

# EN9

## EN9 plate, round and flat bar

### EN9 steel stockholders and suppliers, delivering throughout the UK.

West Yorkshire Steel are steel stockholders and suppliers of EN9 carbon steel in round, square, hexagon and flat bar. Diameters and flat bar can be sawn cut to your exact requirements. West Yorkshire Steel can offer flame cut profile plates in grade EN9, which can be surface ground if required. Ground steel bar can be supplied, providing a precision ground steel bar to tight tolerances.

### Alternative carbon steel grades we supply

[EN3](#) | [EN8](#) | [EN9](#) | [EN32](#) | [EN43](#) | [070M20](#) | [080M40](#) | [070M55](#) | [080A15](#) | [S275](#) | [S355](#) | [Key Steel](#) |

### Form of Supply

EN9 carbon steel is supplied in round, square, hexagon and flat bar. Diameters and flat bar can be sawn cut to your exact requirements. West Yorkshire Steel can offer a limited range in flame cut profile plates in grade EN9, which can be surface ground if required. Ground steel bar can be supplied, providing a precision ground steel bar to tight tolerances.



- Flat
- Diameter
- Plate

Contact our experienced sales team who will assist you with your EN9 enquiry.

## Applications

EN9 is used commonly for many general engineering applications. Typical applications include, shafts, axes, knives, bushes, crankshafts, screws, sickles, wood working drills and hammers.

## Analysis

Carbon	0.50-0.60%	Silicon	0.05-0.35%
Manganese	0.50-0.80%	Sulphur	0.06% max
Phosphorous	0.06% max		

## Flame Cut Profiles

West Yorkshire Steel are suppliers of a limited range of thicknesses in EN9 flame cut steel profiles. A hard edge can occur when flame cutting EN9 plates therefore this grade is commonly normalised after cutting. EN9 flame cut profiles can be supplied Lumsden ground or precision ground.

## Ground Flat Stock

Precision ground flat stock / gauge plate can be produced using EN9 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 component carefully, then raise the temperature to 1100°C for forging. Do not forge below 850°C. After forging cool slowly, preferably in a furnace.

## Annealing

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

## Hardening

Heat slowly to 820-840°C and allow it to be heated through. Quench in oil, brine or water.

## Tempering

Temper the EN9 steel component immediately after quenching whilst still hand warm. Re-heat to the tempering temperature then soak for one hour per 25 millimetre of total thickness (2 hours minimum) Cool in air. For most applications tempering of EN9 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 EN9 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 EN9 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 EN9 carbon steel.

## Certification

EN9 steel is available with a cast and analysis certificate or certificate of conformity, please request when placing any orders.

## Quality Assured Supply

EN9 steel is supplied in accordance with our ISO 9001:2015 registration.



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