Self-Drilling (TEK) Screw Point Chart

How thick a steel each drill point self-drills without a pilot

DRILL POINT	SELF-DRILLS UP TO	~ GAUGE / SIZE	TYPICAL USE
#1	0.06" 1.5 mm	16 ga	Thin sheet / wood-to-metal (least common)
#2	0.11" 2.8 mm	12 ga	Thin to light sheet metal
#3	0.21" 5.3 mm	3/16"	Sheet to light structural — the workhorse
#4	0.375" 9.5 mm	3/8"	Structural steel and plate
#5	0.5" 12.7 mm	1/2"	Heavy plate — the category limit

Self-drilling (TEK) screws need NO pilot hole — a drill-point tip bores its own hole and taps its own threads in one pass. The catch is the limit: a point self-drills only up to its rated steel thickness. Past it the point burns out before it penetrates, the screw spins, and the friction work-hardens the steel.

The figure is the TOTAL steel thickness — all layers being fastened count together. The drill point number is separate from the screw gauge (a #10 screw can carry a #2 or #3 point), so buy by the point. #3 is the everyday point for sheet and light steel; above 1/4" you're into #5 and structural territory.

Boundaries vary a little by manufacturer, so check the product's box. Aluminium and soft metals drill easier than steel, so these steel ratings are conservative there. Sources: Simpson Strong-Tie, the Cold-Formed Steel Engineers Association (TN-565c), SAE J78, Grabber and ITW Buildex/Teks. For structural or load-bearing work follow the screw manufacturer's published drilling capacity.