

What Are Set Screw Shaft Collars Used For?

Engineering Hardware & Fasteners · engineeringhardware.com/applications/set-screw-shaft-collars-din-705a

[Fasteners](#) / [Shaft Collars](#) / [Set Screw Shaft Collars](#) / Applications

Shaft Collars · DIN 705 A · Application guide

Typical applications, the industries that specify set screw shaft collars, and how to choose the right size, material and finish for the joint.

Set Screw Shaft Collars are used for locating a component axially on a shaft and holding it against light thrust loads. They are manufactured to DIN 705 A, and selection is driven by the bore diameter, the fit and tolerance the assembly requires, and the service environment.

Primary duty

Locating a component axially on a shaft and holding it against light thrust loads

Governing standard

DIN 705 A

Bore diameter range

3 mm to 36 mm

Category

Shaft Collars

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



Application guide for Set Screw Shaft Collars to DIN 705 A. The core duty of the type is locating a component axially on a shaft and holding it against light thrust loads. The typical industries, the how-to-specify checklist, assembly practice and the exclusion cases are set out below. Stocked across roughly 3 mm to 36 mm, they cover general to heavy-duty work.

Typical Applications for Set Screw Shaft Collars

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 Set Screw Shaft Collars for Your Application

- **Size:** Select on bore diameter, and confirm it against the mating feature in the assembly. This product spans 3 mm–36 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 DIN 705 A. Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Where Set Screw Shaft Collars 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 (DIN 705 A)

Size	Bore d1 (mm)	Outer diameter d2 (mm)	Width b (mm)	Set screw	Reference standard
3	3	7	5	M2 (ISO 4027)	DIN 705 A
4	4	8	5	M2.5 (ISO 4027)	DIN 705 A
5	5	10	6	M3 (ISO 4027)	DIN 705 A
6	6	12	8	M4 (ISO 4027)	DIN 705 A
7	7	12	8	M4 (ISO 4027)	DIN 705 A
8	8	16	8	M4 (ISO 4027)	DIN 705 A
10	10	20	10	M5 (ISO 4027)	DIN 705 A
12	12	22	12	M6 (ISO 4027)	DIN 705 A
14	14	25	12	M6 (ISO 4027)	DIN 705 A
15	15	25	12	M6 (ISO 4027)	DIN 705 A
16	16	28	12	M6 (ISO 4027)	DIN 705 A
18	18	32	14	M6 (ISO 4027)	DIN 705 A
20	20	32	14	M6 (ISO 4027)	DIN 705 A
22	22	36	16	M6 (ISO 4027)	DIN 705 A
24	24	40	16	M8 (ISO 4027)	DIN 705 A
25	25	40	16	M8 (ISO 4027)	DIN 705 A
28	28	45	16	M8 (ISO 4027)	DIN 705 A
30	30	45	16	M8 (ISO 4027)	DIN 705 A
32	32	50	16	M8 (ISO 4027)	DIN 705 A
35	35	56	16	M8 (ISO 4027)	DIN 705 A
36	36	56	16	M8 (ISO 4027)	DIN 705 A

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

Are Set Screw Shaft Collars made to a recognized standard?

Yes — they are manufactured to DIN 705 A, so dimensions are interchangeable between suppliers when you quote the standard on your order.

What are Set Screw Shaft Collars used for?

Locating a component axially on a shaft and holding it against light thrust loads. They are supplied to DIN 705 A.

Which industries use Set Screw Shaft Collars?

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 Set Screw Shaft Collars?

Select on bore diameter and on the fit the assembly requires. This product is available from 3 mm to 36 mm; the full dimension table on this page lists each size.

Can I get a quote for Set Screw Shaft Collars 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: [Set Screw Shaft Collars — specifications & sizes](#)

Set Screw Shaft Collars Specification Guides

- [A4 stainless Set Screw Shaft Collars](#)