



# 230M07 (EN1A)

LOW CARBON ENGINEERING STEEL

We are a division of the Smiths Metal Centres Limited Group

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**230M07** steel is a low-carbon mild steel with free-cutting properties suitable for high-production use in automatic lathes and CNC machines.

It is also known as EN1A, a commercial cold-drawn bright mild steel product. This free cutting mild engineering steel alloy is particularly suitable for intricate drilling and machining. It has a maximum stress of 370-480 n/mm<sup>2</sup> and a minimum yield stress of 240-400 n/mm<sup>2</sup>.

#### Chemical Composition (weight, %)

	C	Si	Mn	P	S
Min.			0.90		0.25
Max.	0.15	0.05	1.30	0.090	0.35

\* Properties as per BS 970

#### Machinability:

**230M07** steel has good machinability, especially in the annealed or normalized condition. Its machinability can be further enhanced using appropriate cutting tools, coolants, and machining parameters. The added lead content further improves machinability. This enhances chip formation and improves the surface finish of the machined parts.

#### Free Cutting Steel:

**230M07** is a material that is particularly suitable for producing repetition turned parts such as nuts, bolts, and studs, especially when complex drilling and machining operations are necessary. This material is supplied in an untreated and cold-finished state. It is also available with added lead content to improve its machinability. Therefore, this steel grade is an excellent choice for manufacturing fittings that require intricate machining.

#### Benefits:

- Free cutting properties for intricate drilling & machining
- Low carbon mild steel for improved weldability and formability
- The maximum stress of 370-480 N/mm<sup>2</sup> and minimum yield stress of 240-400 N/mm<sup>2</sup>
- Easy to machine, weld, and form

#### Availability:

This engineering steel is well-suited for precision turned components and intricate drilling and machining operations. This alloy can be subjected to case hardening to enhance its wear resistance while maintaining good strength and ductility. Additionally, **230M07** (EN1A) provides a superior finish.

We stock **230M07** in round and hexagon bars in standard lengths or cut to specific sizes.



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