

**AVAILABILITY**

Seamless Pipe 1/2" - 6"  
 Weld Pipe 4" - 24"  
 Butt-Weld Fittings 1/2" - 24"  
 Flanges 1/2" - 2"  
 Pressure Fittings 1/2" - 2"

**SPECIFICATIONS**

ASTM B677, B366  
 ASME SB677, SB366

**CHEMICAL COMPOSITION %**

C	Cr	Cu	Mn	Mo	Ni	P	S	Si
Max			Max			Max	Max	Max
0.02	19.0-23.0	1.0-2.0	2.0	4.0-5.0	23.0-28.0	0.045	0.035	1.0

**DESCRIPTION**

904L is a high quality austenitic stainless steel with low carbon content. The grade is intended for use under severe corrosive conditions.

It has been application proved over many years and was originally developed to resist corrosion in dilute sulfuric acid. It is standardized and approved for pressure vessel use in several countries.

Structurally, 904L is fully austenitic and is less sensitive to precipitation ferrite and sigma phases than conventional austenitic grades with high molybdenum content. Characteristically, due to the combination of relatively high contents of chromium, nickel molybdenum and copper, 904L has good resistance to general corrosion, particularly in sulfuric and phosphoric conditions.

**DESIGN FEATURES**

- Good resistance to pitting and crevice corrosion.
- Very good resistance to stress corrosion cracking

- Good resistance to intergranular corrosion.
- Good formability and weldability.
- Maximum service temperatures of 450° C (824° F).

**TYPICAL APPLICATIONS**

Production and transport of sulfuric acid  
 Metal pickling in sulfuric acid  
 Production and concentration of phosphoric acid  
 Use in seawater, brackish water, condensers, heat exchangers and pipe work in general  
 Paper and allied industries  
 Gas washing  
 Chemical and pharmaceutical industries

**TENSILE REQUIREMENTS**

Tensile Strength	Yield Strength
(KSI)	(KSI)
70	25

KSI can be converted to MPA (Megapascals) by multiplying by 6.895.