

What Are Socket Set Screws Used For?

Engineering Hardware & Fasteners · engineeringhardware.com/applications/socket-set-screws

[Fasteners](#), [Screws](#)/[Socket Set Screws](#)/[Applications](#)

[Screws](#) · [ISO 4026 / ISO 4029 / DIN 913-916](#) · [Application guide](#)

Typical applications, the industries that specify socket set screws, and how to choose the right size, material and finish for the joint.

Socket Set Screws are used for threaded assemblies where the head drive and seating style matter. They are manufactured to ISO 4026 / ISO 4029 / DIN 913-916, and the choice of size, property class and finish is driven by the load in the joint and the environment it sits in.

Primary duty

Threaded assemblies where the head drive and seating style matter

Governing standard

ISO 4026 / ISO 4029 / DIN 913-916

Thread size range

M1.6 to M48

Category

Screws

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



Socket Set Screws are used primarily for threaded assemblies where the head drive and seating style matter. 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 4026 / ISO 4029 / DIN 913-916. Stocked across roughly M1.6 to M48, they cover general to heavy-duty work.

Typical Applications for Socket Set Screws

The most common settings where these are specified:

- **Electronics & enclosures:** mounting PCBs, panels and lids where the drive style and head height matter.
- **Appliances & consumer goods:** high-volume assembly with power tools and consistent seating.
- **Machine guarding & panels:** removable access covers that are opened for service.
- **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.

How to Specify Socket Set Screws for Your Application

- **Size:** Match the nominal size to the mating thread or hole. This product spans M1.6-M48; check the full table below for the exact dimensions of each size.

- **Drive & head:** Pick the drive (socket, cross, slot) and head style for the tool access and seating surface; a recessed drive resists cam-out under power tools.
- **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 4026 / ISO 4029 / DIN 913-916. Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Installation & Assembly Practice

- Match the driver exactly to the recess (PH ≠ PZ; hex key sizes per ISO 2936) and keep the tool axial — side load is the main cause of stripped drives.
- In tapped holes, engage a thread length of at least 1× the nominal diameter in steel, 2× in aluminum.
- Set power tools to a torque that seats the head without embedding it into the mating surface.

Common Selection Mistakes with Socket Set Screws

- Under-sizing the drive for the installation torque — a small recess at high torque strips before the screw is seated.
- Using a countersunk head in thin sheet where the countersink removes most of the load-bearing material.
- Specifying stainless in high-strength duty: A2-70 is roughly class 7 steel, not a 10.9 substitute.

Where Socket Set Screws Are Not the Right Choice

Not for high-preload structural joints (use a property-class bolt and nut), and not in thin sheet where a self-drilling or self-tapping type suits better.

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 4026 / ISO 4029 / DIN 913-916)

Size	Pitch (mm)	Hex socket s (mm)	Engagement depth t min (mm)	Point diameter dp (mm)	End type	Reference standard
M1.6	0.35	0.7	0.7	0.8	Flat point	ISO 4026 / DIN 913-916
M1.6	0.35	0.7	0.7	0.8	Cone point	ISO 4027 / DIN 913-916
M1.6	0.35	0.7	0.7	0.8	Dog point	ISO 4028 / DIN 913-916
M1.6	0.35	0.7	0.7	0.8	Cup point	ISO 4029 / DIN 913-916
M2	0.4	0.9	0.9	1.0	Flat point	ISO 4026 / DIN 913-916
M2	0.4	0.9	0.9	1.0	Cone point	ISO 4027 / DIN 913-916
M2	0.4	0.9	0.9	1.0	Dog point	ISO 4028 / DIN 913-916
M2	0.4	0.9	0.9	1.0	Cup point	ISO 4029 / DIN 913-916
M2.5	0.45	1.3	1.1	1.5	Flat point	ISO 4026 / DIN 913-916
M2.5	0.45	1.3	1.1	1.5	Cone point	ISO 4027 / DIN 913-916
M2.5	0.45	1.3	1.1	1.5	Dog point	ISO 4028 / DIN 913-916
M2.5	0.45	1.3	1.1	1.5	Cup point	ISO 4029 / DIN 913-916
M3	0.5	1.5	1.4	2.0	Flat point	ISO 4026 / DIN 913-916
M3	0.5	1.5	1.4	2.0	Cone point	ISO 4027 / DIN 913-916

Size	Pitch (mm)	Hex socket s (mm)	Engagement depth t min (mm)	Point diameter dp (mm)	End type	Reference standard
M3	0.5	1.5	1.4	2.0	Dog point	ISO 4028 / DIN 913- 916
M3	0.5	1.5	1.4	2.0	Cup point	ISO 4029 / DIN 913- 916
M4	0.7	2.0	2.0	2.5	Flat point	ISO 4026 / DIN 913- 916
M4	0.7	2.0	2.0	2.5	Cone point	ISO 4027 / DIN 913- 916
M4	0.7	2.0	2.0	2.5	Dog point	ISO 4028 / DIN 913- 916
M4	0.7	2.0	2.0	2.5	Cup point	ISO 4029 / DIN 913- 916
M5	0.8	2.5	2.5	3.5	Flat point	ISO 4026 / DIN 913- 916
M5	0.8	2.5	2.5	3.5	Cone point	ISO 4027 / DIN 913- 916
M5	0.8	2.5	2.5	3.5	Dog point	ISO 4028 / DIN 913- 916
M5	0.8	2.5	2.5	3.5	Cup point	ISO 4029 / DIN 913- 916
M6	1.0	3.0	3.0	4.0	Flat point	ISO 4026 / DIN 913- 916
M6	1.0	3.0	3.0	4.0	Cone point	ISO 4027 / DIN 913- 916
M6	1.0	3.0	3.0	4.0	Dog point	ISO 4028 / DIN 913- 916
M6	1.0	3.0	3.0	4.0	Cup point	ISO 4029 / DIN 913- 916
M8	1.25	4.0	4.0	5.5	Flat point	ISO 4026 / DIN 913- 916
M8	1.25	4.0	4.0	5.5	Cone point	ISO 4027 / DIN 913- 916

Size	Pitch (mm)	Hex socket s (mm)	Engagement depth t min (mm)	Point diameter dp (mm)	End type	Reference standard
M8	1.25	4.0	4.0	5.5	Dog point	ISO 4028 / DIN 913-916
M8	1.25	4.0	4.0	5.5	Cup point	ISO 4029 / DIN 913-916
M10	1.5	5.0	5.0	7.0	Flat point	ISO 4026 / DIN 913-916
M10	1.5	5.0	5.0	7.0	Cone point	ISO 4027 / DIN 913-916
M10	1.5	5.0	5.0	7.0	Dog point	ISO 4028 / DIN 913-916
M10	1.5	5.0	5.0	7.0	Cup point	ISO 4029 / DIN 913-916
M12	1.75	6.0	6.0	8.5	Flat point	ISO 4026 / DIN 913-916
M12	1.75	6.0	6.0	8.5	Cone point	ISO 4027 / DIN 913-916
M12	1.75	6.0	6.0	8.5	Dog point	ISO 4028 / DIN 913-916
M12	1.75	6.0	6.0	8.5	Cup point	ISO 4029 / DIN 913-916
M16	2.0	8.0	8.0	12.0	Flat point	ISO 4026 / DIN 913-916
M16	2.0	8.0	8.0	12.0	Cone point	ISO 4027 / DIN 913-916
M16	2.0	8.0	8.0	12.0	Dog point	ISO 4028 / DIN 913-916
M16	2.0	8.0	8.0	12.0	Cup point	ISO 4029 / DIN 913-916
M20	2.5	10.0	10.0	15.0	Flat point	ISO 4026 / DIN 913-916
M20	2.5	10.0	10.0	15.0	Cone point	ISO 4027 / DIN 913-916

Size	Pitch (mm)	Hex socket s (mm)	Engagement depth t min (mm)	Point diameter dp (mm)	End type	Reference standard
M20	2.5	10.0	10.0	15.0	Dog point	ISO 4028 / DIN 913-916
M20	2.5	10.0	10.0	15.0	Cup point	ISO 4029 / DIN 913-916
M24	3.0	12.0	12.0	18.0	Flat point	ISO 4026 / DIN 913-916
M24	3.0	12.0	12.0	18.0	Cone point	ISO 4027 / DIN 913-916
M24	3.0	12.0	12.0	18.0	Dog point	ISO 4028 / DIN 913-916
M24	3.0	12.0	12.0	18.0	Cup point	ISO 4029 / DIN 913-916
M30	3.5	14.0	15.0	22.0	Flat point	ISO 4026 / DIN 913-916
M30	3.5	14.0	15.0	22.0	Cone point	ISO 4027 / DIN 913-916
M30	3.5	14.0	15.0	22.0	Dog point	ISO 4028 / DIN 913-916
M30	3.5	14.0	15.0	22.0	Cup point	ISO 4029 / DIN 913-916
M36	4.0	17.0	19.0	27.0	Flat point	ISO 4026 / DIN 913-916
M36	4.0	17.0	19.0	27.0	Cone point	ISO 4027 / DIN 913-916
M36	4.0	17.0	19.0	27.0	Dog point	ISO 4028 / DIN 913-916
M36	4.0	17.0	19.0	27.0	Cup point	ISO 4029 / DIN 913-916
M45	4.5	19.0	24.0	34.0	Flat point	ISO 4026 / DIN 913-916
M45	4.5	19.0	24.0	34.0	Cone point	ISO 4027 / DIN 913-916

Size	Pitch (mm)	Hex socket s (mm)	Engagement depth t min (mm)	Point diameter dp (mm)	End type	Reference standard
M45	4.5	19.0	24.0	34.0	Dog point	ISO 4028 / DIN 913-916
M45	4.5	19.0	24.0	34.0	Cup point	ISO 4029 / DIN 913-916
M48	5.0	22.0	28.0	36.0	Flat point	ISO 4026 / DIN 913-916
M48	5.0	22.0	28.0	36.0	Cone point	ISO 4027 / DIN 913-916
M48	5.0	22.0	28.0	36.0	Dog point	ISO 4028 / DIN 913-916
M48	5.0	22.0	28.0	36.0	Cup point	ISO 4029 / DIN 913-916

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 drive type do Socket Set Screws use?

Drive depends on the head style — socket (hex key), cross (Phillips/Pozi) or slot. A recessed drive resists cam-out when driven with power tools; check the product head style on this page.

What material should Socket Set Screws be for outdoor use?

For damp, coastal or chemical environments specify A4 (316) stainless or a suitably coated steel. For indoor or dry use, A2 (304) stainless or zinc-plated steel is normally adequate.

Are Socket Set Screws made to a recognized standard?

Yes — they are manufactured to ISO 4026 / ISO 4029 / DIN 913-916, so dimensions are interchangeable between suppliers when you quote the standard on your order.

What are Socket Set Screws used for?

Threaded assemblies where the head drive and seating style matter. They are supplied to ISO 4026 / ISO 4029 / DIN 913-916.

Can I get a quote for Socket Set Screws 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: [Socket Set Screws — specifications & sizes](#)

Socket Set Screws Specification Guides

- [M1.6 Socket Set Screws size guide](#)
- [A4 stainless Socket Set Screws](#)

Related Fastener Applications

- [Button Head Socket Screws applications](#)
- [Cheese Head Screws applications](#)
- [Countersunk Socket Screws applications](#)
- [Fine Adjustment Set Screws applications](#)
- [Heavy Hex Socket Head Cap Screw — GB/T 1228 / ASTM A325 \(Series 046\) applications](#)
- [Hex Socket Cone Point Set Screw — GB/T 77 / ISO 4026 \(Series 022\) applications](#)