

## Stainless Steel

ISO certified stainless steel that shines on through without a care that rust never sleeps

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**Stainless steel stockholders and suppliers, delivering to the whole of the UK.** Stainless steel grades are stocked in round bar, flat bar and plate (plasma cut). Specifications supplied include [precipitation hardening](#), [duplex](#), [super duplex](#), [austenitic](#) and [martensitic](#). Stainless steel grades are supplied in a large range conforming to British, European, American and International standards.

We welcome export enquiries for stainless steel. Contact our sales office and consult our [shipping policy](#) for further details.

If you do not find the specification you require on our web site please contact our experienced sales team who may be able to assist you with your enquiry.

### Popular grades we supply

[17/4PH](#) | [FV520B](#) | [S31254](#) | [904L](#) | [310](#) | [321](#) | [316](#) | [440B](#) | [440C](#) | [420](#) | [410](#) | [416](#) | [431](#) | [S31803](#) | [S32760](#)

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## Form of Supply

West Yorkshire Steel are stainless steel suppliers and stockholders of round bar, flat bar, sheet and plate. Diameters can be sawn to your required lengths as one offs or multiple cut pieces.

[Plasma cut stainless steel](#) plates can be cut to your required sizes, we can also guillotine stainless steel sheet.

Ground stainless steel bar can be supplied, providing a quality precision finished bar to your required tolerances.

Contact our experienced sales team who will assist you with your enquiry.

- Sheet
  - Plate
  - Flat
  - Diameter
  - Hexagonal
  - Tube
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## Precipitation Hardening Stainless

The main characteristics of [precipitation hardening](#) stainless specifications are the combination of the corrosion resistance of an austenitic stainless with the hardenability of a martensitic stainless.

ASTM	Werkstoff	DIN	Firth Vickers
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A564 Grade 630	1.4542	X5CrNiMoCuNb145PH	<a href="#">FV520B</a>
<a href="#">17/4PH Condition A</a>	1.4594		
<a href="#">H1150+H1150</a>			

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## High Alloyed Austenitic Stainless

High contents of chromium, nickel, molybdenum and nitrogen give high alloyed austenitic stainless steel grades different characteristics to those of standard austenitic specifications. 904L has similar mechanical properties to the more common austenitic grades but has superior resistance to uniform corrosion. UNS S31254 provides exceptionally good resistance to uniform corrosion combined with higher strength and mechanical properties than the more common austenitic grades.

UNS	AISI	Werkstoff	Outokumpu	ASTM
<a href="#">S31254</a>	<a href="#">904L</a>	1.4547	254SMO	A276
N08904		1.4539	6Mo (Moly)	A479
		EN10272		B677
				F44

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## Austenitic Stainless

With the average chromium content of 18% and nickel content of 8% [austenitic stainless](#) steels are sometimes referred to as 18/8 (although the actual chromium and nickel content can vary from these figures). Austenitic stainless steels are non magnetic and cannot be hardened by heat treatment, though they can strain harden rapidly when cold worked.

BS970	AISI	Werkstoff	DIN	UNS
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316S11	<a href="#">310</a>	1.4845	X5CrNi18-10	S31000
316S15	<a href="#">316L</a>	1.4541	X5CrNi 18-10	S31008
310S24	316	1.4571	X8CrNiS18-9	S32100
321S31	316Ti	1.4301	X8CrNiS18-9	S30400
304S31	321	1.4305	X2CrNi 19-11	S30300
304S15	<a href="#">304</a>	1.4306	X6CrNiTi 18-10	S30403
303S21	<a href="#">304L</a>	1.4307	X12CrNi 25-21	S30100
304S11	303	1.4310	X6CrNiMoTi 17-12-2	S31600
EN58E	<a href="#">301</a>	1.4539		S31603
EN58AM		1.4404		S31635
EN58M				
EN58E				
EN58B				

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## Martensitic Stainless

Heat treated [martensitic stainless](#) steel grades offer high strength and hardness. Martensitic grades can be heat treated due to having higher carbon content than other types of stainless steel. Martensitic grades are less ductile than other types of stainless steel. These grades are magnetic and are best suited for applications which require good corrosion resistance with good mechanical properties.

BS970	AISI	Werkstoff	DIN	UNS
BS970	AISI	Werkstoff	DIN	UNS
416S21	<a href="#">440B</a>	1.4112	X12CrS13	S41000
410S21	<a href="#">440C</a>	1.4125	X12Cr13	S42000
420S29	<a href="#">420</a>	1.4057	X20Cr13	S43100
420S37	<a href="#">410</a>	1.4005	X30Cr13	S44003
420S45	<a href="#">416</a>	1.4006	X17CrNi16-2	S44004
431S29	<a href="#">431</a>	1.4021	X90CrMoV18	
EN56AM		1.4208	X105CrMo17	
EN56A				
EN56C				
EN56D				
EN57				

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## Duplex & Super Duplex Stainless

[Duplex](#) and [Super Duplex](#) stainless steel grades offer resistance to stress corrosion and crevice corrosion. They are higher strength grades than standard austenitic stainless steel specifications.

UNS	ASTM	Werkstoff
<a href="#">S31083</a>	A182	1.4462
<a href="#">S32760</a>	F51	1.4501
	F55	EN10083

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## Heat Treatment

Heat treatment is only suitable for specific grades of stainless. When heat treating a stainless the hardening temperatures, including rate of heating, cooling and soaking times will vary due to factors such as the shape and size of each component. Other considerations during the heat treatment process include the type of furnace, quenching medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of stainless steel grades.

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## Certification

Stainless steel is available with BS EN 10204 3.1 mill certificate, please request when placing any orders.

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## Quality Assured Supply

All our stainless steel grades are supplied in accordance with our ISO 9001:2015 registration.