



## EN8

EN8 plate, round and flat bar

### EN8 steel stockholders and suppliers, delivering throughout the UK.

EN8 is an unalloyed medium carbon steel grade with reasonable tensile strength. It is normally supplied in the cold drawn or as rolled condition. Tensile properties can vary but are usually between 500-800 N/mm<sup>2</sup>. EN8 is widely used for applications which require better properties than mild steel but does not justify the costs of an alloy steel. EN8 can be flame or induction hardened to produce a good surface hardness with moderate wear resistance. EN8 is available from stock in bar and can be cut to your requirements. We also offer flame cut plates cut to your required sizes and normalised. EN8 plates can be supplied surface ground or precision ground.

### Alternative carbon steel grades we supply

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

### Form of Supply

West Yorkshire Steel are steel stockholders and suppliers of EN8 carbon steel in round, square and flat bar. EN8 bar can be sawn cut to your required length. West Yorkshire Steel can offer flame cut steel profiles in grade EN8, which can be surface ground if required. EN8 ground steel bar can be supplied, providing a precision ground steel bar to tight tolerances. Stock is also available in EN8D and EN8DM.



- Flat
- Diameter
- Plate

Contact our experienced sales team who will assist you with your EN8 enquiry.

## Applications

EN8 is widely used for many general engineering applications. Typical applications include shafts, studs, bolts, connecting rods, screws, rollers.

## Analysis

Carbon	0.35-0.45%	Silicon	0.05-0.35%
Manganese	0.60-1.00%	Sulphur	0.06% max
Phosphorous	0.06% max		

## Flame Cut Profiles

West Yorkshire Steel are suppliers of EN8 flame cut steel profiles. A hard edge can occur when flame cutting EN8 plate, therefore this grade is commonly normalised after flame cutting. EN8 flame cut profiles can be supplied Lumsden ground or precision ground.

## Ground Flat Stock

Precision ground flat stock / gauge plate can be produced using EN8 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 EN8 component immediately after quenching whilst tools are still hand warm. Re-heat the EN8 component 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 EN8 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 EN8 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 EN8 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 EN8 carbon steel.

## Certification

EN8 steel is available with a cast and analysis certificate or certificate of conformity, please request when placing any orders.

## Quality Assured Supply

EN8 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](mailto:sales@westyorkssteel.com)



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