



## EN8 Cold Drawn Bright Steel Round Bars → High Strength with Excellent Machinability

Steelmet Industries supplies **EN8 Bright Round Bars** in cold drawn condition ranging from **5mm to 65mm diameter**. EN8 (equivalent to C45) is a medium carbon steel with high tensile strength, making it ideal for applications that demand durability, precision, and strength.

These bars are cold drawn to achieve a **smooth surface finish**, **tight dimensional tolerances**, and **enhanced mechanical properties**, making them suitable for:

- **Automotive components** (shafts, gears, pins)
- **Machinery parts** (spindles, rollers, bolts)
- **General engineering**
- **Precision tooling**

### → Size Range Offered

- **Cold Drawn Bright Rounds:** 5mm to 65mm Dia
- Tolerances as per ISO H9 / H11 or custom as required

## • Key Mechanical Properties

- **UTS:** ~580–700 MPa
- **Yield Strength:** ~400–450 MPa
- **Hardness:** ~180–220 HB
- **Machinability:** Good
- **Weldability:** Fair (preheating recommended)

## EN8 Equivalent & Related Grades

| Standard | Grade       | Remarks                    |
|----------|-------------|----------------------------|
| BS       | EN8         | Standard grade             |
| EN       | C45E / Ck45 | European equivalents       |
| AISI     | 1045        | Closest AISI equivalent    |
| IS       | 40C8        | Indian Standard Equivalent |
| JIS      | S45C        | Japanese equivalent        |

## FAQs

### Q1. What makes EN8 bright bars different from hot rolled bars?

Cold drawn EN8 bright bars offer superior dimensional control, improved strength, better surface finish, and are more suitable for precision machining.

### Q2. Can EN8 be heat treated?

Yes. EN8 can be flame or induction hardened and can also be normalized or quenched and tempered depending on application needs.

### Q3. Is EN8 suitable for welding?

Weldability is fair. Preheating and post-weld heat treatment are recommended to avoid cracking.

## EN8 Variants

### 1. BS970 1955 EN8 Steel and variants

#### 1. 1045 bright rounds

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- 2. C45 round bars
- 3. cold drawn EN8
- 4. EN8 Bright Bars
- 5. medium carbon bright steel
- 6. Precision Steel Bars
- 7. Steelmet Industries

**Date**

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