



GLOBAL LEADER
IN COLD-ROLLING
TECHNOLOGY
SINCE 1936



A History of Exceptional Performance

Founded in 1936 in Milwaukee, Wisconsin, Charter Wire has grown from an early pioneer in cold-rolling technology into a global leader. Today, Charter Wire is a major supplier of precision wire products to manufacturers around the world. Our standard shapes and custom profiles are integral components in thousands of manufactured products.

Charter Wire is a member of the privately held Charter Manufacturing family of companies. Every business within Charter puts a premium on:

- Creating value for customers by exceeding their expectations
- Empowering and engaging employees
- Continuously improving safety, quality and efficiencies
- Realizing sustained growth via breakthrough strategies

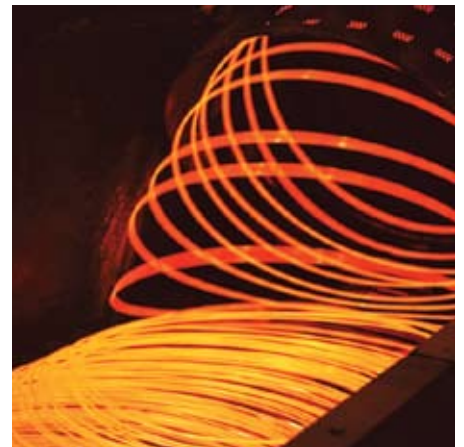
THE IDEAL PARTNER FOR YOUR BUSINESS

Integrated Supply Chain

Charter Wire purchases the vast majority of its raw material from its sister division, Charter Steel. Charter Steel is a leading provider of special bar quality (SBQ) bar, rod and wire for highly engineered products, including bearing, cold heading, cold finishing and high carbon applications. The company has over one million tons of electric arc furnace melt and hot-roll capacity between its Saukville, Wisconsin, and Cleveland, Ohio, mills. Charter Steel's innovative supply chain practices, combined with state-of-the-art processing facilities for annealing, cleaning and coating, and drawing, result in exceptional service capabilities.

Thanks to this vertical integration, Charter Wire is able to offer its customers unmatched efficiency, quality, technical support and service reliability. Charter Wire offers the industry's shortest lead times, world-class on-time delivery, maximum material yields and virtually no risk of service interruption.

Our technical expertise in melting, hot-rolling and cold-rolling processes throughout the supply chain – combined with superior levels of service and efficiency – make Charter the ideal supply partner for any cold-rolled application.



THE CHARTER WIRE ADVANTAGE

Reliability When Precision Counts

Charter Wire serves a full spectrum of markets and applications that demand safety-critical, precision engineering.

- Aerospace
- Agriculture
- Automotive
- Construction/Architectural
- Consumer Products
- Electronics
- Energy
- Industrial

From Concept Through Completion

Charter Wire has the experience and understanding to assist you at every step of your product development. Our engineers can help you design a near net shape that can minimize secondary machining operations and improve yield.

- Raw material selection
- Engineering, design and CAD support
- In-house laboratory testing and evaluation
- PPAP and other quality documentation

World-Class Quality, Cost-Effective Production

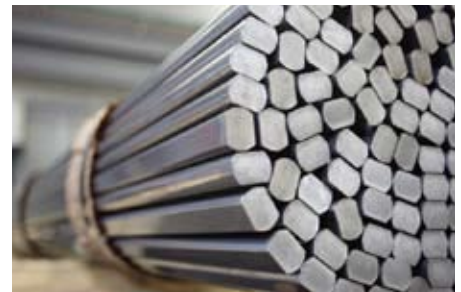
In 2010, Charter Wire completed our relocation to a newly built, state-of-the-art manufacturing facility in Milwaukee, Wisconsin. With more than 160,000 square feet (15,000 square meters) of production space and improved material flow, both capacity and efficiency have been increased.

- Automated 12-stand cold-rolling lines
- In-line raw material preparation (sanding and shot blasting)
- Continuous raw material payoff
- Dedicated, high-volume coolant systems
- Dual zone nitrogen/hydrogen annealing furnace

Unmatched Technical Capability

Charter Wire has developed more than 2,000 custom shapes since our inception in 1936. Our quality comes from in-depth engineering and tool-making capability, much of which is proprietary.

- In-house tool design and fabrication
- Tailored mechanical properties for custom applications
- Ability to hold tolerance to 0.002" (0.05 mm)

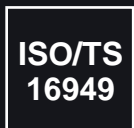




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**We're made of
the best material.**



MEETING THE WORLD'S MOST EXACTING STANDARDS

Charter Wire takes precision manufacturing to the highest level. With our exclusive cold-rolling process, custom shapes can be engineered with the materials, grades, tempers and tolerances for your specific requirements.

MATERIALS

Carbon steel
Alloys
Stainless steel
Copper
Other non-ferrous metals

TYPICAL TOLERANCES

Thickness: +/- 0.001" (0.025 mm)
Width: +/- 0.0015" (0.038 mm)
Straightened & cut lengths:
+/- 0.250" (6.35 mm)

EDGE PROFILES

#1 Special Prepared Edge
#4 Natural Round Edge
#6 Square Edge

FINISHES

All industry finishes

TEMPERS

#1 Full Hard
#5 Dead Soft
Custom tempers available

COLD-ROLLED SPECIAL SHAPES

Thickness: 0.025" – 1.000"
(0.64 mm – 25.0 mm)
Width: 0.187" – 1.928"
(4.75 mm – 49.0 mm)

COLD-FINISHED BARS (Squares, Rectangles, Flats)

Thickness: 0.125" – 1.000"
(3.0 mm – 25.0 mm)
Width: 0.125" – 1.938"
(3.0 mm – 49.0 mm)

PACKAGING

Oscillate-wound coils
Uniform bundles
Boxed components
Returnable containers
Special requirements accommodated

QUALITY ASSURANCE

ISO/TS 16949 certified
In-line NDT (eddy current)

EXPORT CAPABILITIES

Containers to 44,000 lbs. (20,000 kg)