Clearance Hole Sizes

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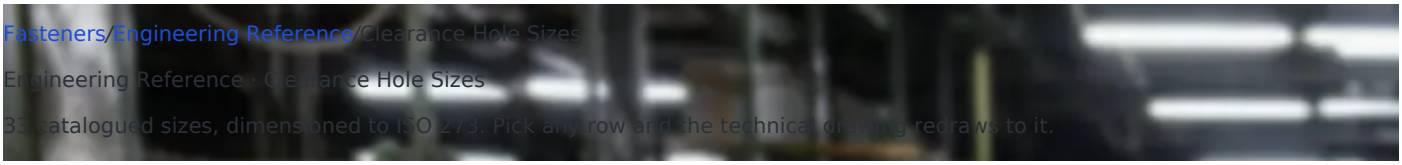

Clearance Hole Sizes to ISO 273 are catalogued in sizes M1 to M64. 33 sizes are held in the table below, and the technical drawing redraws to whichever row you select.

Standard

ISO 273

Size range

M1-M64

Catalogued sizes

33

Dimensions are nominal values from the governing standard. Confirm the tolerance class for your application before ordering.

Clearance Hole Sizes conform to ISO 273. As engineering reference, they are specified by the dimensions in the table below; this page also covers materials, finishes and typical uses.

About This Reference

This is an engineering reference table for clearance hole sizes based on ISO 273. Use it alongside our fastener catalog when selecting and specifying parts.

Reference Data (ISO 273)

Thread size	Fine H12 (mm)	Medium H13 (mm)	Coarse H14 (mm)	Reference standard	Application
M1	1.1	1.2	1.3	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M1.2	1.3	1.4	1.5	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M1.4	1.5	1.6	1.8	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M1.6	1.7	1.8	2.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M2	2.2	2.4	2.6	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M2.5	2.7	2.9	3.1	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M3	3.2	3.4	3.6	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M3.5	3.7	3.9	4.2	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M4	4.3	4.5	4.8	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M5	5.3	5.5	5.8	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M6	6.4	6.6	7.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M7	7.4	7.6	8.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M8	8.4	9.0	10.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M10	10.5	11.0	12.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M12	13.0	13.5	14.5	ISO 273 / DIN 406	Clearance (through) hole, non-threaded

Thread size	Fine H12 (mm)	Medium H13 (mm)	Coarse H14 (mm)	Reference standard	Application
M14	15.0	15.5	16.5	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M16	17.0	17.5	18.5	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M18	19.0	20.0	21.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M20	21.0	22.0	24.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M22	23.0	24.0	26.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M24	25.0	26.0	28.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M27	28.0	30.0	32.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M30	31.0	33.0	35.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M33	34.0	36.0	38.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M36	37.0	39.0	42.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M39	40.0	42.0	45.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M42	43.0	45.0	48.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M45	46.0	48.0	52.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M48	50.0	52.0	56.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M52	54.0	56.0	62.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M56	58.0	62.0	66.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded

Thread size	Fine H12 (mm)	Medium H13 (mm)	Coarse H14 (mm)	Reference standard	Application
M60	62.0	66.0	70.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded
M64	66.0	70.0	74.0	ISO 273 / DIN 406	Clearance (through) hole, non-threaded

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 does the Clearance Hole Sizes reference table cover?
Clearance Hole Sizes is an engineering reference table aligned with ISO 273. Use the values alongside our fastener catalog when selecting and specifying parts.

How do I request a quotation?
Use the parametric drawing on this page to set the exact configuration (size, material, finish) and click "Request this configuration" — a specialist from Engineering Hardware will respond within one business day.

More Engineering Reference

← PreviousTap Drill SizesISO 2306 (reference)Next →Metric Thread DimensionsISO 724 / ISO 965