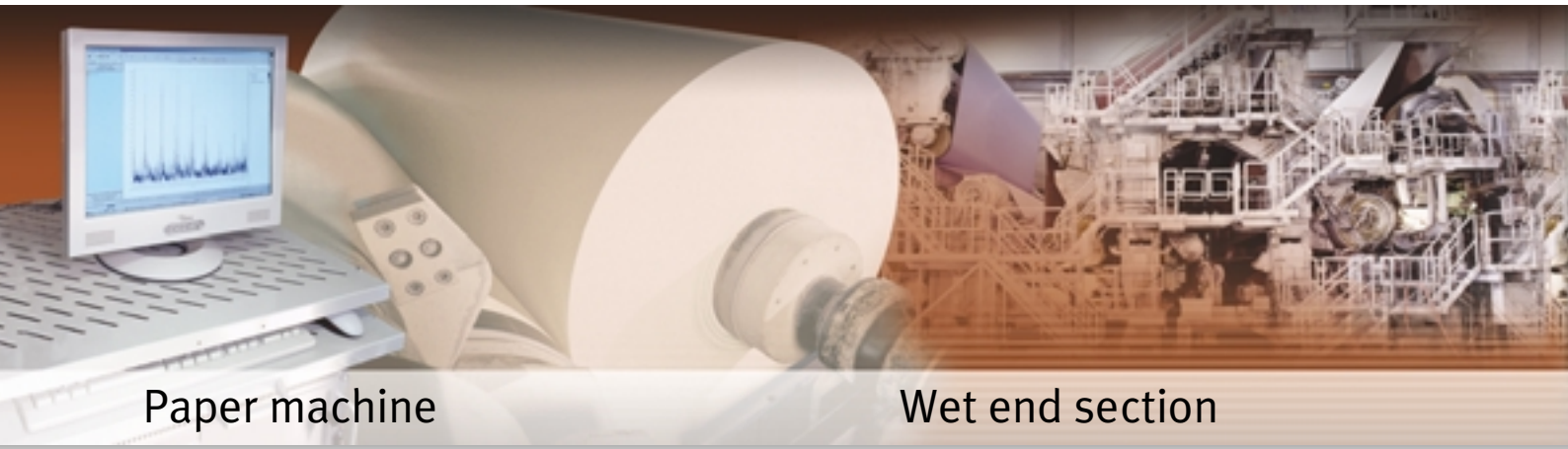




Optimising Processes in the Paper Industry

Examples and Solutions

F'IS solutions for successful maintenance



Paper machine

Wet end section

Avoiding production disruptions by means of continuous plant monitoring

Challenge:

- Capital-intensive paper machines must be fully functional most of the time
- This creates a need for continuous machine monitoring to avoid unscheduled shutdowns

Solution:

- Installation of the vibration measurement system FAG VibroCheck, including automatic issuing of alarms and data analysis

Customer benefit:

230,000 euros saved!

- Early warning of damage, allowing advanced planning of repair measures
- Prevention of expensive secondary damage
- One customer was able to save about 230,000 euros due to the early detection of damage to an M.G. cylinder bearing

FAG VibroCheck is a modular online monitoring system for continuous monitoring of machines and early detection of damages.



Reconditioning of rolling bearings

Challenge:

- Rolls and rolling bearings in paper machines are permanently subjected to demanding operating conditions and cause high maintenance costs, e.g. by usual bearing replacement
- Facing this problems paper producers are searching for possibilities to optimise the product lifecycle of their bearings and thus to reduce operation costs

Solution:

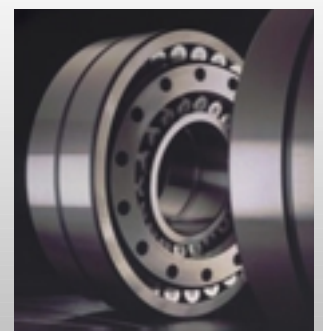
- Reconditioning of rolling bearings including all necessary operations, e.g. regrinding of raceways, manufacturing of new rolling elements etc.

Customer benefit:

24,000 euros saved!

- The quality of a reconditioned bearing is equivalent to that of new bearings
- The delivery time is significantly shorter than the delivery time for a new bearing
- The costs of reconditioning are between 45% and 85% of the price of a new bearing
- One customer was able to save about 24,000 euros by having a triple ring bearing Z-531158D reconditioned

The reconditioning of bearings is a cost-efficient alternative which F'IS offers for all bearing types on a manufacturer-independent basis.





M.G. cylinder

Dryer section

Optimised plant availability due to professional mounting

Challenge:

- If a damage occurs in a M.G. cylinder bearing, this may result in an unplanned shutdown and extremely costly production losses
- In such a case, a new bearing must be mounted quickly and properly

Solution:

- Bearing replacement to the highest quality standards, carried out by experienced F'IS mounting experts

Customer benefit:

40,000 euros saved!

- Downtime is minimised and safety is increased through the use of special tools and accessories
- One customer was able to save about 40,000 euros by having an M.G. cylinder bearing mounted quickly and at highest quality by F'IS experts

Increased production capacity due to self-aligning cylindrical roller bearings

Challenge:

- When dryer cylinders are heated, the high temperature causes them to expand considerably
- If spherical roller bearings with rocker block housings are installed at the floating bearing end, vibration in the dryer cylinder can cause wear of the rockers and support plates
- Increased wear can lead to increased vibration problems

Solution:

- Conversion of the floating bearing arrangement to self-aligning cylindrical roller bearings, using the existing bearing housings. The housings are bolted securely to the machine frame using adapters

Customer benefit:

20,000 tons paper!

- Higher paper quality due to reduced vibration
- Cost savings through continued use of the existing housings
- At one customer's site the web speed could be increased by 15% and paper production could be increased by 20,000 tons per annum

FAG mounting tools

F'IS offers a comprehensive portfolio of products for the expert mounting and dismounting of rolling bearings.



For further information, simply request a copy of our catalogue!



F'IS – First in Services

FAG Industrial Services (F'IS) supports the paper industry in increasing plant productivity and product quality. With innovative products and tailor made services relating to rolling bearings - the fundamental component of every industrial plant - F'IS helps customers to minimise production losses and increase the competitiveness of companies in the heavy industry.

The quality requirements of F'IS are based on the many years of experience gained by the long established companies INA and FAG in the manufacturing of precision rolling bearings.

As the service provider of Schaeffler Group Industrial, F'IS is your expert partner for the complete range of rolling bearing-related services in the paper industry. F'IS can help you to achieve savings on maintenance costs, optimise your plant availability and prevent unplanned machine downtime.

