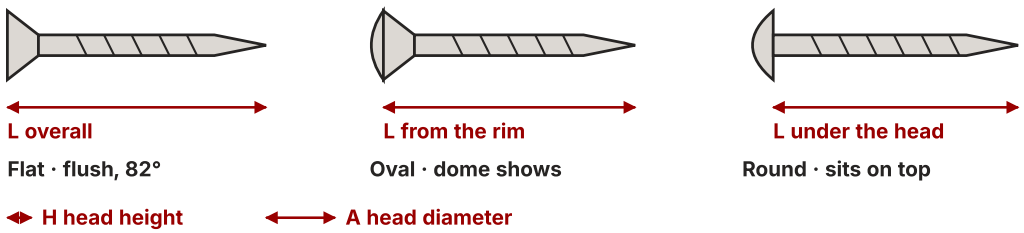
Wood Screw Dimensions

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J & E Supply & FASTENER CO.

Threads per inch, diameter, head size and Phillips driver size for inch wood screws — flat, oval and round heads, slotted or Phillips. ASME B18.6.1.

A wood screw has a sharp (gimlet) point and a coarse thread that cuts its own way into wood. It is sized by a **number** (gauge): the bigger the number, the fatter the screw — a #8 is about 0.16″ across, a #10 about 0.19″. Each size has one thread, so the number is all you need to match one. **Flat** heads sink flush into an 82° countersink and are measured overall; **oval** heads sink the same way but leave a dome showing, and are measured from the rim; **round** heads sit on top and are measured from under the head.



The letters match the table columns.

Wood screw threads — ASME B18.6.1 (inches)

SIZE	THREADS PER INCH	BASIC DIA	THREAD DIA MAX / MIN
#2	26	.086	.090 / .079
#3	24	.099	.103 / .092
#4	22	.112	.116 / .105
#5	20	.125	.129 / .118
#6	18	.138	.142 / .131
#7	16	.151	.155 / .144
#8	15	.164	.168 / .157
#9	14	.177	.181 / .170
#10	13	.190	.194 / .183
#12	11	.216	.220 / .209
#14	10	.242	.246 / .235
#16	9	.268	.272 / .261
#18	—	.294	—

The basic diameter is the size's nominal number; a real screw's thread measures between the max and min. A dash: our sources differ or only one lists it.

Flat head wood screws (82°) — ASME B18.6.1 (inches)

SIZE	HEAD DIA A MAX / MIN	HEAD HEIGHT H (NOMINAL)	PHILLIPS DRIVER
#2	.172 / .147	.051	—
#3	.199 / —	.059	—
#4	.225 / .195	.067	—
#5	.252 / .220	.075	—
#6	.279 / .244	.083	—
#7	.305 / .268	.091	—
#8	.332 / .292	.100	—
#9	.358 / .316	.108	—
#10	.385 / .340	.116	—
#12	.438 / .389	.132	—
#14	.507 / .452	.153	—
#16	.544 / .485	.164	—

Sits flush in an 82° countersink; length is measured overall, head included. Head dia max is to a sharp edge; min allows a rounded or flat edge. Not listed: #0, #1, #18, #20, #24 — our sources differ or only one lists them. Phillips driver size: not on our chart yet — only one of our sources lists it.

Oval head wood screws (82°) — ASME B18.6.1 (inches)

SIZE	HEAD DIA A MAX / MIN	SIDE HEIGHT H (NOMINAL)	OVERALL HEAD HEIGHT MAX / MIN	PHILLIPS DRIVER
#4	.225 / .195	.067	.104 / .084	#1 Phillips

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SIZE	HEAD DIA A MAX / MIN	SIDE HEIGHT H (NOMINAL)	OVERALL HEAD HEIGHT MAX / MIN	PHILLIPS DRIVER
#5	.252 / .220	.075	.116 / .095	#2 Phillips
#6	.279 / .244	.083	.128 / .105	#2 Phillips
#8	.332 / .292	.100	.152 / .126	#2 Phillips
#9	.358 / .316	.108	.164 / .137	#2 Phillips
#10	.385 / .340	.116	.176 / .148	—
#12	.438 / .389	.132	.200 / .169	#3 Phillips

The same countersink as a flat head with a dome on top; length is measured from the rim, the dome isn't counted. Not listed: #0, #1, #2, #3, #7, #14, #16, #18, #20, #24.

Round head wood screws — ASME B18.6.1 (inches)

SIZE	HEAD DIA A MAX / MIN	HEAD HEIGHT H MAX / MIN	PHILLIPS DRIVER
#2	.162 / .146	.069 / .059	—
#4	.211 / .193	.086 / .075	—
#5	.236 / .217	.095 / .083	—
#6	.260 / .240	.103 / .091	—
#7	.285 / .264	.111 / .099	—
#8	.309 / .287	.120 / .107	—
#9	.334 / .311	.128 / .115	—
#10	.359 / .334	.137 / .123	—
#12	.408 / .382	.153 / .139	—
#14	.457 / .429	.170 / .155	—

Sits on top of the work; length is measured from under the head. Not listed: #0, #1, #3, #16, #18, #20, #24. Phillips driver size: not on our chart yet — only one of our sources lists it.

Good to know

Thread length. A cut-thread wood screw is threaded about two-thirds of its length. A rolled-thread screw is threaded at least 4 times its basic diameter or two-thirds of its length, whichever is more; a screw too short for that is threaded as close to the head as practical.

Pilot holes depend on the wood, so they aren't on this chart — the tables we checked don't agree. Test in a scrap of the same wood, and use a bigger pilot in hardwood than in softwood. Brass screws are soft: drive a steel screw of the same size first, then the brass one.

Deck, cabinet, particle-board and other specialty screws are not made to this standard and aren't on this chart. How to measure a flush head is on How to Measure a Flat Head; heads that sit on top on How to Measure a Bolt.

Quick answers

How many threads per inch on a wood screw?
#4 – 22, #6 – 18, #8 – 15, #10 – 13, #12 – 11, #14 – 10 (ASME B18.6.1).

What is the diameter of a #10 wood screw?
Its basic size is .190″; the thread measures .183″ to .194″ across (ASME B18.6.1).

What Phillips bit fits an oval head wood screw?
#4 screw – #1 bit, #5 screw – #2 bit, #6 screw – #2 bit, #8 screw – #2 bit, #9 screw – #2 bit, #12 screw – #3 bit (ASME B18.6.1).

How big is the head on a #10 flat head wood screw?
Up to .385″ across, .116″ tall (nominal), for an 82° countersink.

How big is the head on a #10 round head wood screw?
Up to .359″ across and .137″ tall.

Reference values drawn from the governing standards. For critical applications, confirm against the standard and the manufacturer's published data. Technical information disclaimer →