

1.4418 QT900 Stainless Steel

1.4418 stainless round bar

1.4418 stainless steel stockholders and suppliers, delivering throughout the UK.

1.4418 is a high strength low carbon grade with good welding properties which remain consistent after welding. Its martensite/austenite structure offers better corrosion characteristics than standard martensitic stainless grades. 1.4418 has very good fatigue resistance.

Related Specifications

X4CrNiMo16-5-1 Z6CND16-05-01

Alternative stainless steel grades we supply

[17/4PH](#) | [FV520B](#) | [S31254](#) | [904L](#) | [316](#) | [310](#) | [304](#) | [1.4418](#) | [1.4418](#) | [420](#) | [1.4418](#) | [1.4418](#) | [1.4418](#) |

Form of Supply

West Yorkshire Steel are suppliers and stockholders of round bar. Sawn blanks can be supplied cut to your requirements as one offs or multiple cut pieces. Precision ground bar can be supplied, providing a high quality precision ground bar to close tolerances.



■ Diameter

Contact our experienced sales team who will assist you with your 1.4418 enquiry.

Applications

Commonly used in industries such as, marine, pulp and energy. 1.4418 is used for components such as belts, shafts, pins, pumps and turbine parts.

Analysis

Carbon	0.06% max	Silicon	0.70% max
Manganese	1.50% max	Chromium	15.00-17.00%
Nickel	4.00-6.00%	Nitrogen	0.20% max
Sulphur	0.015% max	Phosphorous	0.04% max

Corrosion Resistance

1.4418 stainless has better corrosion resistance properties than other martensitic grades. It offers better corrosion resistance to other martensitic stainless grades such as 431 and with its additional molybdenum content offers characteristics for use in some marine environments. It is similar to 304 offering good resistance to organic, acetic and mineral acids at room temperature and extremely resistant to stress corrosion cracking, intergranular corrosion and corrosion fatigue.

Welding

1.4418 has better welding properties than other martensitic stainless grades. Pre heating before welding is recommended in some circumstances. We recommend you contact your welding consumables supplier who should provide you full assistance and information on welding 1.4418 stainless steel.

Annealing

Heat slowly to 650-680°C hold until temperature is uniform through the steel. Soak well and allow to cool in the furnace.

Hardening

Heat the component slowly to 950-1020°C and hold until the temperature is uniform throughout the steel. After adequate soaking time quench in oil or air cool. Temper as soon as tools are hand warm.

Tempering

Heat carefully to a suitable tempering temperature. Soak as required and then allow to cool in air. Tempering between 590-680°C will achieve 'T' condition. Double tempering is recommended. 1.4418 stainless can be tempered at lower temperatures to achieve higher tensile strengths but with lower impact properties. Tempering between 370-565°C is not advised as tempering within this range will seriously reduce impact properties and corrosion resistance

Typical Mechanical Properties (QT900)

Condition	Tensile (UTS) N/mm ²	0.2% Yield N/mm ²	Elongation %	Reduction of Area	Hardness Brinell
QT900	900	700	16	40	320

Heat Treatment

Heat treatment temperatures, including rate of heating, cooling and soaking times will vary due to factors such as the shape and size of each steel component. Other considerations during the heat treatment process include the type of furnace, quenching medium and transfer facilities for the work piece. Please consult your heat treatment provider for full guidance on heat treatment of 1.4418 stainless.

Certification

Stainless steel 1.4418 grade is available with BS EN 10204 3.1 mill certificate, please request when placing any orders.

Quality Assured Supply

1.4418 stainless steel is supplied in accordance with our ISO 9001:2015 registration.



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