

## Screw Information

### COMMON SCREW TYPES



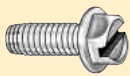
#### Machine

General-purpose screws are typically used in noncritical applications. Most commonly used to fasten metal to metal, machine screws are designed to be inserted into a prethreaded hole or mated with a nut (in which case they may be called stove bolts).



#### Sheet Metal

Designed for quick entry into sheet metal, plastics, wood, fiberglass, aluminum, plywood, and hard rubber. They tap their own internal mating thread when inserted into a predrilled or prepunched pilot hole; the resulting fit has close to zero clearance for a strong hold.



#### Thread-Cutting

Self-tapping screws cut away and remove the surrounding material instead of displacing it. Create a zero-clearance fit that resists vibration and prevents loosening.

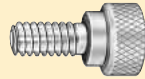
- Used in harder, less pliable materials
- Not recommended for applications requiring frequent assembly and disassembly



#### Thread-Rolling

Self-tapping screws displace the surrounding material instead of removing it. Typically have higher drive and strip torque values than thread-cutting screws. Not recommended for materials that crack under sustained loads.

- Used in softer materials that can deform
- For applications requiring frequent assembly and disassembly



#### Thumb

Featuring either a knurled or winged head type, thumb screws provide an ample gripping surface for applications requiring easy hand assembly and disassembly.



#### Wood

Form their own internal mating thread in wood or other resilient materials. They create a tight joint, but the screws can be removed easily without damage.

Note: Predrilling is recommended, especially when used in hardwoods.

### HEAD TYPES



#### Binding

Has a rounded top that tapers around the edge and may have an undercut under the head.



#### Button

Features a domed top that protrudes above the fastening surface.



#### Fillister (or Cheese)

Features a relatively tall head with cylindrical sides; can be flat or rounded on top.



#### Flat (or Countersunk)

Has a conical head and a flat top; countersunk for a smooth, flush surface.



#### Hex

Head may be slotted for driving with a screwdriver or unslotted for driving with a socket or wrench.



#### Hex Washer

Head allows tightening with screwdriver or wrench. Washer bottom of head provides secure mating of parts.



#### Oval (or Raised Countersunk)

Features a countersunk head with a low-profile, rounded top that protrudes slightly above the surface.



#### Pan

Disc with a chamfered outer edge and short cylindrical sides; has a slightly larger diameter than a round head.



#### Round

Has a more pronounced domed top than a button head.



#### Truss

Features an extra-wide, slightly rounded head with a low profile.

### COMMON DRIVES



#### Combination

Can be driven with either a slotted or Phillips driver.



#### Phillips

Cross shape provides greater contact between screw and screwdriver for less slippage.



#### Slotted

Single slot for driving with a standard slotted screwdriver.

### TAMPER-RESISTANT DRIVES



#### Hex

Special hex shape with or without center pin is ideal for use anywhere vandalism or theft is a concern.



#### One-Way

Designed for use in permanent applications. Installs with a standard slotted screwdriver; requires special tool for removal.



#### Spanner

Unique design thwarts tampering, yet allows easy installation and removal with spanner tool.



#### Torx®

Star-shaped drive with six rounded points allows maximum transfer of torque. Provides a high level of security without sacrificing accessibility.



#### Torx Plus®

Elliptical groove design maximizes engagement depth between driver and fastener. Ensures optimum torque transmission, and virtually eliminates camout.



#### Tri-Groove

Angled grooves cut into side of head provide excellent torque and maximum security.