

## ASTM A 193 Gr.B5

# STAINLESS STEEL

HIGH TENSILE

BOLTING MATERIAL FOR LOW TEMPERATURE SERVICE

ASTM A193 Gr.B5 is a high-temperature stainless steel (AISI 501 stainless steel) bolting specification for extreme applications in heavy industry. ASTM A194 Grade 3 nuts (AISI 501 stainless steel) are the corresponding nut. These specs are typically found in flanged piping applications with corrosive elements present under high temperatures. These studs are typically cut-to-order per application. Fasteners under the B5 spec have the ASTM A501 chemistry as AISI type 501 SS but they are heat treated to 100,000 PSI tensile strength.

### ASTM A 193 GR.B5 Chemical Pr

C	Si	Mn	P	S	Cr	Mo
0.10 Min	1.00 Max	1.00 Max	0.040 Max	0.030 Max	4.0-6.0	0.40-0.65

### Mechanical Properties

Yield strength	Tensile strength	Elongation	Reduction
Min 0.2% Mpa	Min Mpa	Min %	Min %
550	690	16	50

### Heat Treatment

Hardened @850°C & Tempered @650°C

### Equivalent Designation

UNS S50100  
 EN number 1.4547  
 En name X1CrNiMoCuN20-18-7  
 W.Nr. 1.7362  
 SS 2378\*  
 AFNOR Z1 CNDU 20.18.06AZ\*

CUSTOMER ASSISTANCE : [customer@TorqBolt.com](mailto:customer@TorqBolt.com)

#4/217, Deccan Bank Bldg,  
 R. R. Roy Road, Mumbai – 400 004,  
 Maharashtra, INDIA

Email: [info@TorqBolt.com](mailto:info@TorqBolt.com)

Web: [www.TorqBolt.com](http://www.TorqBolt.com)

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