AISI 4130

LOW ALLOY STEEL

AISI 4130 steel is a type of low-alloy steel that contains chromium and molybdenum as the main alloying elements.

Also referred to as SAE 4130, this grade of steel is a versatile material used in various applications, from aircraft engine mounts to structural tubing and oil and gas drilling components.

Chemical Composition (weight, %)

	C	Si	Mn	P	S	Cr	Mo	
Min.	0.28	0.15	0.40			0.80	0.15	
Max.	0.33	0.35	0.60	0.035	0.040	1.10	0.25	

* Properties as per ASTM A29

Strength & Weight:

One of the key advantages of **AISI 4130** (SAE 4130) steel is its high strength-to-weight ratio. This can vary depending on the specific composition and processing of the steel and the application it is used for. The product is a popular choice when considering applications that require both strength and weight qualities and is an excellent choice for lightweight structures.

Fatigue strength:

With the presence of chromium and molybdenum as strengthening agents, this steel grade displays good toughness and strength. These properties allow the material to resist cyclic loading and avoid fatigue failure even under high-stress conditions.

Availability:

We stock **AISI 4130** in round and square bars.

Benefits:

- High strength-to-weight ratio
- Excellent fatigue strength
- Good ductility
- Good machinability

Ductility:

AISI 4130 has moderate ductility levels, which makes it suitable for many applications that require the material to undergo deformation without cracking or breaking. This is an important property that allows the material to be easily formed and shaped while maintaining its mechanical properties, making it a versatile and widely used material.

Machining:

AISI 4130 can be machined using various machining processes, such as turning, drilling, milling, and grinding. Nevertheless, care must be taken to ensure cutting tools are properly selected, and appropriate cutting speeds and feeds are used to avoid excessive heat build-up and tool wear.

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