

# HEAVY HEX BOLT / STUDS A193-B8 CL.1

## ***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. 1

**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

*COPIES BUILT*

**MECHANICAL REQUIREMENTS:**

<u>ALL DIAMETERS</u>	<u>MINIMUM</u>	<u>MAXIMUM</u>
TENSILE STRENGTH (KSI)	75	
YIELD STRENGTH (KSI)	30	
ELONGATION IN 4D (%)	30	
REDUCTION OF AREA (%)	50	
HARDNESS (BRINELL)		223
HARDNESS (ROCKWELL)		B96

**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 GR. 8, 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**