

# ALLOY & STAINLESS FASTENERS



# Bolts • Nuts • Studs Sockets

Stainless Steels • Nickel Alloys • Copper Alloys • Aluminum Alloys Duplex • Super Duplex • Alloy Steels • Specialty Steels • Titanium

**Over 25 Choices of Coatings and Platings** 

We Service All Quantities

Emergencies

Maintenance

Projects

# **INVENTORY**



**Bulk Warehouse Fastener Inventory** 





**Bulk Shipment Inventory** 



Local Distribution Inventory

# **QUALITY ASSURANCE**



Positive Material Identification



Internal & External Thread Inspection





# **NUTS**

#### **HEAVY HEX**

#### **ASTM A194**

#### GRADE

2H

2H ZINC & CLEAR 2H ZINC & YELLOW 2H METRIC (H=D)

2HM

3

6

6F

7

7L

7M

16 8

8 METRIC (H=D)

8A

**8 STRAIN HARDENED** 

8C

8F

M8

8M METRIC (H=D)

8MA

8M STRAIN HARDENED

**8T** 

#### **HEAVY HEX**

#### **ASTM A453**

**GRADE** 

660B NR

660D NR

#### STAINLESS STEELS

GRADE

304

304 STRAIN HARDENED

310

316

316 ELC

316 STRAIN HARDENED

321

410

416

#### **NON-FERROUS**

#### **GRADE**

ALLOY 20 ALLOY 400

DUPLEX 2205

DUPLEA 2203

**HASTELLOY C-276** 

#### **FINISHED HEX**

#### **ASTM A194**

**GRADE** 

2H

8

#### STAINLESS STEELS

#### **GRADE**

18/8

304 ELC

304 STRAIN HARDENED

309

310

316

316 ELC

316 STRAIN HARDENED

317 ELC

410

ALLOY 20

#### **NON-FERROUS**

#### GRADE

ALLOY 400

DUPLEX 2205

HASTELLOY C-276

SILICON BRONZE







# **BOLTS**

#### **ASTM A193 BOLTS**

<b>GRADE</b>	<b>HEAD TYPE</b>	GRADE	<b>HEAD TYPE</b>
B5	<b>HEAVY HEX</b>	B8 Class 1	<b>HEAVY HEX</b>
B6	<b>HEAVY HEX</b>		FINISHED HEX
B7	<b>HEAVY HEX</b>	B8 Class 2	<b>HEAVY HEX</b>
	FINISHED HEX		FINISHED HEX
	12 POINT FLANGE	B8M Class 1	<b>HEAVY HEX</b>
B7M	<b>HEAVY HEX</b>		FINISHED HEX
	FINISHED HEX	B8M Class 2	<b>HEAVY HEX</b>
B16	<b>HEAVY HEX</b>		FINISHED HEX
	FINISHED HEX	B8C	<b>HEAVY HEX</b>
		B8T	<b>HEAVY HEX</b>

#### **ASTM A320 BOLTS**

GRADE	<b>HEAD TYPE</b>
L7	<b>HEAVY HEX</b>
B8 Class 1	<b>HEAVY HEX</b>
B8 Class 2	<b>HEAVY HEX</b>
B8M Class 1	<b>HEAVY HEX</b>
B8M Class 2	<b>HEAVY HEX</b>

#### STAINLESS HEX BOLTS

GRADE	<b>HEAD TYPE</b>	GRADE	<b>HEAD TYPE</b>
304	FINISHED HEX	317 ELC	FINISHED HEX
304 ELC	FINISHED HEX	321	FINISHED HEX
309	FINISHED HEX	347	FINISHED HEX
310	FINISHED HEX	410	FINISHED HEX
316	FINISHED HEX	ALLOY 20	FINISHED HEX
316 ELC	FINISHED HEX	ALLOY 400	FINISHED HEX
		DUPLEX 2205	FINISHED HEX

#### **NON-FERROUS & HIGH-NICKEL ALLOY BOLTS**

GRADE	<b>HEAD TYPE</b>	GRADE	<b>HEAD TYPE</b>
17-4 PH	FINISHED HEX	K-MONEL	FINISHED HEX
HASTELLOY	FINISHED HEX	MONEL 400	FINISHED HEX
INCOLOY	FINISHED HEX	NICKEL 200	FINISHED HEX
INCONEL	FINISHED HEX	NITRONIC 60	FINISHED HEX

**Quick Delivery** 



# **RODS**

#### **CONTINUOUS THREADED ROD**

#### **ASTM A193**

 GRADE
 DIAMETER

 B7
 1/4" TO 4"

 B7 METRIC
 M8 TO M36

 B16
 5/16" TO 3 1/2"

 B8
 1/2" TO 2 1/2"

 B8M
 1/2" TO 2 1/2"

#### **ASTM A320**

 GRADE
 DIAMETER

 L7
 1/4" TO 2 1/2"

 B8
 1/2" TO 2 1/2"

 B8M
 1/2" TO 2 1/2"

#### **ASTM A354**

GRADE DIAMETER
BD 3/8" TO 2"



#### **AISI**

GRADE 304 3/8" TO 3/4"
304 / A2 M6 TO M30
316 3/8" TO 3/4"
316 / A4 M12 TO M30

**Threaded Rod Manufacturing** 

for Your Specials



# **STOCK OVERVIEW**

# **WASHERS**

MATERIAL	FLAT	LOCK	FLA	T WASHE
18/8	1/4" TO 2"	1/4" TO 1 3/8"		STAINLE
310	1/4" TO 1 1/4"		BOLT SIZE	O.D.
316	#6 TO 2"	#8 TO 1 1/2"	1/4"	5/8"
316 METRIC	M8 TO M14	M6 TO M20	5/16"	3/4"
316 ELC	1/4" TO 1 1/2"		3/8"	7/8"
317 ELC	3/8" TO 1/2"		7/16"	1 1/8"
321	1/4" TO 1 1/2"		1/2"	1 1/4"
410	1/4" TO 1"	1/2" TO 3/4"	9/16"	1 3/8"
ALLOY 20	1/4" TO 1"	3/8"	5/8"	1 1/2"
ALLOY 400	1/4" TO 1"		3/4"	1 3/4"
HASTELLOY C-276	3/8" TO 1"	3/8" TO 3/4"	7/8"	2"
DUPLEX 2205	3/8" TO 1 1/4"		1"	2 1/4"
K-MONEL		1/4" TO 1"	1 1/8"	2 1/2"
F436	1/2" TO 2 1/2"		1 1/4"	2 3/4"
			1 3/8"	3"
			1 1/2"	2"

#### FLAT WASHER DIMENSIONS STAINLESS STEEL

BOLT SIZE	O.D.	I.D.	THK.
1/4"	5/8"	9/32"	.050"
5/16"	3/4"	11/32"	.050"
3/8"	7/8"	13/32"	.063"
7/16"	1 1/8"	15/32"	.063"
1/2"	1 1/4"	17/32"	.078"
9/16"	1 3/8"	19/32"	.078"
5/8"	1 1/2"	11/16"	.078"
3/4"	1 3/4"	13/16"	.109"
7/8"	2"	15/16"	.109"
1"	2 1/4"	1 1/16"	.125"
1 1/8"	2 1/2"	1 3/16"	.125"
1 1/4"	2 3/4"	1 5/16"	.125"
1 3/8"	3"	1 7/16"	.125"
1 1/2"	3"	1 9/16"	.140"
1 3/4"	3 1/2"	1 7/8"	.160"
2"	4"	2 1/8"	.160"

STAINLESS STEEL FLAT WASHERS ARE GRADE MARKED EXCEPT FOR THE 18/8.





# **SOCKETS**

GRADE

L7

#### **ASTM A193 SOCKET CAP SCREWS**

GRADE **HEAD TYPE** SOCKET CAP B7 B7M SOCKET CAP B16 SOCKET CAP

GRADE **HEAD TYPE** B8 Class 1 SOCKET CAP B8 Class 2 SOCKET CAP B8M Class 1 SOCKET CAP B8M Class 2 SOCKET CAP

**ASTM A320 SOCKET CAP SCREWS** 

> **HEAD TYPE** SOCKET CAP



# **STOCK MATERIALS**

# **STUDS**

#### CONTINUOUS THREADED STUDS AND STUD BOLTS

Stud Bolt assemblies with 2 Hex Nuts available upon request

#### **ASTM A193**

#### GRADE **B5** B6 B7 B7M **B7 METRIC** B8 CLASS 1 B8 CLASS 2 **B8 METRIC** B8C B8M CLASS 1 **B8M CLASS 2 B8M METRIC** B8S B8T **B16**

#### **ASTM A320**

**GRADE** B8 CLASS 1 B8 CLASS 2 B8M CLASS 1 B8M CLASS 2 L7 **ASTM A354 GRADE** BD

# **ASTM A453**

GRADE 660B 660D

#### **STAINLESS & NON-FERROUS**

**GRADE** 18/8 18/8 METRIC 304 304 ELC 304 STRAIN HARDENED 309 310 316 316 ELC 316 STRAIN HARDENED 317 ELC 321 330

347 410 501 ALLOY 20 ALLOY 400 **BRASS DUPLEX 2205 HASTELLOY C-276 NITRONIC 60** SILICON BRONZE





# **MANUFACTURING**

# **Over 300 Production Machines**



**Production Bandsaw Metal Cutting** 



**Precision Tolerance Cutting** 



**CNC** Forging



Bar Grinding / Threading



**CNC Machining** 



**Fastener Production** 



# **MANUFACTURING**

**STUDS** 

#### **ASF STANDARD PRODUCT TYPES**

Single End Tap End **Chisel Point Full Thread** Blank (Unthreaded) Double End Radius End Reducing **FULL THREAD CHISEL POINT DOUBLE END** 45° POINT (Measured end to end) **FULL THREAD** (Measured first thread to first thread TAP END REDUCING per ASTM A193/A320)

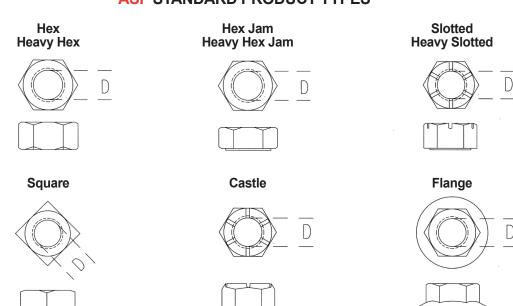
Diameters: No. 2 to 4" • Lengths: As Specified • Fits: 1A, 2A, 3A, 5 CSF, 5 ONF, and 5 HF

Order your Product Type with Diameter, Thread Pitch, Length(s) and Material

# **MANUFACTURING**

**NUTS** 

#### **ASF STANDARD PRODUCT TYPES**



Order your Product Type with Diameter, Thread Pitch and Material

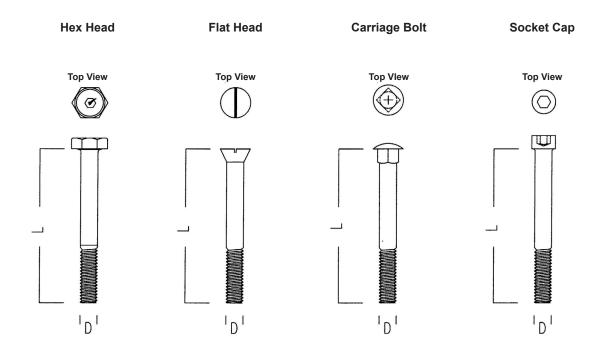
**Quick Delivery** 



# **MANUFACTURING**

**BOLTS** 

#### **ASF STANDARD PRODUCT TYPES**



Order your Product Type with Diameter, Thread Pitch, Length and Material

#### LONG LENGTH BOLTS



ASF manufactures long length bolts that range from ½" and larger in diameter and in lengths up to 40" long, in a variety of materials and in the customer's choice of standard head or custom designed head styles.



# **COATINGS • PLATINGS • FINISHES**

Zinc

Cadmium, ASTM B766

Xylan 1424, 1014, 1070, 1052

Xylar 2

Hot-Dip Galvanized

Phosphate

Zinc & Manganese

Fluoropolymer

Armoloy

Black Oxide

Sermagard

Silver

Gold

Nickel

Copper

Chrome

Electropolishing

**Passivation** 

**Anodine** 

Molybdenum Disulfide

O<sub>2</sub> Cleaning

and many more...

# **ASF** meets Industry Leaders' Proprietary Specifications

Air Liquide

Galvanizing per A-GS-4-2-1 Rev B

**Aker Solutions** 

C-156 & C-169

**BAE Systems** 

**Baker Hughes** 

**BCS A401** 

**BP** 

Cameron

Chevron

Aluminizing per EG-5012

**Dresser Rand** 

**Dupont** 

SP11C

Exxon

GP 29-02-13 &

RUSD-WPE-T2-LS-61100.3403

**FMC Technologies** 

C81000, C81004 & C81007

**GE Oil & Gas** 

Lockheed Martin

**National Oilwell Varco** 

Oil States Industries

SV2D-00-014 & SV5D-00-025

Schlumberger

**Vetco Gray** 

6.3.2, 6.3.1, 6.3.4, 6.3.16,

6.2.12, & 6.3.14

**Well Dynamics** 

**Wood Group** 

# **MANUFACTURING MATERIALS**

OTABLE CO.	OTEELO	OTAINI	E00 0	TEE: 0
<b>STAINLESS</b>	SIEELS	SIAINL	<b>ESS</b> S	IEELS

**ASTM A193 B5** 303 304 **ASTM A193 B6** 304 STRAIN HARD ASTM A193 B8 CLASS 1 304 ELC ASTM A193 B8 CLASS 2 ASTM A193 B8M CLASS 1 309 ASTM A193 B8M CLASS 2 310 316 ASTM A193 B8C 316 STRAIN HARD **ASTM A193 B8R** 316 FLC **ASTM A193 B8S** 317 ELC ASTM A193 B8T 321 ASTM A320 B8 CLASS 1 330 ASTM A320 B8 CLASS 2 347 ASTM A320 B8M CLASS 1 410 ASTM A320 B8M CLASS 2 410 HEAT TREATED ASTM A453 660A

416 **501 HEAT TREATED** 

630

\* 17-4 PH 904L

ALLOY 20

\* A286

\* 254 SMO

\* AL-6XN

\*CARPENTER 20Cb-3

\*FERRALIUM 255 \* NITRONIC 50 \* NITRONIC 60

**ASTM A453 660B** 

**ASTM A453 660D** 

#### **DUPLEX**

2205

#### **SUPER DUPLEX**

2507

\*ZERON 100

**TITANIUM** ASTM B348

ASTM B381

#### NICKEL ALLOYS

\* NICKEL 200 \* MONEL 400

\* MONEL K-500 \*INCONEL 600

\*INCONEL 601

\*INCONEL 625

\*INCONEL 718 \* INCONEL X-750

\*INCONEL 925

\*INCOLOY 800H

\*INCOLOY 825 \*HASTELLOY C-22

\*HASTELLOY C-276

#### **ALLOY STEELS**

4140 4340 **ASTM A193 B7** ASTM A193 B7M **ASTM A193 B16 ASTM A320 L7** 

ASTM A320 L7M **ASTM A320 L43** 

ASTM A354 BD

**ADDITIONAL** 

**MATERIAL GRADES** 

**UPON REQUEST** 

#### **COPPER ALLOYS**

COPPER **BRASS** 

**NAVAL BRASS** 

SILICON BRONZE

ALUMINUM BRONZE PHOSPHOR BRONZE

**CUPRO-NICKEL** 



<sup>\*</sup> Registered Trademark



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