

C	Cr	Cu	Mn	Mo	Ni	P	S	SI
MAX			MAX			MAX	MAX	MAX
.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

**CHEMICAL COMPOSITION %**

**DESCRIPTION**

904L is a high-alloy 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 450C (824F).

**AVAILABILITY**

**SPECS**

AVAILABILITY		SPECS
SEAMLESS PIPE	1/2" - 8"	B677
BUTT-WELD FITTINGS	1/2" - 8"	B366
PLATE AND SHEET	VARIOUS SIZES	B625

**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 REQ**

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

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