



GARDNER SCREW CORPORATION

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Hi-Torque Wood Screws – Phillips

RECOMMENDED DRILL AND BIT SIZES

As every good cabinet worker knows, there is considerable variation in condition and grade of wood. Therefore, any pilot hole recommendation is for average conditions, allowance may have to be made by a competent craftsman to meet specific conditions.

Too large a hole provides insufficient gripping surface. An undersize pilot hole likewise weakens the fastening, because the fibre of the wood is crushed and granulations are packed in the thread root. This sets up stresses which tend to split or crack the wood.

The following table lists recommended hole diameters, from which the experienced woodworker will vary according to his needs.

Screw Gauge		Shank Clearance Hole		Pilot Hole for Hard Wood			Pilot Hole for Soft Wood Screw Gauge			Flat and Oval Head Diameters Nearest Fraction	No. of Auger Bit to Counterbore for Head
Size	Decimal Dimension	Drill No. or Letter	Nearest Fraction	Hole Size	Nearest Fraction	Nearest Drill No.	Hole Size	Nearest Fraction	Nearest Drill No.		
2	.086"	42	3/32"	.052"	3/64" +	55	.035"	1/32" +	65	11/64"	3
3	.099"	37	7/64"–	.063"	1/16" +	52	.042"	3/64" –	58	13/64"	4
4	.112"	32	7/64"+	.070"	5/64"–	50	.050"	3/64" +	55	7/32"	4
5	.125"	30	1/8"+	.082"	5/64"+	45	.057"	1/16" –	53	1/4"	4
6	.138"	27	9/64"+	.093"	3/32"	42	.062"	1/16"	52	9/32"	5
7	.151"	22	5/32"	.106"	7/64" –	36	.066"	1/16"+	51	19/64"	5
8	.164"	18	11/64"–	.116"	7/64" +	32	.076"	5/64"–	48	21/64"	6
9	.177"	14	3/16"–	.128"	1/8" +	30	.082"	5/64" +	45	23/64"	6
10	.190"	10	3/16"+	.140"	9/64"	28	.088"	3/32" –	43	3/8"	6
12	.216"	2	7/32"+	.152"	5/32" –	24	.102"	7/64" –	38	7/16"	7
14	.242"	D	1/4"–	.166"	11/64" –	19	.116"	7/64" +	32	31/64"	8
16	.268"	I	17/64"+	.189"	3/16" +	12	.132"	1/8" +	29	17/32"	9
18	.294"	N	5/16"–	.209"	13/64" +	4	.145"	9/64" +	26	19/32"	10