DYNAMICMETALS

AMS 5629 - PH 13/8MO STAINLESS STEEL

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PH 13/8 MO is a precipitation hardening stainless steel alloy that conforms to the AMS 5629, AMS 5864, AMS 5862 specifications.

This material is characterised by excellent strength, corrosion resistance, and toughness at both room and elevated temperatures.

PH 13/8 MO (uns s13800) is often used in aerospace, chemical processing, and power generation applications where high strength and corrosion resistance are essential. The material is not particularly easy to work with due to its high strength and toughness, which can make cutting and machining difficult. However, with the proper equipment and techniques, it is possible to fabricate and form PH 13/8 MO into complex shapes and components.

It is a medium to high strength material achieved through appropriate ageing treatments (see table below) and contains very good resistance to stress corrosion. PH 13/8MO stainless steel is produced by Vacuum Induction Melting (VIM) followed by Vacuum Arc Remelting (VAR).

Specific Gravity
7.76 g/cm3

Typical Applications	**Related Specifications**
Fasteners Valves Fittings Petrochemical Components Aircraft Structural parts	**AMS** 5629 **AMS** 5862 **UNS** S13800 **W.Nr** 1.4534

Chemical Composition (Wt %)

	C	Si	Mn	P	S	Cr	Mo	Ni	Al	N	Fe
Min	–	–	–	–	–	12.24	2.00	7.50	0.90	–	Bal
Max	0.05	0.10	0.10	0.01	0.008	13.25	2.50	8.50	1.35	0.010	–

Typical Mechanical Properties

	0.2% Proof	Tensile Strength	Elongation	Reduction of area	Hardness

	Stress					
	MPA	MPA	%	%		HRC
	Min	Min	Min	Min		Min
H950	1413	1517	10	45	35	45
H1000	1310	1413	10	60	40	43
H1025	1207	1276	11	50	45	41
H1050	1138	1207	12	50	45	40
H1100	931	1034	14	50	50	34
H1150	621	931	14	50	50	30

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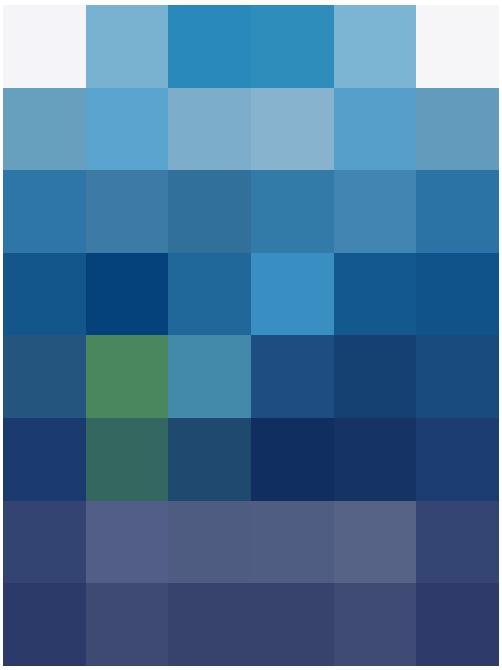

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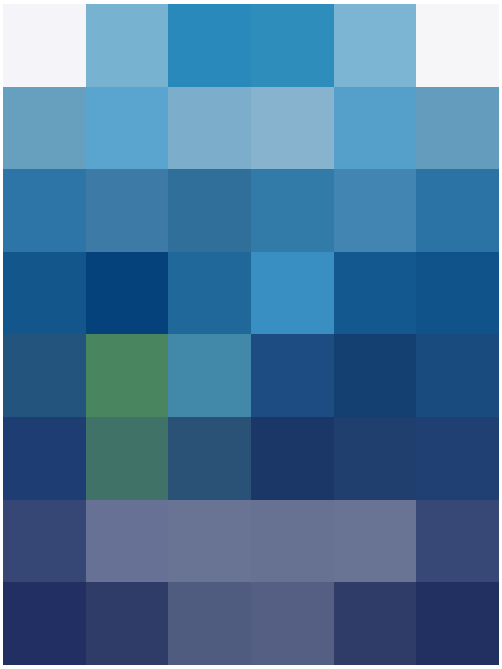

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