

What Are Tapered Roller Bearing Used For?

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[Fasteners/Bearings & Bushings/Tapered Roller Bearing — ISO / DIN \(Series 116\)/Applications](#)

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Typical applications, the industries that specify tapered roller bearing, and how to choose the right size, material, and finish for the joint.

Tapered Roller Bearings are used for supporting a rotating shaft and carrying its radial and axial loads with low friction. They are manufactured to ISO / DIN, and selection is driven by the bore diameter, the fit and tolerance the assembly requires, and the service environment.

Primary duty

Supporting a rotating shaft and carrying its radial and axial loads with low friction

Governing standard

ISO / DIN

Bore diameter range

20 mm to 80 mm

Category

Bearings & Bushings

Application notes are general engineering guidance. Verify the property class and any approval requirement against your own design calculation.



Tapered Roller Bearings are selected when an assembly calls for supporting a rotating shaft and carrying its radial and axial loads with low friction. This application guide to the ISO / DIN type covers concrete end-uses, the specification checklist, correct installation, and where an alternative fastener performs better. Stocked across roughly 20 mm to 80 mm, they cover heavy and structural work.

Typical Applications for Tapered Roller Bearing — ISO / DIN (Series 116)

The most common settings where these are specified:

- **General machine building:** fastening covers, brackets, motors and sub-assemblies on production equipment.
- **Maintenance & repair (MRO):** a stocked size for servicing existing plant where the original fastener spec must be matched.
- **Fabrication & metalwork:** bench and on-site assembly of steel frames, enclosures and weldments.

How to Specify Tapered Roller Bearing — ISO / DIN (Series 116) for Your Application

- **Size:** Select on bore diameter, and confirm it against the mating feature in the assembly. This product spans 20 mm-80 mm; check the full table below for the exact dimensions of each size.

- **Material:** Choose the material and finish for the service environment — plated steel for general use, stainless for corrosion resistance.
- **Environment:** For damp, coastal or chemical exposure prefer A4/316 stainless or a suitable coating; indoors, plated steel or A2 is usually sufficient.
- **Standard:** This product is supplied to ISO / DIN. Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Where Tapered Roller Bearing — ISO / DIN (Series 116) Are Not the Right Choice

Match the fastener to the load, environment and whether the joint must be reopened; the wrong class or style is the usual cause of joint failure.

Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose.

Changing the size will snap the other fields to that size's standard values; you can then override any individual value.

Sends the selected values to the quote form below.

Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

Dimensions & Specifications (ISO / DIN)

Bore d (mm)	Outer diameter D (mm)	Total width T (mm)	Cone angle (deg)	Dynamic load C (kN)	Reference standard
20	47	15.25	15	30.0	ISO 355 / GB/T 297
25	52	16.25	15	34.0	ISO 355 / GB/T 297
30	62	17.25	15	49.5	ISO 355 / GB/T 297
35	72	18.25	15	69.0	ISO 355 / GB/T 297
40	80	19.75	15	81.5	ISO 355 / GB/T 297
50	90	21.75	15	93.0	ISO 355 / GB/T 297
60	110	23.75	15	142	ISO 355 / GB/T 297
80	140	28.25	15	224	ISO 355 / GB/T 297

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.

1.



01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.



2.

02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.

3.



03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.

4.



04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Frequently Asked Questions

What are Tapered Roller Bearing — ISO / DIN (Series 116) used for?

Supporting a rotating shaft and carrying its radial and axial loads with low friction. They are supplied to ISO / DIN.

Which industries use Tapered Roller Bearing — ISO / DIN (Series 116)?

They are commonly specified in general machine building, maintenance & repair (mro) and fabrication & metalwork, among other sectors.

How do I choose the right size of Tapered Roller Bearing — ISO / DIN (Series 116)?

Select on bore diameter and on the fit the assembly requires. This product is available from 20 mm to 80 mm; the full dimension table on this page lists each size.

Are Tapered Roller Bearing — ISO / DIN (Series 116) made to a recognized standard?

Yes — they are manufactured to ISO / DIN, so dimensions are interchangeable between suppliers when you quote the standard on your order.

Can I get a quote for Tapered Roller Bearing — ISO / DIN (Series 116) in the size and material I need?

Yes. Use the technical drawing and quote form on this page to set the size and options, then send the exact configuration to our team for pricing and lead time.

Related Pages

Product page: [Tapered Roller Bearing — ISO / DIN \(Series 116\) — specifications & sizes](#)

Tapered Roller Bearing — ISO / DIN (Series 116) Specification Guides

- [A4 stainless Tapered Roller Bearing — ISO / DIN \(Series 116\)](#)

Related Fastener Applications

- [Angular Contact Ball Bearing — ISO / DIN \(Series 109\) applications](#)
- [Angular Contact Ball Bearing — ISO / DIN \(Series 111\) applications](#)
- [Angular Contact Ball Bearing — ISO / DIN \(Series 136\) applications](#)
- [Angular Contact Ball Bearing — ISO / DIN \(Series 137\) applications](#)
- [Angular Contact Ball Bearing — ISO / DIN \(Series 138\) applications](#)
- [Cylindrical Roller Bearing — ISO / DIN \(Series 112\) applications](#)