Slewing rings have a high load carrying capacity, a versatile range of applications and are highly cost-effective. A single slewing bearing can reliably support radial, axial and tilting moment loads. So, in many cases, bearing arrangements comprising a combination of radial and axial bearings can be replaced with a single slewing bearing. This reduces, in some cases considerably, the costs and work required in the design of the adjacent construction and the fitting of bearings. It is made up of mounting holes, inner gear or outer gear, grease hole and sealing device. It has many positive characteristics: compact structure, light weight, good rigidity, steady speed and high precision.

**SLEWING RING DESCRIPTION**
- Light Series One Row Ball Bearings
- One Row Ball Flanged Bearing, External Toothed
- One Row Ball Flanged Bearing, Internal Toothed
- One Row Ball Flanged Bearing, Untoothed
- One Row Ball Bearing, External Toothed
- One Row Ball Bearing, Internal Toothed
- One Row Ball Bearing, Untoothed
- Double Row Ball Bearing, External Toothed
- Double Row Ball Bearing, Internal Toothed
- One Row Crossed Roller Bearing, External Toothed
- One Row Crossed Roller Bearing, Internal Toothed
- One Row Crossed Roller Bearing, Untoothed
- Triple Row Roller Bearing, External Toothed
- Triple Row Roller Bearing, Internal Toothed

**TYPICAL APPLICATIONS**
- Wind Turbines
- Marine Cranes
- Pedestal Cranes
- Excavators
- Large Excavators
- Radar Antenna
- Tunnel Boring Machine
- Ship Loader
- Industrial Turn Table
- Indexing Table
- Ladle Turrets

**KG SLEWING BEARINGS**

**YOUR ENGINEERING SOLUTION PARTNER**

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EUROPE  |  DUBAI  |  INDIA

TOUGH    |   DURABLE   |   CONSISTENT
SLEWING BEARINGS

The slewing bearing is a type of roller bearing, a widely-used bearing in heavy machinery. It is a large, heavy-duty bearing that can carry large loads with minimal friction. This type of bearing is designed to handle large rotational movements with high precision and performance advantages.

SLEWING BEARING COMPONENTS

- **RINGS**: These are the outer parts of the bearing, usually made of high-carbon steel, hardened by induction hardening treatment. After forging and machining ring mill, a heat treatment, either core-hardening or normalization, must be applied in order to increase the hardness of the material. The core-hardening process, composed by a hardening and/or normalization, must be applied in order to increase both the tenacity and hardness, but also to other technological factors, including dust and abrasive elements, or the necessity to extend the operational lifetime or simply during the storage period.

- **GREASERS**: These are located on the diameter of the ungeared ring (for the ball and crossed roller bearing, depending on application of the gear).

- **Seals**: Seals made from NBR rubber protect the gap in the bearing on both sides from the ingress of dirt, dust and moisture. Please note that grease lubrication increases the effectiveness of the seals.

- **Fixing holes**: All KG slew bearings are protected with an application of oil to surfaces, coating, on request. We can also provide slewing bearings with painting, zinc based or galvanized coating, spray zinc coating and other customer specific coating on request.

- **SURFACE PROTECTION SYSTEM**: The external surface protection treatment protects metallic surfaces of bearings from corrosion and rust, protecting against oxidising agents, during operating lifetime or simply during the storage period.

SLEWING BEARING DESIGNATION SYSTEM

- **SERIES**: Three letters are used to identify the series classification of the bearing, taken from the code of the slewing bearing, as far as the designation are concerned.

- **GREASERS**: The rings, one of which usually has a gear on the inside or outside, are provided with mounting holes; those holes may be straight or with thread.

- **SEALING**: Seals made from NBR rubber protect the gap in the bearing on both sides from the ingress of dirt, dust and moisture. Please note that grease lubrication increases the effectiveness of the seals.

HARDENING OF SLEWING BEARINGS

**INDUCTION HARDENING OF RACEWAY**

The hardenability of surface layer, increasing the hardness on the surface of roller and improving its durability is one of the essential features for the rolling elements used in slewing bearings. For this purpose, roller raceways are subjected to heat treatment using induction hardening, which allows the bearing to endure the huge loads it is usually subjected to, ensuring the optimum condition of condition.

Slewing bearings are not lubricated by grease through grease fittings, but in the internal structure of the rings, greasers are located. They are used to grease the raceway.

**SLEWING BEARING CLEARANCES**

**TYPES OF CLEARANCES**

- 1 Standard clearance (S 1) 0.10 ~ 0.40
- 2 Double row (S 2) 0.10 ~ 0.15
- 3 Slight preload (S 3) 0.10 ~ -0.03
- 4 Preload (∂a,∂r) 0.00 ~ 0.10

**APPLICATIONS**

- **1 STANDARD**: Generic application.
- **2 PRECISION**: High precision application.
- **3 TRIPLE ROW**: Tilting moment load and vibrations in application.
- **4 42CrMo4**: Normalized hardness of the bearing, depending on application of the gear.

**SURFACE HARDNESS**

- **1 C45**: Normalized hardness of the bearing, depending on application of the gear.
- **2 S45C**: Normalized hardness of the bearing, depending on application of the gear.
- **3 42CrMo4**: Normalized hardness of the bearing, depending on application of the gear.
- **4 Precision**: Normalized hardness of the bearing, depending on application of the gear.

**SURFACE PROTECTION SYSTEM**

The external surface protection treatment protects metallic surfaces of bearings from corrosion and rust, protecting against oxidising agents, during operating lifetime or simply during the storage period.

**SLEWING BEARING RINGS MATERIAL**

- **1 C45**: Normalized hardness of the bearing, depending on application of the gear.
- **2 S45C**: Normalized hardness of the bearing, depending on application of the gear.
- **3 42CrMo4**: Normalized hardness of the bearing, depending on application of the gear.
- **4 Precision**: Normalized hardness of the bearing, depending on application of the gear.

**COATING**: We can also provide slewing bearings with painting, zinc based or galvanized coating, spray zinc coating and other customer specific coating on request.

**REMARKS**

- **1 STANDARD**: Generic application.
- **2 PRECISION**: High precision application.
- **3 TRIPLE ROW**: Tilting moment load and vibrations in application.
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