



GWG
BEARING

WAFANGDIAN GUOLI BEARING MANUFACTURING CO.,LTD.



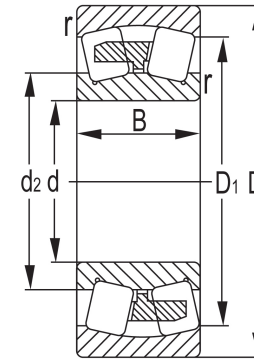
About GWG Bearings

GWG Bearings produces large diameter industrial bearings for a wide scope of applications, such as metallurgy, mining, construction, pulp and paper, transportation, etc. GWG was a very small factory when she was founded in 1996. With more than 10 years' efforts, now GWG becomes one of the best sources of large diameter industrial bearings in China. Manufacturing facilities are in Wafangdian, international Sales Office in Dalian and two domestic sales offices in Wuxi and Ningbo. By 2007, GWG has customers from five continents.

Historically, GWG's activity is centered in distribution of bearings of various brands. We deeply understand the various needs from different users. Since GWG started to produce bearings herself, she attached importance to custom or unique bearings. Now GWG acts as manufacturer and export of standard, non-standard and custom industrial bearings. GWG also provide OEM and supply bearings in registered brand GWG®

"High quality, Reasonable Price, Fast Delivery and Custom Solution" is GWG's eternal promise.

Spherical Roller Bearing



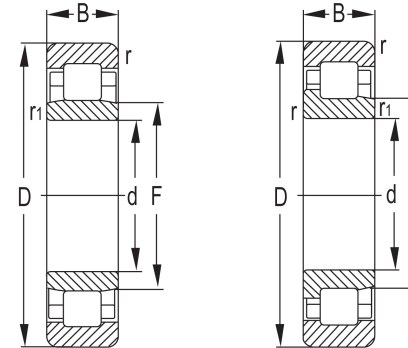
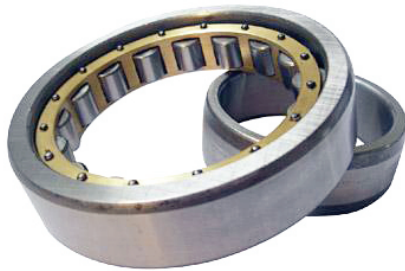
Feature

Spherical rollers are put between the spherical raceway on the outer ring and the two grooves on the inner ring for these bearings. Since the center of the arc raceway on the outer ring is the same as the center of the whole bearing arrangement, these bearings are self-aligned and automatically adjust the bending of the shaft and housing and the eccentricity. The bearings can carry radial load and axial load in double directions. The especial radial load carrying capability makes these bearings suitable for heavy load and shock load carrying.

Products Range

Series Number	Bore Diameter Range	Cage
239XX	150~800mm	CAM, MB, CC
230XX	150~800mm	CAM, MB, CC
240XX	150~800mm	CAM, MB, CC
231XX	150~800mm	CAM, MB, CC
241XX	150~800mm	CAM, MB, CC
222XX	150~800mm	CAM, MB, CC
232XX	150~800mm	CAM, MB, CC
213XX	150~800mm	CAM, MB, CC
223XX	150~800mm	CAM, MB, CC

Cylindrical Roller Bearing



Feature

Cylindrical rollers have linear contact with the raceway, and the bearings can carry heavier radial load. Applications are found in situations characterized by heavy load and shock load and also high rotation speed. The N type and NU type bearings can be movable along the shaft. They can adapt to the position changes between the shaft and housing caused by the thermal expansion or the mounting error and are most suitable for free end shafts. NJ and NF types can accept certain axial load in one direction, and NH and NUP types can accept certain axial load in two directions. Inner ring and outer ring can be separable, and be they are convenient to mount and dismount. FC, FCD and FCDP types can carry comparatively heavy radial load and are mainly applied for mill rolls.

Applications

These bearings are mostly found in middle-sized and large-sized motors, electricity generators, internal combustion engines, gas turbines, machine tool spindles, deceleration devices, unloading and lifting machines and other industrial machines.

Single-Row

NU type and N type cylindrical roller bearings allow the shaft to move in the axial direction within certain limits in relation to the housing. Therefore, they can be used as bearings on the free end of the shaft.

NJ type and NFP type cylindrical roller bearings can carry the axial load within certain limits in double direction.

Products Range

Series Number	Bore Diameter Range
NU10XX	150mm~800mm
NU2XX	150mm~800mm
NU22XX	150mm~800mm
NU32XX	150mm~800mm
NU3XX	150mm~800mm
NU23XX	150mm~800mm
NU4XX	150mm~800mm
NJ,NUP,N,NF,NH	150mm~800mm

Spherical Roller Bearing



Double-Row

There are cylindrical bored and taper bored cylindrical roller bearings. There may be lubricating holes or grooves on the outer rings of these bearings.

Mostly these bearings are used in machine tool spindles, but they can be used in other situation too.

Products Range

Series Number	Bore Diameter Range
NNU49XX	150mm~800mm
NN30XX	150mm~800mm

Four-Row

Four-row cylindrical roller bearings can carry much heavier radial load and shock load. They have higher manufacturing precision and can be used to meet high rotational speed requirement.

Mostly these bearings are used in the rolling mills and some other cases.

Products Range

Series Number	Bore Diameter Range
FC	150mm~800mm
FCD	150mm~800mm
FCDP	150mm~800mm

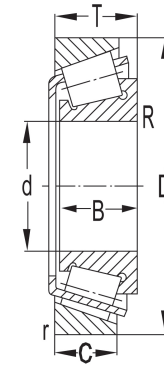
SL Series

SL series cylindrical roller bearings do not have cage. They can carry very heavy load in a slow speed.

Series No.:SL1818XX SL1829XX SL1822XX SL1850XX SL0148XX SL0148XX SL1923XX SL0450XX SL04XX

Bore Diameter Range:200~800mm

Taper Roller Bearing



Feature

These bearings have tapered rollers which are guided by the thicker side of the cup. The design of the sliding surfaces of the cup and inner ring and the rolling elements when extended converge towards the same single point on the bearing axle. Single-row bearings can carry radial load and axial load in one direction. Double-row and four-row taper roller bearings can bear the radial load and axial load in double directions.

Cages

Usually the taper roller bearings have pressed basket-shaped cages of steel sheet. But for cages with greater machined dimension, cages are also used. GWG Bearings manufactures both metric and inch-sized single row, double-row and four-row taper roller bearings

Single-Row

These bearings can only limit the axial movement of either the shaft or the housing in one direction, and can carry axial load in one direction. When with only radial load, the axial force formed inside the bearings must be offset. It is suggested that two of the bearings be put in face-to-face or back-to-back arrangements in application.

Products Range

Series Number	Bore Diameter Range
329XX	150-800mm
320XX	150-800mm
330XX	150-800mm
331XX	150-800mm
302XX	150-800mm
322XX	150-800mm
303XX	150-800mm
313XX	150-800mm
323XX	150-800mm
Inch Size	6 inch-32 inch

Taper Roller Bearing



Double-Row

This design can make the bearings carry radial load and simultaneously axial load in double directions. It is possible to limit the axial movement of the shaft or the housing in double directions within the scope of the axial load clearance.

Bore Diameter Range: GWG is able to produce double-row taper roller bearings from bore diameter 150mm to 800mm. In addition of metric series, GWG also produce inch size bearings.

Four-Row

The functions and features of these bearings are basically the same as those of the double-row design. However, they can carry heavier load than the double-row taper roller bearing. So these bearings can be found in the heavy machines such as the rolling mills.

Bore Diameter Range: GWG is able to produce Four-row taper roller bearings from bore diameter 150mm to 800mm. In addition of metric series, GWG also produce inch size bearings.

Spherical thrust roller bearings



Feature

The rollers of these bearings are of spherical shape, and the spherical raceway surface of the housing washer is self-aligned. These bearings are featured by the extremely big axial load carrying capacity and meanwhile they can also carry certain radial load.

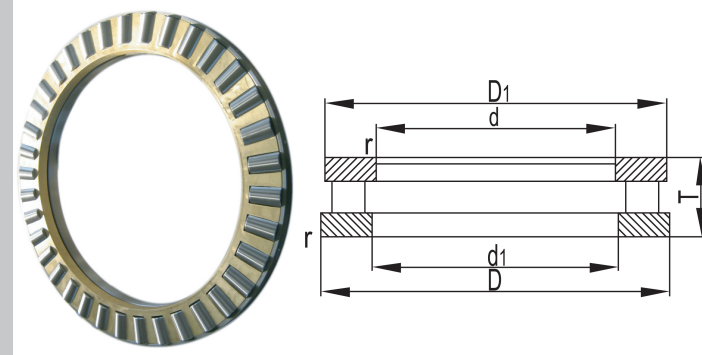
Spherical thrust roller bearings can carry both axial load and radial load at the same time. However, the radial load should not exceed 55% of the axial load anyway. Since these bearings are self-aligning, they are not so sensitive to the eccentricity and bending of the shaft.

Oil lubrication is commonly used while working. Applications of these bearings can be found in hydroelectric generators, vertical motors, propeller axle of vessels, tower cranes and squeezing presses.

Products Range

Series Number	Bore Diameter Range	Cage
292XX	150~900mm	Iron, Brass and steel
293XX	150~900mm	Iron, Brass and steel
294XX	150~900mm	Iron, Brass and steel

Cylindrical roller thrust bearings



Feature

These bearings consist of rings with raceways (shaft washer and housing washer) and cylindrical rollers and the cage assembly. The contour surface of the cylindrical rollers makes the even distribution of the pressure between the rollers and rolling surfaces. They can carry axial load in single direction.

Series No.: 811, 812, 893, 874, 894

Bore Diameter Range: Bore diameter 150~900mm

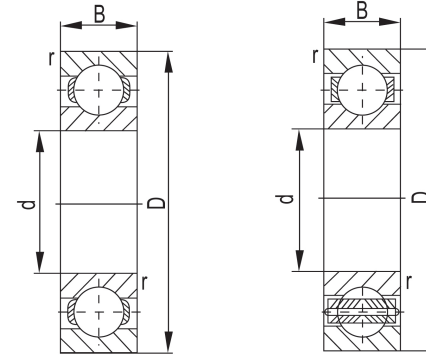
Taper roller thrust bearings

Feature

The tapered rollers (with larger spherical end) of these bearings are guided precisely by the integral flanges of the washers (shaft washer and housing washer) with raceways. When extended, the design makes the tapered raceway surfaces of the shaft washer and housing washer and the sliding surface of the rollers converge towards to the same single point on the bearing axle. Single-direction bearings can carry axial load in one direction. Double-direction bearings can carry axial load in two directions.

Bore Diameter Range: GWG is able to produce double-row taper roller bearings from bore diameter 400 to 1200mm.

Deep Groove Ball Bearing



Feature

They are the most typical rolling bearings with extensive applications. The raceways in both of the rings are in arc groove form, which can carry radial and axial load in double directions. They can be applied in situations where high-rotating speed and low noise and low vibration are required.

Applications

Can be found in automobiles, machine tools, motors, instruments, construct machines, railway vehicles, agricultural machines and various other special machines

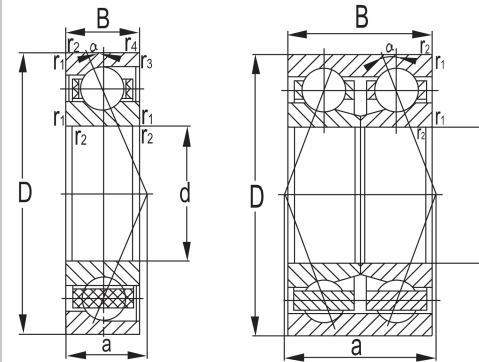
Single-row

Series Number	Bore Diameter Range
618XX	120mm~900mm
619XX	120mm~900mm
160XX	120mm~900mm
60XX	120mm~900mm
62XX	120mm~900mm
63XX	120mm~900mm
64XX	120mm~900mm

Double-row(with filling slot)

Series Number	Bore Diameter Range
42XX	120mm~900mm
43XX	120mm~900mm

Angular contact ball bearings



Feature

When the single-row angular contact ball bearing is carrying the radial load, there will be a component of force in the axial direction. Therefore it is suggested that two of these bearings be applied in back-to-back or face-to-face arrangements. These bearings have contact angles between the rings and balls. The standard angles are 15° , 25° and 45° . The greater the angle, the higher the axial load carrying capacity of the bearing. However, the smaller the contact angle, the higher the rotating speed.

Single row bearings can carry radial load and axial load in one direction. Double-row angular contact ball bearings have two designs of one outer ring and two inner rings and one outer ring and one inner ring. For the design with one outer ring and two inner rings, the axial clearance is easy to control during machining. The double back-to-back and double face-to-face arrangements of the bearings and double-row bearings can carry radial load and axial load in two directions.

Applications

These bearings are mainly applied in the machine tool spindles, high-frequency motors, gas turbines, oil pumps, air compressors, printing machines and other installations.

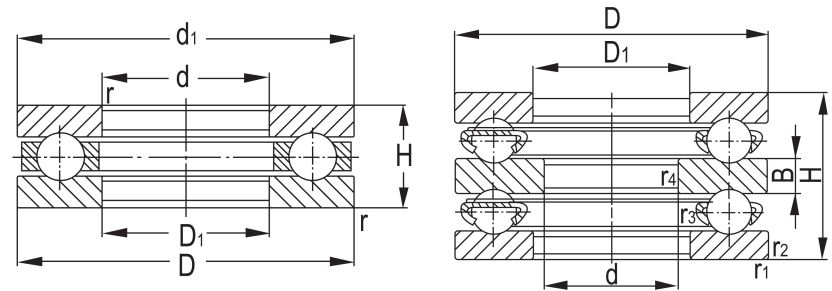
Single-Row

Series Number	Bore Diameter Range
719XX	120mm~900mm
70XX	120mm~900mm
72XX	120mm~900mm
73XX	120mm~900mm
74XX	120mm~900mm
QJ2XX	120mm~900mm
QJ3XX	120mm~900mm

Double-row

Series Number	Bore Diameter Range
32XX	120mm~900mm
33XX	120mm~900mm

Thrust ball bearings



Feature

Bearings of this type consist of the washer with raceway and the assembly of balls and cage. The washer that contacts the shaft is called shaft washer, and the one attached to the housing is called the housing washer.

Thrust ball bearings in double direction have a central washer connected to the shaft. Single-direction bearings can carry axial load in one direction, and double-direction bearings can carry axial load in two directions.

Applications of these bearings can be found in steering mechanism of automobiles and machine tool spindles.

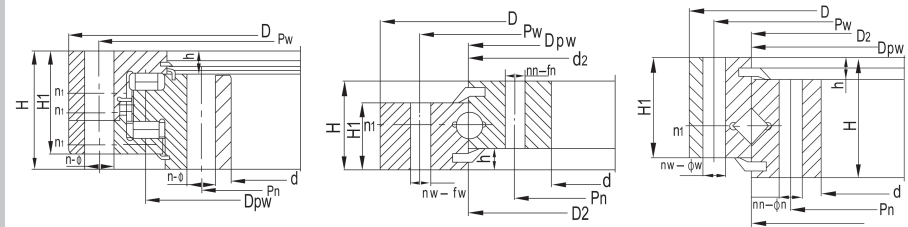
Single-direction

Series Number	Bore Diameter Range
511XX	120~900mm
512XX	120~900mm
513XX	120~900mm
514XX	120~900mm
532XX	120~900mm
533XX	120~900mm
534XX	120~900mm
522XX	120~900mm
523XX	120~900mm
524XX	120~900mm

Double-direction

Series Number	Bore Diameter Range
542XX	120~900mm
543XX	120~900mm
544XX	120~900mm

Slewing bearings



Four-point contact ball slewing bearings (HS Series)

Single-row four point contact slewing bearings have two rings with compact configuration and light weight. The steel balls have four point contacts with the arc raceways, which make the bearings accept at the same time the axial load, radial load and also tilting torque. Applications of these bearings may be found in slewing conveyors, welding machines, medium-and-small sized lifting machines and excavators and other engineering machines.

Three-row roller slewing bearings (HY Series)

Three-row roller slewing bearings have three slewing rings, the up-down and radial raceways separate from each other, therefore the load on each row of rollers can be accurately defined. These bearings can stand all kinds of loads, and can accept the heaviest load among the four groups. They are featured by comparatively big radial and axial dimensions and strong configuration, and are especially suitable for heavy machines that require comparatively large diameters. Applications can be found in machines such as cup-type excavators, wheel-type lifting machines, cranes for ships, melted steel rotators and heavy truck lifters.

Cross roller slewing bearings (HJ Series)

Single-row cross roller slewing bearings have two rings with compact configuration and light weight. They are featured by high manufacturing precision and small assembly clearance, which requires precise mounting accuracy. The rollers are cross arranged at 1:1 alternatively, and they can accept axial force, tilting torque and comparatively big axial force at the same time. These bearings are extensively used in lifting, transportation, engineering machines and military products.

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Phone: 86-0411-82768571
86-0411-82768572

FAX: 86-0411-82768573
[Http:www.gwgbearings.com](http://www.gwgbearings.com)

E-mail:export@gwgbearings.com

International Sales Office Add:A1317 No.20 Gangwan Street Dalian,China
Factory Add:Zhuhua Industry District Wafangdian,Liaoning Province,China