



## THOMPSON ENTERPRISES

### Bolt Brokers

3526 State Street

Corona, CA 92881

Phone # (951) 737-5677 \* Fax # (951) 520-0031

E-mail address: Greg642@wwdb.org

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### SUBMITTAL INFORMATION

"BOLTS, NUTS AND FLAT WASHERS"  
"ABSTRACT OF ASTM A193/ASTM A194"  
"GRADE B8" T-304

**GRADE:** UNSTABILIZED 18 CHROMIUM, 8 NICKEL, (AISI TYPE 316)

**CHEMICAL REQUIREMENTS:**

	<u>RANGE</u>	<u>VARIATION</u>
CARBON MAX	0.08	0.01 OVER
MANGANESE	2.00	0.04 OVER
PHOSPHOROUS, MAX	0.045	0.01 OVER
SULFUR, MAX	0.03	0.005 OVER
SILICON	1.00	0.005 OVER
CHROMIUM	16.00 - 20.00	0.20
NICKEL	8.00 - 10.5	0.15

**MECHANICAL REQUIREMENTS:**

	<u>MINIMUM</u>
TENSILE STRENGTH (KSI)	75
YIELD STRENGTHS (KSI)	30
ELONGATION (%)	30
REDUCTION OF AREA (%)	50
HARDNESS (BRINELL)	223
HARDNESS (ROCKWELL)	B96

NOTES: MATERIALS ARE CARBIDE SOLUTION TREATED

**IDENTIFICATION SYMBOL:** B8

**OTHER:**

ALL BOLTS, NUTS & STUDS, UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER 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. UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, THE HEAVY HEX SCREWS SERIES SHOULD BE USED. NUTS SHALL CONFORM TO ASTM 194, UNLESS OTHERWISE SPECIFIED, THE HEAVY HEX SERIES SHALL BE USED.

ADDITIONAL INFORMATION CAN BE FOUND IN ASTM 193/A193M, DTD 1997 (ALLOY STEEL AND STAINLESS STEEL BOLTING MATERIALS FOR HIGH-TEMPERATURE SERVICES) AND IN ASTM A194/A194M, DTD 1997 (CARBON AND ALLOY STEEL NUTS FOR BOLTS FOR HIGH-TEMPERATURE SERVICE).

**FLAT WASHERS:** ALL WASHERS SHALL BE OF THE SAME MATERIAL AS THE NUTS.