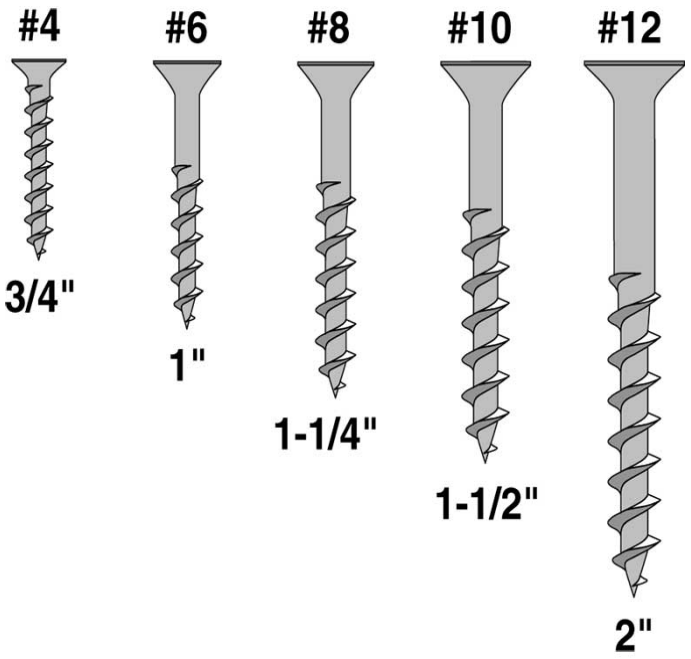
Screw Sizes and Applications

Not sure which size you need? The drawings below are as accurate as possible to help in deciding which size is required for your job. In addition, the following guidelines may help you select the proper size:



Driver Bit Color Codes		
Screw Size	**Driver Size**	**Hand Driver Color (normally)**
#4	#0 Bit	Light Yellow
#5, 6, 7	#1 Bit	Medium Green
#8, 9, 10	#2 Bit	Red
#12, 14	#3 Bit	Black
#5/16 in. & up	#4 Bit	Un–coded;
Shop our selection of "Square Drive Driver Bits" and use the filters on the left to find the color bits you are looking for.		

#4 Designed for small crafts, jewelry boxes, attaching hinges, etc. Very light duty. Available in 3/8 in. to 3/4 in. lengths.

#6 Small crafts, hinges and drawer slides, children's furniture, toys, light-duty jigs and fixtures, etc. Light duty. Available in 1/2 in. to 1-1/2 in. lengths.

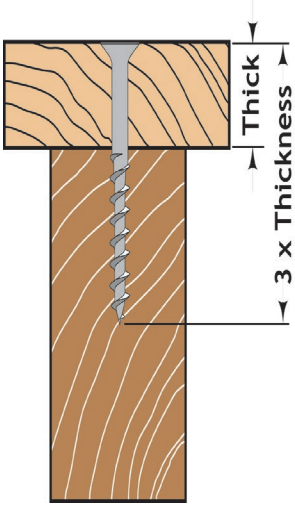
#8 General furniture construction, cabinets, light construction. Good all-purpose. From 5/8" to 3" lengths.

#10 General construction, heavy-duty furniture, outdoor projects, decks, lawn furniture, boat building, etc. Available in 3/4 in. to 4 in. lengths.

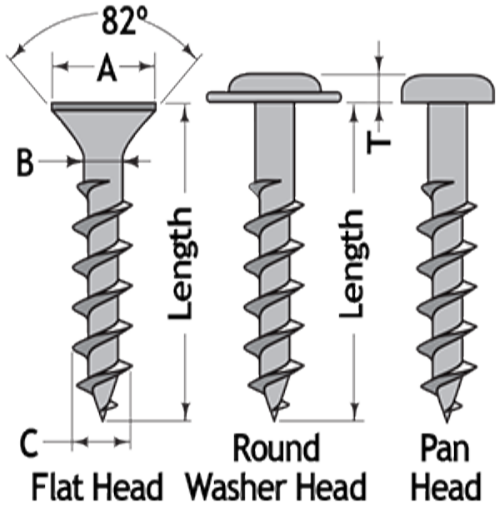
#12 & #14 For heavy-duty construction, hanging solid-core doors, etc. Available in 3/4 in.to 6 in. lengths in selected styles. (#12 shown).

Use our Select A Screw Section and by using the filters on the left side you can quickly narrow your options to the screws you are looking for.

McFeely's Know-How www.mcfeelys.com
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- 340 Second Street
- Aurora, IN 47001
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  800-443-7937



Screw Length



There is no hard and fast rule concerning screw length requirements. Sometimes you do not have much choice as to length because of the construction details. In general, though, the screw should always go through the thinner piece, and thread into the thicker piece. In choosing length, try to have about 2/3 of the screw threaded into the "secondary" piece, as shown. As the thickness of the lumber increases though, this ratio can be reduced so that only 1/2 of the shank is threaded into the secondary piece. Not coincidentally, only 2/3 of the shank is threaded on our 1 in. and longer screws.

Screw Dimensions

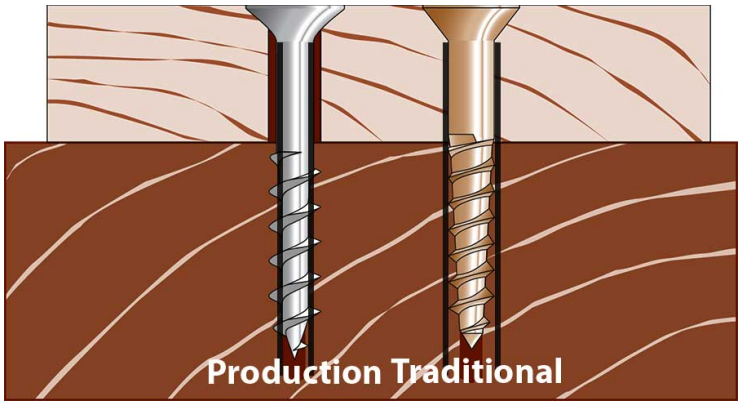
We've listed screw dimensions for ***Production Screws*** in two forms − a table showing the maximum and minimum decimal dimensions, and a table showing the maximum fractional dimensions. Note that the fractional dimensions are the best approximations of the actual decimal dimensions.

	"A" Flat Head		"A" Pan Head			"A" Round Washer Head			"B" Body Dia		"C" Thread Dia	
Size	**Max**	**Min**	**Max**	**Min**	**T max**	**Max**	**Min**	**T max**	**Max**	**Min**	**Max**	**Min**
4	0.225	0.195	0.219	0.205	0.086	N/A	N/A	N/A	0.095	0.084	0.116	0.105
6	0.279	0.244	0.270	0.256	0.103	N/A	N/A	N/A	0.118	0.107	0.142	0.131
8	0.332	0.292	0.322	0.306	0.120	0.376	0.352	0.110	0.136	0.125	0.168	0.157
10	0.385	0.340	0.373	0.357	0.137	0.443	0.411	0.125	0.157	0.146	0.194	0.183
12	0.438	0.389	0.425	0.407	0.153	N/A	N/A	N/A	0.176	0.165	0.220	0.209
14	0.507	0.452	0.492	0.473	0.175	N/A	N/A	N/A	0.201	0.190	0.246	0.235

Note: IFI Standards specify a tolerance on screw length of +0", −1/16".

	"A" Flat Head	"A" Pan Head		"A" Round Washer Head		"B" Body Dia	"C" Thread Dia
Size	**Max Dia**	**Max Dia**	**T max**	**Max Dia**	**T max**	**Min**	**Max**
4	7/32	7/32	3/32	N/A	N/A	3/32	1/8
6	9/32	17/64	7/64	N/A	N/A	1/8	9/64
8	21/64	21/64	1/8	3/8	7/64	9/64	11/64
10	25/64	3/8	9/64	7/16	1/8	5/32	3/16
12	7/16	27/64	5/32	N/A	N/A	11/64	7/32
14	1/2	31/64	11/64	N/A	N/A	13/64	1/4

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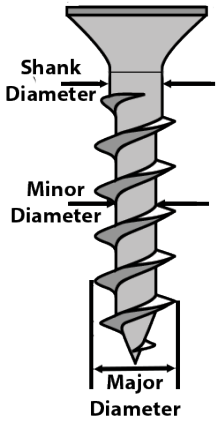
Traditional Wood Screw vs. Modern Production Screw

The difference between a traditional wood screw and a modern production screws is found in the sizing differences between the diameter of the screw shank and the screw threads.

Traditional Wood Screws - The shank diameter on this screw exactly matches the ***outside*** dimensions of the threads. Threads on these screws are deeper near the point and begin to shallow as they get closer to the unthreaded shank or screw head. Tapered drill bits are needed with this type of screw as the pilot hole should fit the outside shank diameter of the screw almost perfectly. Creating this tight fit on traditional wood screws yields maximum holding power.

Modern Production Screws - The shank diameter is smaller than the major diameter but larger than the minor diameter. The overall reduced shank diameter results in a deep thread profile offering great holding power. Drilling a pilot with a straight drill bit yields excellent results because the shank of the screw is straight throughout its entire length. The advantages of this are that straight bits do not require the same critical depth control needed with a tapered bit.

- **Minor Diameter:** Measurement of the body of the screw between the threads (one side to the other) – Smaller than major diameter and shank diameter
- **Major Diameter:** Measurement of the outside of the thread (one side to the other) – Larger than shank diameter and minor diameter
- **Shank Diameter:** Measurement of the bare shank (one side to the other) – Larger than minor diameter but smaller than the major diameter



	"B" Body Dia		"C" Thread Dia	
Size	**Max**	**Min**	**Max**	**Min**
#10 Traditional	0.194	0.183	0.194	0.183
#10 Production	0.157	0.146	0.194	0.183