Fastener Basics

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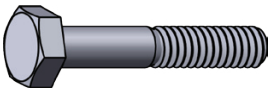
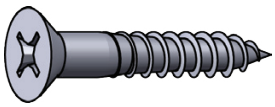
fastener shopping made easy

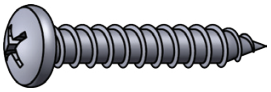
Common Fastener Types



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*.

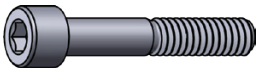


Wood screws have large threads and a smooth shank for pulling two pieces of material together. They can be used in wood and other soft materials.

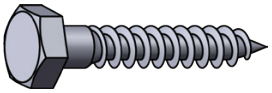


Sheet metal screws have sharp points and threads, and are designed to be driven directly into sheet metal. They can also be used in softer materials like plastic, fiberglass, or wood.

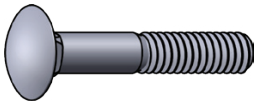
Machine screws are fully treaded for use with a nut or in a tapped hole. Certain types are sometimes referred to as *stove bolts*.



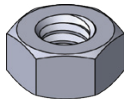
Socket screws are machine screws with an internal hex socket (*Allen*) drive. Longer lengths may have a smooth shank.



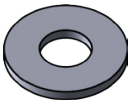
Lag bolts, or *lag screws*, are large wood screws with hex heads. Typically used for wood construction and landscaping.



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



Nuts are used to fasten machine threaded fasteners in through-hole applications. *Lock nuts* help prevent loosening.



Washers spread the load over a greater surface area when tightening a bolt, screw or nut. *Lock washers* help preventing loosening.

***Tip**: Find a more comprehensive fastener type chart at http://boltdepot.com/info*

Grade / Class and Fastener Strength

Fastener **Grade** (US) or **Class** (metric) refers to the mechanical properties of the fastener material. Generally, a higher number indicates a stronger, more hardened (but also more brittle) fastener.

For a chart of fastener grades, head markings and mechanical properties, see Bolt Depot's Grade markings and Strength Chart at http://boltdepot.com/info

US bolt head markings

Grade 2 Grade 5 Grade 8

Metric bolt head markings

Class 8.8 Class 10.9 Class 12.9

***Note:** In addition to these markings, the head will often have a manufacturer stamp.*

Fastener Materials

***Note:** Do not rely on this guide for color-matching. The appearance of these materials sometimes differs significantly from the photos below.*

Zinc-plated steel is a low carbon steel for general use. Relatively inexpensive, with the zinc plating providing moderate corrosion resistance suitable for indoors or otherwise dry conditions. Color is either a blue-ish tint or yellow depending on the exact process.

Hot-dipped galvanized steel has a thicker zinc coating for better corrosion resistance, making it suitable for outdoor use. Because of the thick plating, only galvanized nuts and washers will fit galvanized bolts. The coating typically has a rough, dull grey finish.

Stainless steel offers good corrosion resistance, making it suitable for outdoor and marine applications, but is more expensive than zinc plated.

Chrome and **nickel plated steel** are smooth and polished for appearance. The plating offers moderate corrosion resistance.

Brass and **bronze** are copper alloys with good corrosion resistance. More expensive than steel, these materials are typically used for decorative applications. Colors can vary significantly.

Alloy steel is highly hardened and usually black oxide and/or oil coated, offering little corrosion resistance.

How Fasteners are Notated: An Example

Machine screws, Phillips pan head, Stainless steel 18-8, #12-24 x 1"

Fastener type | Material | Diameter | Length | Thread Count (TPI)

Drive Types


Phillips


Frearson


Pozidriv


Slotted


Combo


Hex socket (Allen)


Square (Robertson)


Torx

Phillips and **Slotted** drives are common in screws, but prone to cam-out (stripping). **Combo** drives, that can be used with either driver, are available for many fastener types.

Frearson and **Pozidriv** are similar to Phillips, but less prone to cam-out.

Hex socket (Allen) drives are compact and easy to drive, but prone to cam-out.

Torx and **Square** drive are resistant to cam-out and can be installed single-handed.

Note: *Most drive types (Frearson and Slotted being notable exceptions) require the correct driver size for proper installation.*

Head Styles


Hex heads are typically used with larger bolts and screws, and tightened with a wrench.


Pan heads have a slightly domed head that sits above the surface.


Flat heads are installed in a countersunk hole for a flat surface.


Round heads are tall domed heads, used primarily for decorative purposes.


Oval heads are a low domed and countersunk heads, used primarily for decorative purposes.

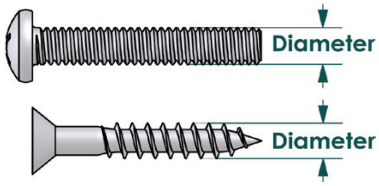

Truss heads are slightly domed, with a wide head for an extra large surface area.


Socket heads are narrow with a socket drive, and knurled or smooth sides.


Button heads feature a medium dome. Typically used with a hex socket drive.

Measuring Diameter

For most types of fasteners, the diameter is measured on the **outside of the threads**.



Note: *US diameters under 1/4" are given as numbers (e.g. #12) instead of inches, in order of increasing size. If you need to find the actual diameter, use a table corresponding to your fastener type at* http://boltdepot.com/info

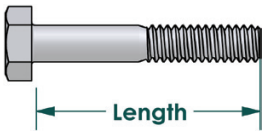
Thread Count and Thread Pitch

Machine threaded fasteners specify a thread density in **Threads Per Inch** (US) or as a **Thread Pitch** in mm (Metric).

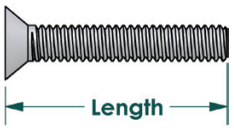
For a given diameter, a fastener may be available in **coarse** (standard), **fine** and sometimes **super fine** thread.

Measuring Length

Fastener length is usually measured from where the material is assumed to be to the end of the fastener.

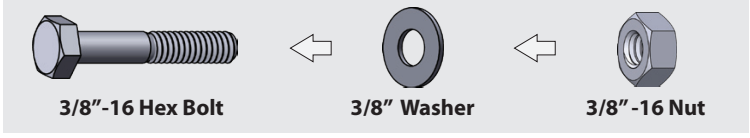


Thus, countersunk fasteners are measured overall and non-countersunk fasteners are measured from under the head.

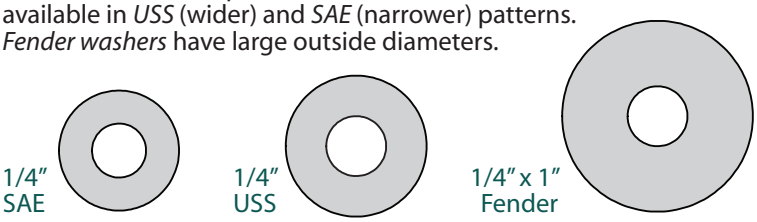


Nut and Washer Sizes

Nut and washer sizes indicate **the screw or bolt they fit**. For example:



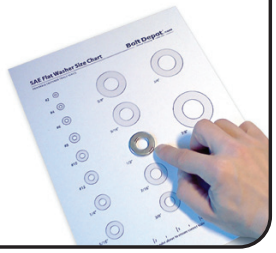
Different washer patterns have different *outside diameters*. For example, hardened US washers are available in *USS* (wider) and *SAE* (narrower) patterns. *Fender washers* have large outside diameters.



More Information

At http://boltdepot.com/info you'll find:

- **In-depth fastener info**
- **Charts** and **tables**
- Printable **lay-over charts** and **tools** for quickly identifying fastener sizes and types
- Much more...



Fastener Type Chart

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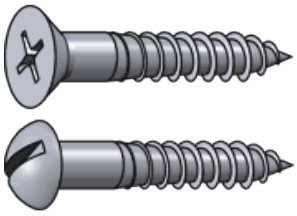
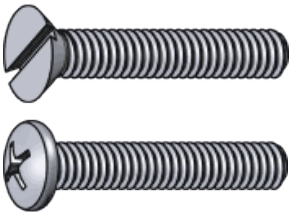
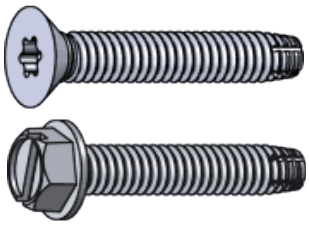
Fastener Categories



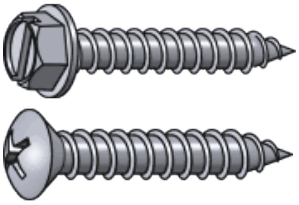
Wood Screws
Screws with a smooth shank and tapered point for use in wood. Abbreviated WS



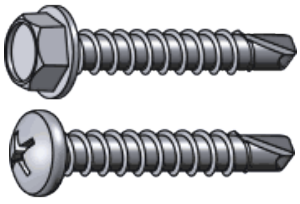
Machine Screws
Screws with threads for use with a nut or tapped hole. Abbreviated MS



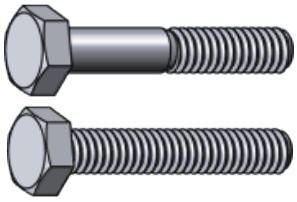
Thread Cutting Machine Screws
Machine screws with a thread cutting (self tapping) point.



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

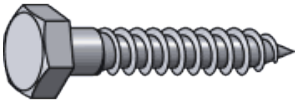


Self Drilling SMS
A sheet metal screw with a self drilling point.

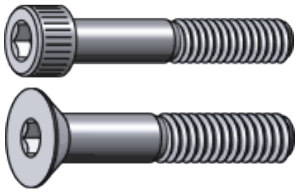


Hex Bolts
Bolts with a hexagonal head with threads for use with a nut or tapped hole. Abbreviated HHMB or HXBT.

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.

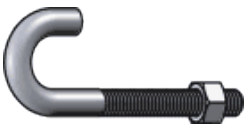


Socket Screws
Socket screws, also known as Allen Head, are fastened with a hex Allen wrench.

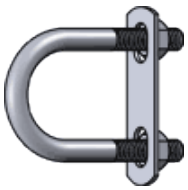
Set Screws
Machine screws with no head for screwing all the way into threaded holes.

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.

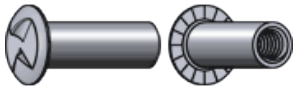


U-Bolts
Bolts in U shape for attaching to pipe or other round surfaces. Also available with a square bend.

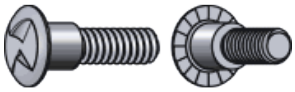
Shoulder Bolts
Shoulder bolts (also known as stripper bolts) are used to create a pivot point.

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

Fastener Categories *(continued)*



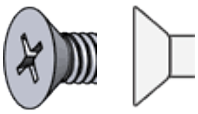
Sex Bolts
Sex bolts (a.k.a. barrel nuts or Chicago bolts) have a female thread and are used for through bolting applications where a head is desired on both sides of the joint.



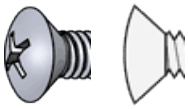
Mating Screws
Mating screws have a shoulder that matches the diameter of the sex bolts they are used with.

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

Head Styles

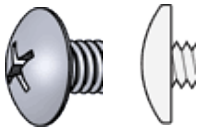


Flat
A countersunk head with a flat top.
Abbreviated FH

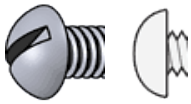


Oval
A countersunk head with a rounded top.
Abbreviated OH or OV

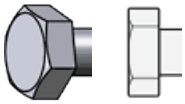
Pan
A slightly rounded head with short vertical sides.
Abbreviated PN



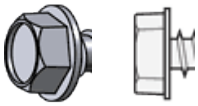
Truss
An extra wide head with a rounded top.



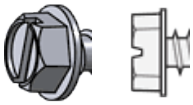
Round
A domed head.
Abbreviated RH



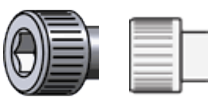
Hex
A hexagonal head
Abbreviated HH or HX



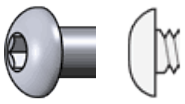
Hex Washer
A hex head with built in washer.



Slotted Hex Washer
A hex head with built in washer and a slot.

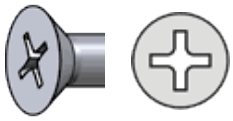


Socket Cap
A small cylindrical head using a socket drive.

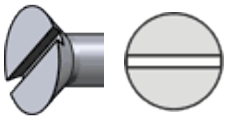


Button
A low-profile rounded head using a socket drive.

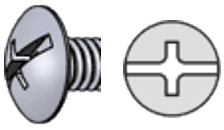
Drive Types



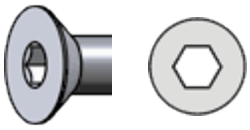
Phillips and Frearson
An X-shaped drive.
Abbreviated PH



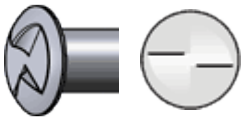
Slotted
A slot in the head.
Abbreviated SL



Combination
A combination of slotted and Phillips drives.
Abbreviated combo



Socket, Hex or Allen
A hexagonal hole for use with an Allen wrench.

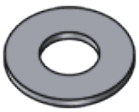


One Way
Installs with a normal slotted driver but can not be removed without special tools.

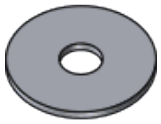
Square
Also known as Robertson drive.
Abbreviated SQ or SD.

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

Washer Types



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



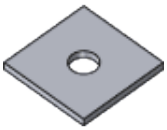
Fender
An oversize flat washer used to further distribute load especially on soft materials.

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

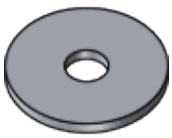
Split Lock
The most common style of washer used to prevent nuts and bolts from backing out.

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.

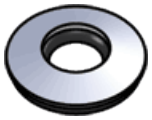


Square
A square shaped washer.



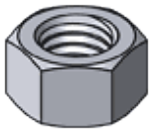
Dock
Dock washers have a larger outside diameter and are thicker than standard.

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

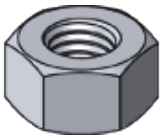


Sealing
A soft neoprene washer bonded to a metal backing. Used to seal out air/water or dampen noise and vibration.

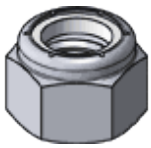
Nut Types



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

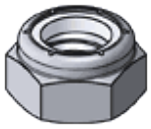


Heavy Hex
A heavier pattern version of a standard hex nut.



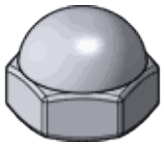
Nylon Insert Lock
A nut with a nylon insert to prevent backing off. Also referred to as a Nylock.

Jam
A hex nut with a reduced height.



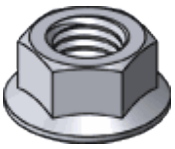
Nylon Insert Jam Lock
A nylock nut with a reduced height.

Wing
A nut with 'wings' for hand tightening.

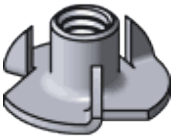


Cap
A nut with a domed top over the end of the fastener.

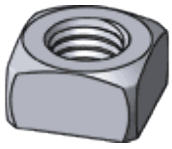
Acorn
Acorn nuts are a high crown type of cap nut, used for appearance.



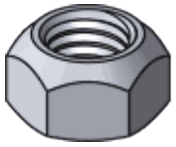
Flange
A nut with a built in washer like flange.



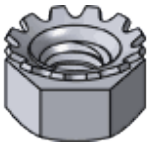
Tee
A nut designed to be driven into wood to create a threaded hole.



Square
A four sided nut.

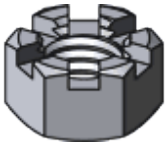


Prevailing Torque Lock
A non-reversible lock nut used for high temperature applications.

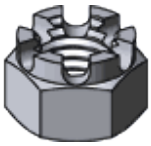


K-Lock or Kep
A nut with an attached free-spinning external tooth lock washer.

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.

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US and Metric Ruler

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cut or fold

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).

After printing, check the ruler (e.g. against the short side of a letter size paper - 8 ½ in - or another ruler) to ensure correct scale. See boltdepot.com/tools for more details.

US and Metric Thread Sizes

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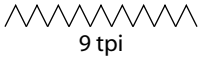
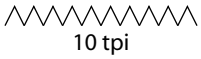
US Thread Sizes


7 tpi


8 tpi


9 tpi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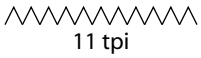
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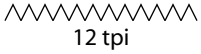
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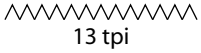
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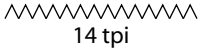
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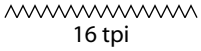
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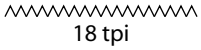
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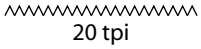
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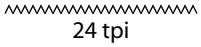
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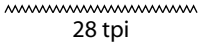
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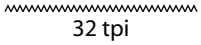
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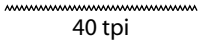
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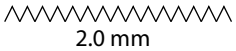
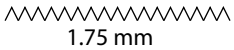
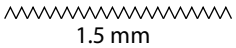
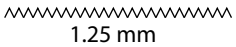
Metric Thread Pitches

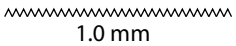

2.5 mm

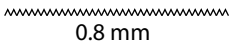

2.0 mm

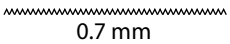

1.75 mm


1.5 mm


1.25 mm


1.0 mm


0.8 mm


0.7 mm

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Standard US Hex Bolt Sizes and Thread Pitches

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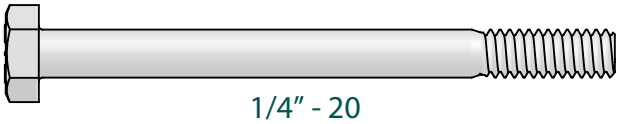
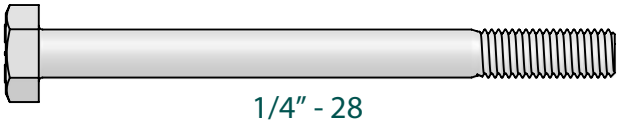
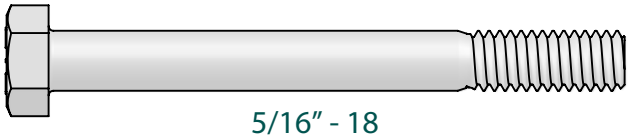
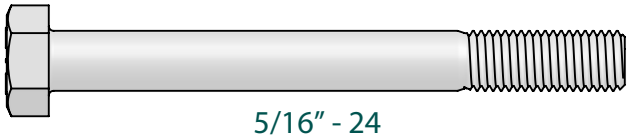
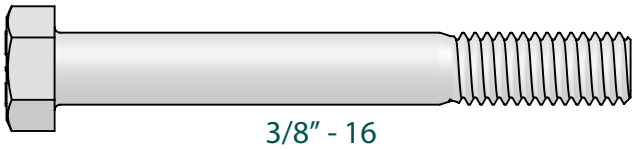
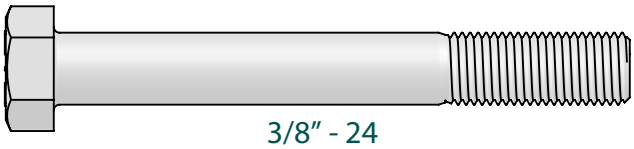
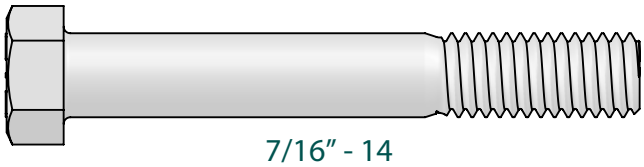
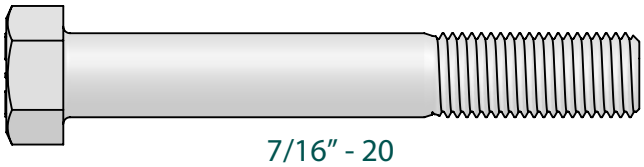
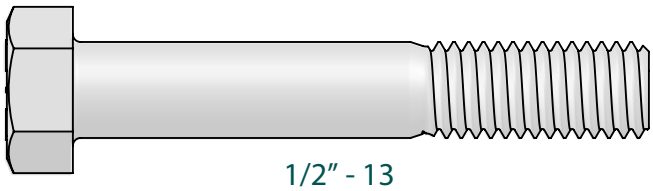
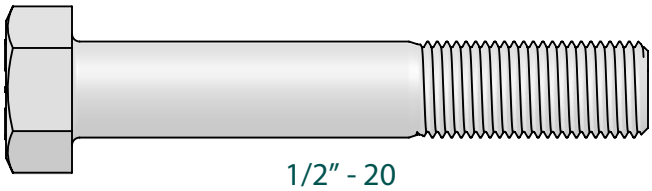
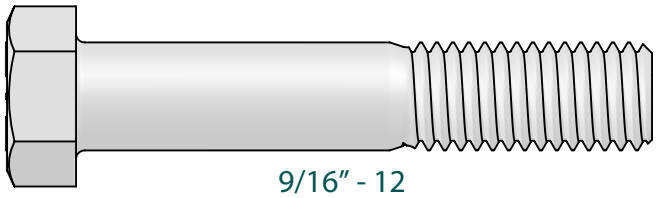
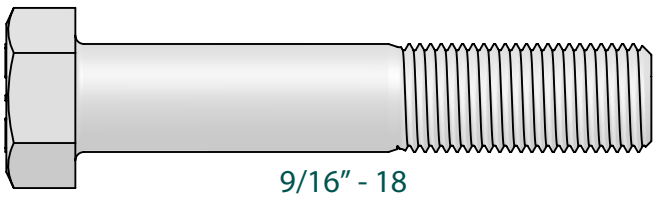
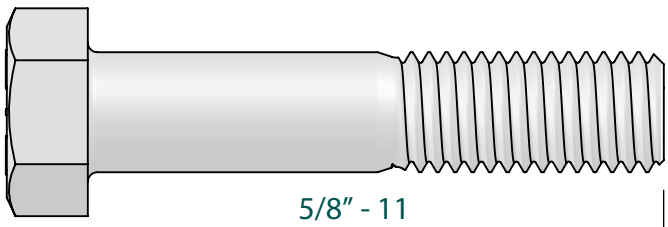
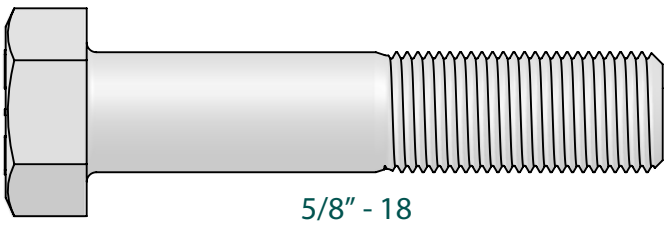
Coarse Thread	Fine Thread
 1/4″ - 20	 1/4″ - 28
 5/16″ - 18	 5/16″ - 24
 3/8″ - 16	 3/8″ - 24
 7/16″ - 14	 7/16″ - 20
 1/2″ - 13	 1/2″ - 20
 9/16″ - 12	 9/16″ - 18
 5/8″ - 11	 5/8″ - 18

Length

Length is measured from under the head to the end of the bolt

IMPORTANT: Make sure to print this chart to Actual Size (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Standard US Machine Screw Sizes

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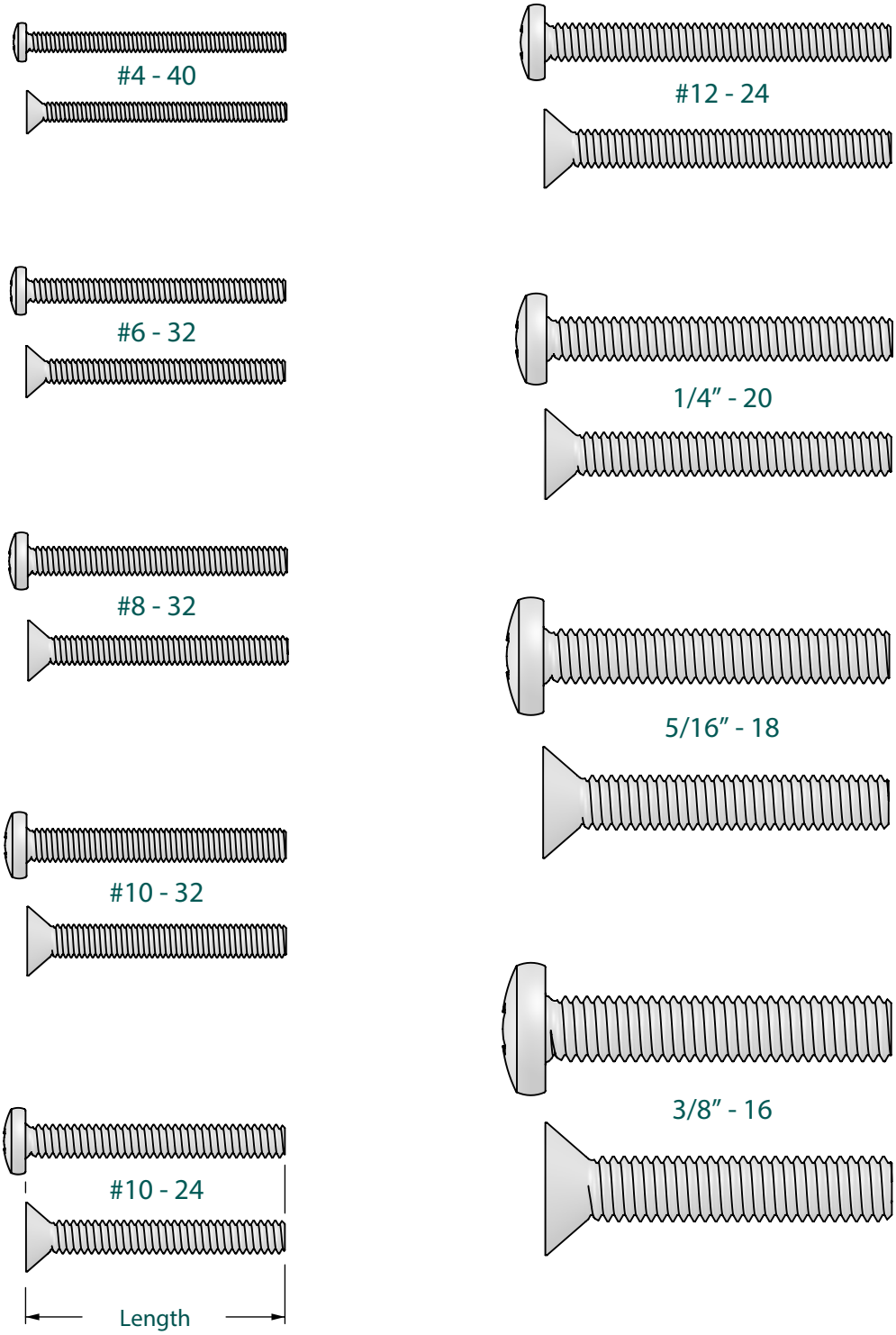

Length is measured from where the surface is assumed to be, to the end of the screw. Therefore, pan head screws are measured from under the head, and flat head screws are measured overall.

IMPORTANT: Make sure to print this chart to Actual Size (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Sheet Metal Screw Sizes

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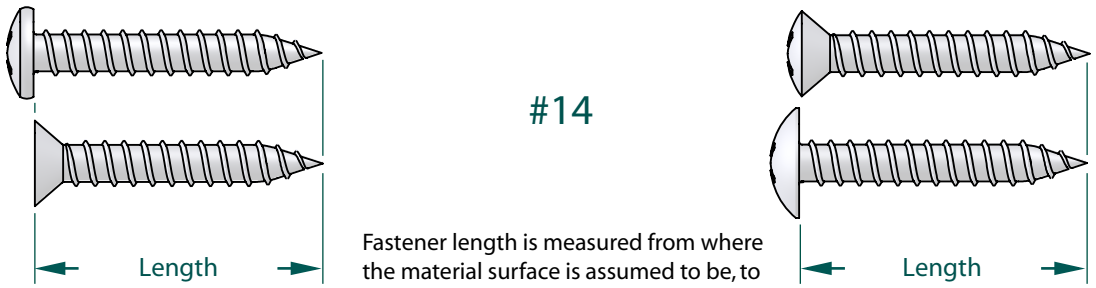

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.

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After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

US Nut Size Chart

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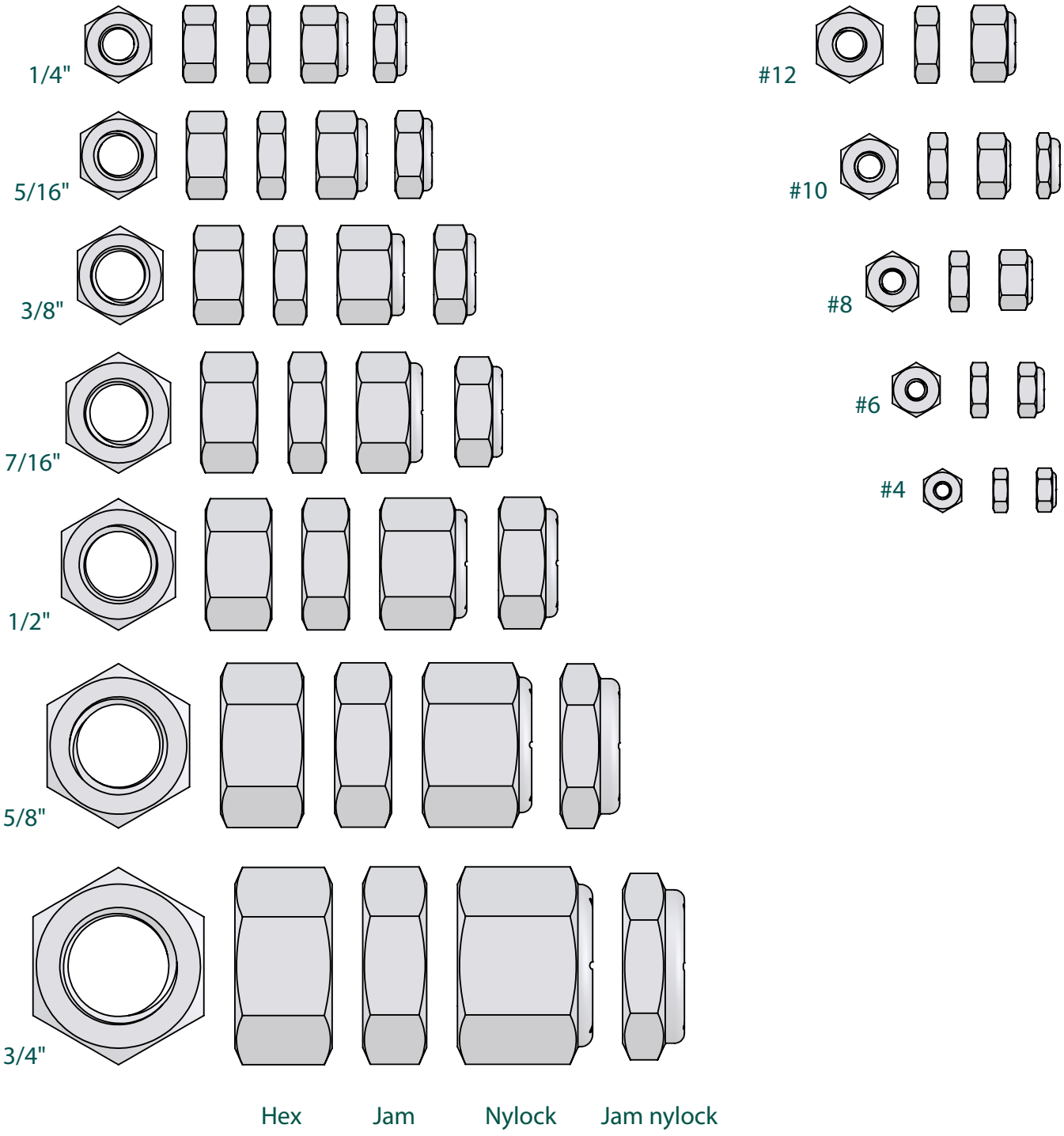

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

USS Flat Washer Size Chart

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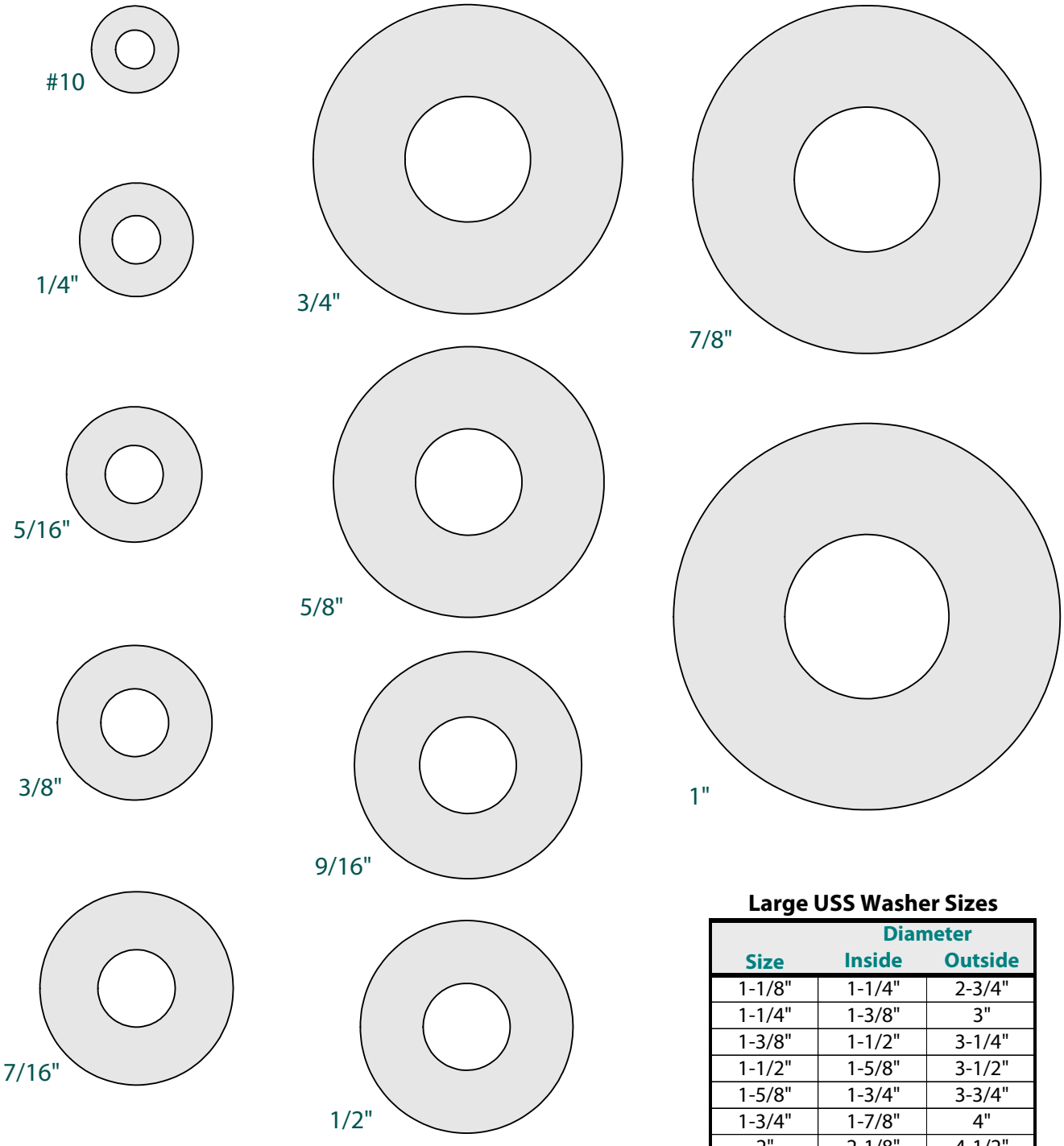

Large USS Washer Sizes

Size	Diameter	
	Inside	Outside
1-1/8"	1-1/4"	2-3/4"
1-1/4"	1-3/8"	3"
1-3/8"	1-1/2"	3-1/4"
1-1/2"	1-5/8"	3-1/2"
1-5/8"	1-3/4"	3-3/4"
1-3/4"	1-7/8"	4"
2"	2-1/8"	4-1/2"

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

SAE Flat Washer Size Chart

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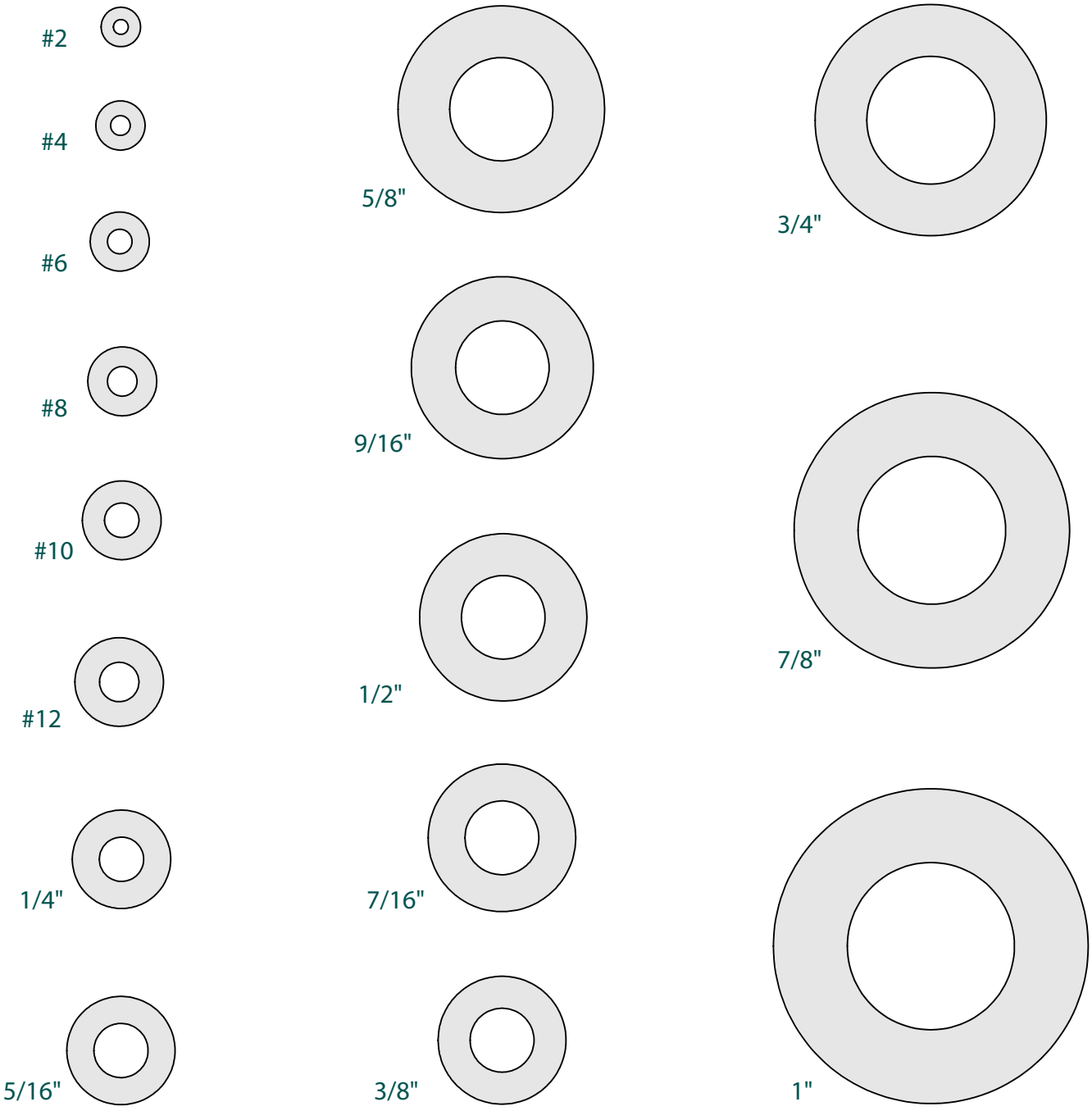

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
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Socket Cap Size Chart

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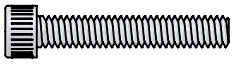
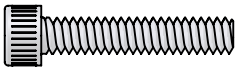
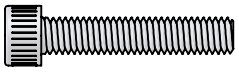
#2-56


#4-40


#6-32


#8-32


#10-24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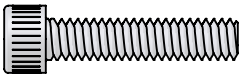
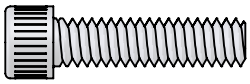
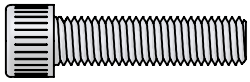

#12-24


1/4"-20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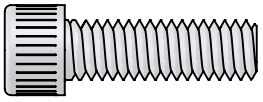
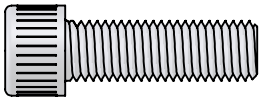
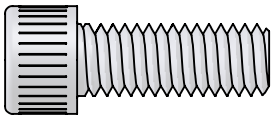
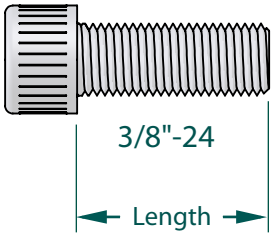
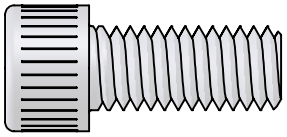

5/16"-18


5/16"-24


3/8"-16



Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.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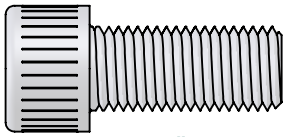
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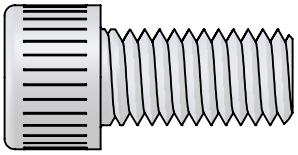
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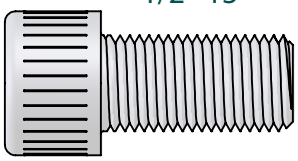
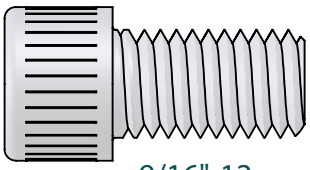
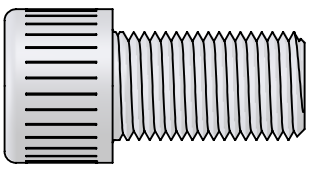

1/2"-20


9/16"-12


9/16"-18

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
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Socket Flat Head Size Chart

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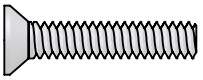
#2-56


#4-40


#6-32


#8-32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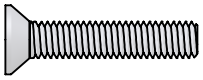
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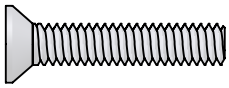
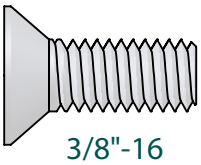

#12-24

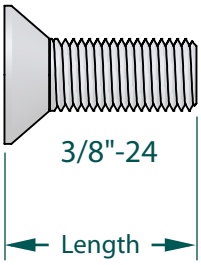

1/4"-20


1/4"-28

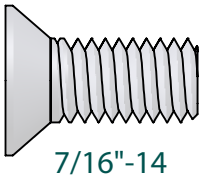

5/16"-18

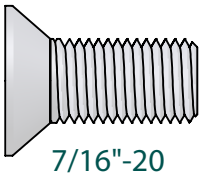

5/16"-24

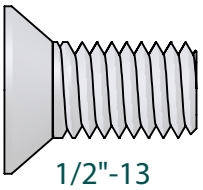

3/8"-16

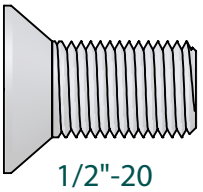


Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.


7/16"-14


7/16"-20


1/2"-13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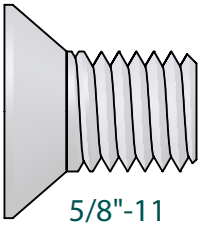
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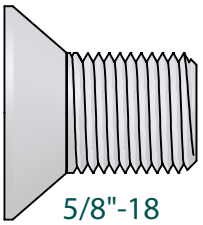
5/8"-18

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Socket Button Head Size Chart

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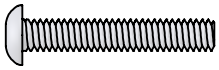
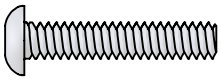
#2-56

#4-40

#6-32



#8-32



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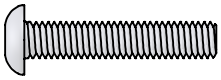

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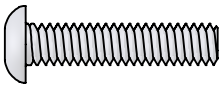

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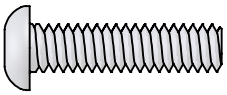
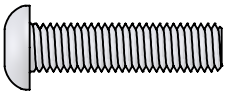
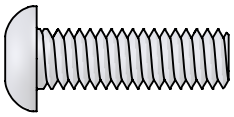


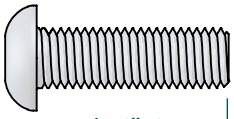
1/4"-20



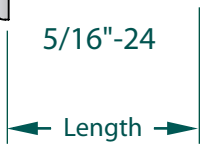
1/4"-28



5/16"-18



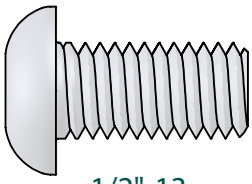
5/16"-24



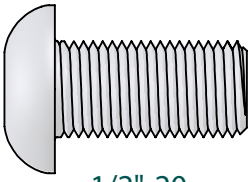
Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.

3/8"-16

3/8"-24



1/2"-13



1/2"-20

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
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Shoulder Bolt Size Chart

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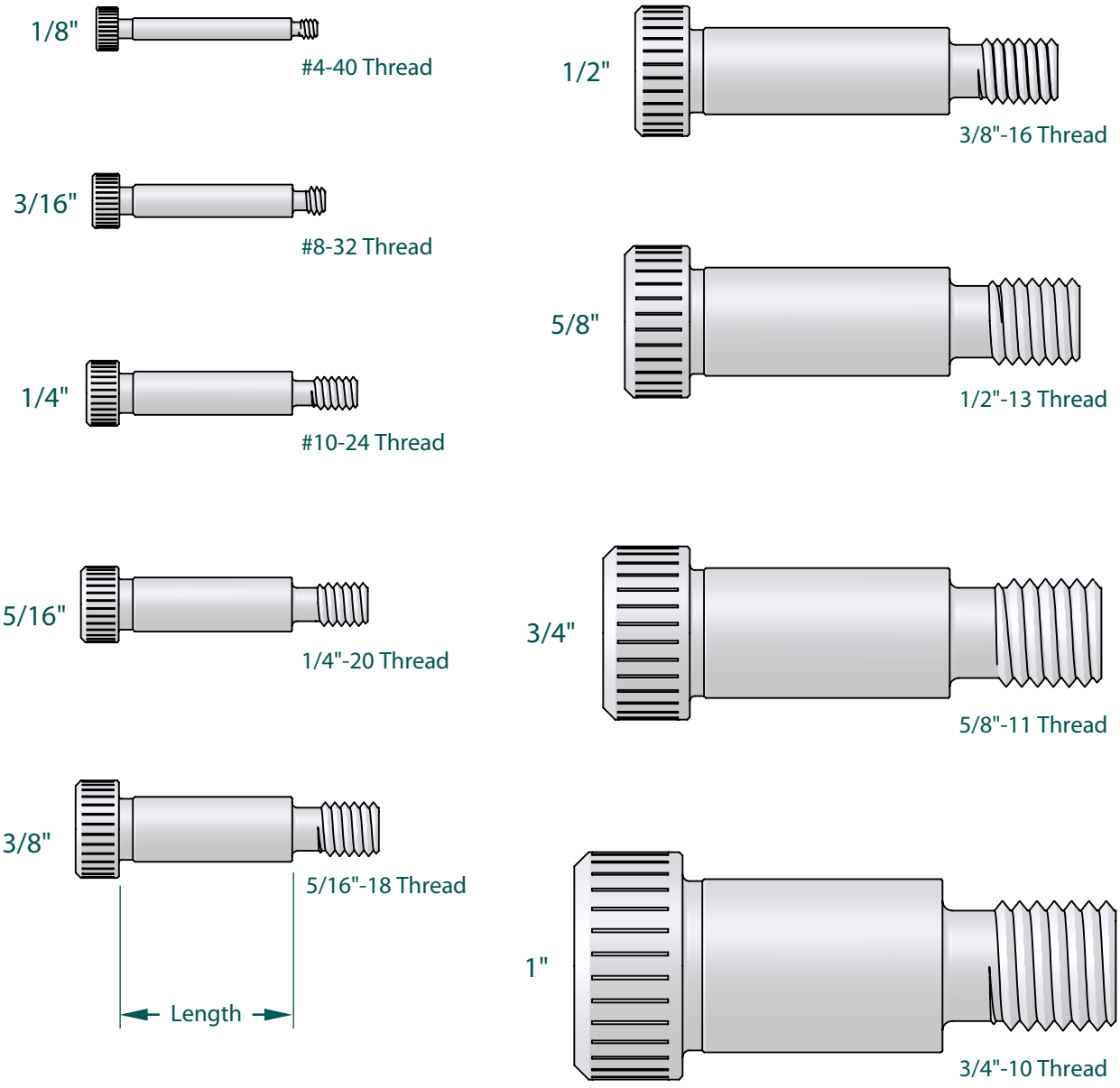

Shoulder bolt size is determined by the diameter and length of the shoulder.

NOTE: The smaller threaded section is the same length and diameter for all shoulder bolts with the same shoulder diameter.

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Screw Eye Sizes

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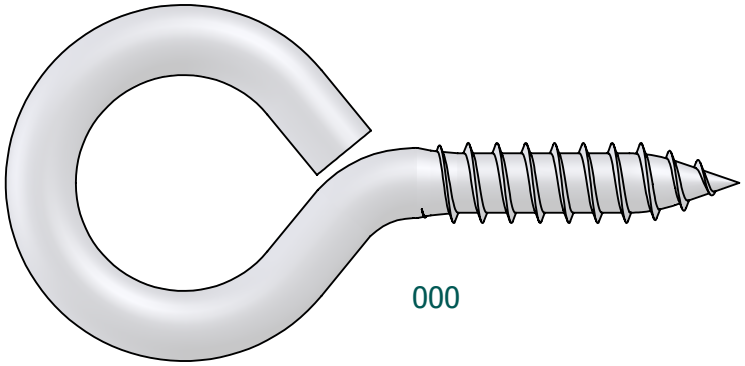
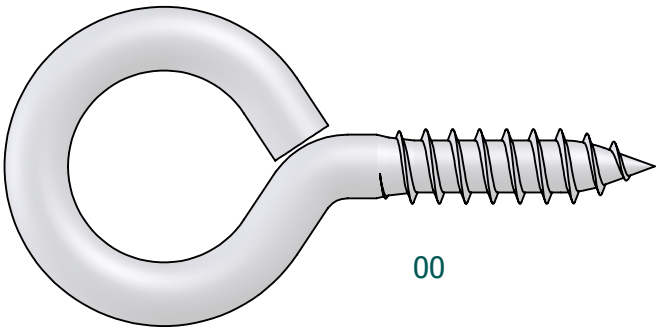
.365" wire



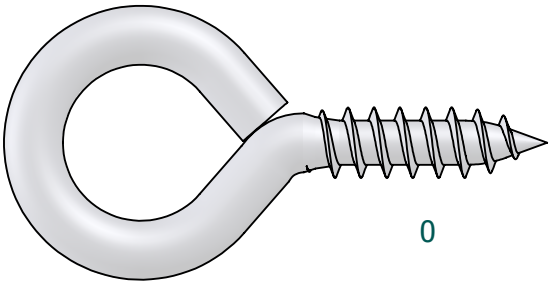
000

.331" wire



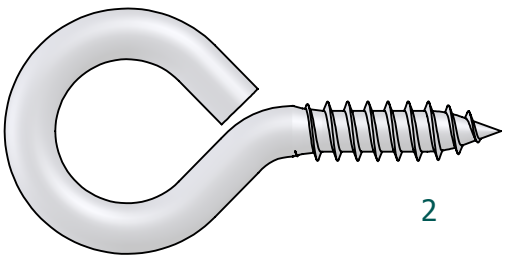
00

.307" wire



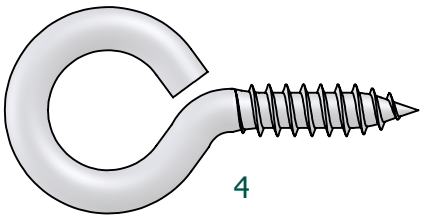
0

.264" wire

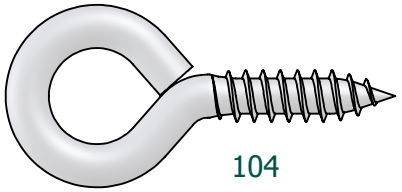


2

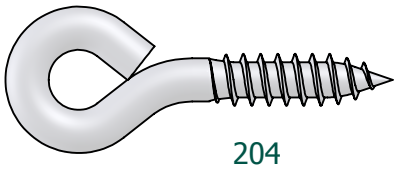
.225" wire



4

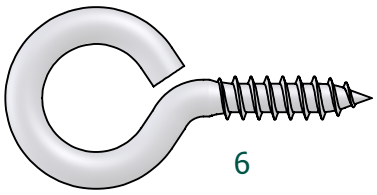


104

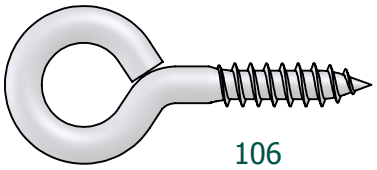


204

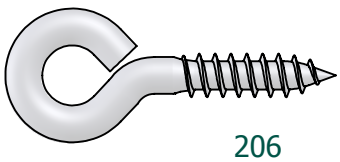
.192" wire



6



106



206

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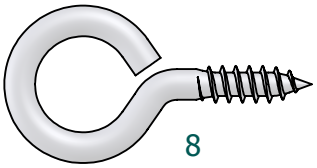
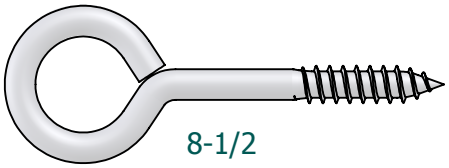
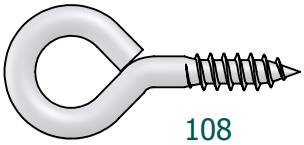
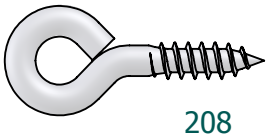
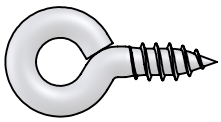
.160" wire


8

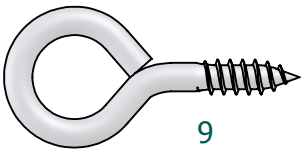

8-1/2


108

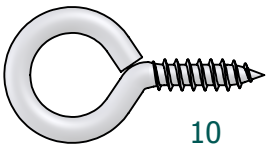

208


208-1/2

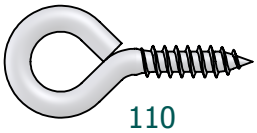
.148" wire

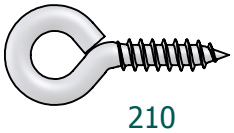

9

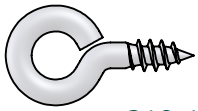
.135" wire


10

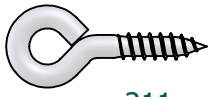
.135" wire (continued)


110

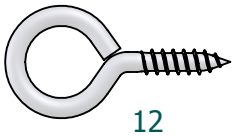

210


210-1/2

.120" wire


211

.105" wire

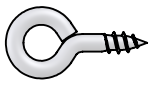

12


112

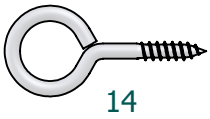

212


212-1/2

.092" wire


213-1/2

.080" wire


14


114


214


214-1/2

.072" wire


215-1/2

.062" wire


216


216-1/2

.056" wire


217-1/2

Standard Metric Hex Bolt Sizes and Thread Pitches

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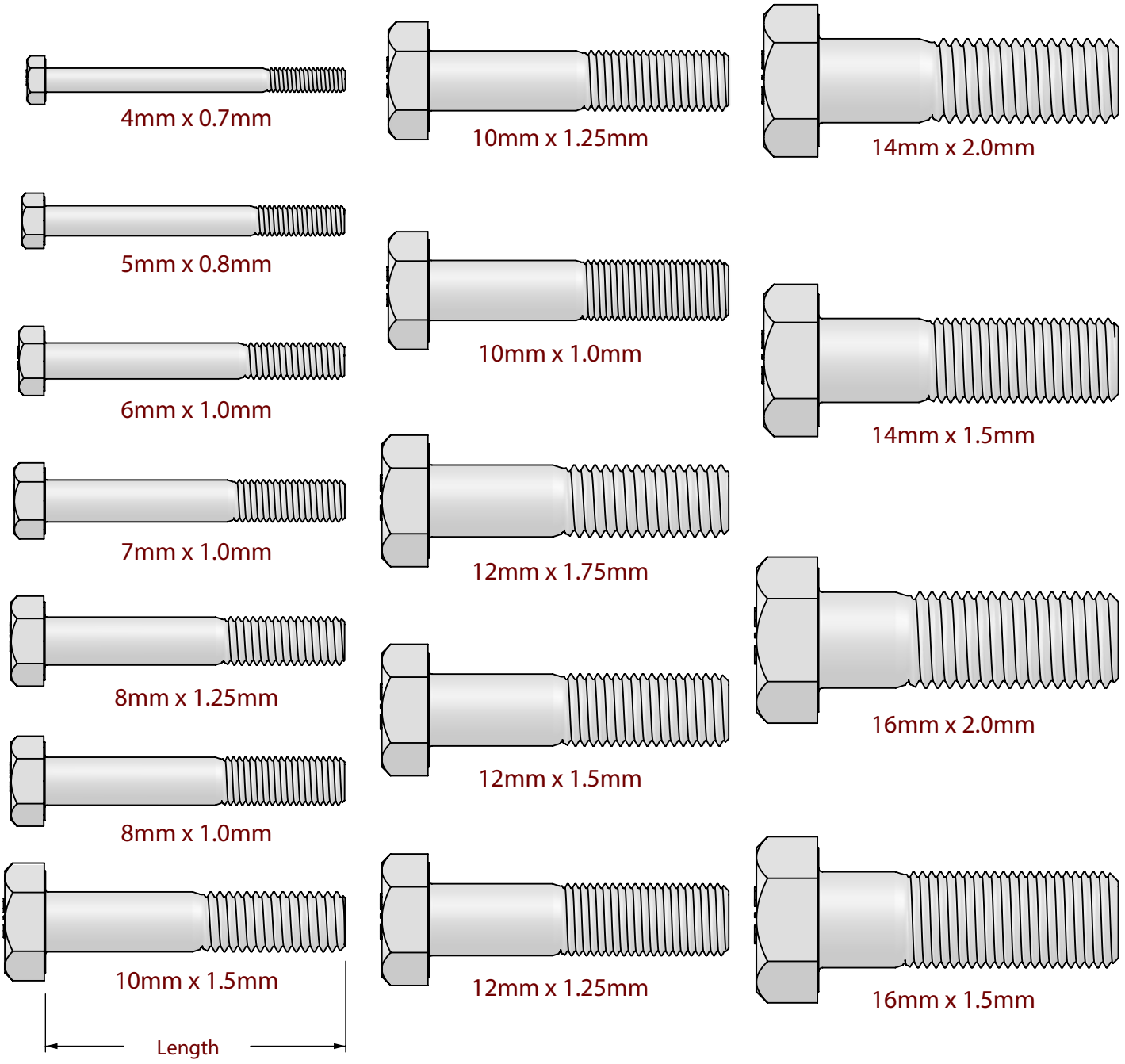
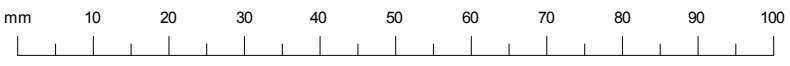
(Note: Head sizes may differ from what is shown due to differences between metric standards)



Length is measured from under the head to the end of the bolt



IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Standard Metric Machine Screw Sizes

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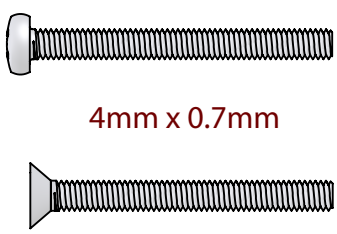
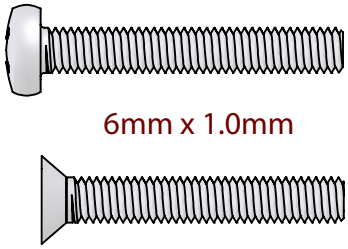
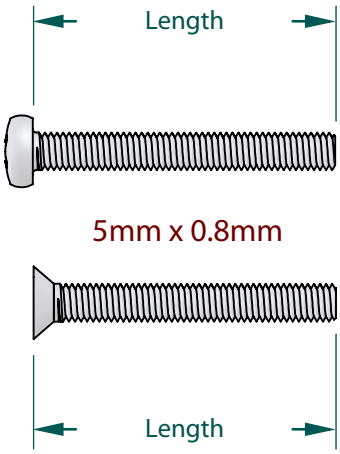


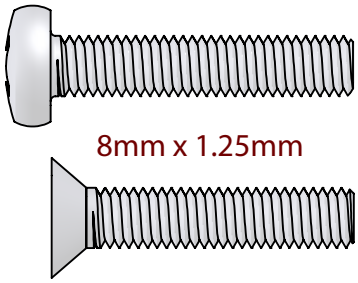
4mm x 0.7mm



6mm x 1.0mm



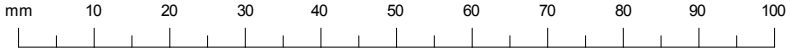
5mm x 0.8mm



8mm x 1.25mm

For Pan Head - Measure length from under the head to the end of the screw.

For Flat Head - Measure length from the top of the head to the end of the screw.



IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Metric Nut Size Chart

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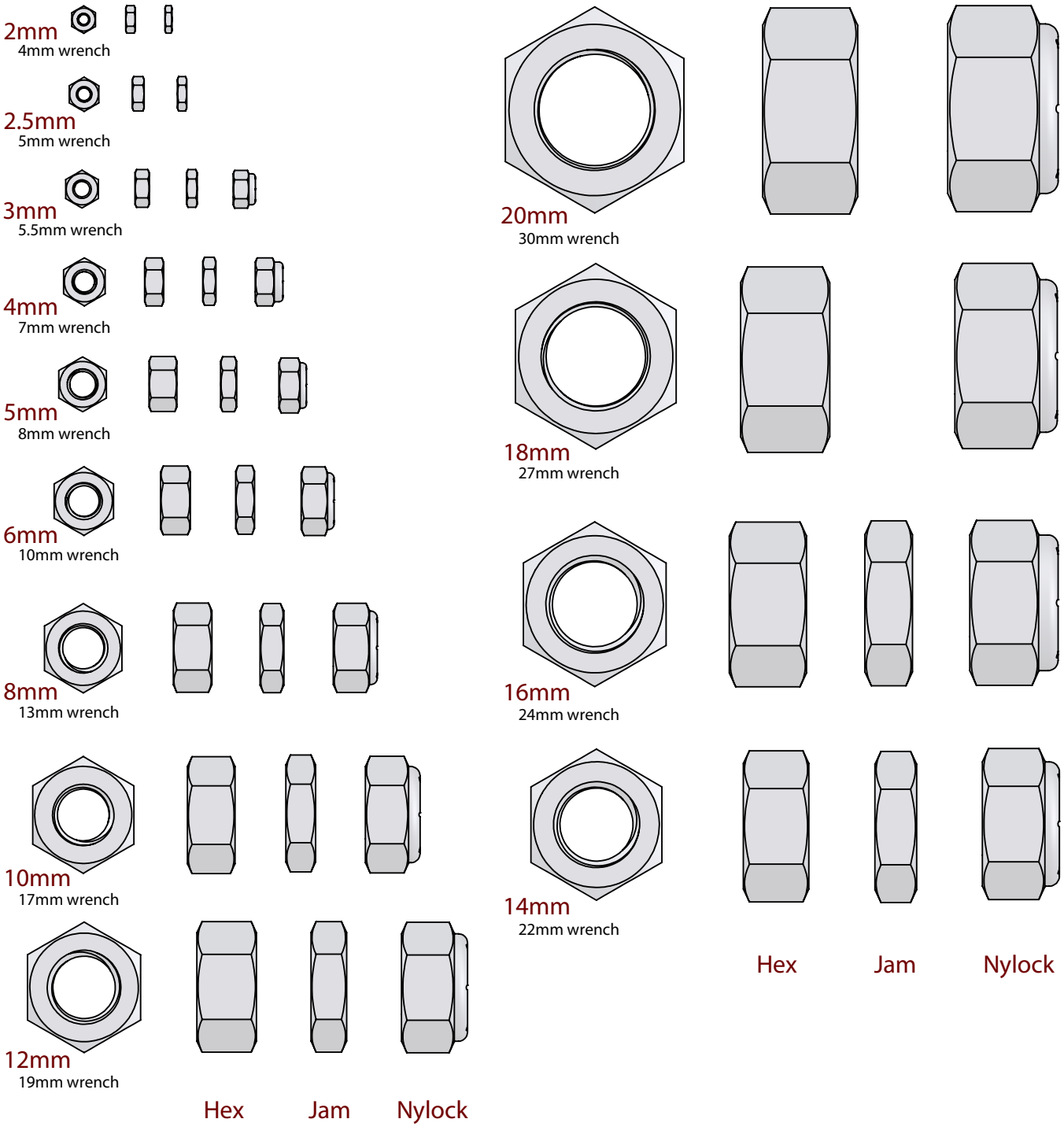

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

0 1 2 3 4 5 6 inches

Metric Flat Washer Size Chart

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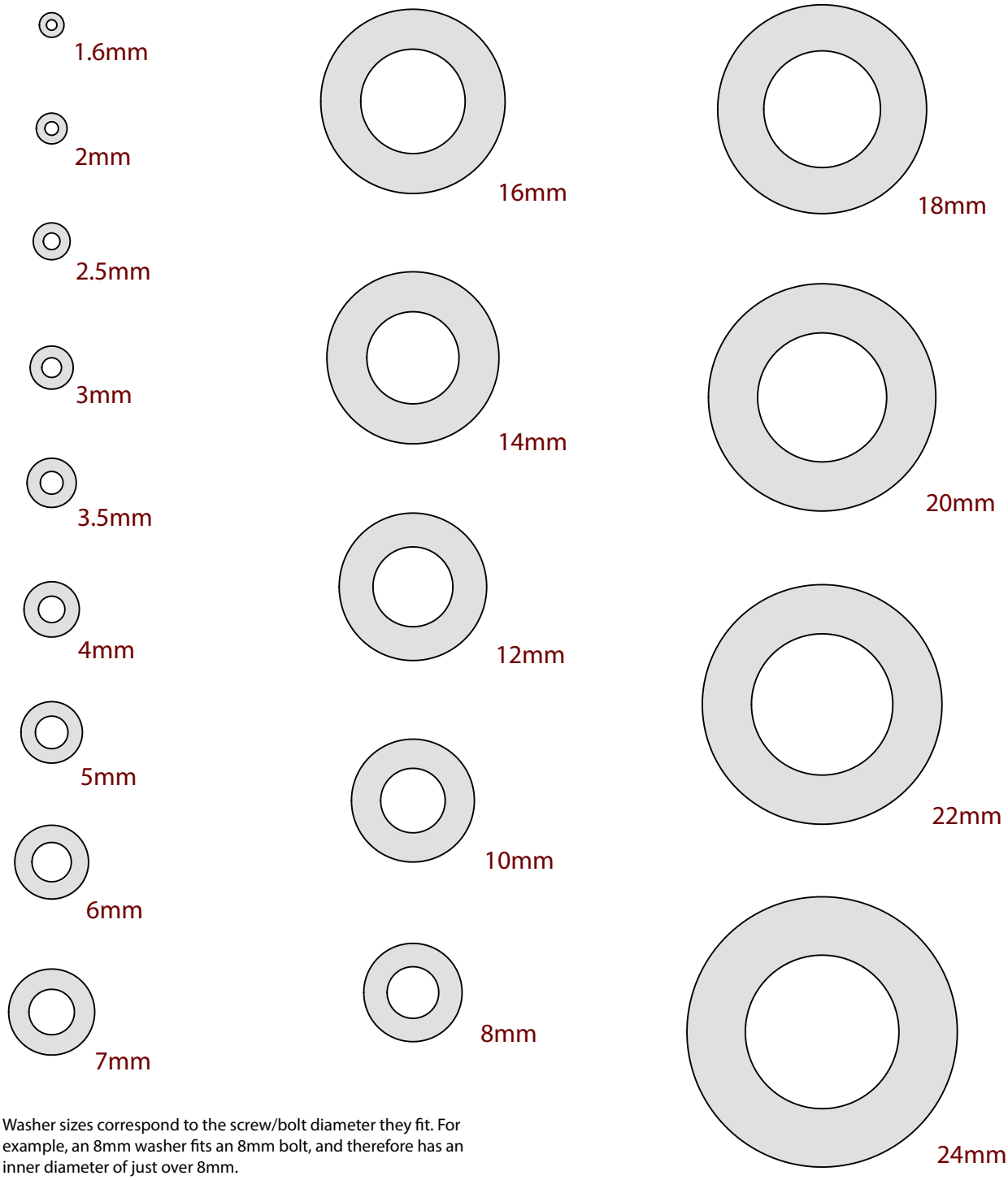
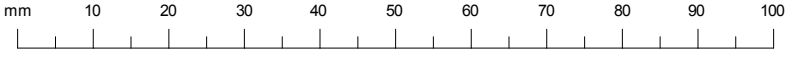


Washer sizes correspond to the screw/bolt diameter they fit. For example, an 8mm washer fits an 8mm bolt, and therefore has an inner diameter of just over 8mm.



IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Metric Shoulder Bolt Size Chart

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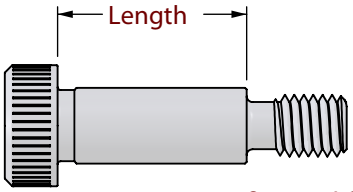
6mm

5mm x 0.8 Thread

8mm

6mm x 1.0 Thread

10mm



8mm x 1.25 Thread

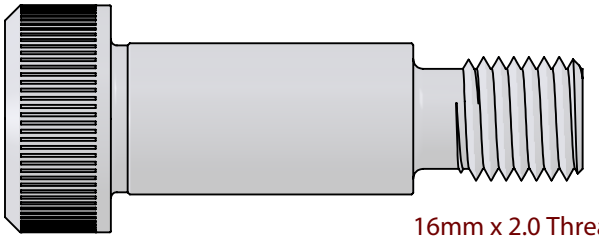
12mm

10mm x 1.5 Thread

16mm

12mm x 1.75 Thread

20mm



16mm x 2.0 Thread

Shoulder bolt size is determined by the diameter and length of the shoulder.

NOTE: The smaller threaded section is the same length and diameter for all shoulder bolts with the same shoulder diameter.

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Metric Socket Cap Size Chart

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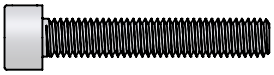
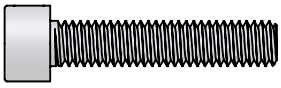
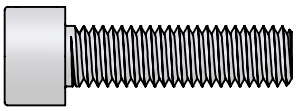
4mm x 0.7



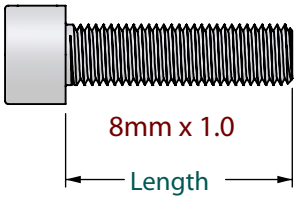
5mm x 0.8



6mm x 1.0

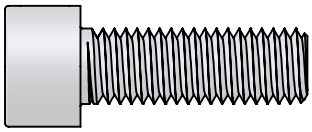


8mm x 1.25

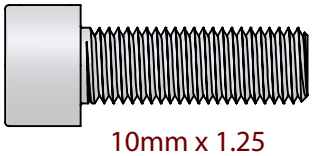


8mm x 1.0

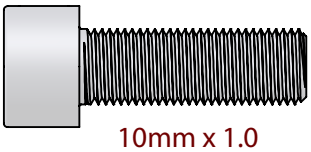
Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



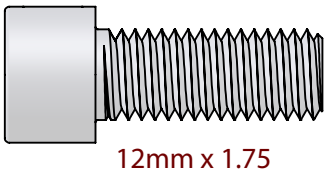
10mm x 1.5



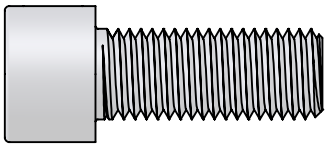
10mm x 1.25



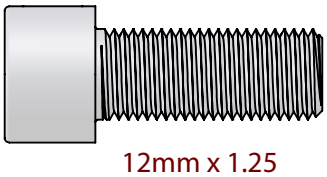
10mm x 1.0



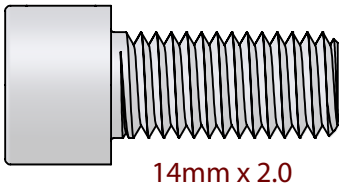
12mm x 1.75



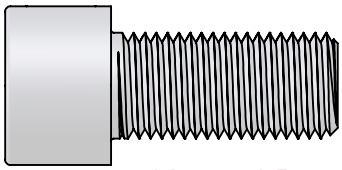
12mm x 1.5



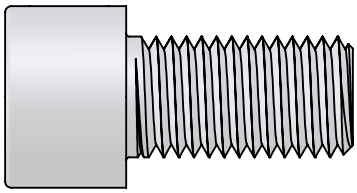
12mm x 1.25



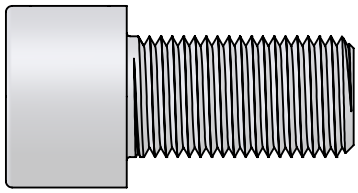
14mm x 2.0



14mm x 1.5



16mm x 2.0



16mm x 1.5

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.

Metric Socket Flat Head Size Chart

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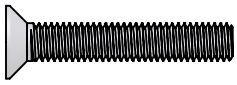
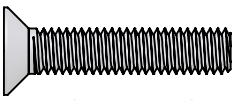
3mm x 0.5

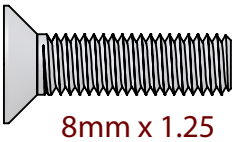
4mm x 0.7



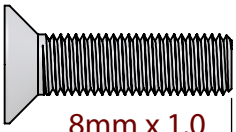
5mm x 0.8



6mm x 1.0

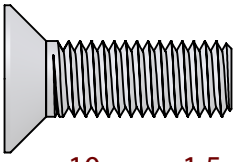


8mm x 1.25

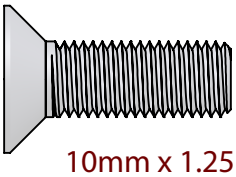


8mm x 1.0

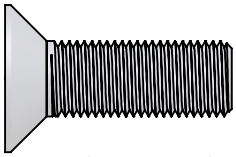
Length



10mm x 1.5

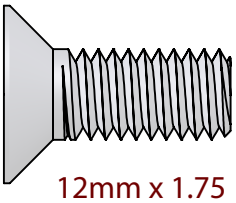


10mm x 1.25

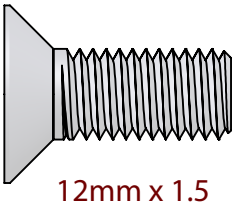


10mm x 1.0

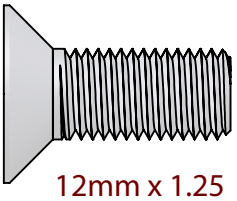
Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.



12mm x 1.75



12mm x 1.5



12mm x 1.25

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
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Metric Socket Button Head Size Chart

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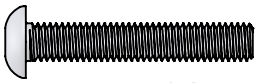
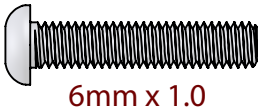
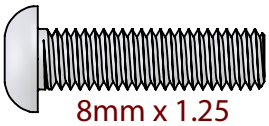
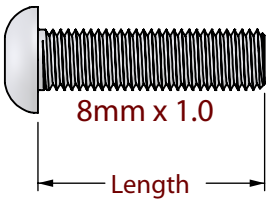
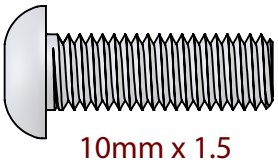
4mm x 0.7

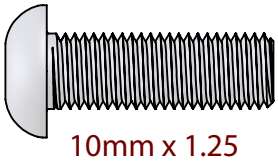

5mm x 0.8

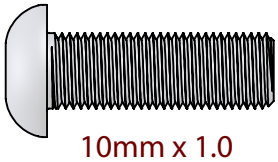

6mm x 1.0


8mm x 1.25

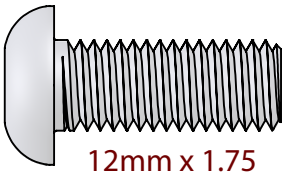


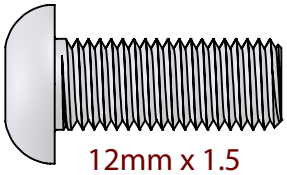

10mm x 1.5

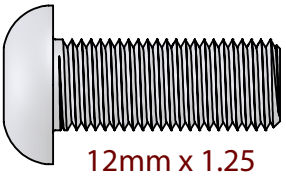

10mm x 1.25


10mm x 1.0

Fastener length is measured from where the material surface is assumed to be, to the end of the fastener.


12mm x 1.75


12mm x 1.5


12mm x 1.25

IMPORTANT: Make sure to print this chart to **Actual Size** (no scaling).
After printing, measure the scale check below to ensure correct scale. See boltdepot.com/tools for more details.