# 317L Stainless Steel

#### 317L STAINLESS STEEL DATASHEET

317L is an austenitic stainless steel containing molybdenum. This grade has improved corrosion resistance compared to that of 304/304L and 316/316L grades. 317L has improved chloride pitting resistance over 316L due to the increased levels of chromium, nickel and molybdenum. It is common for 317L to meet the mechanical properties of 317 straight grade, while maintaining a low carbon content with the controlled addition of nitrogen.

Common industry/applications are: Flue-Gas Desulfurization (FGD systems), Chemical Processing, Oil and Gas, Pulp and Paper Processing, and Condensers in Power Generation.

Product forms include round bar, square, rectangle & flat bar, plate & sheet, hollow bar, tubing and pipe, and forgings.

### Standards

- **UNS S31700**
- ASME SA-240

- **UNS S31703**
- ASTM A240

#### **Physical Properties**

- Density: 0.285LB/in<sup>3</sup> (7.90g/cm<sup>3</sup>)
- Melting Point: 2550-2590°F (1398-1421°C)
- Modulus of Elasticity: 29.0x10<sup>e</sup>psi (200 GPa)
- Magnetic Permeability: 1.02 Max @ 200 H (Annealed)

## Characteristics

- Improved general and localized corrosion resistance compared to 304L or 316L.
- Good formability.
- Good weldability.

Chemical Composition											
	С	Mn	S	Р	Si	Cr	Ni	N	Мо		
MIN	-	-	-	-	-	18.000	11.000	-	3.000		
MAX	0.030	2.00	0.030	0.045	0.750	20.000	15.000	0.100	4.000		

Mechanical Properties										
Tensile (min) KSI	Yield (min) KSI	Elongation (min) %	Reduction of Area (min) % **	Hardness * HRB (BHN)						
75	30	40%	45%	85 (217)						



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