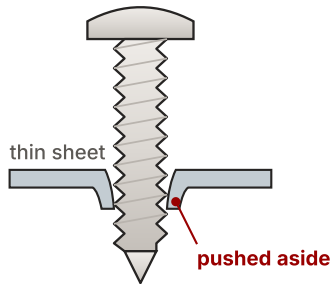


Tapping Screws: Which Type?

jandesupply.com/guide-tapping-screws.php

"Self-tapping" gets used for three very different screws. Grab the wrong one and you'll strip it, crack the material, or watch it spin without ever biting. Here's how to tell them apart.

All three make their own threads — that's why they all get called "self-tapping." The real questions are **how** they do it, and **whether** you drill a hole first.



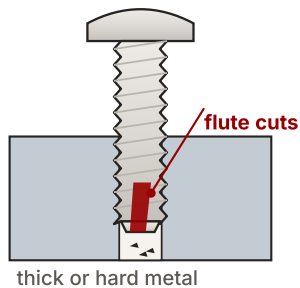
PRE-DRILL · DISPLACES MATERIAL

Thread-forming (sheet-metal)

Pushes material aside to form threads instead of removing it — like the common **Type A, AB, and B** sheet-metal screws.

- **Best in:** thinner sheet metal, plastic, soft material — where there's give
- **Plus:** strong hold, because no material is lost
- **Watch:** too thick or hard and it fights you or strips

Needs a **pilot hole** sized to the screw



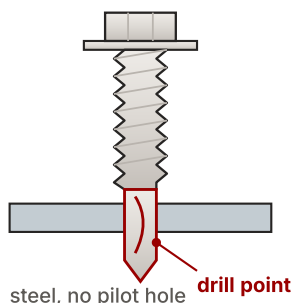
PRE-DRILL · CUTS A THREAD

Thread-cutting

A cutting edge or flute **carves** a thread, like a tiny tap — **Type 23, 25, and F** are common.

- **Best in:** thicker or harder metal and castings, where forming would build up stress and crack the part
- **Plus:** cutting relieves that stress
- **Watch:** the thread it leaves is a touch less strong than a formed one

Needs a **pilot hole** — usually a bit larger than a forming screw



NO PILOT · DRILLS + TAPS

Self-drilling (TEK)

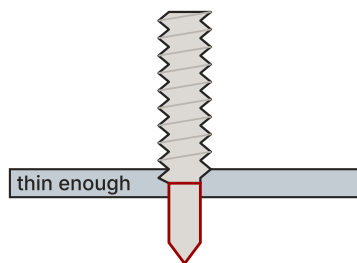
A little **drill point** on the tip bores its own hole **and** threads in one shot — no pre-drilling.

- **Best in:** fastening steel and metal panels fast
- **Watch:** the point is rated for a **limited steel thickness** (a point number, roughly #1 to #5)

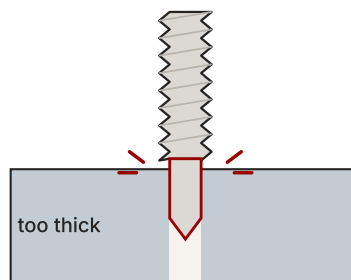
No pilot hole — but mind the thickness it can drill



Why a TEK screw just spins



✓ point breaks through first → pulls in



✗ threads hit before the hole is done
spins, heats up, burns out

The most common mistake is a self-driller on steel too thick for its point. If the screw spins without pulling in, that's usually it — step up to a longer drill point, or pre-drill and use a thread-cutting screw instead.

Quick way to choose



Thin sheet, plastic, soft metal
→ Thread-forming, pre-drilled



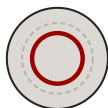
Thick or hard metal, or a casting you don't want to crack
→ Thread-cutting, pre-drilled



Steel panel or framing — skip the drill
→ Self-drilling TEK — check its point can handle your thickness

About the pilot hole

For thread-forming and thread-cutting screws, the pilot hole size matters. Looking down the hole:



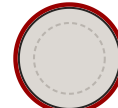
✗ Too small

You'll strip the screw or split the work.



✓ Right size

Between the screw's root and its thread tips — the threads bite.



✗ Too big

The threads have nothing to grab.

The right size depends on the screw and the material, so drill a test hole in scrap of the same stock before you commit — or tell us the screw and material and we'll point you to the right drill.



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