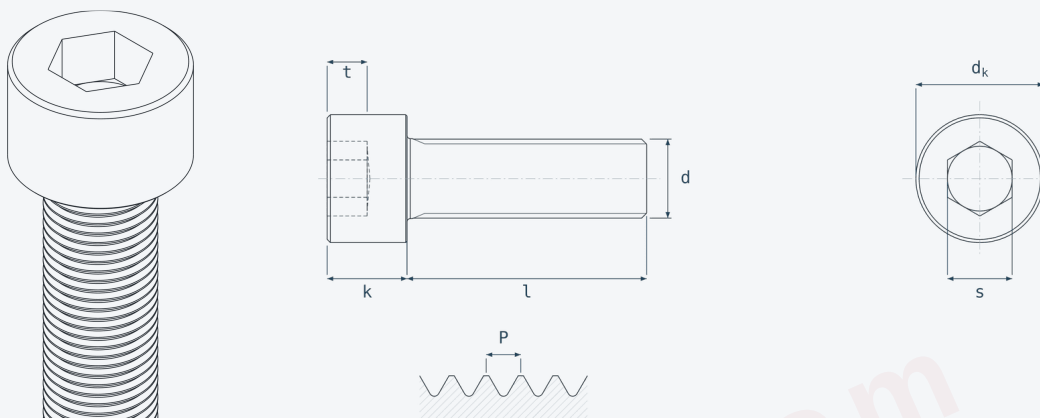


ISO 4762 Hexagon Socket Head Cap Screw



STANDARD

ISO 4762 Hexagon Socket Head Cap Screw

THREAD

ISO metric coarse pitch

SIZES

M1.6 - M64 · lengths 6 – 300 mm

MATERIAL

Stainless Steel, Carbon Steel, Alloy Steel

PROPERTY CLASS

A2-70, A4-80 (ISO 3506-1) · 8.8, 10.9, 12.9 (ISO 898-1)

SURFACE

Passivated, Plain, Zinc Plated, Dacromet, Blackened, Phosphate

Dimensions follow the standard named on this sheet. Material properties and batch test results come with the order's certificate or test report.

BASIS OF SPECIFICATION

DIMENSIONS

ISO 4762:2004

CARBON STEEL / ALLOY STEEL

ISO 898-1:2013

STAINLESS STEEL

ISO 3506-1:2020

PRODUCT GRADE

A

MINIMUM USABLE THREAD LENGTH

to be agreed

DIMENSIONS

mm · ISO 4762

d	P	s	dk	k nom.	d	P	s	dk	k nom.
M1.6	0.35	1.5	3	1.6	M14	2	12	21	14
M2	0.4	1.5	3.8	2	M16	2	14	24	16
M2.5	0.45	2	4.5	2.5	M20	2.5	17	30	20
M3	0.5	2.5	5.5	3	M24	3	19	36	24
M4	0.7	3	7	4	M30	3.5	22	45	30
M5	0.8	4	8.5	5	M36	4	27	54	36
M6	1	5	10	6	M42	4.5	32	63	42
M8	1.25	6	13	8	M48	5	36	72	48
M10	1.5	8	16	10	M56	5.5	41	84	56
M12	1.75	10	18	12	M64	6	46	96	64

P thread pitch s hex socket size dk head diameter k nominal head height

MECHANICAL PROPERTIES

ISO 3506-1

Class	Rm min.	Yield requirement	Elongation requirement	Hardness
A2-70	700 MPa	Rp0.2 min. 450 MPa	0,4d mm	—
A4-80	800 MPa	Rp0.2 min. 600 MPa	0,3d mm	—

MECHANICAL PROPERTIES

ISO 898-1

Class	Rm min.	Yield requirement	Elongation requirement	Hardness
8.8 up to M16	800 MPa	Rp0.2 min. 640 MPa	A min. 12 %	250 - 320 HV
8.8 over M16	830 MPa	Rp0.2 min. 660 MPa	A min. 12 %	255 - 335 HV
10.9	1040 MPa	Rp0.2 min. 940 MPa	A min. 9 %	320 - 380 HV
12.9	1220 MPa	Rp0.2 min. 1100 MPa	A min. 8 %	385 - 435 HV

MARKING

Steel (required): Manufacturer identification mark and the property class symbol (Table 19). Position: Preferably indented on the side of the head; alternatively indented or embossed on the top of the head. Sizes: $d \geq 5$ mm. Clause: ISO 898-1:2013, 10.3.3.2 Hexagon and hexalobular socket head cap screws.

Stainless steel (required): Stainless steel grade (Clause 6), property class symbol (Table 13, or Table 14 with a leading zero for reduced loadability) and manufacturer identification mark. Position: For cap screws and cheese head bolts and screws, preferably on the top of the head, indented or embossed, or on the side of the head, indented; other head shapes on the head. Sizes: $d \geq 5$ mm. Clause: ISO 3506-1:2020, 10.3.2 Hexagon socket or hexalobular socket bolts and screws. "Hexagon socket bolts and screws and hexalobular socket bolts and screws of nominal thread diameter $d \geq 5$ mm shall be marked for all stainless steel grades and all property classes, with the stainless steel grade in accordance with Clause 6, with the property class symbol in accordance with Table 13 (fasteners with full loadability) or Table 14 (fasteners with reduced loadability that can be tensile tested with $b \geq 3d$ in accordance with 9.1), and with the manufacturer's identification mark in accordance with 10.2."

ISO 4762 sets no marking clause of its own. This is a checked negative: the 1997 Clause 4 Table 2 lists only General requirements, Thread tolerances, Mechanical properties, Tolerances, Finish and Acceptability, with no Marking row, and the 2004 contents page shows only Clauses 1 to 5 plus informative Annex A (Masses).

Where bar-turned stainless parts are supplied as A1-70 or A1-50, footnote 2 to the 1997 Clause 4 table requires them to be marked with the property class they actually meet.

DOCUMENTS

EN 10204 3.1 material certificate, dimensional inspection report and mechanical test report, on request.

taurusfix.com