



316 Stainless Steel

316 is an austenitic solution treated stainless steel material with the addition of molybdenum which enhances the corrosion resistance compared to other grades within the 300 series especially from chlorides.

Typical uses can include but not limited to:
Environments with increased exposure to alkalis and acids, marine equipment, food preparation surfaces and appliances.

316 Stainless Steel Grades & Equivalents:

- ASTM A193 B8M CLASS 1
- ASTM A320 B8M CLASS 1
- ASTM A276 S31600
- ASTM A479 S31600
- BS4882 B8M
- ISO3506 A4-50
- 1.4401
- 1.4404
- 316L **
- BS970 316S11 **
- BS970 316S31

Typical Chemical Analysis

C	Si	Mn	P	S	Cr	Ni	Mo
0.080	1.000	2.000	0.045	0.030	16.00-18.00	10.00-14.00	2.00-3.00
W	N	Cb/Nb	Ti	Co	Cu	Al	B
V	Fe	Mg	Ta	Ca	O	Bi	Se
Sn	Zn	Pb	Y	Cb/Nb + Ta	Ni + Co	H	PREN

** Carbon content for 316L / BS970 316S11 shall be $\leq 0.030\%$

Typical Mechanical Properties

Tensile Strength	515 N/mm ² min
0.2% Proof Stress	205 N/mm ² 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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