Metric thread and bolt size chart

Sources: ISO 261:1998 ISO general purpose metric screw threads — General plan; ISO 724:1993 Basic dimensions; ISO 898-1:2013 (stress area formula); ISO 273:1979 Fasteners — Clearance holes for bolts and screws; ISO 4014:2022, ISO 4017:2022, ISO 4032:2023; DIN 931, DIN 933, DIN 934 (withdrawn, still widely ordered)

Reviewed 11 Nov 2026. Reference values: the governing standard and your drawing take precedence.

ISO metric threads: pitch, stress area, tap drill, clearance holes, across flats (mm)

Size	Coarse pitch P	Fine pitches	Stress area As (mm²)	Tap drill (typical)	Clearance hole f / m / c (ISO 273)	Across flats ISO	Across flats DIN
M3	0.5	0.35	5.0	2.5	3.2 / 3.4 / 3.6	5.5	5.5
M4	0.7	0.5	8.8	3.3	4.3 / 4.5 / 4.8	7	7
M5	0.8	0.5	14.2	4.2	5.3 / 5.5 / 5.8	8	8
M6	1	0.75	20.1	5.0	6.4 / 6.6 / 7	10	10
M8	1.25	1, 0.75	36.6	6.8	8.4 / 9 / 10	13	13
M10	1.5	1.25, 1	58.0	8.5	10.5 / 11 / 12	16	17
M12	1.75	1.5, 1.25	84.3	10.3	13 / 13.5 / 14.5	18	19
M14	2	1.5	115.4	12.0	15 / 15.5 / 16.5	21	22
M16	2	1.5	156.7	14.0	17 / 17.5 / 18.5	24	24
M18	2.5	2, 1.5	192.5	15.5	19 / 20 / 21	–	–
M20	2.5	2, 1.5	244.8	17.5	21 / 22 / 24	30	30
M22	2.5	2, 1.5	303.4	19.5	23 / 24 / 26	34	32
M24	3	2	352.5	21.0	25 / 26 / 28	36	36
M27	3	2	459.4	24.0	28 / 30 / 32	41	41
M30	3.5	2	560.6	26.5	31 / 33 / 35	46	46
M33	3.5	2	693.6	29.5	34 / 36 / 38	–	–
M36	4	3	816.7	32.0	37 / 39 / 42	55	55
M42	4.5	3	1,120.9	37.5	43 / 45 / 48	–	–
M48	5	3	1,473.1	43.0	50 / 52 / 56	–	–
M56	5.5	4	2,030.0	50.5	58 / 62 / 66	–	–
M64	6	4	2,676.0	58.0	66 / 70 / 74	–	–

As calculated from ISO 898-1: $As = \pi/4 \cdot (d - 0.9382\,P)^2$. Tap drill = d − P, a workshop rule, not a standard value. Across flats: ISO 4014/4017/4032 and DIN 931/933/934; they differ at M10, M12, M14 and M22. – = not tabulated.