



080M40 (EN8)

MEDIUM CARBON ENGINEERING STEEL

We are a division of the Smiths Metal Centres Limited Group

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080M40 (EN8) is a medium carbon steel offering moderate strength.

Hardening is achieved through quenching and tempering but is often supplied untreated and normalised. With similarities to mild steel, this carbon steel has good machinability. As an unalloyed medium carbon steel, this grade is used in applications where better properties than mild steel are required but where the costs do not justify the purchase of a steel alloy.

Chemical Composition (weight, %)

	C	Si	Mn	P	S
Min.	0.36	0.10	0.60		
Max.	0.44	0.40	1.00	0.05	0.05

* Properties as per BS 970

Popularity:

Also referred to as EN8 carbon steel, its equivalent grade under the previous BS 970: 1955 standard. This popular steel grade can be heat treated to offer superior surface hardness and good wear resistance by using induction or flame-hardening processes. Our material is a popular steel in the industry, with applications ranging from automotive to general engineering.

Machinability:

080M40 is readily machinable, although ripping can be an issue in the machining process. A suitable oil-based lubricant is recommended when machining, protecting the integrity of the material. **080M40** does 'chip' during the machining process, making machining easier overall.

Benefits:

- Case-hardened engineering steel
- For lightly stressed components
- Readily machinable and weldable
- Good dimensional stability

We stock **080M40** in round and square bars in standard lengths or cut to specific sizes.

Weldability:

Like all bright drawn engineering steels, our product is produced with much tighter sectional tolerances when compared to standard mild steel. The material is supplied straighter and flatter than its mild steel counterparts, making it much more cost-effective to machine.



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