

Screws and bolts in English

Washer Type



Flat

A flat washer, used to distribute load. Available in SAE, USS and other patterns.



Fender

An oversize flat washer used to further distribute load especially on soft materials.



Finishing

A washer used to obtain a 'finished' look. Usually used with oval head screws.



Split Lock

The most common style of washer used to prevent nuts and bolts from backing out.



External Tooth Lock

A washer with external 'teeth'. Used to prevent nuts and bolts from backing out.



Internal Tooth Lock

A washer with internal 'teeth'. Used to prevent nuts and bolts from backing out.



Square

A square shaped washer.



Dock

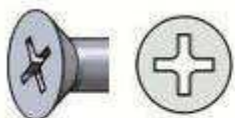
Dock washers have a larger outside diameter and are thicker than standard.



Ogee

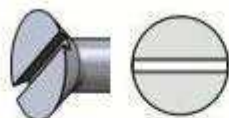
Thick, large diameter, cast iron washers with a curved or sculpted appearance. Typically used in dock and wood construction.

Drive Types



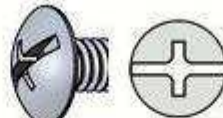
Phillips and Frearson

An X-shaped drive. Abbreviated PH.



Slotted

A slot in the head. Abbreviated SL.



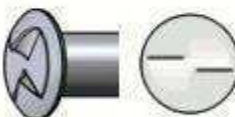
Combination

A combination of slotted and Phillips drives. Abbreviated combo.



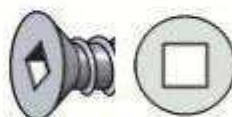
Socket, Hex or Allen

A hexagonal hole for use with an Allen wrench.



One Way

Installs with a normal slotted driver but can not be removed without special tools.



Square

Also known as Robertson drive. Abbreviated SQ or SD.



Torx

A six-pointed star pattern, specifically designed to prevent cam-out and stripped heads.

**Hex**

A six sided nut. Also referred to as a Finished Hex Nut.

**Heavy Hex**

A heavier pattern version of a standard hex nut.

**Nylon Insert Lock**

A nut with a nylon insert to prevent backing off. Also referred to as a Nylock.

**Jam**

A hex nut with a reduced height.

**Nylon Insert Jam Lock**

A nylock nut with a reduced height.

**Wing**

A nut with 'wings' for hand tightening.

**Cap**

A nut with a domed top over the end of the fastener.

**Acorn**

Acorn nuts are a high crown type of cap nut, used for appearance.

**Flange**

A nut with a built in washer like flange.

**Tee**

A nut designed to be driven into wood to create a threaded hole.

**Square**

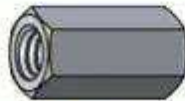
A four sided nut.

**Prevailing Torque Lock**

A non-reversible lock nut used for high temperature applications.

**K-Lock or Kep**

A nut with an attached free-spinning external tooth lock washer.

**Coupling**

Coupling nuts are long nuts used to connect pieces of threaded rod or other male fasteners.

**Slotted**

Slotted nuts are used in conjunction with a cotter pin on drilled shank fasteners to prevent loosening.

**Castle**

Castle nuts are used in conjunction with a cotter pin on drilled shank fasteners to prevent loosening.

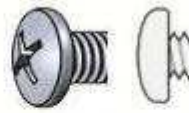
Head Style

**Flat**

A countersunk head with a flat top.
Abbreviated FH

**Oval**

A countersunk head with a rounded top.
Abbreviated OH or OV

**Pan**

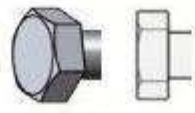
A slightly rounded head with short vertical sides.
Abbreviated PN

**Truss**

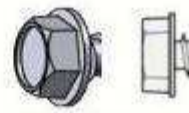
An extra wide head with a rounded top.

**Round**

A domed head.
Abbreviated RH

**Hex**

A hexagonal head
Abbreviated HH or HX

**Hex Washer**

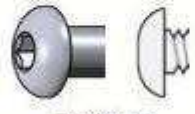
A hex head with built in washer.

**Slotted Hex Washer**

A hex head with built in washer and a slot.

**Socket Cap**

A small cylindrical head using a socket drive.

**Button**

A low-profile rounded head using a socket drive.

Screws



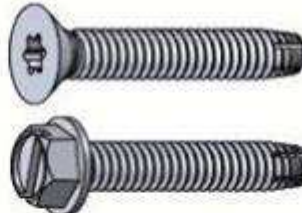
Wood Screws

Screws with a smooth shank and tapered point for use in wood. Abbreviated WS



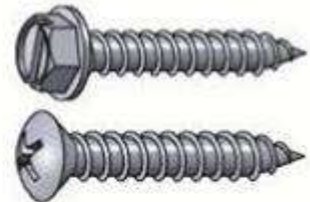
Machine Screws

Screws with threads for use with a nut or tapped hole. Abbreviated MS



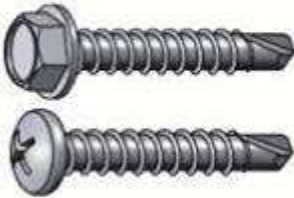
Thread Cutting Machine Screws

Machine screws with a thread cutting (self tapping) point.



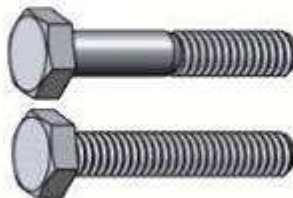
Sheet Metal Screws

Fully threaded screws with a point for use in sheet metal. Abbreviated SMS



Self Drilling SMS

A sheet metal screw with a self drilling point.



Hex Bolts

Bolts with a hexagonal head with threads for use with a nut or tapped hole. Abbreviated HHMB or HXBT.



Carriage Bolts

Bolts with a smooth rounded head that has a small square section underneath.



Lag Bolts

Bolts with a wood thread and pointed tip. Abbreviated Lag.



Socket Screws

Socket screws, also known as Allen Head, are fastened with a hex Allen wrench.



Set Screws

Machine screws with no head for screwing all the way into threaded holes.



Eye Bolts

A bolt with a circular ring on the head end. Used for attaching a rope or chain.



Eye Lags

Similar to an eye bolt but with wood threads instead of machine thread.



J-Bolts

J shaped bolts are used for tie-downs or as an open eye bolt.



U-Bolts

Bolts in U shape for attaching to pipe or other round surfaces. Also available with a square bend.



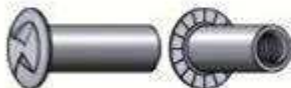
Shoulder Bolts

Shoulder bolts (also known as stripper bolts) are used to create a pivot point.



Elevator Bolts

Elevator bolts are often used in conveyor systems. They have a large, flat head.



Sex Bolts

Sex bolts (a.k.a. barrel nuts or Chicago bolts) have a female thread and are used for through bolting applications where a head is desired on both sides of the joint.



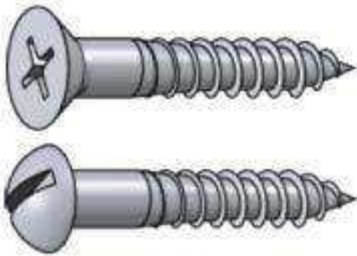
Mating Screws

Mating screws have a shoulder that matches the diameter of the sex bolts they are used with.



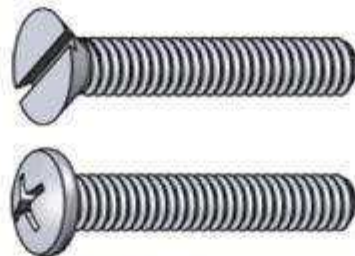
Hanger Bolts

Hanger bolts have wood thread on one end and machine thread on the other end.



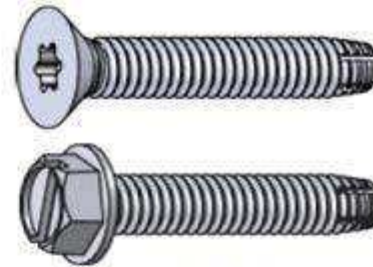
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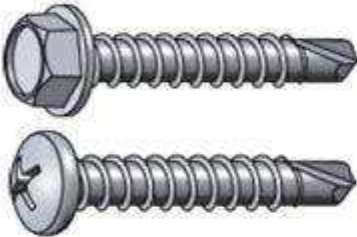
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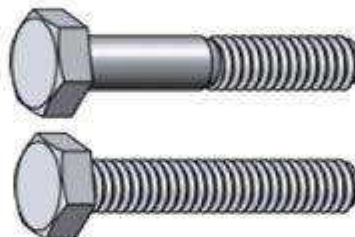
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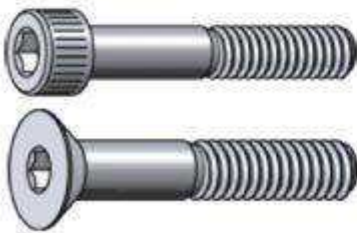
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Set Screws

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Eye Bolts

A bolt with a circular ring on the head end. Used for attaching a rope or chain.

Fastener Basics

Common Fastener Types



Hex bolts, or *hex cap screws*, are used in machinery and construction. Can be used with a nut, or in a tapped hole. Fully threaded hex bolts are also known as *tap bolts*.



Wood screws have large threads and a smooth shank for pulling two pieces of material together. They can be used in wood and other soft materials.



Sheet metal screws have sharp points and threads, and are designed to be driven directly into sheet metal. They can also be used in softer materials like plastic, fiberglass, or wood.



Machine screws are fully threaded for use with a nut or in a tapped hole. Certain types are sometimes referred to as *stove bolts*.



Socket screws are machine screws with an internal hex socket (*Allen*) drive. Longer lengths may have a smooth shank.



Lag bolts, or *lag screws*, are large wood screws with hex heads. Typically used for wood construction and landscaping.



Carriage bolts have smooth, domed heads with a square section underneath that pulls into the material to prevent spinning during installation.



Torx[®]
external
(6-lobe)



Torx[®]
internal
(6-lobe)



Torx - internal
Tamper proof
pin (6-lobe)



Frearson



Clutch



Fluted Socket
4 flutes



Fluted Socket
6 flutes



MorTorq[®]



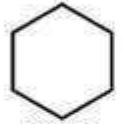
Tri-Wing[®]



Square
Socket
(Robertson)



Hex Socket
Allen Head
Internal



Hexagon
External



Hexagon
Internal
Tamper proof



Slotted 6
Lobe Combo



Quadrex[®]



Phillips[®]



Phillips II[®]



Phillips/Slot
Combination
(Combo)



Pozi Drive[®]
Phillips 1a



Phillips
Square
Supra Drive[®]



Slotted



Square Slot
Combination



Slotted
Tamper Proof
(One Way)



Spanner
Drilled
Tamper Proof



Spanner
Slotted
Tamper Proof



Phillips[®]
Hex Head



5 Node
Security



7 Node
Security