



AMS 5773 / SF 450

Precipitation hardening martensitic stainless steel for applications in challenging sectors

Air Melt or Air Melt and Vacuum Arc Remelted (VAR)



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Features and benefits

A versatile alloy exhibiting a wide range of strength and toughness combinations developed by the appropriate ageing treatment.

Related specifications

- AMS 5763
- ASTM A564 (XM-25)
- UNS \$45000

Typical applications

- Aerospace: Engine Disks
- Energy: Turbine Blades

Chemical analysis

	С	Si	Mn	Р	S	Cr	Мо	Ni	Nb	Cu
Min						14.00	0.50	6.00	8xC	1.25
Max	0.05	1.00	1.00	0.020	0.015	16.00	1.00	7.00		1.75

Mechanical properties of typical specifications

Mechanical properties are AMS 5773 / SF 450 limits

		H900	H950	H1000	H1050	H1100	H1150
0.2 % Proof	ksi	170	160	150	135	105	75
Strength	MPa	1172	1103	1034	931	724	517
LITS	ksi	740	170	160	145	130	125
013	MPa	1241	1172	1103	1000	896	862
Flaganting %	long	10	10	12	12	16	18
Elongation %	trans	6	7	8	9	11	12
Deduction of even	Long	40	40	45	45	50	55
Reduction of dred	Max	20	22	27	30	30	35
Hardness HB	Min	363	341	331	321	285	262

Supply condition and availability

- Supplied in the annealed condition for forging applications
- Supplied in the solution treated and aged condition to customers own requirements
- Stock sizes in range 80mm - 225mm diameter

Technical support

We have a comprehensive technical support team available to advise on grade selection and product range to achieve the maximum benefit. Customer Technical support provide specialist advice and help with day-to-day problem solving.

Works based metallurgists and the full resources of our Steel Research and Development Laboratories are available to assist with longer-term developments.

For further information, enquiries or any technical guidance on our range of Aerospace products please contact our experts using the details below.

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