



080M40

080M40 plate, round and flat bar

080M40 steel stockholders and suppliers, delivering throughout the UK.

080M40 is available from stock in round and flat bar and can be cut to your requirements. Bar is commonly supplied in the cold drawn or as rolled condition. 080M40 is available as flame cut steel plates which can be cut to your required sizes and normalised. Flame cut plates can be supplied surface ground or precision ground. As an unalloyed medium carbon steel the tensile properties can vary but are usually between 500-800 N/mm². 080M40 is suited for use in applications which require better properties than mild steel, but the costs of an alloy steel are not justified. It can be flame or induction hardened to produce a good surface hardness with moderate wear resistance.

Alternative carbon steel grades we supply

[070M20](#) | [070M55](#) | [080A15](#) | [S275](#) | [S355](#) | [Key Steel](#) |

Form of Supply

West Yorkshire Steel are steel stockholders and suppliers of this medium carbon steel grade in round bar and flat bar. Diameters can be sawn cut to your required length. Steel profiles can be supplied, which can be surface ground if required. Centreless ground bar can be supplied, offering a precision ground steel bar to tight tolerances.



- Flat
- Diameter
- Plate

Contact our experienced sales team who will assist you with your 080M40 enquiry.

Applications

080M40 is widely used for many general engineering applications. Typical applications for this carbon steel grade include shafts, studs, bolts, screws, rollers and connecting rods.

Analysis

Carbon	0.36-0.44%	Silicon	0.10-0.40%
Manganese	0.60-1.00%	Sulphur	0.05% max
Phosphorous	0.05% max		

Flame Cut Profiles

West Yorkshire Steel are suppliers of 080M40 flame cut steel profiles. A hard edge can occur when flame cutting 080M40 plate, therefore this grade is commonly normalised after flame cutting. 080M40 flame cut profiles can be supplied Lumsden ground or precision ground.

Ground Flat Stock

Precision ground flat stock / gauge plate can be produced using 080M40 steel. Subject to size suitability and availability of raw material pieces can be produced in approximately 2 to 3 weeks. Standard and non-standard sizes are available.

Forging

Preheat the steel carefully, then raise temperature to 1050°C for forging. Do not forge below 850°C. After forging cool slowly, preferably in a furnace.

Annealing

Heat slowly to 680-710°C, soak well. Cool slowly in the furnace.

Hardening

Heat the component slowly to 820-860°C and allow it to be heated through. Quench in oil or water.

Tempering

Temper the steel immediately after quenching whilst tools are still hand warm. Re-heat to the tempering temperature then soak for one hour per 25 millimetre of total thickness (two hours minimum) Cool in air. For most applications tempering will be between 550-660°C.

Welding

We recommend you contact your welding consumables supplier who should provide you full assistance and information on welding 080M40 steel

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 080M40 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 080M40 carbon steel.

Certification

080M40 steel is available with a cast and analysis certificate or certificate of conformity, please request when placing any orders.

Quality Assured Supply

080M40 steel is supplied in accordance with our ISO 9001:2015 registration.



West Yorkshire Steel Ltd
Sandbeck Industrial Estate,
Wetherby, Leeds,
LS22 7DN UK

Call: 01937 584440
Fax: 01937 580128
Email: sales@westyorkssteel.com



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