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- **Precision cross roller bearings, rotary table bearings and various non-standard bearings**

A manufacturer specializing in R&D and producing precision bearings



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Luoyang E-find Precision Bearing Manufacturing Co.,Ltd



OPENNESS, PROFESSIONALISM AND RESPONSIBILITY



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+Company Profiles >>>


Luoyang EFANT Precision Bearing Manufacturing Co., Ltd. is located in China's bearing manufacturing base---Luoyang. Our company specializes in R&D and manufacturing of precision cross roller bearings, rotary table bearings and various non-standard bearings. The machining accuracy is P5, P4 and P2.

Benefits from Luoyang's unique bearing industry foundation, our company has established a complete quality management system and has an excellent technical team. At the same time, sophisticated production process equipment and perfect test equipment are necessary conditions for the production of precision bearings, and the high precision,high reliability of products are guaranteed. All kinds of bearings produced by our company are widely used in the automation industry, CNC machine tool industry and robot industry.

The company adheres to the concept of "openness, professionalism and responsibility", actively participate in competition and cooperation, strives to become a professional bearing application service provider, and shoulders its due social responsibilities.



 Research and development

 Manufacturing

+Service concept >>>



Create value for customers

Professional team, quick response, pre-sale consultation, sales support, and after-sales service full process guarantee



+ Cross roller bearing

In crossed cylindrical roller bearings, the cylindrical rollers are arranged in two 90° V-shaped raceways at a 90° included angle 1:1, and the cylindrical rollers are separated by the spacer block. This structure makes a set of bearings It can bear radial load, axial load and overturning load at the same time.

This kind of combined bearing has a compact structure, and at the same time greatly simplifies the structure design of the bearing under the premise of ensuring structural rigidity. Most bearings can be pre-loaded before leaving the factory, which further facilitates installation and maintenance work. Therefore, cross cylindrical roller bearings It has the characteristics of high precision, high load and high rigidity, which is very suitable for the occasions where the space size is clearly restricted, such as the rotating part of the robot, the joint part of the manipulator, the numerical control indexing table, the medical equipment, and the measuring instrument.



Product category

ERBC standard type

This model is a standard type of crossed cylindrical roller bearings. The outer ring is divided into two parts in the axial direction, and the inner ring is integral. It is most suitable for parts that require the rotation accuracy of the inner ring.



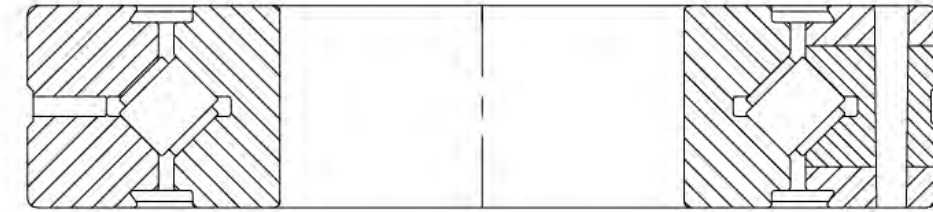
ERBS compact type

This model is a compact model obtained by reducing the thickness of the RB type inner ring and outer ring. Similarly, the outer ring is divided into two parts in the axial direction, and the inner ring is integral. Most suitable for parts with lightweight and small space requirements.



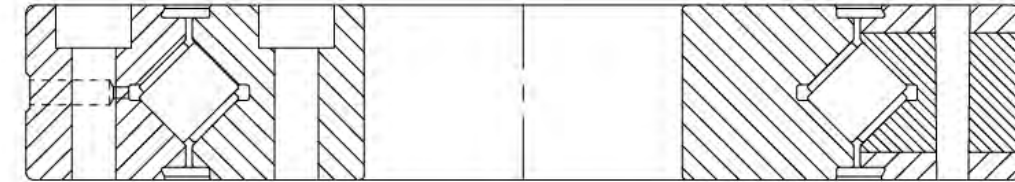
ERBH high rigidity type

The inner and outer rings of this type of bearing are of an integral structure, which has higher structural rigidity than the RB-type separate outer ring. This type of bearing is widely used in robots, machine tools and medical equipment that require small, high rigidity and high rotational accuracy And other rotating parts.



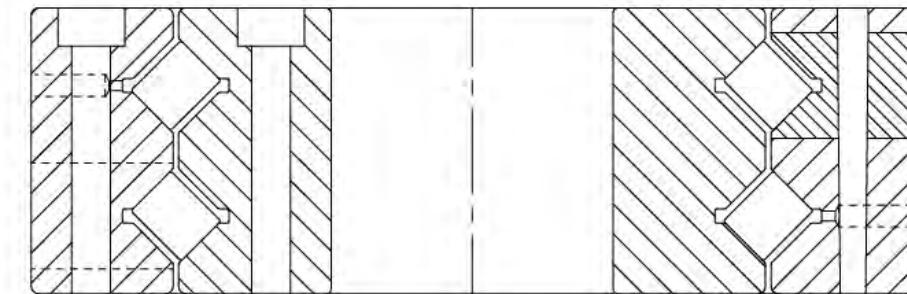
ERBF end face mount type

This model is the overall structure of the inner and outer rings. Compared with the ERBH model, there are mounting holes on the end face, which is convenient for the structural design application of end face installation. It can be installed and used without the shaft or bearing seat.



EDRX dual row type

This model is a cross cylindrical roller structure with a double-row raceway structure. The inner and outer rings are integral structures. The single row rollers are arranged in one direction crossing. The two rows of cylindrical rollers are arranged 90° cross in two 90° V-shaped raceways, inside and outside. Mounting holes are designed on the end face of the ring to facilitate the structural design of the end face installation.



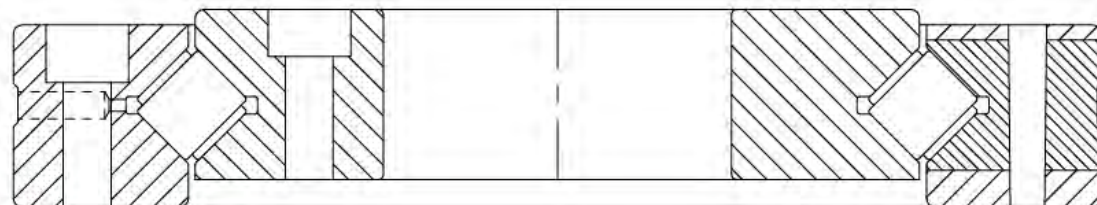
EFSX type

This type of crossed cylindrical roller bearing is designed in accordance with the deep groove ball bearing 618 series. The cylindrical rollers are arranged at a 90° included angle and are arranged in a 1:1 cross between two 90° V-shaped raceways. The inner ring is an integral structure, the outer ring is divided into two parts in the axial direction up and down, connected by 3 connecting rings in the circumferential direction, and there is no sealing ring between the inner and outer rings.



EFXU and EXSU European standard

The inner and outer rings of these two types of crossed cylindrical roller bearings are of integral structure and can be directly mounted on the end face.



Model name rules

| Nominal model | Inner diameter | Width | Structure code | Sealed | Clearance | Runout accuracy grade |
|---------------|----------------|-------|----------------|--------|-----------|-----------------------|
| ERBC | 80 | 16 | | UU | CC0/C0/C1 | P5/P4/P2 |
| ERBS | 50 | 08 | | UU | CC0/C0 | P5/P4 |
| ERBH | 90 | 16 | | UU | CC0/C0/C1 | P5/P4/P2 |
| ERBF | 35 | 15 | G/X | UU | CC0/C0 | P5/P4/P2 |
| EDRX | 100 | 20 | G | UU | CC0 | P5/P4/P2 |

| Nominal model | Inner diameter | Width | Sealed | Clearance | Runout accuracy grade |
|---------------|----------------|-------|------------------------|-------------|-----------------------|
| EFSX | 70 | 10 | No sealed by default | VSP/RL0/RL1 | P5 (Can be omitted) |
| EFXU | 40 | 22 | With sealed by default | VSP/RL0/RL1 | P5 (Can be omitted) |
| EXSU | 130 | 25 | With sealed by default | VSP/RL0/RL1 | P5 (Can be omitted) |

Comment:

1. Sealing: UU inner and outer ring diameters are sealed on both sides, blank means no seal.
2. Bearing clearance: CC0 preload, C0 positive clearance, C1 large clearance;
VSP preload, RL0 positive clearance, RL1 large clearance;
Bearing clearance only represents radial clearance. In special cases, axial clearance shall be explained separately.
3. Runout accuracy grade: P5, P4, P2 are limited to the runout accuracy of the bearing (Kea, Sea, Kia, Sia).
4. All bearing dimensional tolerance grades are P5.
5. For ERBF and EDRX, the structure code blank means that the inner and outer ring end faces are counterbore holes in the same direction, G means that the inner and outer ring end faces are counterbore holes in different direction, X means that the outer ring end faces are counterbore holes and the inner ring end faces are threaded holes.
6. For products that are not in the range of standard models, please consult our company. When conditions permit, our company can customize non-standard bearings.

Customized according to the size range of the sample book, such as internal teeth, external teeth, additional flanges, surface heat treatment, and bearing housings and shafts that match the bearings can be customized and processed, and the drawings agreed and confirmed by both parties shall prevail.

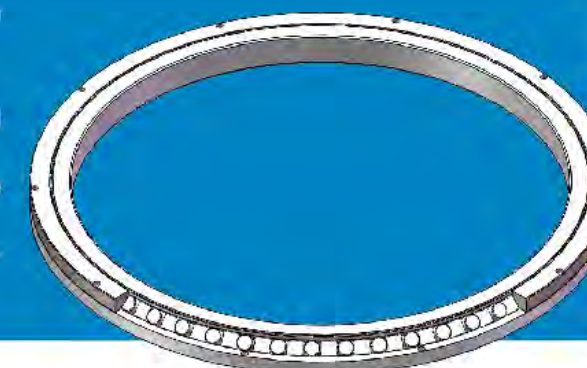
Customization process:

1. The customer informs the working condition or the sample drawing
2. Technical personnel of both parties communicate technical details
3. We will issue confirmation drawings for customers to confirm
4. Both parties confirm the drawings and sign a technical agreement (the technical agreement and the contract have the same legal effect)



Bearing selection

1. Determine the conditions of use and fill in the application condition table;
2. Determine the bearing model category;
3. Select the bearing size according to life calculation and determine bearing model;
4. Determine the bearing runout accuracy and clearance according to the used accuracy and rigidity requirements;
5. Combined with structural design, determine special conditions such as lubrication method and starting torque.



Life calculation

Bearing rating life

Bearing rating life refers to the total number of revolutions that a batch of bearings of the same model can operate under the same conditions, 90% of the bearings do not peel off the raceway surface due to rolling fatigue. It is often expressed in L, and the unit is the revolution. Calculated as follows:

$$L = (C/f_w P)^{10/3} \times 10^6$$

C The rated dynamic load of the bearing

P Equivalent dynamic load under working conditions

f_w Load factor under working conditions, see the table below for details

| Working conditions | f_w |
|---|---------|
| Smooth operation | 1-1.2 |
| Normal operation (changes in load direction and size) | 1.2-1.5 |
| Severe shock and vibration | 1.5-3 |

The calculation formula of equivalent dynamic load P is as follows:

$$P = X * (F_r + 2 * M / D_{pw}) + Y * F_a$$

X dynamic radial coefficient (see the table below for specific values)

Y dynamic axial coefficient

F_r radial load

F_a axial load

M overturning moment

D_{pw} cylindrical roller movement pitch circle diameter

| Calculation conditions | X | Y |
|---|------|------|
| $F_a / (F_r + 2 * M / D_{pw}) \leq 1.5$ | 1 | 0.45 |
| $F_a / (F_r + 2 * M / D_{pw}) > 1.5$ | 0.67 | 0.67 |
| $F_r = 0, M = 0$ | 0.67 | 0.67 |

Static safety factor

The static load rating of a bearing refers to a static load with a certain direction and size. At this time, the maximum contact stress at the center point of the contact area between the cylindrical roller and the raceway surface reaches the limit value of the contact stress of the material itself, and the bearing can move slowly (approximately Static state) without failure. Therefore, when the bearing is subjected to external loads in a static manner, the static safety factor must be considered. The static safety factor of the bearing is represented by S_0 , and its calculation formula is as follows:

$$S_0 = C_0 / P_0$$

C_0 Bearing static load rating

P_0 Equivalent static load under working conditions

Static safety factor value table

| Load condition | S_0 |
|----------------|-------|
| Normal load | 1-2 |
| Impact load | 2-3 |

Considering the dynamic performance of the bearing life, it is recommended that the static safety factor be at least 7 or more.

The calculation formula of equivalent static load P_0 is as follows:

$$P_0 = (F_r + 2 * M / D_{pw}) + 0.44 * F_a$$

F_r Radial load

M Overturning moment

D_{pw} Cylindrical roller movement pitch circle diameter

F_a Axial load

For crossed roller bearings, there is not only the influence of static radial load, but also the influence of static allowable axial load and static allowable overturning moment.

Static allowable axial load $F_{a0} = C_0 / 0.44$

Static allowable overturning moment $M_0 = C_0 * D_{pw} / 2$

C_0 Bearing static load rating

D_{pw} Pitch circle diameter of cylindrical roller

Matching

For ERBC、ERBS、ERBH、EFSX bearings without end face mounting holes, the recommended matching relationship is shown in the following table:

| Radial clearance | Application conditions | Axis | Bearing seat |
|------------------|--------------------------------------|------|--------------|
| CC0 | Regardless of conditions | g5 | H7 |
| C0 | Inner ring rotation | h5 | H7 |
| | Outer ring rotation | g5 | Js7 |
| C1 | Ordinary load of inner ring rotation | J5 | H7 |
| | Rotating impact load of inner ring | K5 | Js7 |
| | Ordinary load of outer ring rotation | g5 | Js7 |
| | Rotating impact load of outer ring | h5 | K7 |

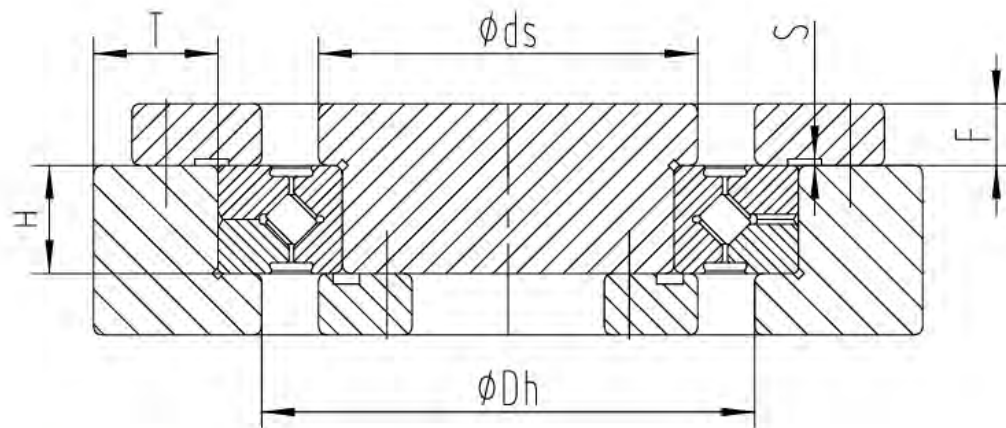
The matching relationship of bearings with CC0 clearance is generally selected as a clearance fit, but a small interference fit relationship can be used when rigidity and accuracy are higher requirements. At the same time, special attention should be paid to the change of bearing clearance under application conditions. It is best to select the corresponding shaft and bearing seat according to the bearing inner diameter tolerance and outer diameter tolerance to achieve a small interference fit.

For ERBF、EFXU、EXSU、EDRX bearings with end-face mounting holes, the matching relationship is basically not required, but the recommended matching relationship is: shaft h7 and bearing seat H7 when the accuracy of the installation position is required.

Installation

Shaft shoulder diameter size

In the bearing size specification table, we list the corresponding installation shoulder diameter Dh and ds of each bearing. In the design of the shaft structure, please design the shaft, bearing seat and step size of axial end cover according to our recommended shaft shoulder diameter, to ensures smooth bearing application.



Shaft shoulder depth dimension

In order to ensure the effective axial positioning of the bearing during installation, the depth dimension H of the shaft shoulder should be matched according to the bearing width tolerance. The specific relationship is as follows:

$$H=B-0.1$$

Bearing seat wall thickness design

In order to ensure the structural strength, we recommend that the wall thickness dimension T of the bearing seat should be at least 0.6 or more of the radial cross-sectional dimension of the bearing, is

$$T= (D-d) /2*0.6$$

Axial end cover design

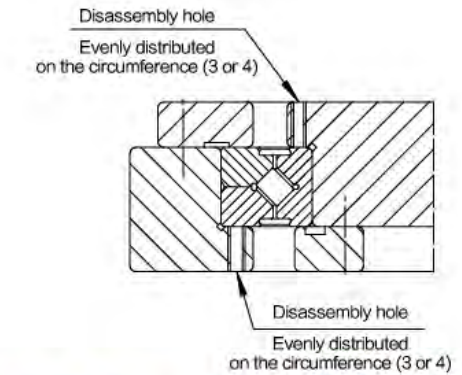
In order to ensure the structural strength, we recommend the thickness of the axial end cover $F= (0.5-1.2) *B$,

The depth of the annular groove on the mounting surface of the axial end cover is $S=0.5$; the effect of the annular groove on the axial end cover can effectively solve the problem that the end cover cannot compress the bearing.

The H, F, S and T involved in the installation dimensions of the inner ring that are not expressed in the installation diagram above (when the diameter of the shaft exceeds 100mm, the shaft can be made into a hollow shaft, and T should be designed according to the recommended value). The same applies to the above formula.

Disassembly screw hole

The compact structure of the crossed cylindrical roller bearing makes it difficult to disassemble the bearing. We recommend that you avoid the necessary design positions in the bearing structure design and add disassembly screw holes. Once the bearing needs to be disassembled, you can use screws to separate the bearings through the screw holes. Push out from the shaft and the bearing seat, and the disassembly screw hole is best divided into three or four equal circumferences.



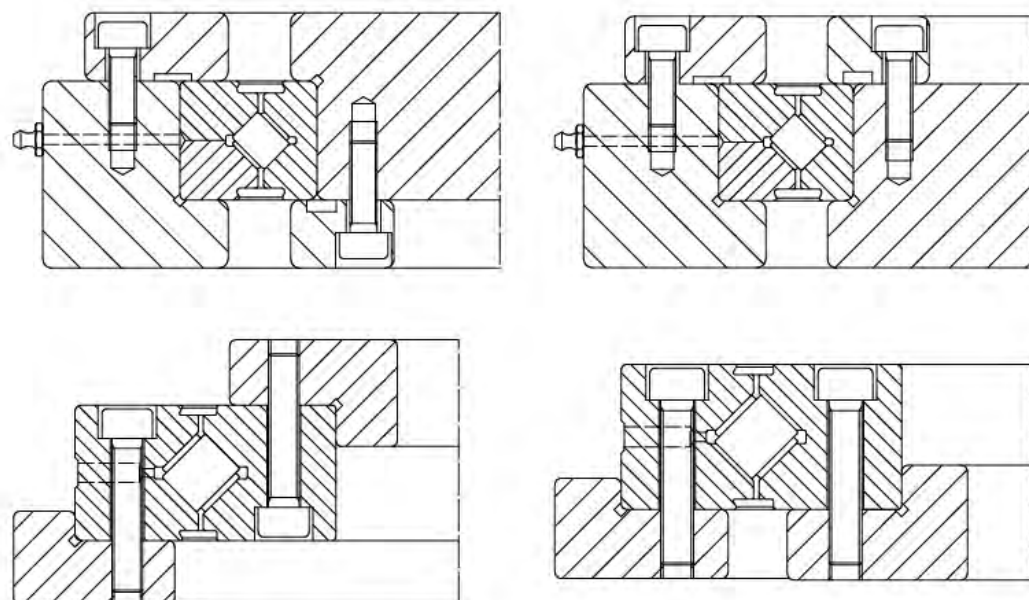
Axial end cover fixing screw design

| Outer ring outer diameter size D | Quantity of screws | Screw specifications |
|----------------------------------|--------------------|----------------------|
| Exceed | To | |
| 100 | ≥ 8 | M3、M4、M5 |
| 200 | ≥ 12 | M4、M5、M6、M8 |
| 500 | ≥ 16 | M5、M6、M8、M10、M12 |
| | ≥ 24 | $\geq M12$ |

Screw tightening torque

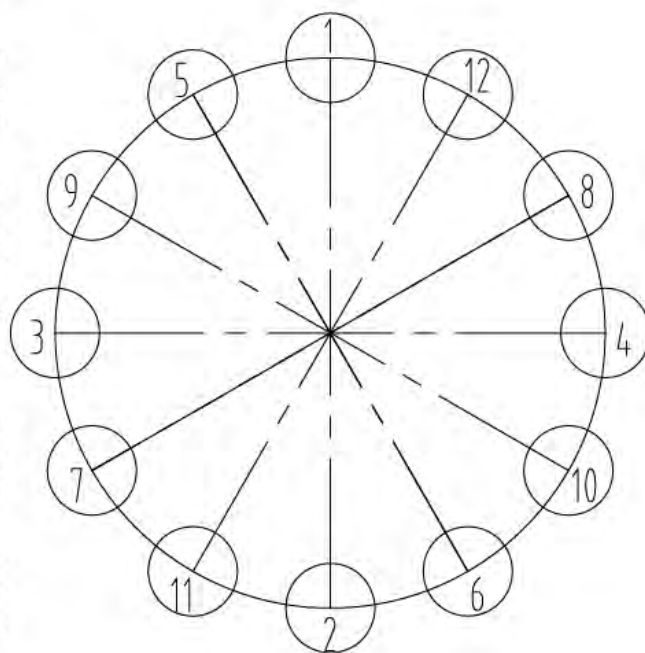
| Screw specifications (level 10.9) | Tightening torque | Screw specifications (level 10.9) | Tightening torque |
|-----------------------------------|-------------------|-----------------------------------|-------------------|
| M3 | 2 | M10 | 70 |
| M4 | 4 | M12 | 120 |
| M5 | 8.5 | M16 | 200 |
| M6 | 14 | M20 | 390 |
| M8 | 34 | M22 | 530 |

Typical installation structure



Installation process

1. Prepare installation tools, including brush, cleaning cloth, cleaning fluid, vernier caliper, feeler gauge, heater or installation tooling, torque wrench, magnetic gauge holder, dial indicator, etc.
2. Use brushes, cleaning cloths, and cleaning fluid to clean the installation parts and tools used.
3. Use heaters or installation tools to install the bearings on the shaft, or use heaters or installation tools to install the bearings into the bearing housing. The sequence of this process can be determined according to the specific cooperation and structural design.
4. It is strictly forbidden to force the rolling elements during the installation process, and it is strictly prohibited to knock the outer ring when installing the inner ring, and it is also strictly prohibited to knock the inner ring when installing the outer ring.
5. Use vernier calipers and feeler gauges to inspect the size of the installation and matching positions, focusing on ensuring the correct depth of the shaft shoulder.
6. Install the axial end cover, use a torque wrench to tighten the fixing screws three times, and tighten the screws step by step in the order of 40%, 70%, and 100% of the standard torque of the screw and the "cross method" each time.
7. After the inner ring and the shaft are installed or the outer ring and the bearing seat are installed, check the installation accuracy with a magnetic meter seat and a dial indicator. Once a problem is found, it needs to be removed and reinstalled.
8. For the installation structure with the lubricating oil hole, pay special attention to the corresponding installation of the lubricating oil hole position.

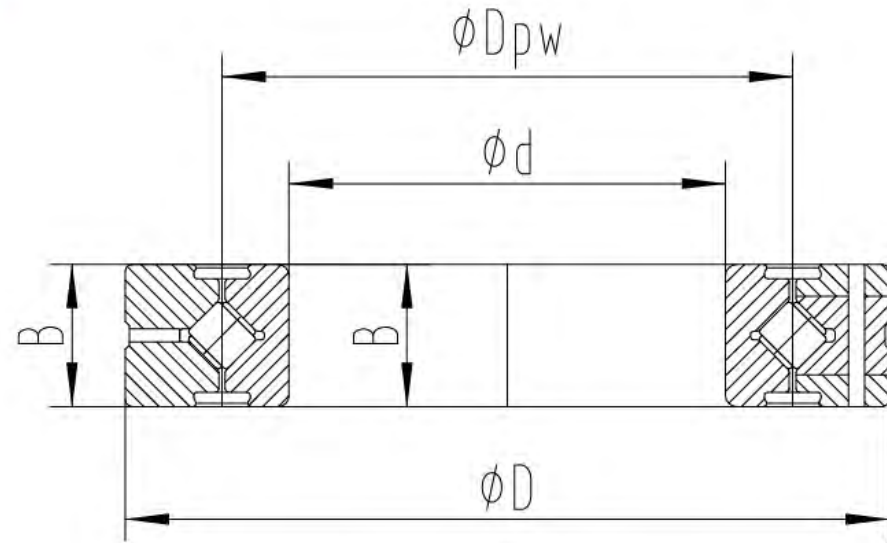


Precautions

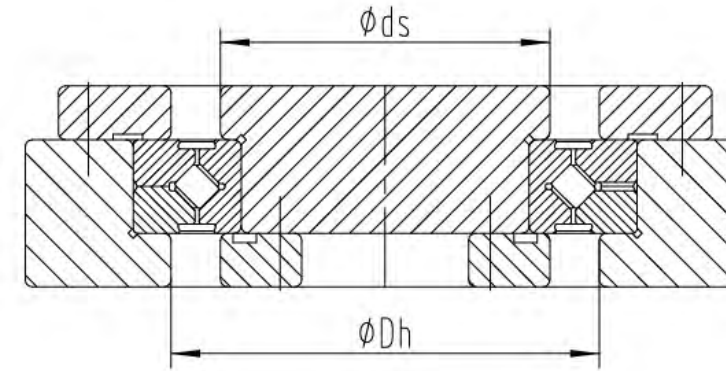
1. The bearing has been filled with grease, and there is no need to add grease during installation; after installation and long-term operation, the same brand of grease can be refilled through the lubricating hole.
2. When handling bearings weighing more than 20KG, it is best to work together to prevent bumps and injuries.
3. The working temperature should not exceed 80° C to prevent the sealing ring from aging and failing too quickly.
4. When installing the split ferrule, do not loosen the connecting screws or rivets, just install the bearing directly on the shaft or in the bearing seat.
5. For the bearings installed on the end face, the axial end cover is not necessary, and the screws fixed on the end face still have to be tightened three times according to the "cross method".

Lubrication

1. Do not mix greases of different brands to prevent premature failure due to reactions.
2. For special application conditions such as low temperature, high temperature, vibration and impact load, the corresponding grease should be selected to ensure that the bearing will not fail in long-term use.
3. The replenishment period of grease can be determined according to the specific working conditions. Under normal load conditions, 3-6 months is a more appropriate replenishment period.
4. Bearings installed on the end face can be installed with grease nipple to directly replenish grease when the outer diameter of the bearing is not positioned.



| Model | Inside diameter | Tolerance | Outer diameter | Tolerance | Inner ring Width | Tolerance | Outer ring Width | Tolerance | Pitch diameter | Inner ring shaft shoulder | Outer ring shaft shoulder |
|-----------|-----------------|-----------------|----------------|-----------------|------------------|-----------------|------------------|------------------|----------------|---------------------------|---------------------------|
| | d (mm) | δd (mm) | D (mm) | δD (mm) | B (mm) | δB (mm) | B1 (mm) | $\delta B1$ (mm) | Dpw (mm) | ds (mm) | Dh (mm) |
| ERBH2008 | 20 | 0/-0.006 | 36 | 0/-0.007 | 8 | 0/-0.075 | 8 | 0/-0.075 | 27 | 24 | 31 |
| ERBH2508 | 25 | 0/-0.006 | 41 | 0/-0.007 | 8 | 0/-0.075 | 8 | 0/-0.075 | 32 | 29 | 36 |
| ERBH3010 | 30 | 0/-0.006 | 55 | 0/-0.009 | 10 | 0/-0.075 | 10 | 0/-0.075 | 41.5 | 36.5 | 48.5 |
| ERBH3510 | 35 | 0/-0.008 | 60 | 0/-0.009 | 10 | 0/-0.075 | 10 | 0/-0.075 | 46.5 | 41.5 | 53.5 |
| ERBH4010 | 40 | 0/-0.008 | 65 | 0/-0.009 | 10 | 0/-0.075 | 10 | 0/-0.075 | 51.5 | 46.5 | 58.5 |
| ERBH4510 | 45 | 0/-0.008 | 70 | 0/-0.009 | 10 | 0/-0.075 | 10 | 0/-0.075 | 56.5 | 51.8 | 63.5 |
| ERBH5013 | 50 | 0/-0.008 | 80 | 0/-0.009 | 13 | 0/-0.075 | 13 | 0/-0.075 | 64 | 56 | 74 |
| ERBH6013 | 60 | 0/-0.009 | 90 | 0/-0.010 | 13 | 0/-0.075 | 13 | 0/-0.075 | 74 | 66 | 84 |
| ERBH7013 | 70 | 0/-0.009 | 100 | 0/-0.010 | 13 | 0/-0.075 | 13 | 0/-0.075 | 84 | 76 | 94 |
| ERBH8016 | 80 | 0/-0.009 | 120 | 0/-0.010 | 16 | 0/-0.075 | 16 | 0/-0.075 | 98 | 88 | 112 |
| ERBH9016 | 90 | 0/-0.010 | 130 | 0/-0.011 | 16 | 0/-0.075 | 16 | 0/-0.075 | 108 | 98 | 122 |
| ERBH10020 | 100 | 0/-0.010 | 150 | 0/-0.011 | 20 | 0/-0.075 | 20 | 0/-0.075 | 123 | 110 | 140 |
| ERBH11020 | 110 | 0/-0.010 | 160 | 0/-0.013 | 20 | 0/-0.075 | 20 | 0/-0.100 | 133 | 120 | 150 |
| ERBH12025 | 120 | 0/-0.010 | 180 | 0/-0.013 | 25 | 0/-0.075 | 25 | 0/-0.100 | 148.7 | 132 | 168 |
| ERBH13025 | 130 | 0/-0.013 | 190 | 0/-0.015 | 25 | 0/-0.100 | 25 | 0/-0.120 | 158 | 142 | 178 |
| ERBH14025 | 140 | 0/-0.013 | 200 | 0/-0.015 | 25 | 0/-0.100 | 25 | 0/-0.100 | 168 | 152 | 188 |
| ERBH15025 | 150 | 0/-0.013 | 210 | 0/-0.015 | 25 | 0/-0.100 | 25 | 0/-0.100 | 178 | 162 | 198 |
| ERBH20025 | 200 | 0/-0.015 | 260 | 0/-0.018 | 25 | 0/-0.100 | 25 | 0/-0.120 | 230 | 212 | 248 |
| ERBH25025 | 250 | 0/-0.015 | 310 | 0/-0.018 | 25 | 0/-0.100 | 25 | 0/-0.120 | 277.5 | 262 | 298 |



| Model | Static load | Dynamic load | Inner ring runout P5 |
|-----------|-------------|--------------|----------------------|
| | Cor (KN) | Cr (KN) | Kia/Sia (mm) |
| ERBH2008 | 2.4 | 2.9 | 0.004 |
| ERBH2508 | 2.8 | 3.1 | 0.004 |
| ERBH3010 | 8.4 | 7.6 | 0.004 |
| ERBH3510 | 9.1 | 7.9 | 0.005 |
| ERBH4010 | 10.6 | 8.6 | 0.005 |
| ERBH4510 | 11.3 | 8.9 | 0.005 |
| ERBH5013 | 20.9 | 17.3 | 0.005 |
| ERBH6013 | 24.3 | 18 | 0.005 |
| ERBH7013 | 27.7 | 20.1 | 0.005 |
| ERBH8016 | 42.1 | 30.1 | 0.005 |
| ERBH9016 | 45.3 | 31.4 | 0.006 |
| ERBH10020 | 50.9 | 33.1 | 0.006 |
| ERBH11020 | 50 | 34 | 0.006 |
| ERBH12025 | 100 | 66.9 | 0.006 |
| ERBH13025 | 107 | 69.5 | 0.008 |
| ERBH14025 | 121 | 74.8 | 0.008 |
| ERBH15025 | 128 | 76.8 | 0.008 |
| ERBH20025 | 150 | 80 | 0.010 |
| ERBH25025 | 185 | 98 | 0.010 |

| Model | Outer ring runout P5 | Inner ring runout P4 | Outer ring runout P4 | Inner ring runout P2 | Outer ring runout P2 | Preload | Positive clearance | Large clearance | Weight |
|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------|--------------------|-----------------|--------|
| | Kea/Sea (mm) | Kia/Sia (mm) | Kea/Sea (mm) | Kia/Sia (mm) | Kea/Sea (mm) | CC0 (mm) | C0 (mm) | C1 (mm) | m (Kg) |
| ERBH2008 | 0.007 | 0.003 | 0.005 | 0.0025 | 0.0025 | 0/-0.010 | 0/0.010 | 0.010/0.020 | 0.04 |
| ERBH2508 | 0.007 | 0.003 | 0.005 | 0.0025 | 0.0025 | 0/-0.010 | 0/0.010 | 0.010/0.020 | 0.05 |
| ERBH3010 | 0.008 | 0.003 | 0.005 | 0.0025 | 0.004 | 0/-0.010 | 0/0.010 | 0.010/0.020 | 0.12 |
| ERBH3510 | 0.008 | 0.004 | 0.005 | 0.0025 | 0.004 | 0/-0.010 | 0/0.010 | 0.010/0.020 | 0.13 |
| ERBH4010 | 0.008 | 0.004 | 0.005 | 0.0025 | 0.004 | 0/-0.010 | 0/0.010 | 0.010/0.020 | 0.15 |
| ERBH4510 | 0.008 | 0.004 | 0.005 | 0.0025 | 0.004 | 0/-0.010 | 0/0.010 | 0.010/0.025 | 0.16 |
| ERBH5013 | 0.008 | 0.004 | 0.005 | 0.0025 | 0.004 | 0/-0.010 | 0/0.010 | 0.010/0.025 | 0.29 |
| ERBH6013 | 0.010 | 0.004 | 0.006 | 0.0025 | 0.005 | 0/-0.010 | 0/0.010 | 0.010/0.025 | 0.33 |
| ERBH7013 | 0.010 | 0.004 | 0.006 | 0.0025 | 0.005 | 0/-0.010 | 0/0.015 | 0.015/0.030 | 0.38 |
| ERBH8016 | 0.010 | 0.004 | 0.006 | 0.0025 | 0.005 | 0/-0.010 | 0/0.015 | 0.015/0.030 | 0.74 |
| ERBH9016 | 0.011 | 0.005 | 0.007 | 0.0025 | 0.005 | 0/-0.010 | 0/0.015 | 0.015/0.035 | 0.81 |
| ERBH10020 | 0.011 | 0.005 | 0.007 | 0.0025 | 0.005 | 0/-0.010 | 0/0.015 | 0.015/0.035 | 1.45 |
| ERBH11020 | 0.013 | 0.005 | 0.008 | 0.0025 | 0.005 | 0/-0.015 | 0/0.015 | 0.015/0.035 | 1.56 |
| ERBH12025 | 0.013 | 0.005 | 0.008 | 0.0025 | 0.005 | 0/-0.015 | 0/0.015 | 0.015/0.035 | 2.62 |
| ERBH13025 | 0.015 | 0.006 | 0.010 | 0.0025 | 0.007 | 0/-0.015 | 0/0.020 | 0.020/0.045 | 2.82 |
| ERBH14025 | 0.015 | 0.006 | 0.010 | 0.0025 | 0.007 | 0/-0.015 | 0/0.020 | 0.020/0.045 | 2.96 |
| ERBH15025 | 0.015 | 0.006 | 0.010 | 0.0025 | 0.007 | 0/-0.015 | 0/0.020 | 0.020/0.050 | 3.16 |
| ERBH20025 | 0.018 | 0.008 | 0.011 | 0.005 | 0.007 | 0/-0.015 | 0/0.020 | 0.020/0.050 | 4 |
| ERBH25025 | 0.018 | 0.008 | 0.011 | 0.005 | 0.007 | 0/-0.020 | 0/0.025 | 0.025/0.060 | 4.97 |

Working Condition Requirement Sheet

| | | | |
|---|-------------|-------------|-----------|
| I Contact Info. | | | |
| 1.Name: | 2.Position: | 3.Tel.: | 4.E-mail: |
| 5.Company: | | 6.Industry: | |
| II Application conditions | | | |
| 1.Equipment type: ①Machining center ②grinding machine non-standard equipment ④testing equipment ⑤other equipment | | | |
| 2.application site: ①NC rotary table ②Angular milling head ③Direct drive motor ④Others | | | |
| 3.Precision and material of parts to be machined: ①Cast iron, semi-finishing ②Steel, precision processing ③Aluminum alloy, precision machining ④Handling,positioning | | | |
| 4.Mode of power transmission: ①manual ②Motor direct drive ③Motor, worm gear drive ④Motor, gear reducer ⑤Motor, belt ⑥Hydraulic transmission ⑦Other | | | |
| 5.Loading conditions: $F_a =$ KN, $F_r =$ KN, $F_1 =$ KN, $L_1 =$ mm. | | | |
| | | | |
| 6.Bearing rotating speed and working hours: Limit speed= RPM, Working speed= RPM, Working hours: ①Intermittent ②continuous. | | | |
| | | | |
| 7.Working environment & temperature conditions: ①Indoor, 10°C--60°C ②Outdoor, -20°C--50°C ③Other | | | |
| III Primary selection of bearing model | | | |
| 1.Dimension: ID mm, OD mm, H mm. | | | |
| 2.Precision: ①P5 ②P4 ③P2 | | | |
| IV Special requirements | | | |
| | | | |
| Note: Above information will be protected by our company as confidential secret of both parties. Please rest assured when filling in the information. | | | |

Customized according to the size range of the sample book, such as internal teeth, external teeth, additional flanges, surface heat treatment, and bearing housings and shafts that match the bearings can be customized and processed, and the drawings agreed and confirmed by both parties shall prevail.

Customization process:

1. The customer informs the working condition or the sample drawing
2. Technical personnel of both parties communicate technical details
3. We will issue confirmation drawings for customers to confirm
4. Both parties confirm the drawings and sign a technical agreement (the technical agreement and the contract have the same legal effect)

Model comparison table

| EFANT | THK | IKO | EFANT | THK | IKO |
|-----------|---------|-----------|-------------|-----------|-----------|
| ERBC | RB | CRB | ERBC | RB | CRB |
| ERBC2008 | RB2008 | CRBC208 | ERBC30025 | RB30025 | CRBC30025 |
| ERBC2508 | RB2508 | CRBC258 | ERBC30035 | RB30035 | CRBC30035 |
| ERBC3010 | RB3010 | CRBC3010 | ERBC30040 | RB30040 | CRBC30040 |
| ERBC3510 | RB3510 | CRBC3510 | ERBC35020 | RB35020 | CRBC35020 |
| ERBC4010 | RB4010 | CRBC4010 | ERBC40035 | RB40035 | CRBC40035 |
| ERBC4510 | RB4510 | CRBC4510 | ERBC40040 | RB40040 | CRBC40040 |
| ERBC5013 | RB5013 | CRBC5013 | ERBC45025 | RB45025 | CRBC45025 |
| ERBC6013 | RB6013 | CRBC6013 | ERBC50025 | RB50025 | CRBC50025 |
| ERBC7013 | RB7013 | CRBC7013 | ERBC50040 | RB50040 | CRBC50040 |
| ERBC8016 | RB8016 | CRBC8016 | ERBC50050 | RB50050 | CRBC50050 |
| ERBC9016 | RB9016 | CRBC9016 | ERBC60040 | RB60040 | CRBC60040 |
| ERBC10016 | RB10016 | CRBC10016 | ERBC70045 | RB70045 | CRBC70045 |
| ERBC10020 | RB10020 | CRBC10020 | ERBC80070 | RB80070 | CRBC80070 |
| ERBC11012 | RB11012 | CRBC11012 | ERBC90070 | RB90070 | |
| ERBC11015 | RB11015 | CRBC11015 | ERBC1000110 | RB1000110 | |
| ERBC11020 | RB11020 | CRBC11020 | ERBC1250110 | RB1250110 | |
| ERBC12016 | RB12016 | CRBC12016 | | | |
| ERBC12025 | RB12025 | CRBC12025 | | | |
| ERBC13015 | RB13015 | CRBC13015 | | | |
| ERBC13025 | RB13025 | CRBC13025 | | | |
| ERBC14016 | RB14016 | CRBC14016 | | | |
| ERBC14025 | RB14025 | CRBC14025 | | | |
| ERBC15013 | RB15013 | CRBC15013 | | | |
| ERBC15025 | RB15025 | CRBC15025 | | | |
| ERBC15030 | RB15030 | CRBC15030 | | | |
| ERBC16025 | RB16025 | CRBC16025 | | | |
| ERBC17020 | RB17020 | CRBC17020 | | | |
| ERBC18025 | RB18025 | CRBC18025 | | | |
| ERBC19025 | RB19025 | CRBC19025 | | | |
| ERBC20025 | RB20025 | CRBC20025 | | | |
| ERBC20030 | RB20030 | CRBC20030 | | | |
| ERBC20035 | RB20035 | CRBC20035 | | | |
| ERBC22025 | RB22025 | CRBC22025 | | | |
| ERBC24025 | RB24025 | CRBC24025 | | | |
| ERBC25025 | RB25025 | CRBC25025 | | | |
| ERBC25030 | RB25030 | CRBC25030 | | | |
| ERBC25040 | RB25040 | CRBC25040 | | | |

| EFANT | THK | IKO |
|-----------|---------|------------|
| ERBS | RA | CRBS |
| ERBS5008 | RA5008 | CRBS508A |
| ERBS6008 | RA6008 | CRBS608A |
| ERBS7008 | RA7008 | CRBS708A |
| ERBS8008 | RA8008 | CRBS808A |
| ERBS9008 | RA9008 | CRBS908A |
| ERBS10008 | RA10008 | CRBS1008A |
| ERBS11008 | RA11008 | CRBS1108A |
| ERBS12008 | RA12008 | CRBS1208A |
| ERBS13008 | RA13008 | CRBS1308A |
| ERBS14008 | RA14008 | CRBS1408A |
| ERBS15008 | RA15008 | CRBS1508A |
| ERBS16013 | RA16013 | CRBS16013A |
| ERBS17013 | RA17013 | CRBS17013A |
| ERBS18013 | RA18013 | CRBS18013A |
| ERBS19013 | RA19013 | CRBS19013A |
| ERBS20013 | RA20013 | CRBS20013A |

| EFANT | IKO |
|-----------|-------------|
| ERBH | CRBH |
| ERBH2008 | CRBHV208A |
| ERBH2508 | CRBHV258A |
| ERBH3010 | CRBHV3010A |
| ERBH3510 | CRBHV3510A |
| ERBH4010 | CRBHV4010A |
| ERBH4510 | CRBHV4510A |
| ERBH5013 | CRBHV5013A |
| ERBH6013 | CRBHV6013A |
| ERBH7013 | CRBHV7013A |
| ERBH8016 | CRBHV8016A |
| ERBH9016 | CRBHV9016A |
| ERBH10020 | CRBHV10020A |
| ERBH11020 | CRBHV11020A |
| ERBH12025 | CRBHV12025A |
| ERBH13025 | CRBHV13025A |
| ERBH14025 | CRBHV14025A |
| ERBH15025 | CRBHV15025A |
| ERBH20025 | CRBHV20025A |
| ERBH25025 | CRBHV25025A |

| EFANT | THK | IKO |
|--------------|----------|-----------------|
| ERBF | RU | CRBF |
| ERBF1008 | RU28 | CRBFV1008AT |
| ERBF2012 | RU42 | CRBFV2012AT |
| ERBF3515 | RU66 | CRBFV3515AT |
| ERBF5515 | RU85 | CRBFV5515AT |
| ERBF8022(G) | RU124(G) | CRBFV8022A(AD) |
| ERBF8022X | RU124X | CRBFV8022AT |
| ERBF9025(G) | RU148(G) | CRBFV9025A(AD) |
| ERBF9025X | RU148X | CRBFV9025AT |
| ERBF11528(G) | RU178(G) | CRBFV11528A(AD) |
| ERBF11528X | RU178X | CRBFV11528AT |
| ERBF16035(G) | RU228(G) | |
| ERBF16035X | RU228X | |
| ERBF21040(G) | RU297(G) | |
| ERBF21040X | RU297X | |
| ERBF35045(G) | RU445(G) | |
| ERBF35045X | RU445X | |

| EFANT | THK |
|--------------|-------|
| RW | RW |
| EDRX10020(G) | RW145 |
| EDRX12030(G) | RW164 |
| EDRX15030(G) | RW195 |
| EDRX18040(G) | RW230 |
| EDRX20040(G) | RW250 |
| EDRX26050(G) | RW323 |
| EDRX32550(G) | RW388 |
| EDRX39550(G) | RW463 |
| EDRX46050(G) | RW530 |
| EDRX58060(G) | RW665 |
| EDRX65060(G) | RW760 |

| EFANT | INA |
|-----------|------------|
| EFSX | SX |
| EFSX7010 | SX011814 |
| EFSX9013 | SX011818 |
| EFSX10013 | SX011820 |
| EFSX12016 | SX011824 |
| EFSX14018 | SX011828 |
| EFSX16020 | SX011832 |
| EFSX18022 | SX011836 |
| EFSX20024 | SX011840 |
| EFSX24028 | SX011848 |
| EFSX30038 | SX011860 |
| EFSX34038 | SX011868 |
| EFSX40046 | SX011880 |
| EFSX50056 | SX0118/500 |

| EFANT | INA |
|-------------|------------|
| EFXU | XU |
| EFXU4022 | XU050077 |
| EFXU5726 | XU060094 |
| EFXU7616 | XU060111 |
| EFXU6930 | XU080120 |
| EFXU10222 | XU080149 |
| EFXU12535 | XU120179 |
| EFXU12535ZT | XU120179 |
| EFXU14036 | XU120222 |
| EFXU19146 | XU160260 |
| EFXU19146ZT | XU160260ZT |
| EFXU21626 | XU080264 |
| EFXU33646 | XU160405 |
| EFXU33646ZT | XU160405ZT |
| EFXU38026 | XU080430 |
| EFXU38486 | XU300515 |
| EFXU38486ZT | XU300515ZT |

| EFANT | INA |
|------------|-----------|
| EXSU | XSU |
| EXSU13025 | XSU080168 |
| EXSU15025 | XSU080188 |
| EXSU18025 | XSU080218 |
| EXSU22025 | XSU080258 |
| EXSU28025 | XSU080318 |
| EXSU36025 | XSU080398 |
| EXSU34456 | XSU140414 |
| EXSU47456 | XSU140544 |
| EXSU57456 | XSU140644 |
| EXSU67456 | XSU140744 |
| EXSU77456 | XSU140844 |
| EXSU87456 | XSU140944 |
| EXSU102456 | XSU141094 |

| EFANT | INA |
|----------|----------|
| EFRT | YRT |
| EFRT50 | YRTC50 |
| EFRT80 | YRTC80 |
| EFRT100 | YRTC100 |
| EFRT120 | YRTC120 |
| EFRT150 | YRTC150 |
| EFRT180 | YRTC180 |
| EFRT200 | YRTC200 |
| EFRT260 | YRTC260 |
| EFRT325 | YRTC325 |
| EFRT395 | YRTC395 |
| EFRT460 | YRTC460 |
| EFRT580 | YRTC580 |
| EFRT650 | YRTC650 |
| EFRT850 | YRTC850 |
| EFRT950 | YRTC950 |
| EFRT1030 | YRTC1030 |
| EFRT1200 | YRTC1200 |

| EFANT | INA |
|---------|---------|
| ERTS | YRTS |
| ERTS200 | YRTS200 |
| ERTS260 | YRTS260 |
| ERTS325 | YRTS325 |
| ERTS395 | YRTS395 |
| ERTS460 | YRTS460 |

| EFANT | INA |
|----------|----------|
| EKLDF100 | ZKLDF100 |
| EKLDF120 | ZKLDF120 |
| EKLDF150 | ZKLDF150 |
| EKLDF180 | ZKLDF180 |
| EKLDF200 | ZKLDF200 |
| EKLDF260 | ZKLDF260 |
| EKLDF325 | ZKLDF325 |
| EKLDF395 | ZKLDF395 |
| EKLDF460 | ZKLDF460 |
| EKLDF580 | ZKLDF580 |
| EKLDF650 | ZKLDF650 |