

Bearing CBN Grinding Wheel

Bearing is an important basic component of all kinds of mechanical equipment. Its accuracy, performance, life and reliability play a decisive role in the accuracy, performance, life and reliability of the host machine. Among mechanical products, bearings are high-precision products, which not only need the comprehensive support of mathematics, physics, and many other disciplines but also need the services of materials science, heat treatment technology, precision machining and measurement technology, numerical control technology, effective numerical methods, and powerful computer technology. Therefore, bearings are also a product representing national scientific and technological strength. According to the data of the "analysis report on production and marketing demand prediction, transformation and upgrading of China's bearing manufacturing industry" released by the forward-looking Industry Research Institute, there were 1416 enterprises in China's bearing manufacturing industry in 2011, with an annual sales revenue of more than 20million yuan. The total industrial output value of the whole year was 193.211 billion yuan, an increase of 27.59% year-on-year; The sales revenue was 191.097 billion yuan, an increase of 30.30% year-on-year; The total profit was 12.523 billion yuan, an increase of 26.54% over the previous year.

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The traditional bearing industry has always used ordinary grinding wheels for grinding, but the defects of ordinary grinding wheels (such as unstable grinding accuracy, easy deformation, low grinding efficiency, immovable grinding of special materials, short service life, and high scrap rate) make enterprises unable to achieve efficient automatic production, and can not meet the development needs of the bearing industry. CBN grinding wheel is sharp, with small grinding tension, low-temperature rise, and no burns and cracks on the surface of the workpiece. Moreover, due to the residual compressive stress on the grinding surface, the dimensional accuracy and geometric accuracy of the grinding workpiece are greatly improved compared with that of an ordinary grinding wheel, and the service life of the bearing is greatly increased. Based on the strong heat resistance and inertia of CBN material, CBN grinding wheel has good thermal stability and thermal conductivity in bearing processing and can work normally at 1300~1560 °C high temperature. It is suitable for high-

strength alloy steel, high-speed steel, and other grinding processes with high thermal sensitivity, and can keep the material flat without leaving grinding cracks. Ceramic bonded CBN grinding wheel is a technical improvement on the basis of CBN grinding wheel technology. Its stability, heat resistance, and acid-base resistance are strong. In the working process, its coefficient of thermal expansion is small, and it is not easy to block, so it can keep the surface of the material flat. At present, the output of high-speed CBN grinding wheels shows an annual increase rate of 15% in developed countries. The main development goals are ceramic bonded CBN grinding wheel and electroplated bonded CBN grinding wheel. Due to the advantages of the high utilization rate of grinding, convenient technology, and good flatness in material processing, it is widely used in bearing processing.

Richconn Technology Co., Ltd. has carried out technical research on the grinding problems existing in the bearing industry and has customized a complete set of ceramic CBN grinding wheel products for the bearing industry. Ceramic CBN grinding wheel can obtain high machining accuracy and fine surface roughness. Generally, the grinding workpiece can reach the tolerance level it_4 ~ it_6 , the surface roughness R_a value can reach 1.25~0.08 μ m, while the mirror grinding R_a value can reach 0.010 μ m, and the roundness error is 0.1 μ m. A Ceramic bonded grinding wheel is the most widely used in the bearing grinding process, which is suitable for rough grinding, fine grinding, and forming grinding (groove cut in grinding) of the bearing inner ring

Driven by the high-precision grinding technology of Richconn it not only improves the surface quality of the grinding workpiece but also greatly improves the efficiency of grinding. The service life of the grinding wheel is extended, and the dressing and cooling technology of the grinding wheel is also forced to be continuously improved, which enhances the adaptability of the grinding wheel processing operation.

As a professional [CNC machining supplier](#) in China ,we have created the following products for the bearing industry :

1. Bearing outer groove CBN grinding wheel;

2. Bearing inner groove CBN grinding wheel;
3. CBN grinding wheel for bearing inner hole grinding;
4. Bearing cylindrical grinding CBN wheel;

The ceramic bonded CBN grinding wheel is used for bearing channel and inner hole grinding. The precise shape retention and efficient grinding performance of the grinding wheel ensure the accuracy of the workpiece shape and reduce the size dispersion of the workpiece. The dressing interval of the bearing channel grinding wheel can reach more than 40 times that of the ordinary grinding wheel, and the dressing interval of the bearing inner hole grinding wheel can reach more than 100 times that of the ordinary grinding wheel. At the same time, it also reduces the auxiliary time of dressing and replacing the grinding wheel, improves the grinding efficiency, and realizes unmanned management. Once our efficient and accurate CBN grinding wheel for bearing grinding was launched, it was favored by the people's group, SKF, and other bearing industry giants.

Richconn grinding bearing ceramic CBN grinding wheel has the following characteristics:

1. Grinding has good thermal conductivity and no workpiece burns;
 2. Sharp cutting and high production efficiency;
 3. High grinding accuracy, stable accuracy, and good shape retention;
 4. The grinding process has low energy consumption, environmental protection, and no pollution;
 5. Long service life, 3-5 times that of an ordinary grinding wheel;
 6. The grinding performance exceeds the level of imported similar products.
- Grinding bearing star products:



CBN raceway grinding wheel



R-shaped grinding CBN wheel



CBN internal grinding wheel