



# CBI Field of Competition – Motion, Drives, Control, and Automation: Anti-Friction Bearings

In the last couple of years, the prices from China have noticeably been rising and the on-time deliveries have noticeably been drifting. As a result, European buyers of bearings are actively looking at other options and are searching for competitive bearing suppliers in other countries. Definitely, bearing manufacturers from DCs are in the position to benefit from that trend in the next few years.

## **Market entry: High-quality manufacturers will be the quickest to find inroads into the European market**

- It should be recognised that European buyers demand certain levels of quality. While bearing manufacturers from Low Cost Countries and DCs can, more often than not, provide competitively priced products, quality should not be overlooked.

**CFA<sup>1</sup>:** Invest in the ability to offer 100%-consistent quality by upgrading your own in-house testing laboratory.

- Although the European buyers may look for alternatives to existing sources, they will not migrate to new suppliers if there is the slightest possibility of jeopardising the performance of the bearings in their application. Therefore, new supply routes will be **examined** carefully and products may well have to undergo rigorous testing before approval.
- The best opportunities are for those companies that differentiate themselves from others in terms of quality. In addition, there will be long-term prospects for those DC manufacturers that are able to manage the balance between quality and price.

**CFA:** Improve your attractiveness to potential EU buyers by developing a high service level, which covers, for example, bearing design, technical support, and local after-sales support.

**CFA:** Benchmark your company against your industry peers on quality and price. Improve where necessary.

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<sup>1</sup> Consideration for Action for Developing Country Exporters.

- For anti-friction bearings, there are no specific legal market access requirements in place. The only exceptions are anti-friction bearings intended for automotive applications, which will have undergone specific application and life (endurance) testing. In these cases, the DC suppliers must have a type approval. General legal market access requirements that also apply to bearings are
  - Liability for defective products (Directive 85/374/EEC). Refer to [EU legislation: Liability for defective products](#).
  - Wood packaging materials used for transport (including dunnage) (Directive 2000/29/EC). Refer to [EU legislation: Wood packaging materials used in transport \(dunnage\)](#).
- Specifications of bearings as required by European buyers involve requirements related to the material used (see Supplier power), dimensions and finishing of the bearings (ISO standards), the processing steps, documentation, and packaging. Most ISO standards for anti-friction bearings relate to the dimensions and tolerances of both complete bearing assemblies and bearing parts, such as steel balls. ISO281 specifies methods of calculating the basic rating life and the basic dynamic load rating.

**CFA:** Go to the [ISO Catalogue](#). Click on “TC 4” (Rolling bearings) for an overview of ISO standards.

**CFA:** Search EN norms in the [online shop of the British Standards Organisation](#).

### **Product competition: plastic bearings may gain ground in the future**

- Plastic bearings for lightly loaded applications are becoming more popular and are considered to be a substitution threat to existing ranges of bearings, including rod ends, needle roller, housed units, slewing rings, and linear products. They are made entirely from high-performance plastics, are self-lubricating, maintenance-free, and economical. They also compensate for misalignment, are vibration dampening, easy to install, lightweight, and corrosion resistant.

**CFA:** Examine the influence of the plastic bearings trend in your current customer base.

**CFA:** Consider setting up a new production line for plastic bearings yourself or collaborate with companies that may already possess these skills and that are already using high-performance plastics.

**CFA:** Plastic engineering requires a completely different set of production machinery and skill sets, but the rewards of investing in such equipment may be significant.

- Since machinery is becoming smaller and lighter, there has also been a growing need for more lightly loaded bearings. Surely, DC manufacturers that can provide bearings in these high-performance materials can take advantage of a lucrative market.

### **Company competition**

#### **Rivalry: European companies will discover potential bearing suppliers from 'new countries'**

- Although the bearing industry is rather concentrated, the individual companies compete intensively with one another. Exporters from DCs are competing with other DC exporters rather than with EU manufacturers. The leading DCs with bearing exports to Europe are China and, far behind China, India. At some

distance behind India comes a range of countries: Malaysia, Turkey, Brazil, Thailand, Ukraine, Indonesia, Croatia, Bosnia and Herzegovina, Mexico, Vietnam, Serbia, and the Philippines.

- Intense global competition from bearing suppliers in the aforementioned lower cost countries is expected to restrain price increases in the mainstream bearing market segments in Europe.
- European buyers of bearings will increasingly look at bearing suppliers in 'new countries', as Chinese exporters have become more expensive and less flexible than before. Definitely, this trend offers opportunities for DC exporters. They are considered to be competitive in terms of price because of their low wages. DC exporters continue to take advantage of this trend, provided that they prove they can match the current bearing suppliers on price, service levels, and quality. Without doubt, it will also lead to a stronger rivalry between China and DC countries in the coming years.

**CFA:** Benchmark your company against your industry peers on price, service levels, and quality. Improve where necessary.

#### **Buyer power: three-tier branding will offer opportunities**

- The power of buyers is strong. This is because on average buyers are larger than the supplying companies, whether they are distributors or manufacturers. Note that in the case of the large bearing manufacturers like SKF and INA, the buying power is less strong. This is because their customers are, more often than not, smaller than SKF and INA are.
- Further consolidation among distributors continues to be a trend in the next years. For example, in January 2014, the industrial Nordic distributor Lonne was acquired by Brammer. This consolidation trend will reduce the number of potential buyers for DC exporters. At the same time, the average potential sales volume per distributor will increase. Distributors in turn will also face strengthening buyer power as their buyers also expand through mergers and acquisitions. To stay attractive partners of the buyers, distributors will extend their range. Increasingly, they will offer "good, better, best" options for standard bearings (which may include their own brand). DC exporters are well positioned to supply the 'good' bearings.

**CFA:** Improve your 'findability' to European distributors by...

- Promoting your website, so distributors are able to find you.
- Make sure you are listed in bearing directories.
- Make sure you are known by your countries' embassies.
- Make yourself known to the major European distributors.

**CFA:** The larger distributors may be looking for an own (distributor's) brand that can be supplied by a DC bearing manufacturer; list them and contact them.

**CFA:** Be prepared to support your own brand in Europe or be prepared to provide "own brand" for European distributors.

#### **Supplier power: bearing steel quality remains key**

- The power of suppliers can be rated as 'medium', as there is more or less a balance in the supply and demand for bearing steel and most bearing components. For some bearing components, supplier power may be medium to strong. This is thought to be the case for rings and rollers where processes like heat treatment add substantial value to the final bearing.
- Good hardenability, high purity, high rolling contact fatigue strength, and high wear resistance are some of the elements that make up good bearing steel. For companies that are providing bearings for arduous applications, the cleanliness and purity of the raw material steel is critical.

**CFA:** Only use bearing steel from approved suppliers that can guarantee the required quality.

**CFA:** Bearing and bearing component manufacturers should improve their own in-house testing laboratories to check and prove the chemical structure of the incoming steel. This will give confidence in the quality of the product to the potential buyers.

**CFA:** Market the fact that you use recognised manufacturers of quality bearing steels.

**CFA:** Be aware of the latest generation trends in bearing metallurgy and apply these trends to your own bearings, where relevant.

- It is expected that European bearing manufacturers that subcontract production of parts will impose increasingly strict requirements to the bearing steel quality. More and more, they will specify the bearing steel suppliers to be used by the subcontractors.
- A DC exporter should be sourcing the best quality of bearing steel so as to be immediately more attractive to their potential contractors. DC exporters can use this to differentiate themselves from competitors.

This survey was compiled for CBI by Facts Figures Future  
in cooperation with CBI sector expert Malcolm Sheryn

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