

CUSTOMIZED BEARINGS & SERVICES



Factories:

- Wuxi Over-the-Rainbow, Jiangsu Province, China
- Huzhou Ruier, Zhejiang Province, China
- Ningbi Sijie, Zhejiang Province, China

Precision Bearing @ Competitive Price





History
30+ Years

Annual Production Capacity
30 Million Sets

Product Types
1,665 Variants

Employees
212+ Persons

History
60+ Years

Annual Production Capacity
2 Million Sets

Product Types
150 Variants

Employees
60+ Persons

■ MTWB Customized Bearing & Services

MTWB is a leading supplier of precision bearings serving customers worldwide. We offer customized ball or roller bearings according to customer's or MTWB's print, or sample bearing as provided by customer, ranging from miniatures, small to medium to large sizes.

MTWB's customization service has very short lead-times from design, technical drawing, customer confirmation, sample making to small batch order production that is unparalleled by international brands.

Very often customers are having the following bearing working condition and call MTWB to offer our customized bearings:

- High Speed Required (Super Precision & Finishing)
- Corrosion Resistance Required (Stainless Steel, Ceramic or Coating Offer)
- Wear Resistance Required (Maintenance-free, Long Bearing Life)
- Contaminated Environment (Sealing solution)
- Clean Working Environment (Low Particulate Emission)
- Electrical Resistance Required
- Non-magnetic Required
- High Temperature Environment
- Ultra Low Temperature Environment
- Low Torque Required
- Light Weight Required
- Extremely Low Lubrication Situation
- Oscillating Motion Situation



Customized bearings, also known as non-standard bearings, are bearings that do not conform to the specification or dimension of national or international standards.

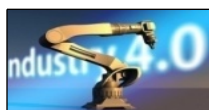
In practice, before a manufacturing print is finalized, our engineering team needs to understand deeply customer's application and work closely with them to find a unique bearing solution. With long years of experience, we understand exactly customer's need and are fully confident to produce reliable bearings for them.

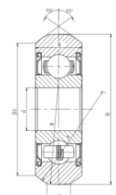
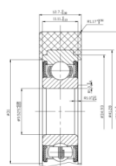
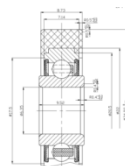
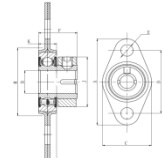
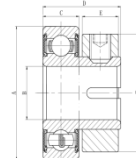
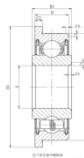
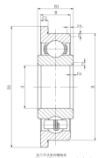
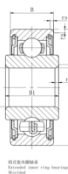
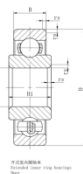
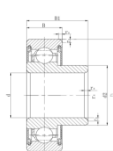
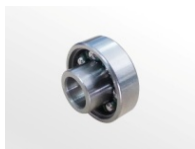
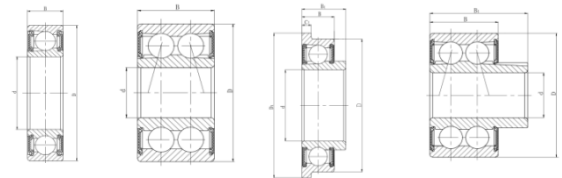
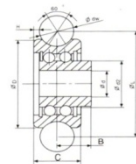
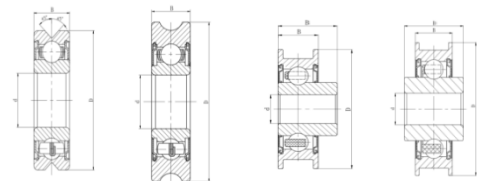
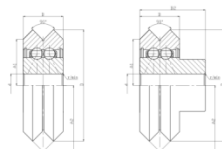
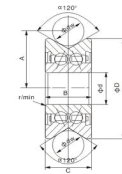
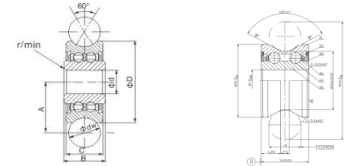
Customized bearing are mostly requested by OE customers, they usually begin with a small sample order and thereafter ramping up to a batch or quantity order. MTWB factory audit is open to regular OE customers.

MTWB is used to offer the following customized bearings:

1. Special Dimension Bearing (DGBB, CRB, TRB, ACBB)
2. Super Precision Miniature Bearing
3. Extra Low Noise Small DGBB
4. High Speed Miniature Bearing
5. High Temp. Bearing (Up to 350°C)
6. Ultra Low Temp. Bearing (Down to -250°C)
7. Full Ball or Cylindrical Roller Bearing
8. Stainless Steel Bearing
9. Alloy Bearing
10. Extra Heavy Duty Bearing
11. Maintenance-free Bearing (With Patent)
12. One-way Bearing
13. Guide Roller Bearing - V/U/G /W Groove
14. Plastic-coated Bearing
15. Ceramic Bearing
16. Agricultural Bearing
17. Precision Plastic Bearing

Over the last 30 years, we have accumulated lots of customized bearing experiences in the following applications: Aviation, Automotive, Medical, Metallurgy, Chemical, Glass & Ceramic Tile Manufacturing, Rail Transport, Industrial Pumps, Escalator, Agricultural Machinery, Food & Beverages, Robotic Arm, Cutting Equipment, Guided Moving Rail, Production Line, Forklifting, Computerized Embroidery Machine, etc. We have 51 active patents, 10 of which are product innovation.

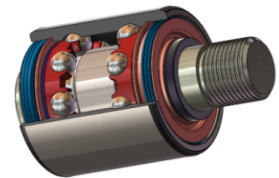
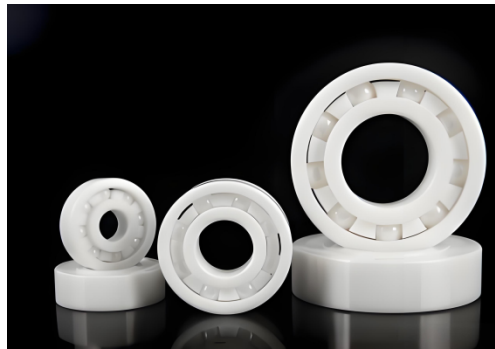




轴承型号

尺寸

Auto. Generator Bearing No	Dimensions			
	d	D	B	rs(min)
	mm			
B8-74D	8	22	11	0.15
B8-79D	8	23	11	0.15
B8-85D	8	23	14	0.15
B10-46D	10	23	11	0.20
B10-50D	10	27	11	0.20



Use of Bearing Materials

MTWB's engineering team has vast experience in using materials other than GCr15 and standard stainless steel. We can recommend the best bearing materials hence to achieve a better performance for corrosion resistance, fatigue resistance and wear resistance given customer's application and temperature range. Here forth is MTWB's experience regarding bearing materials:

1. Martensitic Stainless Steel SV30

Special stainless steel X30CrMoN15-1 (SV30) is the best bearing material, not only its mechanical properties are stronger than any existing bearing material, but also has very strong corrosion resistance, high temperature resistance up to 450°C. Martensitic stainless steel is gotten from raw steel by reducing the carbon content and introducing nitrogen as an agent over the alloying process. Nitrogen increases the saturation of chromium, which is converted to chromium nitride instead of chromium carbide, resulting in a high-strength, high-hardness steel with excellent microstructure that can extend the fatigue life by 100% (twice) in some applications. This material also offers enhanced corrosion resistance, better than 440C and ACD34 (5 times higher).

2. M50/Cr4Mo4V

M50 steel has high hardness, excellent wear resistance, good thermal stability, excellent mechanical strength and good corrosion resistance.
(M50 National Standards - GB:Cr4Mo4V, ASTM:M50, NF:S80DCV40)

3. L605 Cobalt Alloy

L605 is a cobalt based alloy which has medium durability and creep strength under 815°C, excellent oxidation resistance under 1090°C, and satisfactory forming, welding and other manufacturing process properties.

4. GR5 Titanium Alloy

GR5 titanium alloy is a high performance material, its chemical composition is carefully designed and optimized. The material is mainly composed of titanium, a small amount of aluminum, vanadium and other alloys that not only improve the strength of GR5 titanium alloy, but also gives it excellent corrosion resistance and high temperature stability.

5. Ceramic Materials

Ceramic materials (ZrO₂, Si₃N₄) has the characteristics of higher temperature resistance, corrosion resistance, wear resistance, non-magnetic, non-electrical conducting, self-lubricating, lower friction than other metal bearing materials. With a good choice of cage materials for example PTFE, Nylon 66, Polyetherimide Ammonia, Zirconia, Stainless Steel or Special Aviation Aluminum, ceramic bearing can be a perfect solution to demanding application for longer bearing life, higher speed or operating temperature up to 250 °C.

6. Precision Plastic Materials

Precision plastic materials (POM and PA) has excellent mechanical strength, wearing resistance, self-lubricating and low friction characteristic. The inner and outer rings of a precision plastic bearing are usually made from POM, the cage is PA and balls are glass, stainless steel or ceramic. The main advantages of precision plastic materials are light weight, low maintenance and cost-effective.

■ **Super Precision Miniature Bearings**

MTWB continuously seeks for technical improvement and up till now can provide you with a full range of miniature bearings from 0.6-30mm ID (Designation: 68/0.6~6806 or RO~R10). Yes, as small as 0.6mm ID, up to ABEC-7 precision class! It is by far the smallest miniature bearing that you can find on earth.

Our success for making this world's smallest miniature bearing is originally driven by medical application, yet we believe this technology can also be extended to other industrial application. All our miniature bearings are made from international graded bearing steel to ensure their excellent loading and service life performance.

Our miniature bearings are found everywhere for examples in micro motors, medical and aviation devices, instruments, meters, electronic devices, disc-driver, computerized sewing machines, robotic arm, drones, household appliances, office equipment and high-altitude weather monitoring devices.

Extra Low-Noise Small DGBB

- MTWB deeply understands that different applications or industries have the same stringent requirement for bearing noise, such as electric motor, household equipment, automobiles, aviation and so on. Materials matter! That's why we choose only the finest bearing material, like G95Cr18, or GCr15 bearing steel or corrosion-resistant 300-series stainless steel. These top-graded materials ensure MTWB bearings are strong, durable, and whisper-quiet to perform flawlessly for long haul.

One key factor to make a low-noise bearing lies in reducing vibration that relies much on our top-notch technicians to refine every possible way to grind the inner ring raceway of our low-noise bearings with minimal vibration – in fact, even to ensure they always exceed the industry standards by 2-3 dB!

MTWB doesn't just say our bearings are quiet, we guarantee it. Firstly, we prevent dust and debris entering the interior of the bearing before sealing or shielding the bearing. Secondly, we use only good quality balls and grease that is another major factor influencing bearing noise. MTWB bearings are lubed with lithium-based grease for closed bearing. Special grease can be selected according to OE customer's requirement. Finally, 100% inspection is conducted on the sealing effect of every bearing before it leaves the factory.

In order to accurately grade the noise level of bearings, we strictly follow the testing specifications and make full use of noise testers and vibration testers for inspection. The noise detection of bearings is divided into Z1-Z4 levels, while the vibration detection levels are classified as V1-V4. OE customers usually have stricter requirement for bearing noise, yet they can select their acceptable noise level hence yielding the best cost advantage.

■ **Special Dimension Bearings or Precision Components**

Usually special dimension bearings or precision components are designed by OE customer for functionality or cost-saving reasons or both. MTWB can made-to-order according to customer's print, or real sample provided. Your inquiry for this service is most welcome!

**MTWB Bearing is mounted
Everywhere Worldwide!**

Industries

Aviation Instrument
Medical Instrument
Encoder / Decoder
Home Electricals
Office Equipment
Macro/DC/AC Motor
Fitness Equipment
Industrial Robot
Power Hand-tools
CNC Machine
Agri. Machinery
Forklift, Elevator
Oil Pump
Two Wheeler
Power Transmission
Glass & Ceramic Tile
Manufacturing
Fluid Machinery
Metals Industry
F&B Packaging
Food Processing
Construction Machinery

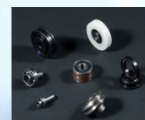
Automotive

Power System
Steering System
Transmission System
Chassis System
Auxiliary System
Electric Vehicle

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