

Alloy 800/800H/800HP

(UNS N08800/ N08810
N08811)

Availability:

Seamless Pipe: 1/2" - 8"
Welded Pipe: 8" - 12"
Butt-Weld Fittings: 1/2" - 8"
Flanges: 1/2" - 8"
Bar: 1" - 6"

Specifications:

ASTM B407, B514, B366, B408
B564
ASME SB407, SB514, SB366
SB408, SB564

Description:

Alloy 800 is widely used in equipment that must resist corrosion, have high strength or resist oxidation, carburization and other harmful effects of high-temperature exposure. Alloy 800HP is used for high temperature applications requiring optimum creep and rupture properties. The chromium in the alloy imparts resistance to oxidation and corrosion. The high nickel content maintains an austenitic structure so the alloy is ductile. The nickel also contributes resistance to scaling, general corrosion, and stress corrosion cracking.

Typical Applications:

- Steam/hydrocarbon reforming for components
- Ethylene pyrolysis tubing in convection and radiant sections - resistance to carburization and good mechanical properties
- Ethylene dichloride cracking tubes
- Components of heat exchangers, piping systems
- Steam generators tubing in helium coolant


Tensile Requirements:

Tensile Strength Yield Strength
(KSI) = 65 (KSI) = 25

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

Chemical Composition %

C	Cr	Fe	Ni	Al	Ti	Al/Ti	Si	Mn	Cu	S
		MIN								
.05 - .10	19.0 - 23.0	39.5	30.0 - 35.0	.15 - .60	.15 - .60	.85 - 1.20	1.00	1.5	0.75	0.015

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