



SAE1018 Cold Drawn Square Bars – A Preferred Choice for Precision, Strength & Finish

Description

Steelmet Industries offers **SAE1018 Cold Drawn Square Bars** with clean surface finish, tight dimensional tolerances, and superior machinability. These bright bars are ideal for manufacturing components that demand moderate strength with excellent weldability and formability. SAE1018, a medium-low carbon steel grade, is widely chosen in industries like:

- **Automotive** (shafts, pins, spacers)
- **Machinery & Equipment** (machine parts, jigs, tools)
- **Fabrication & Construction** (frames, supports, and brackets)
- **General Engineering**

The **cold drawing process** enhances strength and surface quality while maintaining good ductility and consistency across batches.

? Typical Size Range Offered

- **Squares** from **10mm to 75mm**
- Custom sizes available on request

?? Mechanical & Metallurgical Highlights

- **Yield Strength:** ~370–410 MPa
- **Tensile Strength:** ~440–480 MPa
- **Elongation:** ~15–20%
- **Hardness (HBW):** ~125–180
- **Machinability:** Excellent
- **Weldability:** Very Good

? Related Grades and Variants

Grade	Carbon %	Manganese %	Sulphur/Phosphorus	Notes
SAE1015	0.13–0.18	0.30–0.60	?0.040 / ?0.040	Slightly softer, better formability
SAE1018	0.15–0.20	0.60–0.90	?0.040 / ?0.040	Balanced properties; general purpose
SAE1020	0.18–0.23	0.30–0.60	?0.040 / ?0.040	Higher strength, slightly less ductile
C15E (EN)	~0.14–0.19	0.40–0.70	?0.035	EN equivalent to SAE1015/1018
C20E	~0.17–0.23	0.30–0.60	?0.035	Closest EN grade to SAE1020

? Frequently Asked Questions

Q1. Is SAE1018 suitable for welding and bending?

Yes. SAE1018 is highly weldable and can be bent or formed without cracking due to its balanced carbon content.

Q2. How is cold drawn steel better than hot rolled steel?

Cold drawn steel has tighter dimensional tolerances, a cleaner surface, improved strength, and is better suited for machining.

Q3. Is any heat treatment required for SAE1018 cold drawn squares?

Generally, no. It can be used as-is. However, annealing or stress relieving can be performed based on the application.

Category

1. SAE:1018

Tags

1. 1018 steel India
2. bright steel squares
3. cold drawn square steel
4. machinable steel bars
5. machine grade steel
6. SAE1018 square bars
7. Steelmet

Date

20/07/2025

Author

admin

Steelmet Industries - Bright Bars, Alloy
Steels, Free Cutting Steels, Stainless Steels