

Slewing Bearing Service

Maximum flexibility for
continuous operation



thyssenkrupp





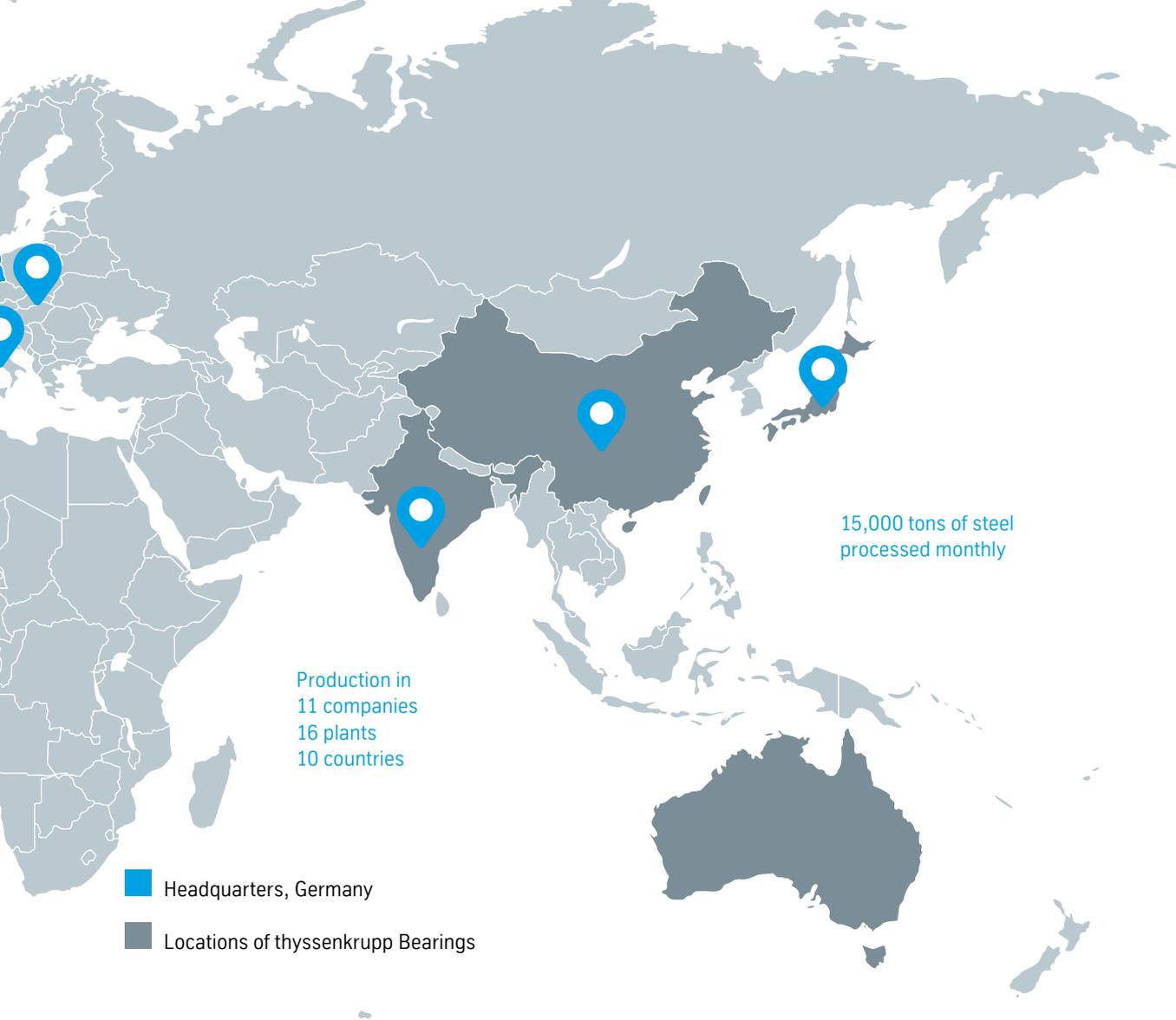
7,000 employees at
thyssenkrupp Bearings

We are there when you need us.

As a customer, you are important to us. As a result, thyssenkrupp Bearings offers you comprehensive service – worldwide!

As a leading global manufacturer of slewing bearings, we at thyssenkrupp Bearings are also your first choice when it comes to obtaining services for these critical components. After all, only regular maintenance and expert servicing will ensure that the slewing bearing reaches a long service life, with trouble-free operation. Keeping your equipment fully operational is a critical factor to your success.

Expertise, experience, global presence and competence in solving problems are the building blocks of first-class service from our highly qualified and specialized team. Make thyssenkrupp Bearings your partner for all services related to slewing bearings! There are several good reasons for doing this:



Flexibility

For us, being flexible means consistently aligning ourselves with the requirements and demands of our customers. We carry out the requested tasks efficiently, on schedule and with good value. In the process, our Service team not only looks after slewing bearings from our own production, but also inspects, maintains and repairs bearings for you regardless of the manufacturer. Upon request, we can also carry out optimizations of bearings that have already been installed.



International Network

We are available wherever you need us. Currently, we have seven Service facilities located in Europe, USA, Brazil, China, India, Australia and Japan, and we are constantly expanding our network further. You benefit from fast response times, which are within 24 hours worldwide in most cases.



Experience

We have decades of experience not only in design and production, but also in service and maintenance. Our Service team features experienced experts who can be deployed worldwide. We have qualified personnel even for specialist tasks, such as working on offshore installations, in aerospace environments, in underground or elevated workspaces as well as other unique environments.

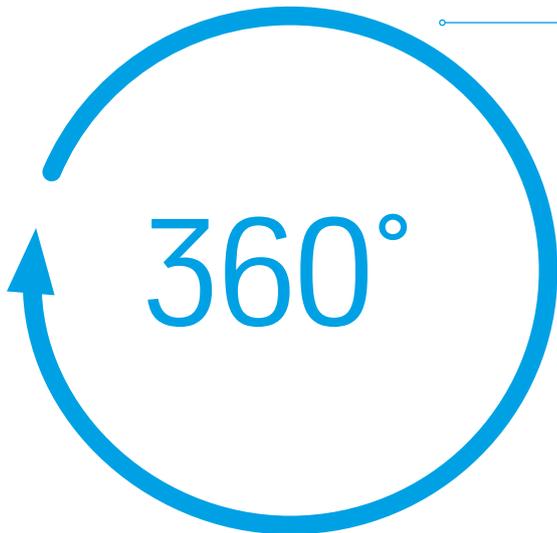
Maximum reliability through comprehensive services

From installation to inspection, from maintenance to repair and even training courses: Our service concept is comprehensive and is divided into three areas:

1.

In-house service

At our own facility, we carry out maintenance, inspection, repair and overhaul activities on your bearings – regardless of which company manufactured them.



2.

On-site service

We can also carry out all the stated activities at your site. In addition, upon request we handle the installation and commissioning of bearings in your plant..

3.

Proactive service

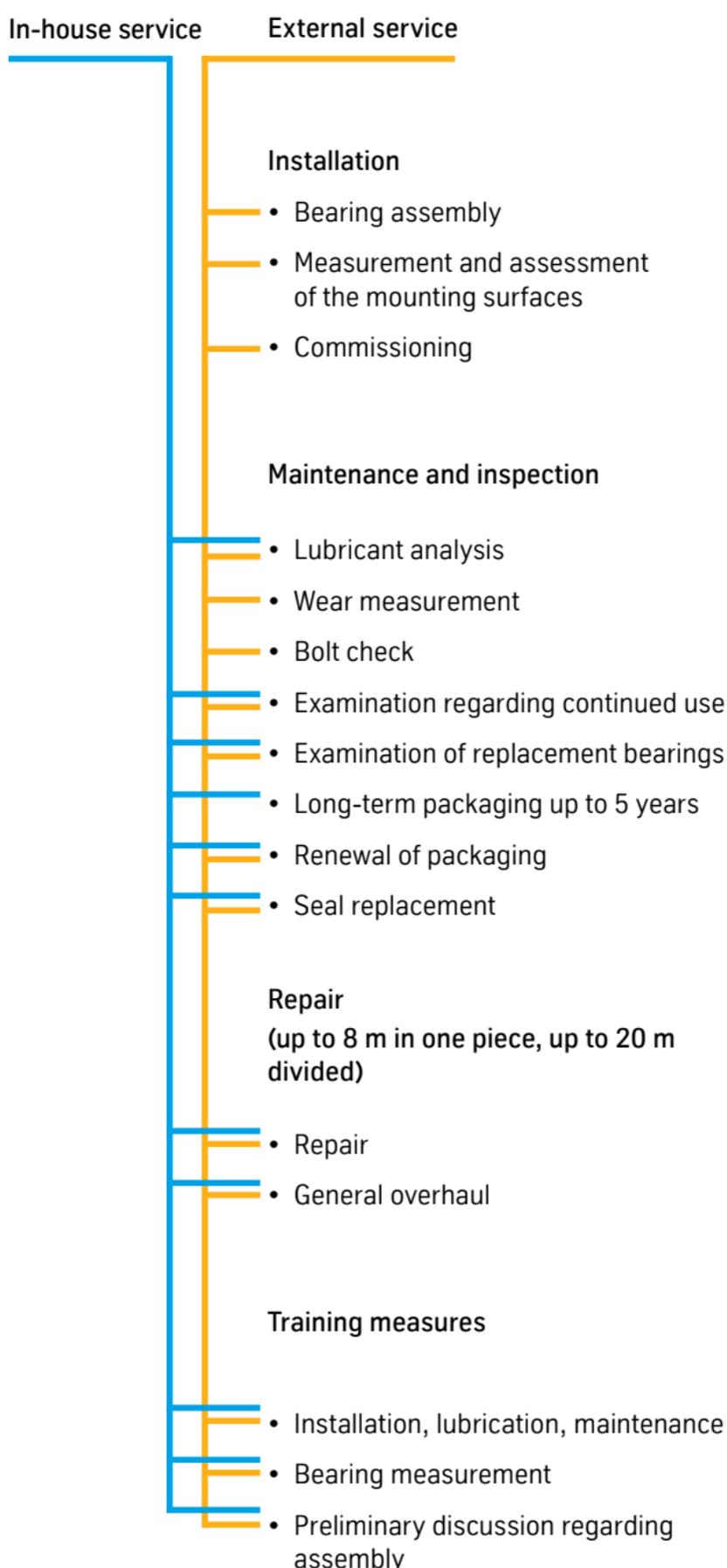
Separate from the actual work on the bearings, we prepare service plans for you, analyze the condition of bearings in your plants and provide you with detailed reports. In addition, we offer you customized service such as training and service reminders.

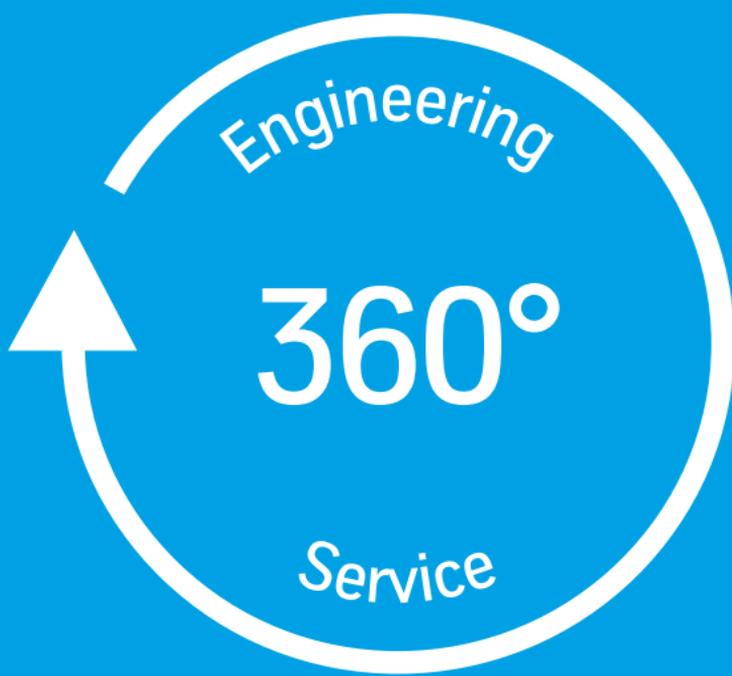




Overview of After Sales Service

The availability of your equipment as well as long service life of the bearings are important components in your success!





Asset Management



Spare Parts Supply
& Management



Service Center
& Field Services

Our service is always at your side!

You can rely on our Service team to be there when needed. Whenever you need us, our experts are available at any time - wherever you are in the world.

①

Spare Parts Supply & Management

🕒 Packaging check

To allow the permitted storage times to be successfully reached, we check and evaluate packaging and the storage conditions.

🕒 Renewal of packaging

We are available to renew or optimize packaging so that spare parts will be available when needed. This can extend storage by up to five years.

🕒 Extended warranty after the storage period has been exceeded

Once the storage period has been exceeded, an extended warranty can be provided following a check on the raceway system. Upon request, we will be happy to submit a quotation.





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Preliminary laser measurement

⌚ Evaluation of the mounting surfaces prior to bearing installation

We use laser measuring systems to measure the flatness of the mounting surfaces according to DIN EN ISO 1101.

3

Bearing installation/ bearing exchange

⌚ Bearing positioning

Correct positioning of the GAP positions "S" is of fundamental importance in operational reliability and for the service life of a slewing bearing.

⌚ Bearing bolt connection

The high expectations of both quality and service life of rothe erde® slewing bearings also requires proper handling of the bolted connections. Our Service team can support the bolt tightening process.

⌚ Setting the backlash

The backlash the drive pinion and bearing teeth must be set relative to the high point of the gear teeth.

⌚ Baseline measurement

A baseline measurement must be completed following the installation of the bearing in order to evaluate the wear in the raceway system.



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Bearing inspection in your facility

⌚ General bearing condition

During the inspection of the bearing condition, the slewing bearing as well as adjacent machine parts are visually checked. The characteristics that are examined include the level of contamination, condition of the seals, lubrication condition, noise, etc.

⌚ Bolt check

A sufficient amount of preload must be provided throughout the entire service life of a slewing bearing. The preload value can be confirmed during our visit to your facility.

⌚ Wear measurements

Wear measurements provide precise information about the operational reliability and compliance with wear limits in a slewing bearing.

⌚ Wear status and evaluation of the contact pattern of the gear teeth

Experience shows that the permitted gear wear should be less than $0.1 \times$ modulus. The general evaluation of both the slewing bearing as well as the drive pinions is conducted visually. Gear wear measurements are carried out using special tools and measuring equipment.

⌚ Grease samples including lubricant analyses

Lubricant analyses combined with wear measurement and clearance measurements provide an optimal way of assessing the progress of wear and the status of the raceway system in a slewing bearing.



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Removal of the bearing

⌚ Determine if bearing is refurbishable

The bearing is inspected using proven and tested processes. These provide information about the condition of the slewing bearing as well as whether or not it can be refurbished.

⌚ Detailed examination of the gear teeth if necessary

In addition to the visual inspection and wear evaluation, non-destructive testing of the gear teeth can be carried out.

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Examination of the bearing after removal

⌚ Detailed inspection of the raceway

The best way of assessing the condition of the raceway is following the removal and cleaning of the individual parts.

⌚ Non-destructive testing of raceways

Non-destructive testing provides information about whether a slewing bearing can continue to be used. For example, following an accident it is necessary to confirm the bearing is still suitable for operation.

⌚ Status analysis and reporting with repair recommendations

Following each inspection, a detailed report is prepared including digital images. This describes, among other things, the overall bearing condition and suitability for repair, if applicable. The report also contains recommendations from our experts regarding continued operation.



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Repair of the removed bearing on-site

⌚ Manual reworking of damaged areas

If the extent of damage is minor, it may be possible for a slewing bearing to be repaired on-site, by manual reworking. For example, seals can be replaced, new rolling elements can be installed or the gear teeth can be smoothed manually.

⌚ Packaging (standard or long-term)

Following an inspection, we offer the choice of standard packaging or long-term packaging. With long-term packaging, storage is possible for up to five years in temperature-controlled areas.

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On-site training

⌚ Custom training courses

We adapt the content of our training courses to your individual needs, so that the focus is always on your specific requirements. The possible content of the training includes bearing installation, bearing checks, seal replacement, wear measurements, relubrication, etc.



An overview of the benefits to you.

You benefit from well maintained bearings in a wide variety of ways: Increased plant safety and reliability, extended service life, and minimized risk of downtime and the resulting financial losses. By utilizing our Service Team you reduce your own service commitment and no longer need to worry about spare parts management, allowing you to free up valuable resources with your organization. Even if your bearings are found to be in good condition, you will receive extensive documentation from us concerning our analysis so that you can plan for the future.

Component Technology Bearings

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