

# HEAVY HEX BOLTS / STUDS A193- B8 CL 2

## ***SUBMITTAL SPECIFICATION***

"ABSTRACT OF ASTM A193"

"ALLOY-STEEL & STAINLESS STEEL BOLTING MATERIALS FOR HIGH-TEMPERATURE SERVICE"

**MATERIAL / GRADE:** AISI TYPE 304, ASTM A193-B8 CL. 2 (STRAIN-HARDENED)

**CHEMICAL REQUIREMENTS (%):**

CARBON, MAX.	0.08
MANGANESE, MAX	2.00
PHOSPHOROUS, MAX	0.045
SULFUR, MAX	0.030
SILICON, MAX	1.00
CHROMIUM	18.00 - 20.00
NICKEL	8.00 - 11.00

**MECHANICAL REQUIREMENTS:**

<u>DIAMETERS -</u>	<u>3/4" &amp; UNDER</u>	<u>7/8"-1"</u>	<u>1 1/8"-1 1/4"</u>	<u>1 3/8"-1 1/2"</u>
TENSILE STRENGTH (KSI)	125 MIN	115 MIN	105 MIN	100 MIN
YIELD STRENGTHS (KSI)	100 MIN	80 MIN	65 MIN	50 MIN
ELONGATION IN 4D (%)	12 MIN	15 MIN	20 MIN	28 MIN
REDUCTION OF AREA (%)	35 MIN	35 MIN	35 MIN	45 MIN
HARDNESS (BRINELL) - ALL DIAMETERS - 321 MAX.				
HARDNESS (ROCKWELL) - ALL DIAMETERS - C35 MAX.				

**IDENTIFICATION SYMBOL:** B8

**OTHER:**

ALL BOLTS & STUDS, UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER SHALL BE THREADED IN ACCORDANCE WITH ANSI/ASME B1.1 UNIFIED INCH SCREW THREADS, CLASS 2A FIT. BOLT HEADS SHALL BE IN ACCORDANCE WITH THE DIMENSIONS OF ANSI/ASME B18.2.1, HEAVY HEX BOLTS. UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, THE HEAVY HEX BOLT SERIES SHOULD BE USED. ADDITIONAL INFORMATION CAN BE FOUND IN ASTM A193/A193M (ALLOY STEEL AND STAINLESS STEEL BOLTING MATERIALS FOR HIGH-TEMPERATURE SERVICES).

**NUTS:**

NUTS SHALL CONFORM TO ASTM A194, UNLESS OTHERWISE SPECIFIED. ADDITIONAL INFORMATION CAN BE FOUND IN ASTM A194/A194M (CARBON AND ALLOY STEEL NUTS FOR BOLTS FOR HIGH PRESSURE OR HIGH-TEMPERATURE SERVICE).

**FLAT WASHERS:** UNLESS OTHERWISE SPECIFIED, ALL WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.

**Pacific Coast Bolt**

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