



C45 Cold Drawn Bright Steel Round Bars â?? Versatile Medium Carbon Steel for **Precision Use** 

iet Industri C45 steel is a widely used medium carbon steel known for its balance of strength, toughness, and machinability. When cold drawn into bright bar form, it gains improved surface finish, dimensional tolerance, and enhanced mechanical properties, making it ideal for use in precision engineering, machinery components, and automotive applications.

At Steelmet Industries, we supply C45 cold drawn bright steel round bars in a wide range of sizes, with the ability to deliver custom lengths, special profiles, and critical quality requirements on request.

## **Key Features of C45 Bright Steel Bars**

• Standard: IS:1570 / EN ISO 683-1 / DIN 17200

• Grade: C45

• Form: Cold Drawn Bright Round Bars

• Size Range: As per requirement â?? up to Dia 100mm

• Condition: Cold drawn + Annealed / Cold drawn + Spherodized Annealed / Cold drawn + Stress Relieved



- Surface Finish: Bright, peeled or turned finish
- Dimensional Tolerance: Typically h9, h11 or as specified
- Machinability: Good in annealed or normalized condition
- Weldability: Fair â?? preheating recommended
- Heat Treatable: Yes a?? can be hardened and tempered

# oical Application

C45 bright steel bars are highly versatile and used in

- Automotive Components: Axles, pins, shafts, and connecting rods

   Automotive Components: Axles, pins, shafts, and connecting rods

   Ido rods, jigs & fixtures
- Precision Engineering: Tooling, base plates, fasteners
- General Fabrication: Forging stock, support structures
- Hydraulics & Pneumatics: Cylindrical parts, pistons

Its combination of workability, strength, and cost-effectiveness makes C45 ideal for small to mediumsized mechanical components.

### Related Sections and Products Available

Steelmet Industries also offers:

• C45 Cold Drawn: Squares, Flats, Hexagons

- Peeled / Turned C45 Bars
- Forged C45 Bars for larger diameters
- Cut-to-Length Services
- Tailor-made profiles a?? including special shapes

Explore What We Do for more on our processing capabilities.

# Equivalent Grades C. Standard, Equivalent Grade C45 C45 C45 C45 (1.0503) Steels, Stainless Steels **Equivalent Grades of C45**

IS C45 (IS:1570)

GB (China) 45

**AFNOR** XC48

Note: Equivalents are based on chemical composition. Mechanical properties may differ by condition or standard.

### See more:

- DIN Specs
- SAE Specs
- BS970-1



### Why Choose Steelmet for C45 Bright Bars?

- â? Superior Dimensional Accuracy from cold drawing
- ð??§ Custom Machining Options & Profiles available
- ð??! Sizes from small diameters up to 100mm
- ð?§¾ Documentation:



- ╱ï,• Reliable Scheduling and Timely Delivery
- ð??• Domestic and Global Reach
- ð?? ï Technical Expertise for Custom Requirements

Read our Quality Policy to understand our standards in manufacturing and documentation.

### Frequently Asked Questions â?? C45 Cold Drawn Bright Bars

Q1: Whatâ??s the advantage of cold drawn bright bars over hot rolled bars?

**A:** Cold drawing enhances surface finish, dimensional control, and mechanical properties â?? ideal for precision machining.

Q2: Can C45 be heat treated?



**A:** Yes, C45 is suitable for hardening and tempering, improving hardness and tensile strength.

### Q3: What tolerances are possible in C45 bright bars?

A: h9, h10, h11 tolerances are common. Closer tolerances available on request.

### Q4: Do you offer custom cut-to-length bars?

**A:** Yes, we provide cutting services as per your job requirements.

### Q5: Are test certificates and inspection reports available?

A: Yes. Steelmet provides complete traceability and documentation, including MTCs and third-party reports.

# 

1. Posts

### **Tags**

- 1. Alloy Bars for Shafts
- 2. C45 Bright Bars
- 3. C45 Steel India
- 4. Cold Drawn Round Bars
- 5. medium carbon steel
- Precision Machined Steel
- 7. S45C
- 8. SAE 1045
- 9. bright steel bars

### Date

03/12/2025

Author

admin