MATERIALS HANDLING TECHNOLOGY  CONVEYORS

SIMPLY WELL-ENGINEERED

- Spherical Roller Bearing
- Deep Groove Ball Bearing
- Taper Roller Bearing
**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 twolocating 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. Thereby, misalignments and shaft deflections of the bearing seats can be accommodated. Numerous designs are available.

**Fastener**
For mounting bearings with conical bore, LFD offers easy to assemble adapter and withdrawal sleeves, which are mounted through groove and lock nuts.

**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. We will consider all the applicable variables in your application, such as: extreme temperature variation, dust, dirt as well as noise and vibration requirements. In the Material Handling Industry, our bearings are being used in multiple applications including: Drive station, guide pulley as well as carrying idlers and reverse rollers.

BEARING PRODUCTION
- according to German Standards

For decades we have supplied the European Material Handling Industry successfully and developed numerous solutions for our current customer base. Our flexible manufacturing structure allows us to fulfill your requests quickly and efficiently. Through team based collaboration we offer optimized solutions meant to drive value in the areas of: life time wear, corrosion resistance, smoothness, reduced maintenance and energy efficiency design specifically to your particular application and environment. Fully automatic production lines guarantee a consistent process control – which in turn results in consistent high quality bearings. As a business practice, all production facilities of the LFD Group are managed in accordance with strict German Quality Standards. As a result all LFD bearings are extremely resilient in any environment.

EXCELLENT RUNNING
- smoothness through low vibration transmission

LFD exceeds all specifications of DIN 620. The special running smoothness of LFD bearings is a result of the low vibration on the idler. Furthermore life time increases because of the regular roll off of the rolling element inside of the bearing.

HIGH-PURITY STEEL
- with homogenous microstructure

A very homogenous microstructure of the high-purity steel increases the basic load rating. LFD uses high-purity, rust resistant or acid-resisting steel. The high quality of other components, such as the rings, cages and balls are also relevant for quality as the optimized use of high-performance lubricants. An optimization of the basic load rating allows for higher radial loads utilizing larger component balls. This creates the potential for increasing the life span of a given bearing by as much as 50%.
LFD Engineers work diligently to optimize a bearing solution that is tailored to the customer’s specific application. They address all critical facets such as roughness, minimization of noise, lubricants, seals and loadings. A bearing lasts longer, and performs better, when all critical combinations of the components are optimized. LFD bearings are designed so that all our standard products can be utilized in a multitude of demanding applications at a competitive price level. The combination of design optimization and our high quality bearing steel will ensure a high level of efficiency and product longevity.

**LONG LIFE TIME**

► of standard bearings

Diagnosis: 6305 misalignment

The LFD bearing design is optimized by the raceway osculation in combination with the correct bearing clearance. The maximization of the life time is directly dependent on the bearing clearance. The aspect of misalignment is more important with the increase of the roller length because of the elastic deformation of the idler leads to inclination of the bearing. LFD considers these aspects in its production.

**ENERGY EFFICIENT**

► surface roughness in focus

Super finished surfaces minimize the roughness resulting from the initial machining and result in excellent rolling characteristics. The smooth and quiet nature of optimized LFD bearings also enhance energy conservation in the end-use application. The natural loss of power through metallic friction in bearings is minimized. LFD can provide lubricants for individual applications which are designed for temperatures that range between -20 and +120 degrees Celsius. For high temperature environments, a combination of special bearings, lubricants and seals are recommended. The purpose of bearing lubricant is to reduce the metallic friction which results from the mechanical interaction of the bearing components. The lubrication will essentially create a film barrier which protects the metallic surfaces from each other. If the rotating speed of an application is lower, the lubrication film barrier might need additional support at the molecular level. In this case, we will recommend lubricants containing EP-additives to help stabilize the base lubricant – which in turn enhances the lubricant’s ability to handle higher loads.
LFD alternatively offers rust preventive materials. These martensitic rust prevented steels also have high loadings. Optimized grease amounts and different kinds of grease types represent a certain surface protection against environmental influences. The metal includes the choice of materials in terms of cages too. In the Material Handling Technology, depending on the use of application, you can use the established LFD reinforced glass fiber polyamide cages (TNGH), or ceramic balls.

**CORROSION RESISTANT**
- with high basic loadings

To reduce, or even eliminate, the intrusion of foreign material into the inner workings of the bearing will provide you with the best cost-effective solution for most applications. With an optimized LFD produced seal you can extend the expected lifetime of the bearings within your application. Our high guiding accuracy, the optimization of bearing surface, the right choice of seal and the use of high quality lubricants result in an optimized system to prevent the intrusion of foreign material into the inner workings of the bearing.

**MAINTENANCE FREE**
- with optimized seals

LFD, as a manufacturer has representation and warehouse capacity worldwide in Germany, The United States, Chile and China. Accordingly, we are able to consistently provide your company with on-time deliveries of qualified prepositioned products. This commitment to on-time delivery allows you to focus on running your business – instead of expediting bearings. Through our global logistic partners, who are represented in more than 100 countries, you are assured of consistent on-time delivery.
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, Chile 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.