

Basic Structure of Rotary Bearing

Summary

[Rotary bearing](#) is a kind of large bearing with special structure, which can bear large axial load, radial load and overturning moment at the same time. It has many functions, such as supporting, rotating, driving, fixing and so on.

Basic structure

Rotary disk bearings are usually composed of inner ring, outer ring, rolling element, isolation block and other four parts. Because the core components are supported by [rotary bearings](#), they can bear both axial and radial forces at the same time. It has many forms, but its structure is basically the same.

From left to right are (upper part): 1. Outer ring (toothed or toothless), 2. Sealing belt 3. Roller (ball or roller) 4. Fueling nozzle. From left to right are (lower part): 1. Plug 2. Cone pin 3. Inner ring (toothed or toothless) 4. Isolation block or cage 5. Installation hole (silk hole or light hole).

Series [rotary bearings](#)

Single-row four-point contact ball-type [rotary bearing](#) is composed of inner ring, outer ring, steel ball and isolator. It has compact structure, light weight, and four-point contact between steel ball and arc raceway. It can withstand both axial and radial forces. Rotary conveyor, welding manipulator, small and medium crane and excavator can be selected.

Double volleyball rotary disk bearings have three seat rings. Steel balls and isolators can be directly arranged into the upper and lower raceways. According to the stress conditions, two rows of steel balls with different diameters are arranged. This kind of open assembly is very convenient. The bearing angle of the upper and lower arc raceway is 90 degrees. It can bear a great deal of axial force and overturning moment. When the radial force is greater than 0.1 times the axial force, the raceway must be specially designed. The axial and radial dimensions of double-row spherical slewing bearings with different diameters are relatively large and the structure is tight. Especially suitable for tower crane, truck crane and other loading and unloading machinery with medium or above diameter.