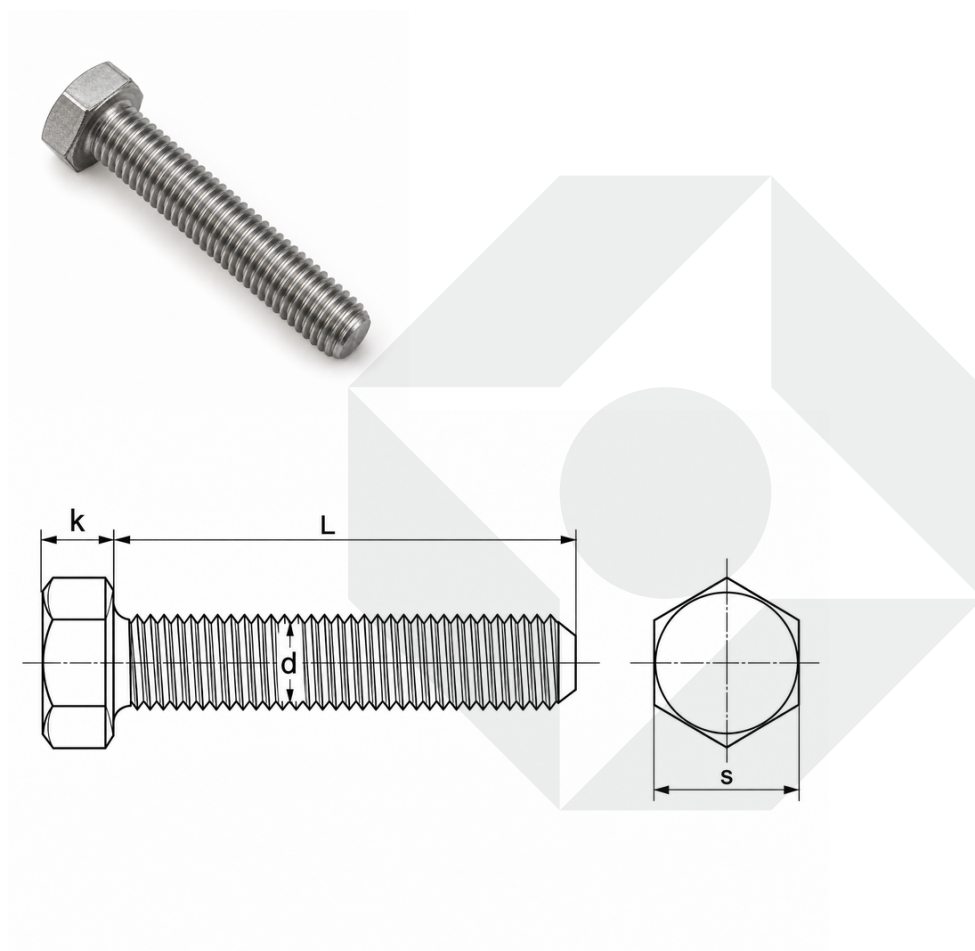


ISO 4017:2022

Fully threaded hexagon head screw

A metric thread along the shank for assemblies with a nut or tapped hole. Specify diameter, length, material, property class and finish to suit the joint.

Reference dimensions M3–M48, with commercial lengths selectable by diameter. Other diameters and lengths can be assessed on request, including dedicated production.



d: nominal diameter · k: head height · s: across flats · L: underhead length

Identification drawing, not a manufacturing drawing.

Dimensional range

Dimensions in millimetres.

M	Pitch P	k	s
3	0.5	2	5.5
4	0.7	2.8	7
5	0.8	3.5	8
6	1	4	10
7	1	4.8	11
8	1.25	5.3	13
10	1.5	6.4	16
12	1.75	7.5	18
14	2	8.8	21
16	2	10	24
18	2.5	11.5	27
20	2.5	12.5	30
22	2.5	14	34
24	3	15	36
27	3	17	41
30	3.5	18.7	46
33	3.5	21	50
36	4	22.5	55
39	4	25	60
42	4.5	26	65
45	4.5	28	70
48	5	30	75

The thread extends close to the head, with an incomplete thread allowance defined by the standard. L is measured under the head; ISO 4014 thread-length formulas do not apply.

Commercial lengths by diameter

Listed lengths are commercial references, not stock declarations. ISO 4017:2022 has its own standard length limits; shorter or longer sizes outside that series require specific agreement. Incomplete thread under the head: $u \leq 2P$.

M	L (mm)
M3	6, 8, 10, 12, 14, 16, 20, 25, 30, 35, 40, 45, 50
M4	6, 8, 10, 12, 14, 16, 18, 20, 22, 25, 30, 35, 40, 45, 50, 55, 60
M5	8, 10, 12, 14, 16, 18, 20, 22, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 80
M6	8, 10, 12, 14, 16, 18, 20, 22, 25, 28, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120
M7	10, 12, 14, 16, 18, 20, 22, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100
M8	8, 10, 12, 14, 16, 18, 20, 22, 25, 28, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M10	10, 12, 14, 16, 18, 20, 22, 25, 28, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M12	12, 14, 16, 18, 20, 22, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M14	16, 18, 20, 22, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M16	20, 22, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M18	20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M20	25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 95, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M22	30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M24	30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M27	50, 55, 60, 65, 70, 75, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M30	40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M33	60, 65, 70, 75, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M36	50, 55, 60, 65, 70, 75, 80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M39	80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M42	80, 85, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210
M45	100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200
M48	100, 110, 120, 130, 140, 150, 160, 180, 200

Materials and classes

Material	Class / hardness	M	Supply
Steel to mechanical specification	8.8	M4–M24	On request
Steel to mechanical specification	10.9	M4–M24	On request
Steel to mechanical specification	12.9	M4–M24	On request
A2 stainless steel	70	M4–M24	On request
A4 stainless steel	70	M4–M24	On request
A4 stainless steel	80	M4–M24	On request

Finishes and treatments

Finish	Material	Class	M
Plain / as manufactured	Steel to mechanical specification	8.8	M4–M24
Electroplated zinc	Steel to mechanical specification	8.8	M4–M24
Plain / as manufactured	Steel to mechanical specification	10.9	M4–M24
Plain / as manufactured	Steel to mechanical specification	12.9	M4–M24
Plain / as manufactured	A2 stainless steel	70	M4–M24
Plain / as manufactured	A4 stainless steel	70	M4–M24
Plain / as manufactured	A4 stainless steel	80	M4–M24

Select the finish for the material/property-class combination. Hydrogen relief and lubrication are separate process requirements, not certificates and not implied by the coating name.

Standards, documents and enquiry

Listed lengths are commercial references, not stock declarations. ISO 4017:2022 has its own standard length limits; shorter or longer sizes outside that series require specific agreement. Incomplete thread under the head: $u \leq 2P$.

Commercial practice also includes class 8.8 bolts, class 8 nuts and 100 HV washers supplied to DIN 125 A / UNI 6592 references. Suitability must be checked against the joint conditions. For ISO 7089 washers, the reference hardness is 200 HV for bolts up to class 8.8 and nuts up to class 8, and 300 HV for bolts up to class 10.9 and nuts up to class 10. Commercial practice and standard requirements remain distinct.

DIN 933

Related commercial reference, not an exact equivalent. ISO widths across flats for M10, M12, M14 and M22 are 16, 18, 21 and 34 mm respectively; do not transfer DIN dimensions automatically.

UNI 5739

Historical family reference. Orders citing UNI require confirmation of the edition, dimensions and supply requirements.

Supply documentation

Declaration of conformity; Material certificate; EN 10204 2.2 test report; EN 10204 3.1 inspection certificate; Dimensional inspection report; Coating report; Other documentation

Documents are subject to order agreement; no batch certificate is automatically included.

Related components

ISO 4014, ISO 4032, ISO 7089. Match nominal diameter, pitch, strength, material, finish and joint conditions.

Request a quote

Specify standard, diameter, pitch and length where applicable, material, property class or hardness, finish, quantity and documents. Other sizes and dedicated production can be assessed on request, with agreed minimum quantities.

Reference technical configurations: these do not represent stock quantities.

Other materials and specifications

For requirements beyond the tabulated combinations, enquire about aluminium, brass, nylon, duplex, superduplex or an ASTM specification. Alloy or grade, dimensions, mechanical requirements and finish are defined for the enquiry; the geometric reference does not automatically imply conformity with the product standard.