



HIGH-CONDUCTIVITY BAR

Copper Busbar

Technical Data Sheet

Copper Busbar — ASTM B187 / H02 Half-Hard

Rearden Precision · Houston, TX — Data Sheet, Specifications are subject to change or deviation prior to purchase.

PRODUCT DESCRIPTION

High-purity ($\geq 99.99\%$ Cu) copper busbar in half-hard temper, solid extruded, drawn and cut-to-length. Made with Oxygen-free composition that eliminates the risk of hydrogen embrittlement in service, including under demanding thermal loads — making it the preferred technical choice for high-current distribution. Offered with round corner or full round edges and a bright, oxide-free surface finish that bends without surface cracking.

FEATURES

- Excellent mechanical strength and durability
- Reliable performance in bolted and clamped joints
- Long-term dimensional stability
- Natural resistance to atmospheric corrosion

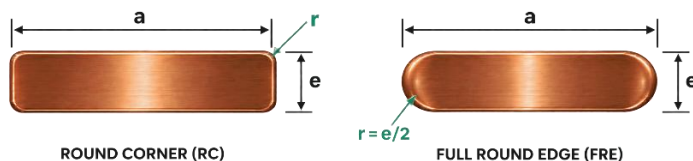
AVAILABLE SIZES — THICKNESS × WIDTH

Standard combinations (inches), extruded from Oxygen-free (C10100) rod. Custom sizes and lengths are available upon request.

Width → Thickness ↓	¾"	1"	1-¼"	1-½"	2"	2-½"	3"	3-½"	4"	5"	6"
1/8"		●	●								
3/16"	●	●	●	●	●	●	●				
1/4"	●	●	●	●	●	●	●	●	●		
3/8"	●	●	●	●	●	●	●	●	●	●	●
1/2"	●	●	●	●	●	●	●	●	●	●	●
5/8"	●	●	●	●	●	●	●	●	●		
¾"		●	●	●	●	●	●	●			

Custom sizes are available upon request (thickness × width). Cross-sectional area must be between 80 mm² and 2,000 mm², with a maximum width of 170 mm. Maximum allowable width varies depending on thickness. Custom lengths from 12 ft. up to 19.5 ft. **Please contact us to confirm your required dimensions.**

TYPE OF EDGE



TECHNICAL PROPERTIES

Electrical resistivity: $\leq 0.017241 \Omega \cdot \text{mm}^2/\text{m}$ (equivalent to $\mu\Omega \cdot \text{m}$), $\geq 101\%$ IACS

Bend performance: $\leq 120^\circ$ bend test, no cracks

Straightness: $\leq 3 \text{ mm}$ over a 2.4 m total length

Elongation: A50 $\geq 35\%$

Physical constants: density 8.94 kg/dm³ · melting point 1,083 °C · specific heat 385 J/(kg·K) · coefficient of linear expansion 0.0000177 1/K

QUALITY ASSURANCE

- Visual inspection of every bar for surface defects, cracks, and micro-holes
- Dimensional verification of thickness, width, and cross-sectional area per size
- Temper verification (H02 half-hard) by hardness/tensile sampling
- Bend, straightness, and laboratory testing (purity and conductivity) on every lot

PRODUCT OVERVIEW

Producer	Rearden Precision — Houston, TX, USA
Product	Copper Busbar
Standard	ASTM B187
Temper	H02 (Half-Hard)
Edges	Round corner / Full round edges
Copper quality	$\geq 99.99\%$ Cu / $\geq 101\%$ IACS
Surface finish	Bright, oxide-free

TYPICAL APPLICATIONS

- Switchgear and switchboards
- Transformers and substations
- Panel boards and power distribution equipment
- Battery, UPS, and energy storage systems

LENGTHS & PACKAGING

Bar length	Standard length — 12 ft (144 in).
Packaging	Wooden box or plastic wrap
Weight (lb/ft)	Thickness (in) × Width (in) × 3.884 (Theoretical)

STORAGE, HANDLING & ORDERING

- Store bars in a dry, covered area to prevent surface oxidation
- Handle with care to avoid edge damage and surface marring
- Specify size (thickness × width), edge type, and bar length when ordering
- Custom length, thickness, width, and shape available to customer requirements