



## 321 Stainless Steel

321 is an austenitic solution treated stainless steel material which is known for its excellent resistance to corrosion and oxidation, particularly at elevated temperatures.

Common applications can include but not limited to: Aerospace, heat exchangers and pressure vessels, welding applications and marine environments.

### 321 Stainless Steel Grades & Equivalents:

- ASTM A193 B8T CLASS 1
- ASTM A320 B8T CLASS 1
- ASTM A276 S32100
- ASTM A479 S32100
- BS4882 B8T
- 1.4541
- BS970 321S31

### Typical Chemical Analysis

C	Si	Mn	P	S	Cr	Ni	Mo
0.080	1.000	2.000	0.045	0.030	17.00-19.00	9.00-12.00	
W	N	Cb/Nb	Ti	Co	Cu	Al	B
	0.100		5x(C+N) to 0.70				
V	Fe	Mg	Ta	Ca	O	Bi	Se
Sn	Zn	Pb	Y	Cb/Nb + Ta	Ni + Co	H	PREN

### Typical Mechanical Properties

Tensile Strength	515 N/mm <sup>2</sup> min
0.2% Proof Stress	205 N/mm <sup>2</sup> min
Elongation	30%
Reduction of Area	50%
Hardness	223 HBw
Impacts	
Stress Rupture	
Other Remarks	Mechanicals may vary slightly depending on specification (above taken from ASTM A193)

### Product Forms Available:

- Hexagon Head Bolts
- Hexagon Nuts
- Studbolts
- Socket Capscrews
- Socket Countersunk Screws
- Socket Setscrews
- & Many other special fasteners and bespoke machined parts

Products can be produced to customer drawings or relevant British (BS), American (ASME, ANSI), European (DIN, UNI) or International Standards (ISO).

The size ranges M3 to M120 Metric and 3/16" to 4.75" Imperial can be supplied. Thread forms include UNC, UNS, UNF, BSW, BSF, Whitworth, Metric, Metric Fine.



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