

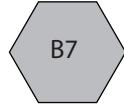
# INDUSTRIAL THREADED PRODUCTS INC.

13580 FIRESTONE BLVD. , SANTA FE SPRINGS, CA 90670

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www.itpbolt.com

## HEAVY HEX BOLTS AND STUDS



### GRADE A193 B7

SUBMITTAL SPECIFICATIONS

Abstract of ASTM A193 / ASTM A194

GRADE: CHROMIUM MOLYBDENUM (AISI 4140)

#### CHEMICAL REQUIREMENTS

Chemical analysis shall be performed in accordance with ASTM A751

	CARBON	MANGANESE	PHOSPHOROUS MAX	SULFUR MAX	SILICON	CHROMIUM	MOLYBDEMIUM
RANGE	0.37 - 0.49	0.65 - 1.10	0.035	0.040	0.15 - 0.35	0.75 - 1.20	0.15 - 0.25
VARIATION	0.02	0.04	0.005 OVER	0.005 OVER	0.02	0.05	0.02

#### MECHANICAL REQUIREMENTS

YIELD STRENGTH KSI	REDUCTION OF AREA %	TENSILE STRENGTH (KSI)	ELONGATION %
105	50	125	16

<input type="checkbox"/> Heavy Hex Nuts Grade 2H ASTM A194	<input type="checkbox"/> Washers ASTM F436 Hardened Steel
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#### BOLTS AND NUTS MAY BE SUPPLIED

<input type="checkbox"/> Plain	<input type="checkbox"/> Zinc Plated	<input type="checkbox"/> Hot Dip Galvanized
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#### LOCATION

<input type="checkbox"/> Buried	<input type="checkbox"/> Submerged	<input type="checkbox"/> Above Grade	<input type="checkbox"/> Below Grade	<input type="checkbox"/> Other
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**DIMENSIONAL DATA:** All bolts and nuts should be heavy pattern and threaded in accordance with ANSI/ASME B1.1, page A-26, Class 2A fit, sizes 1 inch and smaller in diameter with the coarse-thread series, and the 1 1/8 inch and larger in diameter with the 8-pitch thread series. Bolt heads shall be in accordance with the dimensions of ANSI/ASME B18.2.1, page C-1.

**ADDITIONAL INFORMATION:** Additional information can be found in ASTM A193 / A193M, DTD 1998 ( alloy steel and stainless bolting materials for high temperature services) and in ASTM A194 / A194M, DTD 1998 ( carbon and alloy steel nuts for bolts for high temperature services)