H&H SEAL AND PRODUCTS

# **Fasteners**



# Custom Manufactured Anchor Bolts, J-Bolts, and other Fasteners

Large inventory of standard 90-degree bend anchor bolts from 1/2 inches diameter to 1-1/4 inches diameter in plain and hot-dipped galvanized finish, double-end studs in 3/4 inches and 1 inch diameter plain finish, all thread studs in 3/4 inches diameter plain and galvanized finish, U-Bolts for 2 inches pipe to 18 inches pipe hot-dipped galvanized finish, U-Bolts for 1/4 inches pipe to 6 inches pipe zinc plated finish and U-bolts for 3/4 inches pipe to 6 inches pipe in stainless steel 304 finish.



SCOPE: Standard specification for anchor bolts, steel, 36, 55 and 105 ksi yield.

#### **Grades**

Grade 36	•
F1554 Grade 55	Low allow, 55 ksi yield steel anchor bolts
F1554 Grade 105	Alloy, heat treated, high strength 105 ksi yield steel anchor bolts

Low carbon, 36 ksi yield steel anchor bolts

#### MECHANICAL PROPERTIES

F1554

Grade	Size	Ten- sile, ksi	Yield, ksi, min	Yield, MPa, min	Elong % min	RA % min
36	1/4 - 4	58 - 80	36	248	23	40
55	1/4 - 2	75 - 95	55	380	21	30
	2 1/8 - 2 1/2	75 - 95	55	380	21	22
	2 5/8 - 3	75 - 95	55	380	21	20
	3 1/8 - 4	75 - 95	55	380	21	18
105	1/4 - 3	125 - 150	105	724	15	45



**Fasteners** 

# Manufactured Products Include:

- Anchor Bolts
- Anchor Bolt Assemblies
- J-Bolts
- U-Bolts Round & Square Bend
- Eye-Bolts
- Turn-Buckle Assemblies
- All Thread Studs
- Double & Single-End Studs
- Straight & Bend Tie-Rods
- Custom Bent Bolts
- Coil Studs
- Welded Coil Bolts
- Plate Washers
- Tie Back Rods



1825 Dickinson Ave. Suite# C Dickinson, TX 77539

(832) 802-3083 steve@hhsealproducts.com www.hhsealproducts.com

#### **Nuts**



#### **Hex Nuts**

Finished Hex Nuts are the most common and versatile nut designed. They can be used for almost any application. We offer this nut in multiple finishes, from plain,

zinc-plated, hot-dipped galvanized, 304 stainless steel and 316 stainless steel. Sizes available in 1/4" - 1 3/4" diameter



#### **Heavy Hex Nuts**

Heavy Hex Nuts are the strongest of all comparably graded designs with a greater length of thread engagement for a better resistance to stretching or widening. Because

they are thicker and stronger than standard nuts they are used for the larger diameter and stronger bolts. Available in 2H, galvanized, 304 and 316 stainless steel.



#### Wing Nuts

Wing Nuts are designed to be tightened/loosened by hand. Available in zinc and stainless finishes.



#### **Acorn Nuts**

Acorn nuts are used primarily in "topping" off a piece of material since it has a crown/dome cover.



#### Jam Nuts

Jam Nuts are just a thinner version of a regular hex nut but are also good use for leveling purposes. It can be threaded onto a bolt and locked tightly against another nut

which will lock the nut in place preventing it from backing off. Available in galvanized and plain finishes.



### **Coupling Nuts**

Coupling Nuts are used to make up long tie rod assemblies from shorter pieces of rod by attaching two threaded pieces of rod/material or two other male threaded fasten-

ers together. Available in zinc, galvanized and stainless steel finishes.



# Reducing Coupling Nuts

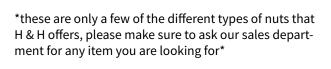
Reducing Coupling Nuts are used to attach two different size threaded rod/material together. Available in

zinc, galvanized and stainless steel finishes.



#### Serrated Flange Nuts

Serrated Flange Nuts are nuts with a built in washer that is serrated to resist vibration. Available in zinc and stainless steel.



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### STANDARD THREAD PITCH

DIAMETER	COARSE	FINE	2H
1/4	20	28	2.1
5/16	18	24	
3/8	16	24	
7/16	14	20	
1/2	13	24	
9/16	12	18	
5/8	11	18	
3/4	10	16	
7/8	9	14	
1	9	14	
1-1/8	7 OR 8	12	7 OR 8
1-1/4	7 OR 8	12	7 OR 8
1-3/8	6 OR 8	12	6 OR 8
1-1/2	6 OR 8	12	6 OR 8
1-5/8	5-1/2 OR 8	12	5-1/2 OR 8
1-3/4	5 OR 8	12	5 OR 8
1-7/8	5 OR 8	12	5 OR 8
2	4-1/2 OR 8	12	4-1/2 OR 8
2-1/4	4-1/2 OR 8	12	4-1/2 OR 8
2-1/2	4 OR 8	12	4 OR 8
2-3/4	4 OR 8	12	4 OR 8
2-3/4	4 OR 8	12	4 OR 8
3	4 OR 8	12	4 OR 8
3-1/4	4 OR 8	12	4 OR 8
3-1/2	4 OR 8	12	4 OR 8
3-3/4	4 OR 8	12	4 OR 8
4	4 OR 8	12	4 OR 8

<sup>\*</sup>these are only a few of the different types of nuts that H & H offers, please make sure to ask our sales department for any item you are looking for\*



### METRIC THREAD PITCH

COARSE	FINE	SPECIAL
M6-1.0	M6-0.7	
M8-1.25	M8-1.0	
M10-1.5	M10-1.25	M10-1.0
M12-1.75	M12-1.25	M12-1.5
>M14-2.0	M14-1.5	
M16-2.0	M16-1.5	
M18-2.5	M18-1.5	
M20-2.5	M20-1.5	
M22-2.5	M22-1.5	
M24-3.0	M24-2.0	M24-1.5
M27-3.0	M27-2.0	M27-1.5
M30-3.5	M30-2.0	M30-1.5
M33-3.5	M33-2.0	M33-1.5
M36-4.0	M36-2.0	M36-1.5
M42-4.5		

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#### **Bolts**



#### **Hex Bolts**

Are also knows as machine bolts or hex cap screws. They are a very common bolt when it comes to construction or repair. They come in a large variety of sizes and diameters.

The best way to choose a hex bolt is to choose which material the bolt is made from to best suit your needs.



### **Heavy Hex Bolts**

Several ASTM requirements require a hex head that is larger than a standard finished hex head bolt. You can refer to the ASTM requirements to see which is best suited for what

your specific needs are.



#### Lag Bolts

A tie is a structural component designed to resist tension. Tie rods are often used to brace steel structures, such as bridges. industrial buildings, tanks,

towers, and cranes. They are commonly combined with turnbuckles and clevises to create the "tie rod assembly".



### **Carriage Bolts**

Also knows as plow bolts have a round dome head with a square neck are commonly used in wood connections. The square

neck under the round dome head will pull or seat into the hole in the wood as the nut is tightened to prevent the head from turning. They come in a variety of types to choose from. Zinc plating for rust resistance; steel grade 5 medium carbon bolt used in high strength automotive applications; stainless steel 18-8 which is the material of choice for exterior and marine applications and is produced from an alloy of steel with a high corrosion resistance; Hot dipped galvanized bolts provide much more corrosion resistant than the zinc-plated bolts and work with galvanized nuts for exterior use in the coastal areas.



#### Machine Bolts

Are made from multiple metals and are applied, hence the name, metal to metal which is commonly found on different types on machines. The heads can be square, hexagonal,

rounded or flat countersunk. Machine bolts are made in diameters from ½" to 3 inches depending on the length desired for each application and can be cut with fine and/or coarse threads that extend in length from twice the diameter of the bolt plus ¼" to twice the diameter plus ½" (depending on the length of the bolt).

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# Washers



Standard Flat Washers



**Lock Washers** 



Hardened Round Washers



**Beveled Washers** 



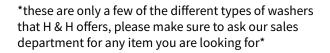
Hillside Washers



**Fender Washers** 



**Tooth Washers** 





### STANDARD THREAD PITCH

DIAMETER	COARSE	FINE	2H
1/4	20	28	2.1
5/16	18	24	
3/8	16	24	
7/16	14	20	
1/2	13	24	
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# Rods



#### **Anchor Rods**

Are the same as anchor bolts without the bend. They are used for the same purposes; highway sign structures, light poles, traffic signals, bridges, along with many other applications.



#### All Thread Rod

The threaded rod is one of the most used fastener methods in use today. This is because of the various sizes, its high durability and the amount of materials this type of rod can be found in. All thread is used for anything from an anchor bolt to a through bolt in a variety of grades and materials as well as stainless steel.



#### Tie Rods with Turnbuckle and Clevis

A tie is a structural component designed to resist tension. Tie rods are often used to brace steel structures, such as bridges, industrial buildings, tanks, towers, and cranes. They are commonly combined with turnbuckles and clevises to create the "tie rod assembly".

