



Engineered cable solutions for harsh environments







A Proud Member of the Hexatronic Group

Rochester Cable is proud to be part of Hexatronic Group, a global leader in fiber-optic and connectivity solutions. Headquartered in Sweden, Hexatronic is recognized for its expertise in telecommunications, data networks, and its growing focus on harsh environments. With 37 operating entities worldwide and a team of over 1,950 professionals, Hexatronic provides innovative solutions to industries demanding reliable performance and advanced technology.

With annual net sales of USD 693 million, Hexatronic's financial strength reflects its success and continued growth. Beyond financial performance, Hexatronic is driven by a commitment to sustainability and innovation, consistently developing eco-friendly solutions that meet evolving market demands.

By combining Hexatronic's resources and global reach with Rochester Cable's decades of expertise, we are redefining what it means to deliver exceptional performance in the world's harshest environments.

Engineered for Harsh Environments

The Harsh Environment business area of Hexatronic focuses on delivering solutions built to perform in the world's most demanding conditions. These industries—spanning subsea exploration, defense, oil and gas, and renewable energy—require cables and connectivity systems that can withstand extreme pressures, high temperatures, and challenging environments.

Rochester Cable plays a key role in this strategy by providing rugged, high-performance cable solutions tailored for these demanding applications. Whether supporting critical naval operations, powering offshore energy systems, or enabling deep-sea exploration, our solutions are engineered to endure and excel where reliability is paramount. With a foundation of innovation and precision, we meet the rigorous demands of industries that operate in unforgiving conditions.



Welcome to Rochester Cable

Founded in 1794 as a hemp rope manufacturer, Rochester Cable has become a leader in designing and producing dynamic electro-optical cables for harsh environments.

With a legacy that dates back to 1794, Rochester Cable has grown from its beginnings as a manufacturer of hemp ropes into a leader in electro-optical cable design and manufacturing for the harshest environments. From our headquarters in Culpeper, Virginia, we deliver precision-engineered solutions to industries such as defense, oceanographic research, renewable energy, and oil and gas exploration.

At Rochester Cable, we combine centuries of expertise with a forward-thinking approach to meet the evolving needs of our customers. Our cables power operations in the most challenging environments—beneath oceans, deep in mines, and across vast terrains—ensuring safety, reliability, and optimal performance.

As part of Hexatronic Group, we are proud to bridge our rich heritage with cutting-edge innovation, shaping the future of connectivity. Together, we are redefining what it means to deliver performance and reliability in extreme environments.

A Leader in Connectivity

With a focus on innovation and precision, our solutions are designed to meet the specific needs of industries that demand reliability under the harshest conditions. Each cable we produce reflects decades of engineering expertise and a commitment to solving our customers' most complex challenges.

Explore Our Solutions

Work Class Remote Operated Vehicles (ROVs)

Durable cables for tethering, lifting, and deck operations in deep-sea environments.

Oil and Gas Exploration and Production

High-performance cables to endure extreme pressures and temperatures, providing reliability in offshore drilling and downhole operations.

Downhole Logging

Advanced wireline cables with eco-friendly 'Greaseless' technology, enhancing durability and minimizing environmental impact.

Ocean Research

Rugged coaxial and fiber-optic solutions tailored for underwater geological surveying, ocean mapping, and marine conservation initiatives.



Defense Applications

Precision-engineered cables for critical naval operations, including anti-submarine warfare, mine countermeasures, and advanced sensor systems.

Renewable Energy

Innovative cables built to support tidal, wind, and other renewable energy systems.

Industrial Specialty

Dynamic cables for mining, sewer inspections, and other industrial applications, designed for longevity.

Custom Cable Designs

Tailored solutions that integrate advanced materials and technical expertise to meet unique customer needs.

Oil and Gas Applications

Work Class Remote Operated Vehicles (ROVs)



Operating at the depths of the ocean demands cables that are as resilient as they are reliable. Rochester Cable provides rugged, high-performance electro-optical products designed to meet the specific needs of Remote Operated Vehicle (ROV) systems, including Lift Umbilicals, Tethers, and Deck Cables.

Lift Umbilicals, Tethers, and Deck Cables:

Tailored designs for seamless integration into ROV systems.

Advanced Insulation Systems: Featuring lightweight, high-temperature materials that ensure long-term durability and superior performance.

Specialized Fiber Optics: Offering field-proven STEEL-LIGHT and ELECTRO-LIGHT fiber optic solutions in single-mode and multi-mode configurations.

Protection and Strength: Built with precision-drawn metallic and synthetic armor to provide unparalleled durability in extreme underwater conditions.



Oil and Gas Applications

Exploration and Production



Deepwater drilling poses unique challenges, including extreme pressures and harsh conditions that demand reliable, high-performance solutions. Rochester Cable delivers a range of cables tailored for these critical operations, ensuring durability and efficiency in offshore environments.

MUX Cables: Engineered with weight-saving caged and spaced armor packages, these electro and electro-optical cables provide dependable data transmission and precise pressure control for blowout preventers (BOPs).

PUC Cables: Customizable with steel, synthetic, or armor-free options, these components integrate into larger umbilical systems. Available in screened and non-screened configurations, they offer flexibility for various subsea applications.

For over 60 years, Rochester Cable has been a trusted manufacturer of high-performance wireline cables designed to withstand the harsh conditions of exploration and production operations. Manufactured in Culpeper, Virginia, these cables combine advanced materials with innovative design for superior reliability.



Downhole Logging

Single and Multi-Element Designs: Configured to meet diverse operational requirements, including complex fiber-optic solutions for data transmission.

Eco-Friendly 'Greaseless' Technology: Eliminates exposed armor wires by using flexible polymer outer jackets, reducing environmental impact while enhancing durability.

Custom Armor Packages: Incorporating options such as steel and alloy armors ensures optimal strength and reliability under the extreme pressures and temperatures of downhole environments.

Defense Applications

Rochester Cable's precision-engineered cables are trusted by naval organizations worldwide for critical operations at sea. Designed to withstand extreme conditions, our coaxial, fiber, electro, and electro-optical solutions deliver unmatched reliability and performance in mission-critical applications.

Defense Applications



Anti-Submarine Warfare: High-performance cables supporting advanced surveillance and detection systems.

Torpedo Defense Systems: Ruggedized solutions for surface ship torpedo countermeasures.

Mine Countermeasures: Robust cables engineered to endure underwater detonations and challenging environments.

Helicopter-Mounted Sonar Systems: Lightweight yet durable cables ensuring precise and reliable sonar deployment.

Recovery Operations: Specialized cables designed for remotely operated vehicles (ROVs) used in salvage and recovery missions.

Optical & Electro-Optical Sensors: High-integrity cables ensuring secure data transmission for advanced sensor technologies.



Commercial Applications

Ocean Research



Exploration of the ocean's depths requires cables designed to withstand pressure, torque, and environmental challenges. Rochester Cable offers dependable solutions for a variety of applications.

Underwater Geological Surveying: Cables engineered to support high-accuracy mapping and exploration systems.

Marine Wildlife Conservation: Products for monitoring and research in sensitive aquatic environments.

Search and Recovery Missions: Reliable solutions for locating and retrieving underwater assets.

Treasure Hunting: Advanced cable designs that enable long-duration operations.

Rochester Cable delivers durable, high-performance cable solutions for industrial applications that demand reliability. Built to withstand the harshest environments, our products ensure uninterrupted operations across various industries.



Industrial Specialty

TV Sewer Pipe Inspection: Flexible and durable cables designed to provide clear, uninterrupted visuals during pipeline inspections.

Fishing and Mining: High-strength cables built to endure the harsh environments of fishing and underground operations.

Material Durability: Utilizing galvanized steel armor, aramid yarns, and thermoplastic coatings to deliver maximum protection and an extended service life.

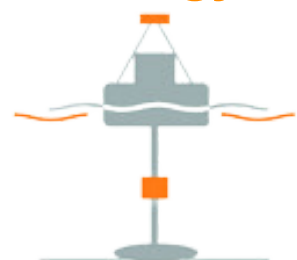
Our mining power and lighting cables are tested to meet safety and performance standards, including **Mine Safety and Health Administration (MSHA)** approval.



Energy Applications

As the world transitions to sustainable energy, Rochester Cable supports the development of renewable energy systems with innovative, durable cable solutions built to excel in harsh environments. Drawing on extensive experience in designing cables for demanding conditions, we deliver reliable solutions that enable the future of sustainable energy.

Renewable Energy



Ocean-Based Renewable Energy: Cables engineered to withstand the tension, torque, and drag associated with tidal and offshore wind energy systems.

Custom Designs: Tailored solutions designed to address the unique challenges of converting ocean energy into reliable electrical power.

Custom Cable Designs

While our portfolio of industry-leading products covers a wide range of applications, we understand that standard solutions may not meet every need. At Rochester Cable, **we specialize in designing and manufacturing custom cables** tailored to perform reliably in harsh environments and meet your exact application requirements.

Our design process enables precise predictions of performance characteristics such as torque, rotation, and elongation, ensuring our solutions meet even the most demanding challenges. Each cable is designed, developed, and manufactured to stringent specifications, delivering exceptional performance in its intended application. One of our standout capabilities is creating **smaller, lighter cables using advanced materials science technology**—achieving the same reliability and functionality as traditional cables with improved efficiency and reduced weight.

Capabilities and Expertise

Mechanical Performance

- Weight optimization
- Length adaptability
- Hydrostatic pressure resistance
- Size precision
- High tensile strength

Electrical Requirements

- High-speed data transmission rates
- Signal integrity for reliable communication
- Electromagnetic compatibility (EMC) compliance

Custom Cable Designs

Armor Packages

- Synthetic armor for lightweight flexibility
- Steel-wire armor for maximum strength
- Alloy-wire armor for specialized applications

In-House Testing Capabilities

- Individual armor wire break
- Cable break load testing
- Torque, rotation, and elongation
- Cyclic bend-over-sheave

Environmental Performance

- Resistance to extreme pressures and conditions
- Drag and tension endurance
- Durability for long-term performance

Cable Configuration

- Power
- Signal
- Coaxial
- Fiber optic
- Composite

Fiber Packages

- Fiber-In-Steel Tube
- STEEL-LIGHT Fiber
- ELECTRO-LIGHT Fiber

Conductor Styles

- Standard wall design
- SPEC 44 Technology

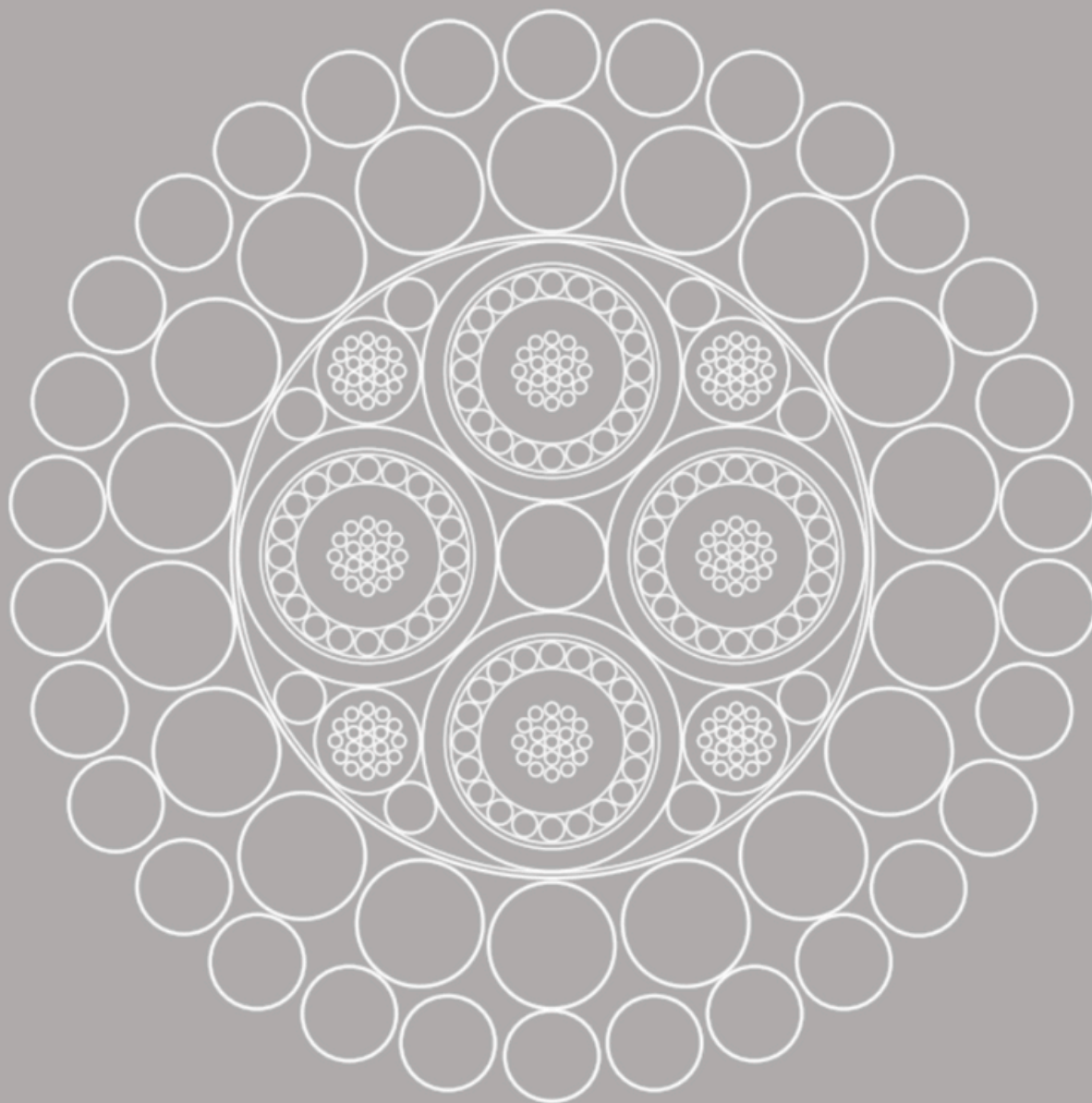


Why Rochester Cable

Our dedication to pushing the boundaries of cable technology allows us to adapt quickly to the evolving needs of industries operating under the harshest environments. We are committed to sustainability and innovation, ensuring our products meet today's demands and contribute to a more resilient and efficient future. Our collaborative approach with industry experts and technological leaders positions us at the forefront of the harsh environment sector, making Rochester Cable an ideal partner for dependable, innovative solutions.

[Talk to an expert](#)

Founded in 1794 as a manufacturer of hemp ropes, Rochester Cable has evolved into a recognized leader in the design and manufacturing of dynamic working electro-optical cables for a wide range of applications in harsh environments. Rochester Cable is now part of the Hexatronic Group.



Rochestercable.com



751 Old Brandy Road
Culpeper, Virginia, USA, 22701
Rochestersales@rochestercable.com
Sales number: +1 540 812 9204
Switchboard: +1 540 825 2111