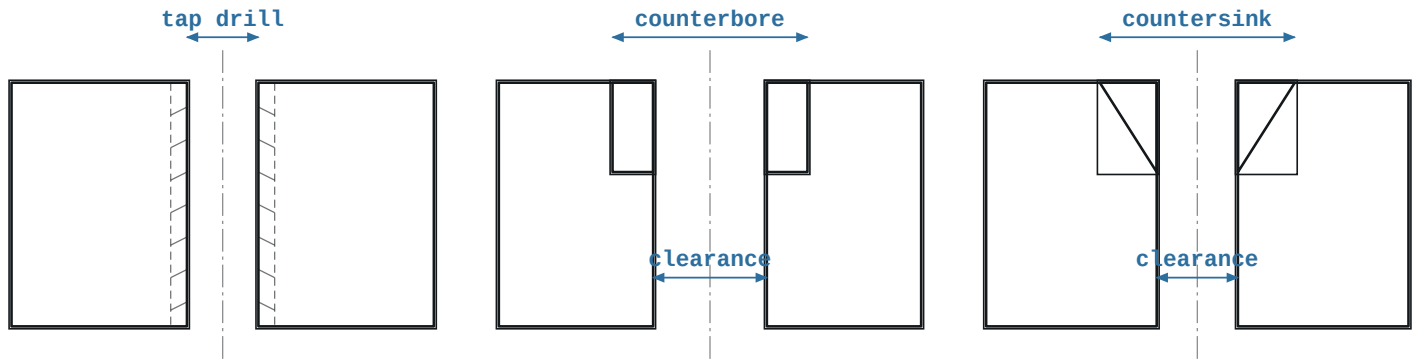
SHOP CHARTS

METRIC TAP DRILLS

ISO coarse + fine, M1–M24. Tap drill at 75% thread, 65% for hard material. All sizes in mm.

LAVIGNE LABS



TAPPED HOLE
drill → tap · thread bites past the drill

CLEARANCE + C'BORE
socket head sits flush or below

COUNTERSINK
90° · flat head sits flush

COARSE

M1.6 – M12 emphasised

SIZE	SERIES	PITCH	TAP DRILL 75%	HARD MAT. 65%	CLEAR CLOSE	CLEAR NORMAL	CLEAR LOOSE	SHCS C'BORE	C'BORE DEPTH	FHCS C'SINK
M1	coarse	0.25	ø0.75	ø0.8	ø1.1	ø1.2	ø1.3	–	–	–
M1.2	coarse	0.25	ø0.95	ø1.0	ø1.3	ø1.4	ø1.5	–	–	–
M1.4	coarse	0.3	ø1.1	ø1.15	ø1.5	ø1.6	ø1.8	–	–	–
M1.6	coarse	0.35	ø1.25	ø1.3	ø1.7	ø1.8	ø2.0	–	–	–
M1.8	coarse	0.35	ø1.45	ø1.5	ø1.9	ø2.0	ø2.1	–	–	–
M2	coarse	0.4	ø1.6	ø1.65	ø2.2	ø2.4	ø2.6	ø4.4	2	–
M2.2	coarse	0.45	ø1.75	ø1.8	ø2.4	ø2.6	ø2.8	–	–	–
M2.5	coarse	0.45	ø2.05	ø2.1	ø2.7	ø2.9	ø3.1	ø5.4	2.5	–
M3	coarse	0.5	ø2.5	ø2.6	ø3.2	ø3.4	ø3.6	ø6.5	3	ø6.72
M3.5	coarse	0.6	ø2.9	ø3.0	ø3.7	ø3.9	ø4.2	–	–	–
M4	coarse	0.7	ø3.3	ø3.4	ø4.3	ø4.5	ø4.8	ø8.25	4	ø8.96
M5	coarse	0.8	ø4.2	ø4.3	ø5.3	ø5.5	ø5.8	ø9.75	5	ø11.2
M6	coarse	1	ø5.0	ø5.2	ø6.4	ø6.6	ø7.0	ø11.2	6	ø13.44
M7	coarse	1	ø6.0	ø6.2	ø7.4	ø7.6	ø8.0	–	–	–
M8	coarse	1.25	ø6.8	ø6.9	ø8.4	ø9.0	ø10.0	ø14.5	8	ø17.92
M10	coarse	1.5	ø8.5	ø8.7	ø10.5	ø11.0	ø12.0	ø17.5	10	ø22.4
M12	coarse	1.75	ø10.2	ø10.5	ø13.0	ø13.5	ø14.5	ø19.5	12	ø26.88
M14	coarse	2	ø12.0	ø12.3	ø15.0	ø15.5	ø16.5	ø22.5	14	ø30.8

SIZE	SERIES	PITCH	TAP DRILL 75%	HARD MAT. 65%	CLEAR CLOSE	CLEAR NORMAL	CLEAR LOOSE	SHCS C'BORE	C'BORE DEPTH	FHCS C'SINK
M16	coarse	2	ø14.0	ø14.3	ø17.0	ø17.5	ø18.5	ø25.5	16	ø33.6
M18	coarse	2.5	ø15.5	ø15.9	ø19.0	ø20.0	ø21.0	ø28.5	18	—
M20	coarse	2.5	ø17.5	ø17.9	ø21.0	ø22.0	ø24.0	ø31.5	20	ø40.32
M22	coarse	2.5	ø19.5	ø19.9	ø23.0	ø24.0	ø26.0	—	—	—
M24	coarse	3	ø21.0	ø21.5	ø25.0	ø26.0	ø28.0	—	—	—

FINE

M1.6 – M12 emphasised

SIZE	SERIES	PITCH	TAP DRILL 75%	HARD MAT. 65%	CLEAR CLOSE	CLEAR NORMAL	CLEAR LOOSE	SHCS C'BORE	C'BORE DEPTH	FHCS C'SINK
M6	fine	0.75	ø5.2	ø5.4	ø6.4	ø6.6	ø7.0	ø11.2	6	ø13.44
M8	fine	1	ø7.0	ø7.2	ø8.4	ø9.0	ø10.0	ø14.5	8	ø17.92
M10	fine	1	ø9.0	ø9.2	ø10.5	ø11.0	ø12.0	ø17.5	10	ø22.4
M10	fine	1.25	ø8.8	ø8.9	ø10.5	ø11.0	ø12.0	ø17.5	10	ø22.4
M12	fine	1.25	ø10.8	ø10.9	ø13.0	ø13.5	ø14.5	ø19.5	12	ø26.88
M12	fine	1.5	ø10.5	ø10.7	ø13.0	ø13.5	ø14.5	ø19.5	12	ø26.88
M14	fine	1.5	ø12.5	ø12.7	ø15.0	ø15.5	ø16.5	ø22.5	14	ø30.8
M16	fine	1.5	ø14.5	ø14.7	ø17.0	ø17.5	ø18.5	ø25.5	16	ø33.6
M18	fine	1.5	ø16.5	ø16.7	ø19.0	ø20.0	ø21.0	ø28.5	18	—
M20	fine	1.5	ø18.5	ø18.7	ø21.0	ø22.0	ø24.0	ø31.5	20	ø40.32
M20	fine	2	ø18.0	ø18.3	ø21.0	ø22.0	ø24.0	ø31.5	20	ø40.32
M22	fine	1.5	ø20.5	ø20.7	ø23.0	ø24.0	ø26.0	—	—	—
M24	fine	1.5	ø22.5	ø22.7	ø25.0	ø26.0	ø28.0	—	—	—
M24	fine	2	ø22.0	ø22.3	ø25.0	ø26.0	ø28.0	—	—	—
M12	fine	1	ø11.0	ø11.2	ø13.0	ø13.5	ø14.5	ø19.5	12	ø26.88
M14	fine	1.25	ø12.8	ø12.9	ø15.0	ø15.5	ø16.5	ø22.5	14	ø30.8
M16	fine	1	ø15.0	ø15.2	ø17.0	ø17.5	ø18.5	ø25.5	16	ø33.6
M18	fine	2	ø16.0	ø16.3	ø19.0	ø20.0	ø21.0	ø28.5	18	—

SHCS = socket head cap screw counterbore (diameter and depth). FHCS = flat head countersink diameter. "—" = no value listed.

HOW TO USE

How to pick a metric tap drill:

1. **Find the thread.** Locate the screw size (for example M6) in the Size column and choose coarse or fine by its pitch.
2. **Read the tap drill.** Use the Tap drill 75% column for the drill diameter in mm (M6 coarse: 5.0 mm).
3. **Adjust for hard material.** For stainless steel or tool steel use the Hard mat. 65% column, which is slightly larger and easier on the tap.
4. **Drill, then tap.** Drill the hole to the full thread depth plus a few threads, deburr it, then cut the thread with a tap lubricated for the material.