

AVAILABILITY

Welded Pipe 1/2"-8 "
 Butt-Weld Fittings 1/2"-8"
 Flanges 1/2"-8"
 Bar 1"-4-1/2"

SPECIFICATIONS

ASTM B443, B705, B366,
 B446, B564
 ASME SB443, SB705, SB366,
 SB446, SB564

CHEMICAL COMPOSITION %

C	Cr	Fe	Ni	Al	Ti	Co + TA
Max		Max	Min	Max	Max	
0.10	20.0-23.0	5.0	58.0	0.40	0.40	3.15-4.15

DESCRIPTION

Alloy 625 is a Nickel-Chromium alloy used for its high strength, excellent fabricability and outstanding corrosion resistance. Service temperatures range from cryogenic to 1800° F. Alloy 625 strength is derived from the stiffening effect of molybdenum and columbium on its Nickel-Chromium matrix; thus precipitation-hardening treatments are not required. This combination of elements also is responsible for superior resistance to a wide range of corrosive environments of unusual severity as well as to high-temperature effects such as oxidation and carburization.

DESIGN FEATURES

- Outstanding resistance to pitting, crevice corrosion, impingement corrosion and intergranular attack.
- Almost complete freedom from Chloride-induced stress corrosion cracking.
- Good resistance to mineral acids, such as nitric, phosphoric, sulphuric and hydrochloric acids.
- Good resistance to alkalis and organic acids.
- Good mechanical properties.

TYPICAL APPLICATIONS

Used for structures in contact with seawater and subject to high mechanical stresses
 Flue gas scrubbers components
 Chimney linings
 Superphosphoric acid production equipment
 Sour gas production tubes
 Offshore industry, marine equipment
 High tensile, creep, rupture strength, outstanding fatigue and thermal-fatigue strength; oxidation resistance; and excellent weldability and brazeability make it a good choice in the aerospace industry

TENSILE REQUIREMENTS

Tensile Strength (KSI)	Yield Strength (KSI)
120	60

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