

Alloy 188 High Temperature Resistant Alloy

**Trade name
Haynes 188
Udimet188
Conicro 4023**

**UNS
R30188**

**DIN
W2.4683**

**EN
CoCr22NiW**

Chemical Composition %

Cr	La	Ni	Fe	Co	C	Mn	Si	P	S	W	B
20-24	0.02-0.12	20-24	3	Balance	0.05-0.15	1.25max	0.2-0.5	0.02max	0.015max	13-16	0.015max

Recommended Welding Consumables

Wire AMS 5839 / AMS 5381
Rod AMS 5797/AMS 5796

Form	Smls Pipe/Tub	Weded Pipe	Welded Tube	Fittings	Plate	Bar	Forgings
Standard	ASTM B622	ASTM B 619	ASTM B 626	ASTM B 366	ASTM B333	ASTM B335	ASTM B564

Properties

Excellent strength at high temperature
Very good resistance to long term exposure to oxidizing environments up to 1095°C
Very good resistance to hot corrosion (sulfate deposit)

Applications

Aerospace industry
Gas turbine engines components

Physical Properties

Density, 0.324 lbs/in³, 8.98 g/cm³
Modulus of Elasticity: KSI (MPa)
33.6 x 10³(23.2 x 10³) in tension
Melting Range: 2400-2570°F (1315-1410°C)
Properties: Annealed (Typical)
Ultimate Tensile Strength: 130 KSI min (896 MPa min)
Yield Strength (0.2% offset): 60 KSI min (414 MPa min)
Elongation: 45% min
Hot Tensile 1200°F (Typical)
Ultimate Tensile Strength: 90 KSI min (620 MPa min)
Yield Strength (0.2% offset): 35 KSI min (243 MPa min):

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