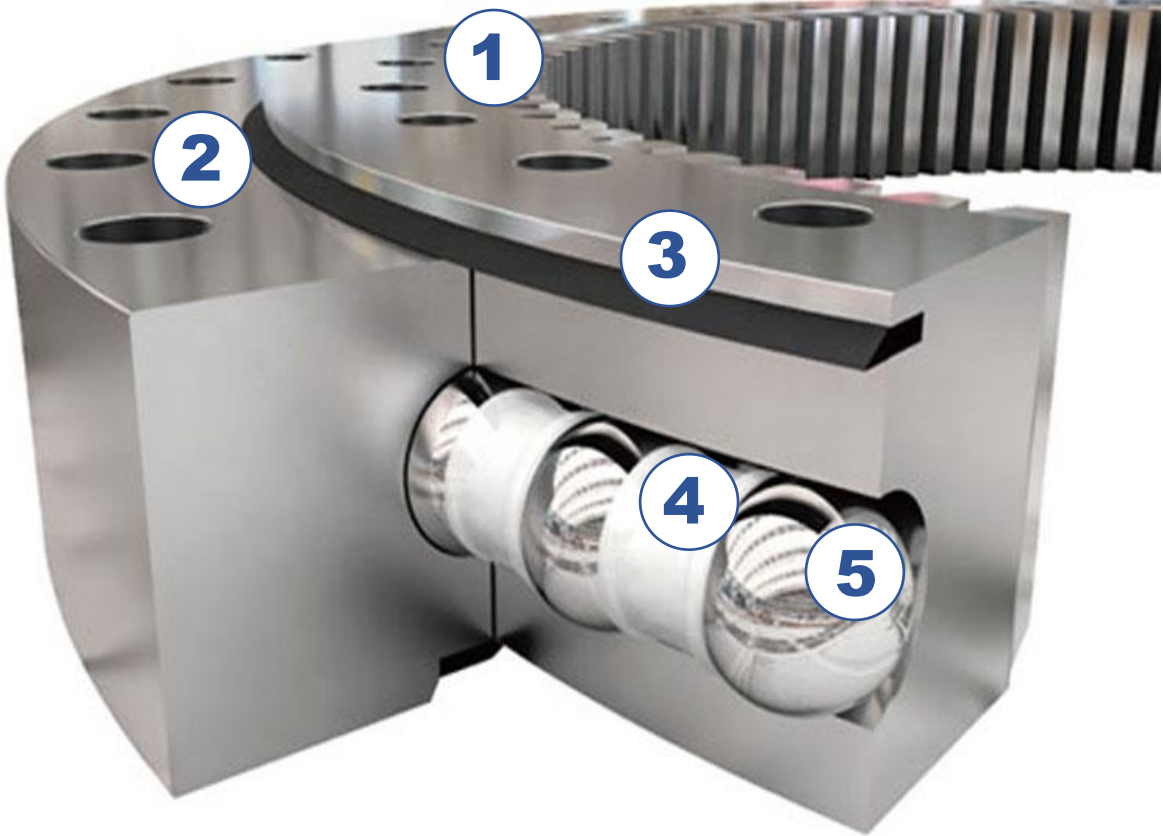


Our product range includes slewing bearings in dimensions from Ø 100 mm to Ø 15000 mm.



- 1. INNER RING
- 2. OUTER RING
- 3. SEAL
- 4. SPACER
- 5. BALL/ROLLER

● Ring material

ZZ bearing ring is made of surface quenched and hardened steel. When the user has no special requirements, it is generally made of 50Mn steel. But sometimes in order to meet the needs of some special applications, other materials such as 42CrMo, 5CrMnMo, etc. can also be selected according to the specific use conditions provided by the user.

● Rolling elements

In general, the rolling elements used in ZZ slewing bearings are made of integrally quenched and hardened carbon-chromium bearing steel, such as GCr15 or GCr15SiMn steel. Its feature high abrasion resistance and long service life.





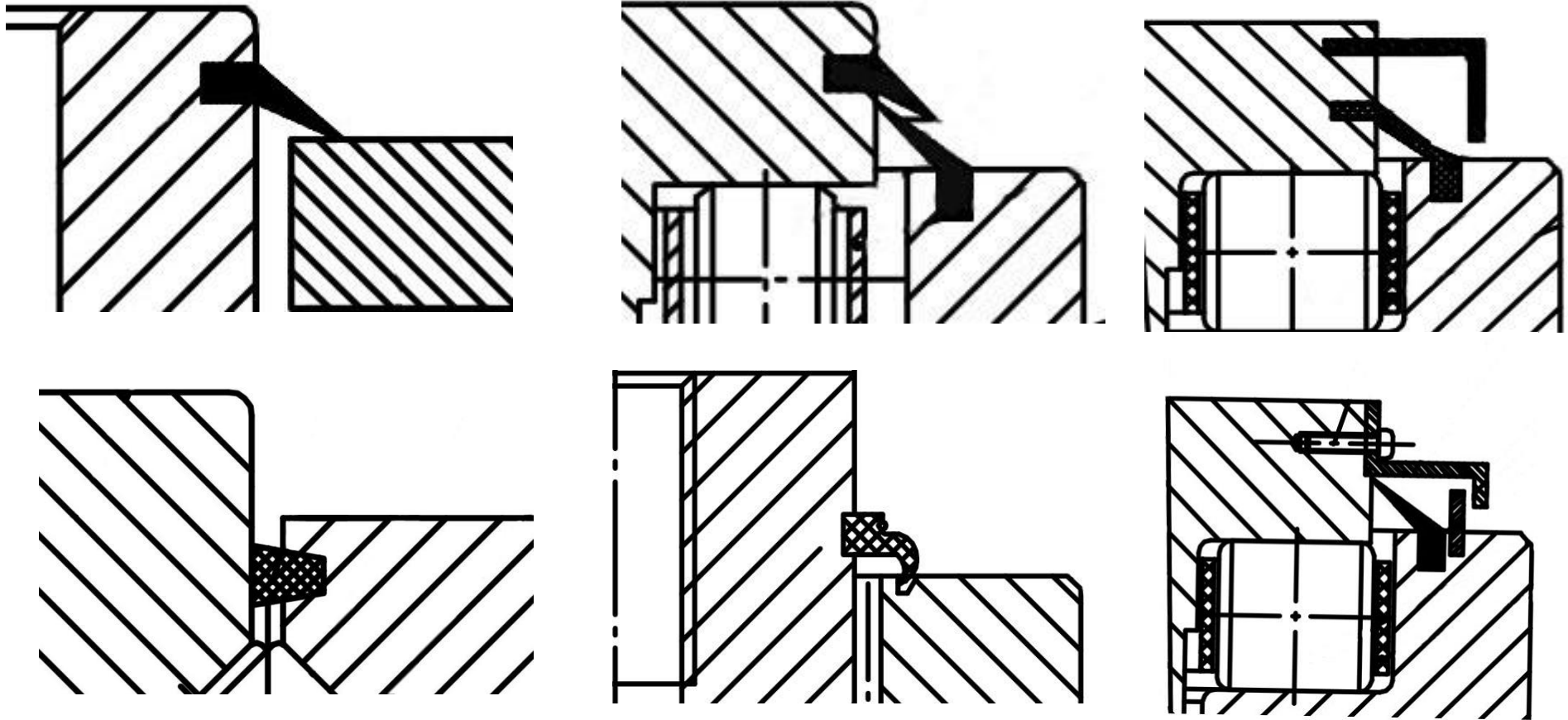
● Spacers

The cages used in ZZ slewing bearings have different structural types such as integral, segmented or isolated block cages. The integral or segmented cage is made of 20-gauge steel or ZL102 cast aluminum alloy. The spacer block cage is made of polyamide 1010 resin, ZL102 cast aluminum alloy or QA110-3-1.5 aluminum bronze. In recent years, with the continuous development of the material industry, nylon GRPA66.25 has also been popularized and applied in the design of segmented cages.



● Seals

On the one hand, the sealing of the slewing bearing is to prevent the filled grease from leaking out, and on the other hand, it is to prevent the outside dust, impurities and moisture from invading the inside of the bearing and affecting its work. The sealing ring of ZZ slewing bearing is made of nitrile rubber material, which is resistant to high temperature and corrosion.



● Lubrication system

a proper lubricating grease is selected based on the load, temperature, vibration, and environmental conditions of bearing and below characteristics are necessary:

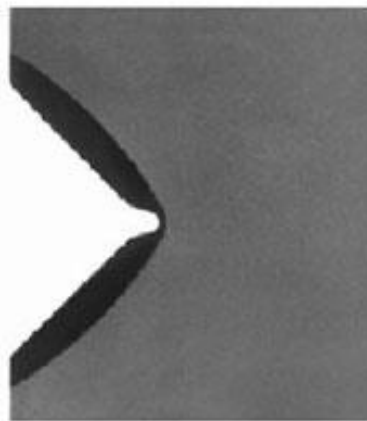
- ✓ Good waterproofness and resistance against high or low working temperature
- ✓ Upper limit of the normal working temperature is at least 20°C higher than that of the slewing bearing.
- ✓ Excellent resistance against abrasion and extrusion.
- ✓ Appropriate consistency (for centralized lubricating system).

The lubricating grease commonly used in slewing bearings includes calcium-based grease, lithium-based grease, aluminum-based grease, etc., which can be chosen according to specific needs.

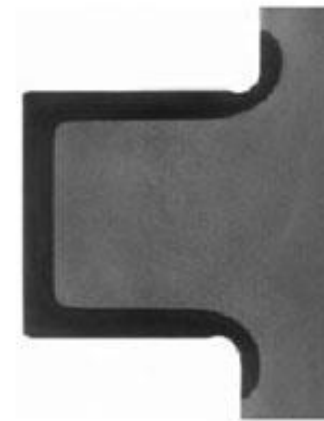
● Raceways



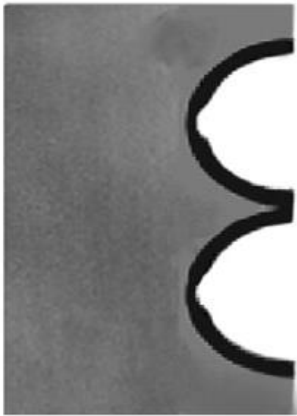
Single-row Four-point Ball Raceway



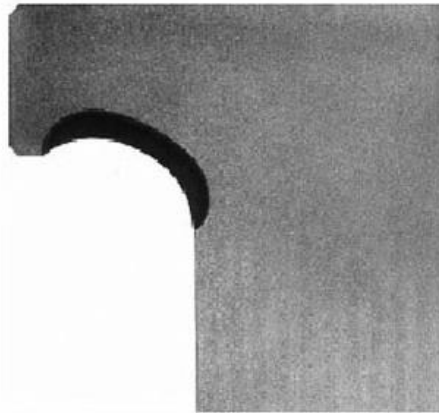
Single-row Cross Roller Raceway



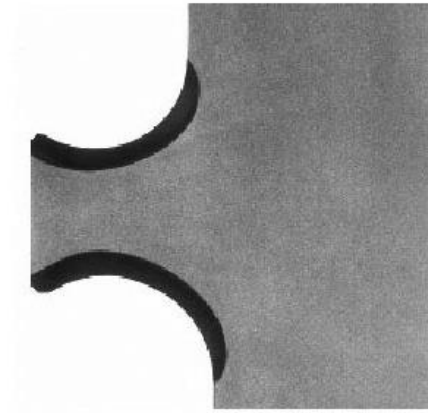
Three-row Cylindrical Roller Nose Raceway



Double-row Four-point Ball Raceway



Double-row Different Radius Ball Clamping Ring Raceway



Double-row Variable Radius Ball Nose Raceway

- **Tooth**

Due to the need to transmit force, slewing bearings usually have teeth on one of the rings. The heat treatment state of gears is generally normalized or quenched and tempered. Depending on the application, the gears can also be full-tooth hardened or single-tooth induction hardened. Single tooth induction hardening can be divided into tooth surface tooth root hardening and tooth surface hardening.



Full Teeth-quenching



Quenching of Tooth Surface and Dedendum



Tooth Surface-quenching

● Corrosion protection

Coating on the bearing surface can lubricate and protect the bearing. We provide yellow chromatic surface coating film which can prevent rust for 5 to 10 years. Other rustproof surface coatings are also available upon request.

