

826M40 Alloy Steel

826M40 826M40W steel suppliers and stockholders delivering to the whole of the UK. West Yorkshire Steel are suppliers of BS970 826M40 in round bar hot rolled and heat treated to 'W' condition. As a 2.5% nickel chromium molybdenum high tensile grade it has a tensile range of 1075-1225 N/mm². It is suitable for applications which require higher tensile and yield strength than [817M40](#) or 826M31 specifications. 826M40 can be induction or flame hardened and is also suitable for nitriding.

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

Alternative grades we supply

[605M36T](#) | [709M40T](#) | [708M40T](#) | [817M40T](#) | [835M30](#) | [535A99](#) | [655M13](#) | [722M24](#) | [905M39](#)

Form of Supply

West Yorkshire Steel are stockholders and suppliers of round bar. Diameters in 826M40W can be sawn to your required length as one offs or multiple cut pieces. 826M40W can sometimes conform to 826M40V, please contact our sales department for further information if you require this grade in 'V' condition. Centreless ground 826M40W steel bar can be supplied, providing a high tensile engineering steel precision ground bar to tight tolerances.

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

- Diameter

Applications

A commonly used engineering steel 826M40W is suitable for applications that require a higher tensile than [817M40T](#). Typical applications include pins, rams, turbine discs, torsion bars, gears, shafts and spindles.

Analysis

Carbon	0.36-0.44%	Nickel	2.30-2.80%
Manganese	0.45-0.70%	Chromium	0.50-0.80%
Silicon	0.10-0.35%	Molybdenum	0.45-0.65%
Phosphorous	0.035% max		
Sulphur	0.040% max		

Forging

To forge pre heat the 826M40 carefully, then raise the temperature to 1150-1200°C and hold at temperature until thoroughly soaked and suitable to forge. Do not forge below 850°C. After forging the 826M40 should be cooled slowly.

Annealing

Heat the steel slowly to 790-840°C. Hold until the temperature is uniform throughout the steel. Cool in a furnace.

Hardening

826M40W is supplied ready heat treated. If further heat treatment is required annealed 826M40 should be heated to 820-850°C and hold until the temperature is uniform through the section. Quench the 826M40 steel in oil, water or polymer as required.

Flame & Induction Hardening

826M40 can be flame or induction hardened to achieve a good surface hardness.

Tempering

Heat the 826M40 component to the required tempering temperature between 450°/660°C and thoroughly soak for two hours per 25mm thickness of section, cool in still air.

Typical Mechanical Properties*

Condition	Tensile N/mm ²	Yield N/mm ²	Elongation %	Izod KCV J	Hardness Brinell
V	1000-1150	850	12	42	293-352
W	1075-1225	940	11	35	311-375
X	1150-1300	1020	10	28	341-401
Y	1225-1375	1095	10	21	363-429
Z	1550	1235	5	9	444

(*subject to ruling section)

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 work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of 826M40 alloy steel.

Certification

826M40W alloy steel is available with a cast and analysis certificate or a BS EN 10204 3.1 mill certificate, please request when placing any orders.

Quality Assured Supply

826M40W is supplied in accordance with our ISO 9001:2015 registration.