

Lag Screw Pilot Hole Chart

Pilot sizes by lag diameter (1/4"–3/4") and wood type · fraction and mm

LAG SIZE	SOFTWOOD	MEDIUM	HARDWOOD
1/4"	3/32" 2.4 mm	5/32" 4 mm	3/16" 4.8 mm
5/16"	9/64" 3.6 mm	3/16" 4.8 mm	13/64" 5.2 mm
3/8"	11/64" 4.4 mm	15/64" 6 mm	1/4" 6.4 mm
1/2"	15/64" 6 mm	5/16" 7.9 mm	11/32" 8.7 mm
5/8"	5/16" 7.9 mm	13/32" 10.3 mm	29/64" 11.5 mm
3/4"	13/32" 10.3 mm	1/2" 12.7 mm	9/16" 14.3 mm

Softwood — pine, spruce, cedar, fir. Medium — Douglas fir, southern yellow pine. Hardwood — oak, maple, birch.

The sizes above are the pilot for the threaded portion. Also drill a clearance hole the size of the bolt's nominal diameter (a 3/8" lag needs a 3/8" clearance hole) through the top piece being fastened.

For major structural or load-bearing work, follow the lag manufacturer's specifications or an engineer's guidance. These are general split-safe DIY sizes.