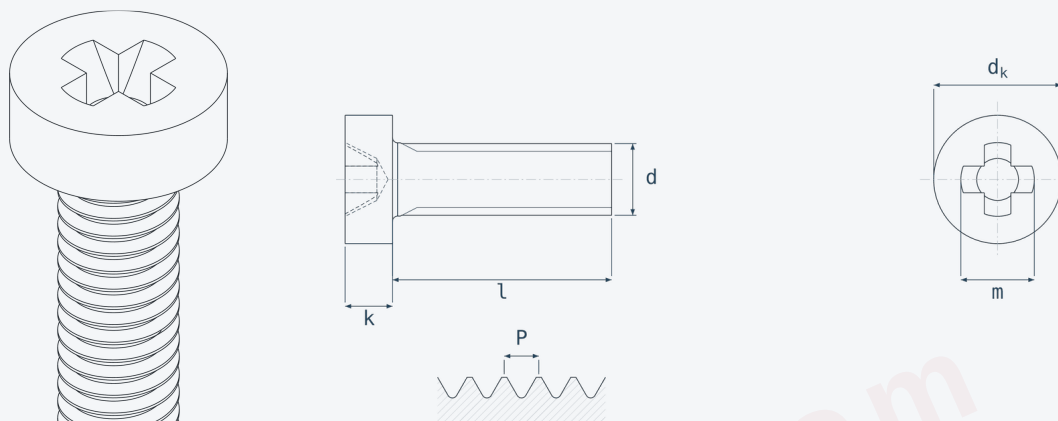


ISO 7048 Phillips Cheese Head Machine Screw



STANDARD

ISO 7048 Cross-recessed cheese head screws

THREAD

ISO metric coarse pitch

SIZES

M2.5 - M8 · lengths 2 – 80 mm

MATERIAL

Stainless Steel, Carbon Steel

PROPERTY CLASS

A2-70, A4-80 (ISO 3506-1) · 4.8, 8.8 (ISO 898-1)

SURFACE

Passivated, Plain, Zinc Plated, Nickel Plated, 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

DIMENSIONS

ISO 7048:2011

CARBON STEEL / ALLOY STEEL

ISO 898-1:2013

STAINLESS STEEL

ISO 3506-1:2020

PRODUCT GRADE

A

DIMENSIONS

mm · ISO 7048

d	P	a _{max}	dk	dk _{min}	da _{max}	k _{nom.}	k _{min}	r _{min}	x _{max}	Recess Number	m _{ref}	Type H Penetration _{min}	Type H Penetration _{max}
M2.5	0.45	0.9	4.5	4.32	3.1	1.8	1.66	0.1	1.1	1	2.7	1.2	1.62
M3	0.5	1	5.5	5.32	3.6	2	1.86	0.1	1.25	2	3.5	0.86	1.43
M3.5	0.6	1.2	6	5.82	4.1	2.4	2.26	0.1	1.5	2	3.8	1.15	1.73
M4	0.7	1.4	7	6.78	4.7	2.6	2.46	0.2	1.75	2	4.1	1.45	2.03
M5	0.8	1.6	8.5	8.28	5.7	3.3	3.12	0.2	2	2	4.8	2.14	2.73
M6	1	2	10	9.78	6.8	3.9	3.6	0.25	2.5	3	6.2	2.25	2.86
M8	1.25	2.5	13	12.73	9.2	5	4.7	0.4	3.2	3	7.7	3.73	4.36

d	m _{ref}	Type Z Penetration _{min}	Type Z Penetration _{max}
M2.5	2.4	1.1	1.35
M3	3.5	1.22	1.47
M3.5	3.7	1.34	1.8
M4	4	1.6	2.06
M5	4.6	2.26	2.72
M6	6.1	2.46	2.92
M8	7.5	3.88	4.34

P thread pitch a thread runout dk head diameter da underhead diameter k nominal head height r radius x incomplete thread m type h recess width

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

MARKING

Steel (not usual - marked only if the purchaser requires it): If the purchaser requires marking, the system of 10.3 applies: manufacturer identification mark and property class symbol. Position: Where the head shape allows it. Sizes: All sizes. Clause: ISO 898-1:2013, 10.3.3.5 Other types of bolts and screws. "Marking is not usual for screws with flat countersunk head, oval countersunk head, cheese head, pan head or similar head shapes that are slotted, cross-recessed, or with socket or other internal driving feature."

Stainless steel (required): Steel group and property class, plus the manufacturer identification mark. Position: Preferably on the head, where it is possible to do so. This product is neither a hexagon head (10.3.1) nor a socket head (10.3.2), so this general clause is the one that applies. Sizes: All sizes. Clause: ISO 3506-1:2020, 10.3.3 Other types of bolts and screws. "Other types of bolts and screws shall be marked in the same way where it is possible to do so, and preferably on the head."

Cross-recessed cheese head screw. This head shape falls under the not usual sentence of ISO 898-1 10.3.3.5, so steel parts normally carry no marking. This is a checked negative on both the product standard and the material standard, not a gap in our records.

DOCUMENTS

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

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