



826M40

Quality 826M40 cut and delivered in rounds, whatever size you need.

826M40 826M40W stockholders and suppliers, delivering to the whole of the UK.

826M40 is a 2.5% nickel chromium molybdenum high tensile grade, usually supplied hardened and tempered to W condition. 826M40W has a tensile of 1075/1225 N/mm². It is suitable for applications which require higher tensile and yield strength than 817M40. 826M40 round bar is available from stock. When required it 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 [alloy steel](#) grades we supply

[605M36](#) | [708M40](#) | [709M40](#) | [826M40](#) | [835M30](#)
[535A99](#) | [080A15](#) | [655M13](#) | [722M24](#) | [905M39](#)

Form of Supply

West Yorkshire Steel are stockholders and suppliers of 826M40 round bar. Diameters can be sawn to your required length as one offs or multiple cut pieces. Ground alloy 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 enquiry.

■ Diameter

Applications

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

Analysis

Carbon	0.36-0.44%	Silicon	0.10-0.35%
Manganese	0.45-0.70%	Nickel	2.30-2.80%
Chromium	0.50-0.80%	Molybdenum	0.45-0.65%
Phosphorous	0.035% max	Sulphur	0.04% max

Forging

Pre heat 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 steel should be cooled slowly.

Annealing

Heat 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 in oil, water or polymer as required.

Flame & Hardening

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

Tempering

Heat the component to the required tempering temperature (450-660°C) and thoroughly soak for one hour 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
U	925-1075	755	12	42	269-331
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 alloy 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 alloy steel.

Certification

826M40 alloy steel is available with a cast and analysis certificate or BS EN 10204 3.1 mill certificate, please request when placing any

Quality Assured Supply

826M40 is supplied in accordance with our ISO 9001:2015 registration.



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