

Wood screw pilot hole chart

Pilot, clearance and head-bore sizes by screw gauge, with metric screw diameters.

Traditional (tapered) wood screws: pilot, shank and head-bore holes

Gauge	Pilot, hardwood	Pilot, softwood	Shank (clearance) hole	Head bore
#2	1/16 in (1.6 mm)	1/16 in (1.6 mm)	3/32 in (2.4 mm)	11/64 in (4.4 mm)
#3	1/16 in (1.6 mm)	1/16 in (1.6 mm)	7/64 in (2.8 mm)	13/64 in (5.2 mm)
#4	5/64 in (2.0 mm)	1/16 in (1.6 mm)	7/64 in (2.8 mm)	15/64 in (6.0 mm)
#5	5/64 in (2.0 mm)	1/16 in (1.6 mm)	1/8 in (3.2 mm)	1/4 in (6.3 mm)
#6	3/32 in (2.4 mm)	5/64 in (2.0 mm)	9/64 in (3.6 mm)	9/32 in (7.1 mm)
#7	7/64 in (2.8 mm)	3/32 in (2.4 mm)	5/32 in (4.0 mm)	5/16 in (7.9 mm)
#8	7/64 in (2.8 mm)	3/32 in (2.4 mm)	5/32 in (4.0 mm)	11/32 in (8.7 mm)
#9	1/8 in (3.2 mm)	7/64 in (2.8 mm)	11/64 in (4.4 mm)	23/64 in (9.1 mm)
#10	1/8 in (3.2 mm)	7/64 in (2.8 mm)	3/16 in (4.8 mm)	25/64 in (9.9 mm)
#12	9/64 in (3.6 mm)	1/8 in (3.2 mm)	7/32 in (5.6 mm)	7/16 in (11.1 mm)
#14	5/32 in (4.0 mm)	9/64 in (3.6 mm)	1/4 in (6.3 mm)	1/2 in (12.7 mm)

WOOD Magazine chart. mm values are conversions rounded to 0.1 mm. #11 and #13 not listed.

Alternative chart: pilot holes by bit type and countersink size

Screw size	Hardwood, tapered bit	Hardwood, straight bit	Softwood, tapered bit	Softwood, straight bit	Countersink size
#2	3/32 in	1/16 in	1/16 in	1/32 in	1/4 in
#3	7/64 in	5/64 in	5/64 in	3/64 in	1/4 in
#4	7/64 in	5/64 in	5/64 in	1/16 in	1/4 in
#5	1/8 in	3/32 in	3/32 in	5/64 in	5/16 in
#6	9/64 in	7/64 in	7/64 in	3/32 in	5/16 in
#7	5/32 in	7/64 in	7/64 in	7/64 in	3/8 in
#8	11/64 in	1/8 in	1/8 in	7/64 in	3/8 in
#9	11/64 in	9/64 in	9/64 in	1/8 in	3/8 in
#10	3/16 in	9/64 in	9/64 in	1/8 in	1/2 in
#11	3/16 in	5/32 in	5/32 in	9/64 in	1/2 in
#12	7/32 in	5/32 in	5/32 in	9/64 in	1/2 in
#13	7/32 in	11/64 in	11/64 in	5/32 in	1/2 in
#14	1/4 in	3/16 in	3/16 in	5/32 in	5/8 in

MISUMI USA blog. Straight-bit values differ from WOOD Magazine for several gauges (see conflicts).

US numbered screw sizes: major diameter in inches and millimetres

Size	Major diameter (in)	Major diameter (mm)
#0	0.060	1.52
#1	0.073	1.85
#2	0.086	2.18
#3	0.099	2.51
#4	0.112	2.84

Size	Major diameter (in)	Major diameter (mm)
#5	0.125	3.18
#6	0.138	3.51
#8	0.164	4.17
#10	0.190	4.83
#12	0.216	5.49

Machine-screw numbered sizes; mm column calculated (in x 25.4). Wood-screw gauges use the same numbering, but this table comes from machine-screw references. #14 not sourced.

Sources: Little Machine Shop; MISUMI USA; WOOD Magazine (chart PDF hosted at davehylands.com); Wikipedia. Checked 22 October 2026. Always confirm against your tool and accessory manuals. Free to share under CC BY 4.0 with credit to AccessoryFit (accessoryfit.com/printables/).