GRABBER CONSTRUCTION PRODUCTS

"The Professional's Choice"™

Self Drilling Screw Selection

Steel Metal Gauge

Normal Gauge	Minimum Thickness (inches)	Mils	Maximum Design Thickness (inches)
26	0.0163	16	0.0172
25	0.0179	18	0.0188
22	0.0269	27	0.0283
20	0.0329	33	0.0346
18	0.0428	43	0.0451
16	0.0538	54	0.0566
14	0.0677	68	0.0713
12	0.0966	97	0.1017
10	0.1180	118	0.1240

FOR SI: 1 inch = 25.4mm. 1 mil = 0.0254 mm.

1 - All dimensions are inches or mils, uncoated.
2 - U.S. standard gauge for uncoated hot- and cold-rolled sheets. Gauge numbers are only provided as a reference and should not be used to order, design or specify steel studs or joists.
3 - Minimum thickness of material delivered to the job site.
4 - Design thickness of steel studs / joists shall not exceed the minimum thickness divided by 0.95. Design thickness = Min. thickness / 0.95.
5 - Chart above as noted in ICBO AC 46 acceptance criteria.

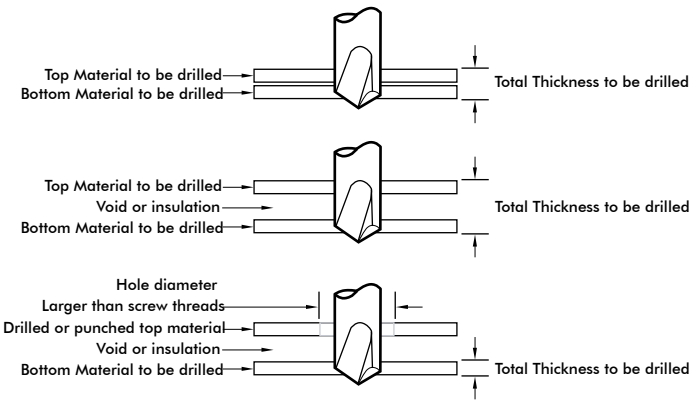
Screw Size

Normal Size	Basic Screw Diameter	Actual Size
0	0.0600	
1	0.0730	
2	0.0860	
3	0.0990	
4	0.1120	
5	0.1250	
6	0.1380	
7	0.1510	
8	0.1640	
10	0.1900	
12	0.2160	
1/4	0.2500	
5/16	0.3125	
3/8	0.3750	

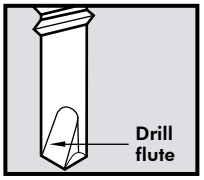
Where specifying nominal size in decimals, zeros preceding decimal and in the fourth decimal place shall be omitted.

Self-Drilling Screw Selection Guide

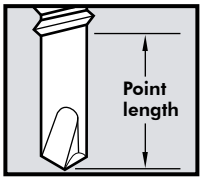
Drill Point Selection



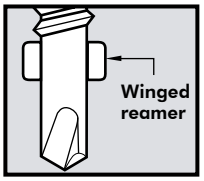
Drill Flute
The length of the drill flute determines the metal thickness that can be drilled. The flute itself provides a channel for chip removal during drilling action. If it becomes completely embedded in material, drill chips will be trapped in the flute and cutting action will cease. This will cause the point to burn up or break.



Point Length
The unthreaded section from the point to the first thread should be long enough to assure the drilling action is complete before the first thread engages the drilled metal. Screw threads advance at a rate of up to ten times faster than the drill flute can remove metal. All drilling therefore should be complete before threads begin to form.

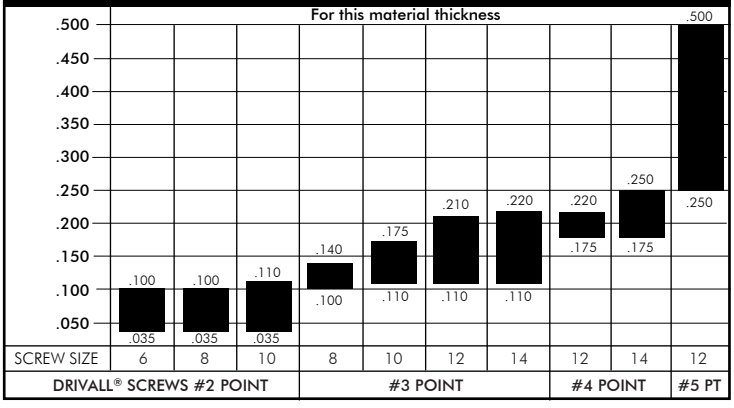


Drilling Through Wood To Metal
If your application calls for drilling through wood over 1/2" in thickness, a clearance hole is required. Select a fastener with break away wings for this type of job. The wings will ream a clearance hole and break-off when in contact with metal surface (minimum metal thickness .090") to be drilled.



Recommendations for Drilling Capacity

Material Thickness Recommendations



NOTE: MEETS OR EXCEEDS SAE J78 - TABLE 9.
TOTAL THICKNESS OF ALL STEEL INCLUDING ANY SPACING BETWEEN LAYERS