

## Chromium - Nickel Stainless Steel

### Grade 316 (1.4401)

#### Product Description/ Specification

Stainless Steel type 316 also known as 1.4401 is a molybdenum bearing austenitic stainless steel which is highly resistant to general corrosion and pitting/crevice corrosion. This type of stainless steel is preferred for application in extremely corrosive environment. A lower carbon content version of this material is also available, as 316L (1.4404) which completely eliminates carbide precipitation due to welding.

The material is produced to the following specifications:-

Austenitic Stainless Steel ASTM A240 / ASTM A167 / EN10088-4

#### Chemical Composition:

Chemical Name	Manganese	Phosphorous	Sulphur	Silicon	Chromium	Nickel	Molybdenum	Nitrogen
Weight %	2.00	0.045	0.030	0.75	16.0 – 18.0	10.0 – 14.0	2.0 – 3.0	0.10

#### Mechanical Properties:

Tensile Strength, min		Yield Strength, min		Elongation, min	Hardness, max	
ksi	MPa	ksi	MPa	in 2 in. or 50 mm %	Brinell (HBW)	Rockwell B
75	515	30	205	40	217	95

#### Physical Properties:

Density (g/cm <sup>3</sup> )	Melting Point °C	Thermal Expansion / k	Thermal Conductivity W/m.K	Electrical Resistivity Ω.m
7.7 – 8.3	1325 – 1530	15.9 X 10 <sup>-6</sup>	16.3	0.074 X 10 <sup>-6</sup>

#### Safety:

There are no known health risks in handling stainless steel, although it is recommended that gloves should be worn in case of sharp edges. Good lifting practice techniques should always be followed when handling these products.

For more details on safety, please refer to material safety datasheet.



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ISO 9001: 2008

