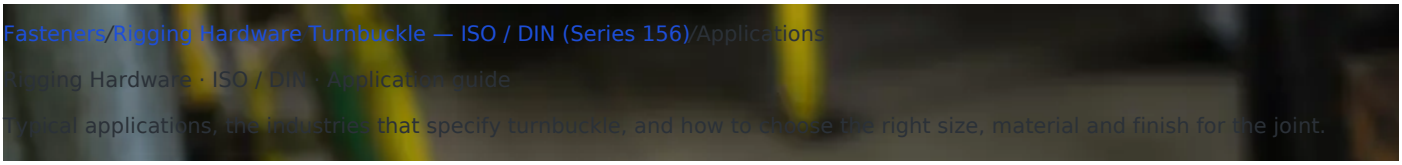
What Are Turnbuckle Used For?

Engineering Hardware & Fasteners · engineeringhardware.com/applications/cad-svg-156-turnbuckle



Turnbuckles are used for lifting, tensioning and securing loads within a rated working load limit. They are manufactured to ISO / DIN, and selection is driven by the working load limit required, the applicable safety factor and the service environment.

Primary duty
: Lifting, tensioning and securing loads within a rated working load limit

Governing standard
: ISO / DIN

Thread size range
: M6 to M30

Category
: Rigging Hardware

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

Turnbuckles are used primarily for lifting, tensioning and securing loads within a rated working load limit. This page lists the industries and assemblies where they are specified, the selection criteria that matter for each application, installation practice, and the cases where a different fastener type is the correct choice. Parts are supplied to ISO / DIN. Stocked across roughly M6 to M30, they cover general to heavy-duty work.

Typical Applications for Turnbuckle — ISO / DIN (Series 156)

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 Turnbuckle — ISO / DIN (Series 156) for Your Application

- **Size:** Match the nominal size to the mating thread or hole. This product spans M6–M30; 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 Turnbuckle — ISO / DIN (Series 156) 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)

Thread size	Total length closed (mm)	Take-up length (mm)	Working load limit (kg)	Material	Reference standard
M6	105	75	80	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M8	125	90	140	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M10	150	110	230	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M12	180	135	340	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M16	230	170	700	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M20	290	215	1200	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M24	355	260	1800	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973
M30	420	320	3200	Drop-forged steel, hot-dip galvanized	DIN 1480 / GB/T 5973

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 Turnbuckle — ISO / DIN (Series 156) used for?
Lifting, tensioning and securing loads within a rated working load limit. They are supplied to ISO / DIN.

Which industries use Turnbuckle — ISO / DIN (Series 156)?
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 Turnbuckle — ISO / DIN (Series 156)?
Match the nominal size to the mating thread or hole. This product is available from M6 to M30; the full dimension table on this page lists each size.

Are Turnbuckle — ISO / DIN (Series 156) 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 Turnbuckle — ISO / DIN (Series 156) 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: Turnbuckle — ISO / DIN (Series 156) — specifications & sizes

Turnbuckle — ISO / DIN (Series 156) Specification Guides

- M6 Turnbuckle — ISO / DIN (Series 156) size guide
- A4 stainless Turnbuckle — ISO / DIN (Series 156)

Related Fastener Applications

- Wire Rope — GB/T 6170 / ISO 4032 (Series 063) applications
- Wire Rope — ISO / DIN (Series 152) applications
- Wire Rope Clip (U-Bolt) — ISO / DIN (Series 157) applications
- Wire Rope Thimble — ISO / DIN (Series 155) applications
- Wire Rope Thimble — ISO / DIN (Series 158) applications