

HEAVY HEX BOLT GRADE B8M T316

SUBMITTAL SPECIFICATIONS ABSTRACT OF ASTM A193 / ASTM A194

CHEMICAL REQUIREMENTS

Chemical analysis shall be performed in accordance with ASTM A751

| | CARBON MAX | MANGANESE MAX | PHOPHOROUS MAX | SULFUR MAX | SILICON MAX | CHROMIUM | NICKEL | MOLYBDENUM |
|-----------|---------------|------------------|-------------------|---------------|----------------|--------------|--------------|--------------|
| RANGE | 0.08 | 2.00 | 0.045 | 0.03 | 1.00 | 16.0 to 18.0 | 10.0 to 14.0 | 2.00 to 3.00 |
| VARIATION | 0.01 OVER | 0.04 OVER | 0.010 OVER | 0.005 OVER | 0.05 OVER | 0.20 | 0.15 | 0.10 |

MECHANICAL REQUIREMENTS

| HARDNESS ROCKWELL MIN | HARDNES BRINELL MIN | TENSILE STRENGTH (KSI) MIN | YIELD STRENGTH (KSI) MIN | PRODUCTION OF AREA (%) | ELONGATION (%) |
|-----------------------------|---------------------------|----------------------------------|--------------------------------|------------------------------|-------------------|
| 96 | 223 | 75 | 30 | 50 | 30 |

GRADE: 18 Chromium, 10 Nickel, 2 Molybdenum (ANSI Type 316)

Carbide Solution Treated

Heavy Hex Nuts ASTM A194 8M (ASME B18.2.2) T-316 Stainless Steel Washers

LOCATION

Buried Submerged Above Grade Below Grade Other

DIMENSIONAL DATA: All bolts and nuts should be heavy pattern unless otherwise specified in the purchase order, Parts shall be threaded in accordance with ANSI/ASME B1.1, page A-26, Class 2A fit. 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)