CROWBAR'S | DRILL & TAP WALL CHART

crowbars.store | 319-200-2769

***Fractional alternatives are approximate, not guaranteed substitutes.** Larger holes reduce thread engagement; smaller holes increase tapping effort. Verify tool specifications for critical work. NPT requires tap-specific guidance.

INCH THREADS | UNC / UNF

THREAD	TAP DRILL	CLOSEST FRACTION*	DIFFERENCE / CAUTION
4-40	**#43**	3/32*	0.0048 in. larger; reduced thread depth
6-32	**#36**	7/64*	0.0029 in. larger
8-32	**#29**	9/64*	0.0046 in. larger; reduced thread depth
10-24	**#25**	5/32*	0.0068 in. larger
10-32	**#21**	5/32*	0.0028 in. smaller; harder tapping
12-24	**#16**	11/64*	0.0051 in. smaller; harder tapping
1/4-20	**#7**	13/64*	0.0021 in. larger
1/4-28	**#3**	7/32*	0.0058 in. larger
5/16-18	**F**	17/64*	0.0086 in. larger
5/16-24	**I**	9/32*	0.0092 in. larger; reduced thread depth
3/8-16	**5/16**	5/16	Same size
3/8-24	**Q**	11/32*	0.0117 in. larger; reduced thread depth
7/16-14	**U**	3/8*	0.0070 in. larger
7/16-20	**25/64**	25/64	Same size
1/2-13	**27/64**	27/64	Same size
1/2-20	**29/64**	29/64	Same size
9/16-12	**31/64**	31/64	Same size
9/16-18	**33/64**	33/64	Same size
5/8-11	**17/32**	17/32	Same size
5/8-18	**37/64**	37/64	Same size
3/4-10	**21/32**	21/32	Same size
3/4-16	**11/16**	11/16	Same size
7/8-9	**49/64**	49/64	Same size
7/8-14	**13/16**	13/16	Same size
1-8	**7/8**	7/8	Same size
1-12	**59/64**	59/64	Same size
1-14	**15/16**	15/16	Same size

METRIC THREADS

THREAD	TAP DRILL	CLOSEST FRACTION*	DIFFERENCE / CAUTION
M3 x 0.5	**2.5**	3/32 - not suggested	0.0047 in. smaller; use listed tap drill
M4 x 0.7	**3.3**	1/8 - not suggested	0.0049 in. smaller; use listed tap drill
M5 x 0.8	**4.2**	11/64*	0.0065 in. larger
M6 x 1.0	**5.0**	13/64*	0.0063 in. larger
M8 x 1.25	**6.8**	17/64*	0.0021 in. smaller
M8 x 1.0	**7.0**	9/32*	0.0057 in. larger
M10 x 1.5	**8.5**	11/32*	0.0091 in. larger
M10 x 1.25	**8.8**	11/32*	0.0027 in. smaller
M12 x 1.75	**10.2**	13/32*	0.0047 in. larger
M12 x 1.25	**10.8**	27/64*	0.0033 in. smaller
M14 x 2.0	**12.0**	15/32*	0.0037 in. smaller; harder tapping
M14 x 1.5	**12.5**	1/2*	0.0079 in. larger
M16 x 2.0	**14.0**	35/64*	0.0043 in. smaller; harder tapping
M16 x 1.5	**14.5**	37/64*	0.0073 in. larger
M18 x 2.5	**15.5**	39/64*	0.0009 in. smaller
M18 x 1.5	**16.5**	21/32*	0.0066 in. larger
M20 x 2.5	**17.5**	11/16*	0.0015 in. smaller
M20 x 1.5	**18.5**	47/64*	0.0060 in. larger
M22 x 2.5	**19.5**	49/64*	0.0021 in. smaller
M22 x 1.5	**20.5**	13/16*	0.0054 in. larger
M24 x 3.0	**21.0**	53/64*	0.0014 in. larger
M24 x 2.0	**22.0**	55/64*	0.0068 in. smaller; harder tapping

NPT PIPE THREADS

THREAD	TAP DRILL	CLOSEST FRACTION*	DIFFERENCE / CAUTION
1/16-27 NPT	**C**	15/64*	0.0076 in. smaller; confirm pipe-tap specification
1/8-27 NPT	**Q**	21/64*	0.0039 in. smaller; confirm pipe-tap specification
1/4-18 NPT	**7/16**	7/16	Same size
3/8-18 NPT	**9/16**	9/16	Same size
1/2-14 NPT	**45/64**	45/64	Same size
3/4-14 NPT	**29/32**	29/32	Same size
1-11-1/2 NPT	**1-9/64**	1-9/64	Same size

SHOP NOTES | READ BEFORE TAPPING

INCH THREADS / FRACTIONAL DRILLS

The dash number is threads per inch (TPI). # and letter drills are numbered/letter sizes. Fractional choices assume a full 1/64-inch drill index; small kits may skip sizes.

ALTERNATIVES ARE NOT EXACT

A smaller drill increases tapping force; a larger drill reduces thread engagement. For critical work, use the listed drill and follow the tap maker's recommendation.

METRIC & NPT

Metric M8 x 1.25 means 8 mm diameter and 1.25 mm pitch. NPT is tapered; pipe size is not drill size. Confirm tap-specific drilling and reaming instructions and gauge the finished thread.

QUICK TAPPING TIPS

Match diameter and pitch. Clamp work and start the tap square. Use suitable cutting fluid. For blind holes, leave room for tap lead and chips. Follow the tool maker's chip-control instructions.