



# BEARING FACTORY SOLUTIONS

'One-stop' shop where you can get everything for a bearing factory



## COMPANY

Firstar Bearing Factory Solutions is a complete solution provider and an One-Stop Shop for bearing manufacturers, distributors and traders worldwide; where all bearing industry materials, components, equipment and consumables can be found at one address.

Our wide assortment includes raw materials, all types of bearing components, production machinery, packing material, inspection equipment, for trading and production purposes.

Beside our solutions for the bearing industry, we are one of the present domestic bearing industry equipment providers in China for the production of bearings, full set of precision machining equipment, CNC roller bearing ring grinding, super series vertical steel ball, grinding, lapping" series, horizontal steel ball, grinding, lapping" series, high precision CNC vertical lathe, precision plane grinding and all other related machining equipment which is needed for the production of a complete bearing.

We have more than 20 years' experience and can even find solutions which you can't see directly in our catalogue. Just contact us to see how we can support your business!



## Bearing Raw Material



### Steel bar

Our bearing steel bars are special steel featuring high wear resistance and rolling fatigue strength. High-carbon chromium bearing steel, engineering steel and some types of stainless steel and heat resistant steel are some of the types in our assortment.



### Copper

Dozens of copper alloys are available as bearing materials. Our bearing copper products can be grouped into five classes: copper lead, copper tin (sometimes called tin bronze), leaded bronze, aluminium bronze, and beryllium copper.



### Steel sheet

Beside the bearing steel, we have additionally Steel sheets for different other industries. There are many different grades of steel that encompass varied properties. These properties can be physical, chemical and environmental. Our stock of Steel sheets exists out of, Carbon Steel, Alloy Steel, Stainless Steel and Tool Steel.

## Bearing Components



### Rings

We are prominent supplier of a wide range bearing rings. Our bearing rings are manufactured from the best grade metals. They are available in different sizes and designs. We can also make them available as per requirement mentioned by the buyers. All our bearing rings undergo strict quality checks to ensure the best quality with zero defects.



### Rollers

Our common rollers are cylinders of slightly greater length than diameter. Beside cylindrical rollers we can also supply rollers for spherical roller bearings, where the rollers are thicker in the middle and thinner at the ends. Tapered roller bearings are using conical rollers that run on conical races.



### Balls

Most of our balls are of chrome steel, while the rest are from stainless steel ball, carbon steel ball and brass ball. The steel balls are in accordance with the GB308-2002 standard and measure up to the international standard of ISO3290-1998, AFMBA1989 and DIN5401-93.



### Cages

Our standard cages are manufactured from carbon steel for chrome bearings and AISI304 or AISI420 grade stainless steel for stainless bearings. Our steel cages are preferred for arduous operating conditions and where high levels of vibration are experienced. Beside carbon steel cages, we can offer also plastic, brass and different other cages for higher temperature applications.



### Seals

Bearing seals are designed to keep contaminants out of a bearing. In order of effectiveness, we offer various seals: rubber non-contact seals, Teflon non-contact seals, and rubber contact seals. The application's condition and life requirements are important to know to determine the best seal choice.



### Shields

Firstar shields can extend the bearing life by preventing contaminants from reaching the critical surfaces inside the bearing, and they help retain the lubricant in the bearing. Different types of closures may be supplied on the same bearing. Special designs are also available.

## Bearing Production Equipment



### Cutting

We are specialists in advanced solutions for the cutting and turning of high value-added components in the bearing and similar demanding industrial sectors. Our offered systems provide fully automated solutions for the cutting/turning process in the most economical way.



### Forging

We offer a combination of superior engineering, state of the art technology and skilled, motivated technicians to deliver you all type of equipment for forging operations, as well as completely forged parts according to your requirements.



### Machining

We have solid experience in advanced machining processes, and we design customized solutions adapted to each specific need together with leading companies in their sector. These solutions range from preliminary engineering studies of machining processes, technical specifications of the equipment, requirements of facilities and to operate the production line.



### Heat treatment

Heat treatment is a complex material which needs input and expertise from professionals. Basically to harden the steel it must be heated to a very high temperature and then cooled very rapidly. This process passes heating, quenching, case carburizing and thermal stabilization (cold treatment) depending on the product requirements and application. Our team of experts is ready to assist you for all your heat treatment equipment and supportive service needs.



### Grinding

We can offer more than 20 different types of grinding machines for the production of mini, small, medium and large size roller and ball bearings. We suggest to contact us for a more detailed overview of all the possibilities.



### Superfinishing

We can offer more than 20 different types of superfinishing machines for the production of mini, small, medium and large size roller and ball bearings. Some of our grinding machines are also suitable to use for superfinishing by making some small changes on the tooling.



### Washing

Washing bearings and bearing components is a necessity to avoid small particles to cause damages on your bearing rings and rolling elements. The best and most cost efficient method for this is to integrate an automatic tunnel washing system or to use individual washing segments depending on your needs.



### Assembling

Firstar can supply customized, semi- or full automatic bearing assembly equipment and full production lines depending on the type, size and production capacity of the requested bearings. We have worked on various projects and can help you with the most suitable assembly line.



### Inspecting

Our inspection equipment exists out of various devices and systems to control every bearing (components) at the beginning, middle, and end of every process, assuring that each and every bearing is cleaned thoroughly, free of cracks, and ready for service. All our devices are approved by worldwide standards.



### Packing

We can supply you all the packing equipment such as glue-, vacuum-, and stripping machines. A good packing can prevent and avoid many unnecessary situations. All inner plastic, plastic film, tapes, textiles, wooden boxes, inner box, outer box, pallets and branded collars are available at Firstar and can be customized with your brand name.

## Bearing Production Consumables



### Turning tools

Bearing turning tools define the quality level of the turning process and will result in a more efficient grinding process. Our turning tools are specially produced for the common bearing steel types. This makes sure you stay in control, minimize your machining time, and stay ahead of the competition.



### Diamond dressing wheels

Firststar is providing only the highest precision diamond dressing rollers for the production of bearings. Our dressing rolls are manufactured with a special process to reach maximum precision and high grinding efficiency.



### Grinding wheels

Our grinding wheels are designed for fast roughing and fast finishing of standard bearing steel, stainless steel and other type of rollers. Firststar grinding wheels have proven to have optimized time difference in operation, structure quality and appearance of the roll surface in comparison with similar products on the market.



### Balls grinding disc

Our ball grinding discs are made from premium casting, without any defects, has a high grinding efficiency assured by evenly distributed graphite and good wear resisting structure of the used material. , which will help you to improve the ball roundness and roughness greatly. The hardness of our grinding disc is between HRC55-62.

### Balls polishing disc

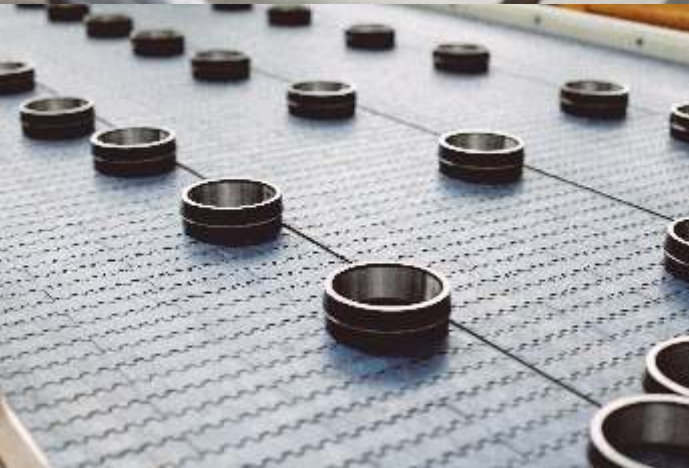
Our ball lapping discs are made from premium casting, without any defects, has a high grinding efficiency assured by evenly distributed graphite and good wear resisting structure of the used material. The polishing (honing) process is a kind soft super finishing. So the hardness of disc is HB100-130, HB130-160, HB160-200 or HB180-220. After this process, the balls will be extremely shining, smooth and round, ready for use.



### Superfinishing stones

Our honing stones are designed for finishing process of polishing metal materials. Suited for finishing grooves of different types of bearing and external ring surface of needle and tapered bearings. Firststar superfinishing stones will make the difference for your good cost/quality products.





## Contact Us

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