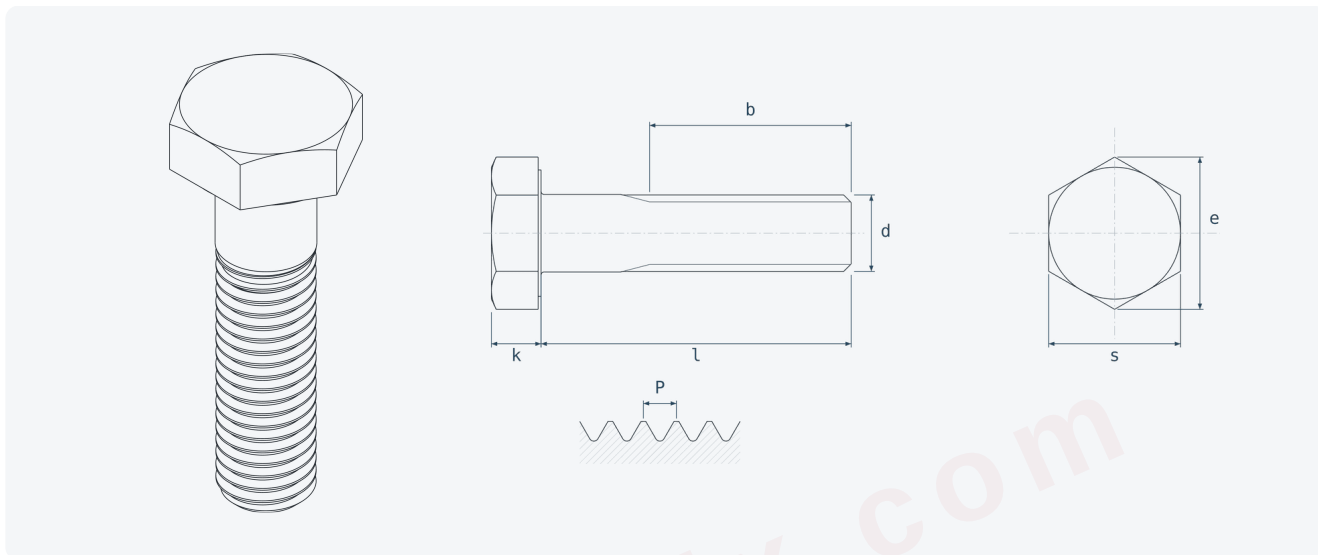


ISO 4014 Hexagon Head Bolt Partial Thread



STANDARD

ISO 4014 Hexagon Head Bolt

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) · 4.8, 8.8, 10.9 (ISO 898-1)

SURFACE

Passivated, Plain, Zinc Plated, Hot Dip Galvanized, Dacromet, Phosphate, Blackened

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

CARBON STEEL / ALLOY STEEL

ISO 898-1:2013

LENGTH TOLERANCE

to be agreed

STAINLESS STEEL

ISO 3506-1:2020

THREAD LENGTH

to be agreed

PRODUCT GRADE

A / B

MINIMUM USABLE THREAD LENGTH

to be agreed

DIMENSIONS EDITION

to be agreed

DIMENSIONS

mm · ISO 4014

d	P	s max	e min	k nom.	b l ≤ 125	b 125 < l ≤ 200	b l > 200
M1.6	0.35	3.2	3.41	1.1	9	—	—
M2	0.4	4	4.32	1.4	10	—	—
M2.5	0.45	5	5.45	1.7	11	—	—
M3	0.5	5.5	6.01	2	12	—	—
M3.5	0.6	6	6.58	2.4	13	—	—
M4	0.7	7	7.66	2.8	14	—	—
M5	0.8	8	8.79	3.5	16	—	—
M6	1	10	11.05	4	18	—	—
M7	1	11	12.12	4.8	20	—	—
M8	1.25	13	14.38	5.3	22	—	—
M10	1.5	16	17.77	6.4	26	—	—
M12	1.75	18	20.03	7.5	30	—	—
M14	2	21	23.36	8.8	34	40	—
M16	2	24	26.75	10	38	44	—
M18	2.5	27	30.14	11.5	42	48	—
M20	2.5	30	33.53	12.5	46	52	—
M22	2.5	34	37.72	14	50	56	69
M24	3	36	39.98	15	54	60	73
M27	3	41	45.2	17	60	66	79
M30	3.5	46	50.85	18.7	66	72	85
M33	3.5	50	55.37	21	72	78	91
M36	4	55	60.79	22.5	—	84	97
M39	4	60	66.44	25	—	90	103
M42	4.5	65	71.3	26	—	96	109
M45	4.5	70	76.95	28	—	102	115
M48	5	75	82.6	30	—	108	121
M52	5	80	88.25	33	—	116	129
M56	5.5	85	93.56	35	—	—	137
M60	5.5	90	99.21	38	—	—	145
M64	6	95	104.86	40	—	—	153

P thread pitch **s** width across flats **e** width across corners **k** nominal head height **b** thread length

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
4.8	420 MPa	Rpf min. 340 MPa (not a test value)	Af min. 0.24	130 - 220 HV
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

MARKING

Steel (required): Manufacturer identification mark and the property class symbol (Table 19), for example 8.8. Position: Preferably on the top of the head, embossed or indented; alternatively indented on the side of the head. On flanged products, on the flange. Sizes: $d \geq 5$ mm. Clause: ISO 898-1:2013, 10.3.3.1 Hexagon and hexalobular head bolts and screws.

Stainless steel (required): Stainless steel grade, the optional letter L, a hyphen and the property class symbol (Table 13, or Table 14 with a leading zero for reduced loadability), together with the manufacturer identification mark, for example A2-70. Position: Preferably on the top of the head, indented or embossed, or on the side of the head, indented. On bolts and screws with flange, on the flange when the manufacturing process does not allow marking on the top of the head. Sizes: $d \geq 5$ mm. Clause: ISO 3506-1:2020, 10.3.1 Hexagon head bolts and screws. "All hexagon head 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."

DOCUMENTS

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