MATERIALS HANDLING TECHNOLOGY CONVEYORS

- Spherical Roller Bearings
- Deep Groove Ball Bearings
- Taper Roller Bearings

SIMPLY WELL-ENGINEERED

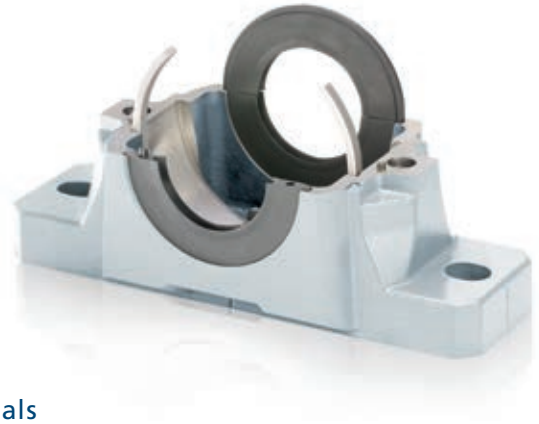
LFD

Bearing housings

LFD bearing housings are predominantly made of grey cast iron; other materials such as spheroidal cast iron or cast steel are available on request.

Locating/non-locating bearings

LFD bearing housings are generally designed so that the bearing is movable. By inserting one or two locating rings, as shown, a locating bearing is created.



Seals

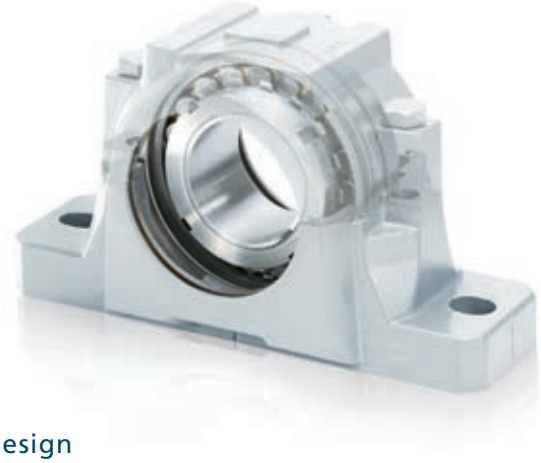
The following seal variants are used with LFD bearing housings: double lip seal, felt seal, V-ring seal, labyrinth seal, Taconite seals or an end cap.

Bearings

LFD offers spherical roller bearings and self-aligning ball bearings optimized for the application. They can accommodate misalignments and shaft deflections of the bearing seats. Numerous designs are available.

Fasteners

For locating bearings with a tapered bore, LFD offers easy to install adapter and withdrawal sleeves, which are located with lock nuts and lock washers.



Design

LFD collaborates with you to find an optimized solution for your bearing housing.

MATERIALS HANDLING TECHNOLOGY

has special requirements!

CONVEYORS

▸ in material handling equipment

The LFD Group specializes in the manufacturing and distribution of bearings for the material handling industry. Whether your application is designed for bulk material or single unit dispatch, we have the right solution for your requirements. LFD's engineering team will recommend an optimized design that is tailored to your specific application, taking into account all relevant variables, such as extreme temperature variations, dust and dirt, as well as noise and vibration requirements. In the material handling industry, our bearings are being used in just about any kind of application including drive and tension stations, turn stations as well as guide pulleys and idlers.

BEARING PRODUCTION

▸ according to German Standards

For decades, we have successfully supplied the material handling industry, developing tailor-made solutions for our customers. Our flexible manufacturing structure allows us to fulfill your requests quickly and efficiently. In close collaboration with you, we develop solutions ensuring long service life, corrosion resistance, smooth running, freedom from maintenance, and energy efficient design – optimized for your particular application and environment. Our installed customer base values LFD's know-how. We invite you to benefit from our long experience and specific expertise. Our fully automated production lines guarantee consistently high quality bearings. As a business practice, all production facilities within the LFD Group are managed in accordance with strict German quality standards. As a result, LFD bearings are extremely resistant, even under extreme conditions.

EXCELLENT RUNNING SMOOTHNESS

▸ through low vibration transmission

LFD exceeds the requirements of DIN 620. The exceptional running smoothness of LFD bearings is notably characterized by a reduced transmission of vibrations on the idler. Moreover, the steady rolling motion of the rolling elements in the bearing leads to an extended service life.

HIGH-PURITY STEEL

▸ with homogenous microstructure

LFD uses high-purity and, where required, rust resistant and acid-resistant bearing steels. The high quality of other components such as rings, cages, and balls is also essential from a quality perspective, as is the selection of the application-appropriate high-performance lubricants. By optimizing the load rating using larger balls, a higher radial load carrying capacity is achieved. In this way, service life can be extended by up to 50%. The particularly homogeneous microstructure of the high-purity steels also contributes to high load ratings.

LONG SERVICE LIFE

of standard bearings

LFD engineers work diligently to optimize a bearing solution that is tailored to the customer's specific application. They address all critical aspects such as roughness, minimization of noise, lubricants, seals and load carrying capacities, among others. When all critical components are combined in an application-optimized way, the bearing performs at its best and accordingly lasts longer. However, LFD bearings are designed to cover a wide range of applications already in the standard version. The particularly high quality of the bearing steels provides the basis: a remarkable degree of purity guarantees, among others, high utilization levels and therefore long service life.

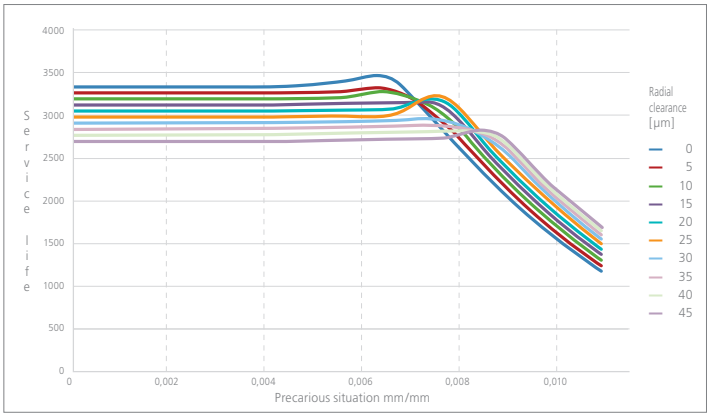


Diagram: 6305 with misalignment

The LFD bearing design is optimized by combining the raceway osculation with the appropriate bearing clearance, since the maximization of service life directly depends on the bearing clearance. The importance of misalignment increases with the length of the roller, as the elastic deformation of the idlers enhances the inclination of the bearing arrangement. In its production, LFD takes all these aspects into account.

ENERGY EFFICIENT

focus on surface roughness

Surfaces that have undergone LFD's superfinishing lead, due to minimized roughness, to excellent rolling characteristics. The optimization of the operational clearance for the application has a positive impact on the running smoothness of LFD bearings, resulting in significant energy savings during operation. The natural loss of power as a result of metallic friction in bearings is minimized. LFD selects the appropriate lubricants for the application at hand, which are designed for temperatures ranging from -20 °C to +120 °C. Lubricant churning, which could contribute to a loss of efficiency in the bearing, is minimized.

For higher temperatures, combinations of special bearings, lubricants, and seals are recommended. The purpose of the lubricant is, among others, to prevent or reduce the metallic friction of the bearing components by creating a separating lubricant film. If rotational speeds are too low for promoting the formation of a lubricating film, EP-additives in the grease help to keep wear at a low level, despite important forces at work.

CORROSION RESISTANT

▸ with high load ratings

Since commonly used bearing steels cannot provide a significant protection against corrosion, LFD alternatively offers anti-corrosion materials. These martensitic stainless steels are also characterized by high load carrying capacities. The optimized amount and type of grease additionally provides a certain protection of the surface against environmental factors, as does the selection of the material for the cages. In the field of material handling, depending on the application, reliable LFD cages made of glass fiber reinforced polyamide (TNGH) and ceramic balls can be the right choice.

MAINTENANCE-FREE

▸ with optimized seals

Maintenance-free LFD bearings provide you with the best possible value for money. An optimized LFD sealing solution efficiently protects the lubricant against contamination, which would interfere with the functional behavior. This is a decisive factor for bearing service life. Our high guidance accuracy together with the optimization of running surfaces, the right choice of seals, and the use of high quality lubricants provides for an ideal tribological system.

LOGISTICS

▸ with worldwide warehouse capacity

As a manufacturer, LFD has representations and warehouse facilities on all continents of the globe, notably in the United States and China. Therefore, we are able to offer the quickest possible delivery times to our customers. Our powerful partners in logistics with subsidiaries in almost every country provide further benefits. All possible logistics requests can be implemented quickly and reliably world-wide – close proximity to our customers is a priority for us.

SIMPLY WELL-ENGINEERED

LFD HEADQUARTERS
Germany

Giselherstrasse 9 - D 44319 DORTMUND
Phone + 49 231 977 250 - Fax + 49 231 977 252 50
Email info@LFD.eu - Internet www.LFD.eu

THE LFD GROUP

The LFD Group is represented on all continents.
In addition to the central warehouse in Germany, the LFD Group also maintains storage capacities in Italy, USA and China. With branch offices around the globe, the LFD Group provides a quick response and short delivery times.

Please see your corresponding contact at:

www.LFD.eu/contacts

Success Through Precision.