

TYPE 316

Type 316 is an austenitic chromium-nickel stainless and heat-resisting steel with superior corrosion resistance as compared to other chromium-nickel steels when exposed to many types of chemical corrodents such as sea water, brine solutions, and the like.

GENERAL PROPERTIES TYPE 316

Type 316 alloy is a molybdenum bearing stainless steel. It has a greater resistance to chemical attack than the 304 family. Similarly, Type 316 is durable, easy to fabricate, clean, weld and finish.

TYPICAL ANALYSIS TYPE 316

Represented by ASTM-A240 and ASME SA240

C=.08 / Mn=2.00 / P=.04 / S=.03 / Si=1.00 / Cr=16.00-18.00 / Ni=10.00-14.00 / Mo=2.00-3.00

RESISTANCE TO CORROSION TYPE 316

The addition of 2% molybdenum makes 316 considerably more resistant to corrosion and oxidation than the 304 family of alloys.

MECHANICAL PROPERTIES OF TYPE 316 AT ROOM TEMPERATURE

Typical Mechanical Properties required for annealed material covered by ASTM A240.

Yield Strength .2% offset=30,000 / Ultimate Tensile Strength=80,000 / Elongation=50%

Hardness R =90 max.

Type 316 is considerably more resistant to solutions of sulfuric acid, chlorides, bromides, iodides and fatty acids at high temperature. In the manufacture of certain pharmaceuticals, stainless steels containing molybdenum are required in order to avoid excessive metallic contamination.