

## AMS 5629 - PH 13/8MO STAINLESS STEEL

### PH 13/8MO STAINLESS STEEL

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						AMS 5629					
Valves						AMS 5862					
Fittings						UNS S13800					
Petrochemical Components						W.Nr 1.4534					
Aircraft Structural parts											
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
<b>H950</b>	1413	1517	10	45	35	45
<b>H1000</b>	1310	1413	10	60	40	43
<b>H1025</b>	1207	1276	11	50	45	41
<b>H1050</b>	1138	1207	12	50	45	40
<b>H1100</b>	931	1034	14	50	50	34
<b>H1150</b>	621	931	14	50	50	30

\* This data has been supplied in good faith and is indicative only. It has been provided for general information purposes only and is not to be relied upon in place of the full specification. Mechanical properties can vary considerably with different supply conditions such as heat treatment or temper and product dimensions.

No liability will be accepted by Dynamic Metals Ltd in respect of any action taken by any third party in reliance of any of the data provided.

The information provided in this datasheet has been taken from multiple recognised sources. No guarantee is given that the information is from the latest issue of these sources and no guarantee is given that the information in the datasheet is accurate or up to date.

Material supplied by Dynamic Metals Ltd may vary significantly from this data but will conform to the relevant and applicable standards. All transactions are subject to Dynamic Metals Ltd latest Terms and Conditions of Sale.

As the products detailed may be used for a wide variety of purposes and as Dynamic Metals Ltd has no control over their use, Dynamic Metals Ltd specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by Dynamic Metals Ltd to any third party is given for that party's assistance only and without liability on the part of Dynamic Metals Ltd.

All transactions are subject to Dynamic Metals Ltd latest Terms and Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions, a copy of which is available by request or by downloading from our website.

## General Enquiries

T: +44 (0) 1525 217 556 [\(tel:+4401525217556\)](tel:+4401525217556)

E: [sales@dynamicmetalsltd.com](mailto:sales@dynamicmetalsltd.com) [\(mailto:sales@dynamicmetalsltd.com\)](mailto:sales@dynamicmetalsltd.com)



## UK Address:

### Head Office

40 Eden Way  
Chartwell Business Park  
Leighton Buzzard  
Bedfordshire  
LU7 4FY

T: +44 (0)1525 217 556 [\(tel:+441525217556\)](tel:+441525217556)

*Conversion Centre*

Suite 2 Meadowhall Riverside  
Meadowhall Road  
Sheffield  
South Yorkshire  
S9 1BW

T: +44 (0)1143 030 320 [\\_\(tel:+4401143030320\)](tel:+4401143030320)

*Registered Office (only)*

The Granary  
Crowhill Farm Ravensden Road  
Wilden  
Bedfordshire  
MK44 2QS

T: +44 (0)1525 217 556 [\\_\(tel:+441525217556\)](tel:+441525217556)



[\(/media/zn2dbklo/cyber-essentials-certified-plus.png\)]((/media/zn2dbklo/cyber-essentials-certified-plus.png))



[\(/media/dyelbliq/cyber-essentials-certified.png\)](#)