the high friction JHC-HF can transmit the same torque with a reduced size.



Jaure Super Nut:

Type JS Nut NEW

The **Jaure Super Nut, JS Nut**, is a pretensioning device which has multiple pretensioning screws located on a common pitch circle diameter that are intended to create an axial thrust when applied with a small input torque.

Main benefit is the low tightening torque required for medium to heavy duty applications, allowing the use of only standard tools for installation and removal.

On top of it, installation time is reduced and it is safer to use for the service personnel.

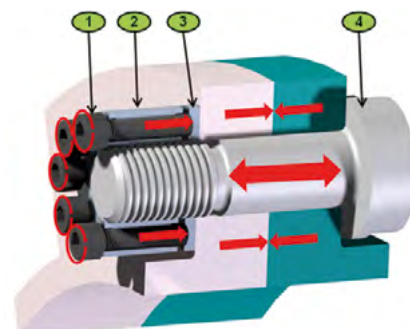
The JS Nut is available on its sole or in combination with **Jaure gear MT** or **disc pack Lamidisc** couplings. It can be also delivered on demand with the 3.2 certificate of Marine Classification Societies.

Working Principle:

1. By tightening the pretensioning screws, a thrust force (axial force) is generated. This axial force is directed against a hardened washer (part number 03) with relatively little input torque, when the nut body (part number 02) is engaged with main bolt thread (part number 04).

2. Thus the equivalent axial force is generated resulting from tightening all pretensioning screws (part number 01) to the recommended tightening torque values.

The opposite reaction force of the main bolt head and equivalent axial force acting on washer creates a strong clamping force on the flanges resulting in creating an equally strong reaction force in the main bolt.



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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 Regal-Beloit America, Inc. and its affiliates with respect to the use of products and components is given in good faith and without charge, and Regal 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.

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