Haynes 188

Haynes 188 is a cobalt-base alloy with excellent high-temperature strength and good oxidation resistance up to 1090℃ for prolonged exposures, and excellent resistance to sulfate deposit hot corrosion.

Chemical Composition, %

element	Co	Cr	Ni	W	Fe	La	B	C	Mn	Si	P	S
min.	bal.	20.0	20.0	13.0		0.02		0.05		0.2		
max.		24.0	24.0	16.0	3.0	0.12	0.015	0.15	1.25	0.5	0.02	0.015

chemical Composition according to SAE AMS. Some compositional limits of other specifications may vary slightly.

Designation and standards

National Standards	Material designation	Chemical composition	Forgings	Rod and bar	Plate and sheet	Wire
SAE	UNS R30188		AMS 5772	AMS 5772	AMS 5608	AMS 5801
GB/T	GH5188, GH188	GB/T 14992			GJB 3317A	

Density 9.14g/cm^3

Corrosion resistance

- good resistance to oxidation up to 1090℃
- good resistance to molten chloride salts and gaseous sulfidation

Applications

Typical applications are:

- a variety of fabricated component applications in aerospace industry
- combustion cans, transition ducts and after-burner components in commercial gas turbine engines