



James Monroe
WIRE AND CABLE CORPORATION

**Innovative
Solutions
for Every
Industry**



JAMES MONROE
WIRE AND CABLE CORPORATION

A CUSTOM CABLE MANUFACTURER FOR OVER 30 YEARS

*Published by Worcester Business Journal's
Custom Publishing Division, 2012.*

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A Letter to Our Customers and Friends

Friends and colleagues,

James Monroe Wire and Cable Corporation has called Lancaster, Massachusetts home for generations. After its founding by Martin Fisher in 1977, the company developed a product line that today serves a diverse base of customers for applications large and small. Our local workforce consists of wire and cable professionals and machine operators who have played a vital role in the company's success over the past 35 years, and we are indebted to them for their tireless commitment to the customer and to the company.

In the United States, manufacturing has faced numerous challenges, mostly from overseas competition. This challenge does not lessen with time, but American manufacturers like James Monroe set themselves apart with continued investment in people and products. We are proud of our local roots and a workforce that is closely tied to Central Massachusetts. The recent expansion of our manufacturing facility reflects positive growth in our business, a trend we expect to continue, as well as spirit of innovation that is shared throughout our entire organization.

We thank you for your continued support, and look forward to serving you in the future.

Best,

David Fisher
President and CEO

Robert Leger
Vice President and General Manager



David Fisher



Robert Leger

The Commonwealth of Massachusetts

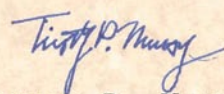


James Monroe Wire and Cable Corporation

ON BEHALF OF THE CITIZENS OF THE COMMONWEALTH OF MASSACHUSETTS,
WE ARE PLEASED TO CONFER UPON YOUR ORGANIZATION THIS GOVERNOR'S CITATION
IN RECOGNITION OF YOUR 35TH ANNIVERSARY.

THIS FIRST DAY OF AUGUST IN THE YEAR 2012

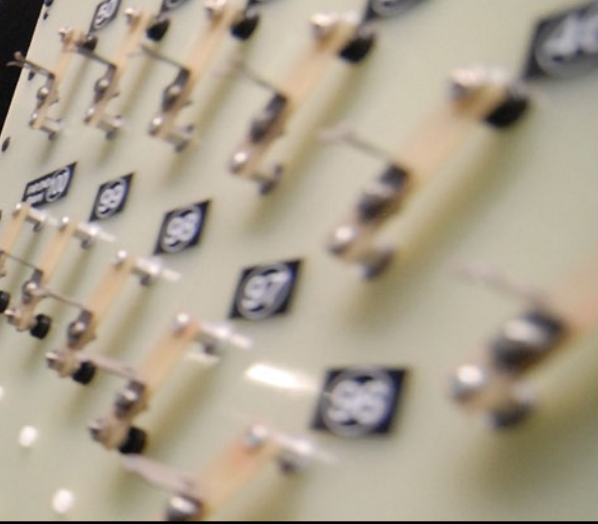

DEVAL L. PATRICK
Governor


TIMOTHY P. MURRAY
Lieutenant Governor



A Traditional Manufacturer Growing in a Global Economy

The James Monroe Wire and Cable Corporation (JMWC) is a privately held company with over thirty-five years of industry experience manufacturing electronic and electrical wire and cable products. The company manufactures a wide range of insulated wire products representing many major industries. The management of JMWC has worked hard to identify new markets and strategic opportunities to grow the company and retain and recruit high-quality employees.



Left: Hipot/dielectric withstanding voltage testing. Right: Managing the WIP inventory is a critical part of meeting customer demands.



Martin Fisher,
Founder

The company was established in August of 1977 by Martin Fisher with a vision for providing a quality product custom-tailored to the customer's need, no matter how large in scale or how intricate. Fisher was no stranger to starting new ventures, especially those named for famous presidents. Prior to starting the James Monroe Wire and Cable Corporation, Martin Fisher started Madison Cable after cutting his teeth in the wire and cable industry at Jefferson Cable. This entrepreneurial spirit lives on today, and it is shared with employees: the company established an employee stock ownership plan, or an ESOP, giving each member of the team a stake in the company's success. Today, 33% of the company is owned by its employees.

That success is most obvious in both the expansive list of markets served by James Monroe and a commitment to innovation at the company's long-standing headquarters in northern Worcester County. While the company relies on its skilled workforce to implement traditional approaches to wire and cable manufacturing, it has made investments in recent years to modernize its inventory tracking system and create additional manufacturing and storage capacity. Improvements to the facility have enabled James Monroe to optimize productivity and achieve higher levels of efficiency by reducing their inventory of raw materials.

For its clients in industries ranging from electrical, electronic and specialty communications to renewable energy, military and industrial, investments like these are emblematic of why the firm continues to be a strategic resource in supply chain logistics: a track record of proven processes and a willingness to make investments that preserve James Monroe's reputation for quality while building on its core competencies.

Today, these differentiators are why customers rely on James Monroe for both application specific electrical and electronic cables as well as specialty and custom wire and cable products.

Unlike its overseas counterparts, the firm can meet demands for one-time orders without interrupting existing production cycles for repeat or cyclical orders. Additionally, JMWC adheres to rigorous quality and safety inspection standards in accordance with its own internal system and those recognized across many industries such as UL (Underwriters Laboratories) and CSA (Canadian Standards Association). A rich talent pool of skilled and experienced labor combined with a diverse range of cable manufacturing equipment and a proven quality system provides clear advantages for a client choosing a U.S.-based manufacturer like JMWC.

"We're very sensitive to what's left here for manufacturing – skilled employees are critical for the business and the region," says Jason Thomas, national sales manager for James Monroe. "We're growing and always looking for candidates with experience to join the team, and they can sometimes be hard to find."



Quality Control Department



MANUFACTURING OPERATIONS



STAGE 1:

The first step in the manufacturing process of wire and cable products begins in the Primary Extrusion Department.

>> process details continue
on page 10

Products Designed to Perform and Endure

Since its founding, James Monroe Wire and Cable Corporation (JMWC) has focused on a series of capital investments to incorporate more stringent quality measures while also focusing on ways to enhance efficiency and streamline production.

These upgrades include multiple production facility expansions, new machinery, specialized enterprise business software, quality system enhancements and extensive personnel recruitment. Today, the company continues to provide high quality products and service to customers while expanding its product line, capabilities and capacity.





Over the last decade, the company has undergone two major expansions to the manufacturing facility to accommodate overall business growth and an increasingly diverse customer base. Its most recent building addition creates an additional 15,000 square-foot of space designed to accommodate a state-of-the-art inventory system, which has freed up approximately 20,000 square feet of additional manufacturing area, all with the end goal of being even more prepared to meet the growth needs of its customers servicing emerging markets such as renewable energy. The JMWC manufacturing facility is in a state of continuous change to address rapidly changing market requirements and increasingly diverse industry specifications. Frequent improvements in efficiency and manufacturing capability enable JMWC to deliver a growing number of products to customers at very competitive prices and lead times.

The products manufactured at the 100,000 square-foot South Lancaster facility in Central Massachusetts include a wide variety of cable products ranging from the most basic electric and electronic cables to some of the most specialized and advanced cables in the world. The company also offers customers a broad range of UL and CSA-approved and RoHS Complaint products. JMWC markets and sells their wire and cable products worldwide primarily through a broad

network of distributors and sales representatives. Some of the key markets include:

- Factory Automation and Robotics
- Industrial Crane, Hoist and Conveyor
- Renewable Energy – Solar and Wind Power
- Power and Utility
- Elevator and Lift Systems
- Electronics and Communication
- Power, Control, Instrumentation and Signal
- Municipal/DOT Traffic Signal and Lighting
- Marine, Oil and Gas
- Specialty Military Defense
- Security Surveillance Systems

JMWC designs, manufactures, and delivers solutions for a wide variety of specialized cable applications beginning at the prototype and development stages. Their wire and cable products are utilized in a wide range of applications ranging from simple electrical and electronic products to highly specialized, tactical military communications equipment. Because of this diversification, the company has become a reliable and strategic link in numerous industry supply chains. While the company may adhere to the traditional skills honed by years of

Manufacturing Capabilities

INSULATION AND JACKET MATERIALS

PVC Polyvinylchloride

PE/LDPE/HDPE Polyethylene & Foam Polyethylene

FPE/LDFPE/HDFPE Foam Polyethylene (*High/Low Density*)

XLPE Cross Linked Polyethylene

PP Polypropylene

HYTREL/PE Thermoplastic Polyester Elastomer

TEFLON/FEP Fluorinated Ethylene Propylene

TEFZEL/ETFE Ethylene Tetrafluoroethylene

TPR/TPE Thermoplastic Rubber & Thermoplastic Elastomer

SANTOPRENE Thermoplastic Elastomer

TPU/PUR Thermoplastic Polyurethane Elastomers

LSHF/LSZH Low Smoke Halogen Free /
Low Smoke Zero Halogen

LSZH TPU/PUR Low Smoke Zero Halogen Polyurethane

CPE Chlorinated Polyethylene

Alloy Polymers PVC and TPE Alloys

CONDUCTORS

Sizes:

32AWG-500MCM
(2AWG-500MCM Flexible Stranding)

Stranding:

Solid or Stranded
(Bunched, Smooth Bunch, Rope Lay)

Types:

(BC) Bare Copper, (TC) Tinned Copper, (BCW) Bare Copper Weld, TCW (Tinned Copper Weld), Steel, Nickel, Silver Plated Copper, Silver, Plated Kevlar, Nickel Cadmium, PD135 & other flexible alloys.

experience, its clientele reflects a business climate dependent on reliable, durable wire products in high demand environments. The applications in which its products are used range from commercial coffee machines to elevator and lift systems to United States Navy vessels such as the Virginia Class submarine. JMWC is also a supplier of cable to manufacturers of wind turbines, requiring sturdy, dependable materials that are expected to survive the test of time once the turbine is erected.

While the product can speak for itself, it is further augmented by a knowledgeable and friendly sales staff that provides the same exceptional service to customers large and small. The team at JMWC understands that the products it manufactures in South Lancaster will end up in environments where failure is not an option. JMWC has held its longstanding relationships with end-users overseeing sensitive and mission-critical projects as a reflection of its consistent adherence to high benchmarks for quality.

Custom Capabilities

Insights from working with its deep roster of customers have helped shape another segment of JMWC's business: custom cable manufacturing. The sales team and engineers often work directly with the end user on behalf of JMWC's

customers to establish product specifications for manufacturing, stepping in when other manufacturers lack the capability, experience or are not willing to manufacture minimum quantities of specialty cable products.

"The company is very well known as a specialty manufacturer," says JMWC's Jason Thomas. "There are custom cables that may be manufactured once for a very special application and are then never produced again. I have seen many examples of this during the time I've been with the company."

Behind this capability is a robust array of equipment that gives the manufacturer a wide range of capabilities to meet a customer's every need, even if for just one specific order. JMWC's size gives it the scalability to quickly change direction to meet a one-time need while never affecting the pace and productivity of workers tasked with delivering for JMWC's core products. For all of its customers and the company's wide range of product offerings, JMWC is often able to outperform some of the largest cable manufacturers in the world from its single location in Massachusetts. ■

MANUFACTURING OPERATIONS

STAGE 2:

The next in the process is the various cabling and twisting operations.



Set-up



Loading Equipment



Planetary Cabling Process



Cabling Process



Unloading
Cabling
Machine



MANUFACTURING OPERATIONS

STAGE 3:

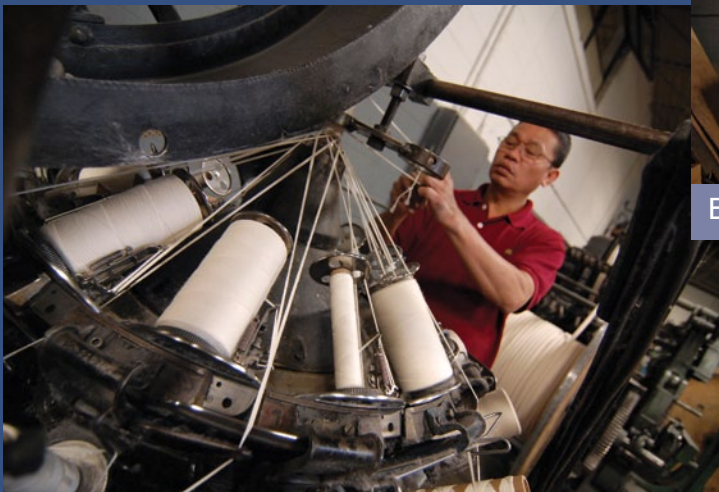
The braiding process can apply metallic and textile braids to cables for various performance enhancements.



Braiding Copper Wire



Braiding Process - Synthetic Fiber



>> process details continue
on page 14

Manufacturing Capabilities (*cont'd*)

EXTRUSION/EXTRUDERS

- Single, Tandem, Dual Head Extrusion 32AWG-500MCM
- Application of extruded insulation or outer jacket/sheath
- Extrusion up to 3.0" Diameter + 7" Width Flat
- Thermoplastic & Thermosetting Compounds
- Round and various configurations and profiles such as Figure 8, Flat , Oval, Etc.
- Spark Testers, Diameter Monitors, Capacitance Monitors, Lump Detectors, UV Verification
- Direct, Indent & Ink Jet Print (Online/Offline)
- Inline Integral Striping & Offline Spiral Stripers



BRAIDING/BRAIDERS

- 16, 24 & 36 Carrier + Harness Braiders
- Copper, Tinned Copper, Aluminum, Bronze, Stainless Steel, Nylon, Rayon, Cotton, Polyester, Kevlar, Nomex, Etc.



CABLING OPERATION

- Paired & Multi-Conductor Cables
- Standard (Backtwist) Cables
- Neutralized Cables
- Rigid Bay Cabling
- Planetary Cabling

COMPOSITE CABLE COMPONENTS

- Pneumatic and Hydraulic Tubes
- Braids, Rods, Synthetic Fibers
- Strain Reliefs and Tensile Members Steel, Kevlar Etc.





Wire and Cable Solutions for Today and the Future

In an era where James Monroe Wire and Cable (JMWC) products are found everywhere from elevators and massive industrial lift systems to modern 2.5MW wind turbines and large solar arrays, it's fair to say the industry has changed. But the bottom line – high quality products that endure rigorous use – has remained constant. The company has thrived by not only over-servicing longstanding revenue channels but also servicing new emerging markets large and small. It's this forward-thinking approach that has positioned the company to adapt quickly to change and take advantage of new opportunities.

James Monroe's team is always willing to go the extra mile to ensure its customers' products will meet and exceed the most demanding requirements. Whether using existing product specifications or starting from scratch, JMWC's experience and expertise will make the design and engineering process as streamlined as possible. This includes the ability to produce as little as 1,000 feet of custom cable, often a critical component of the design process. By combining both a wide variety of existing wire and cable products and in-depth experience producing one-of-a-kind custom cables, JMWC is ideally suited to tackle any type of project.

For over three decades, the company has prided itself on a relentless commitment to innovation, both in its business model and its approach to the manufacturing industry. Its diverse manufacturing facility, highly-skilled workforce, and a superior product quality matched by outstanding customer service all combine to offer customers in a wide range of industries an experience that's second to none. ■

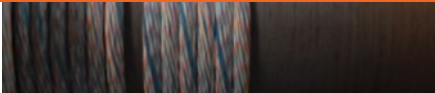


The James Monroe plant is constantly expanding and improving, for more capacity and greater efficiency.

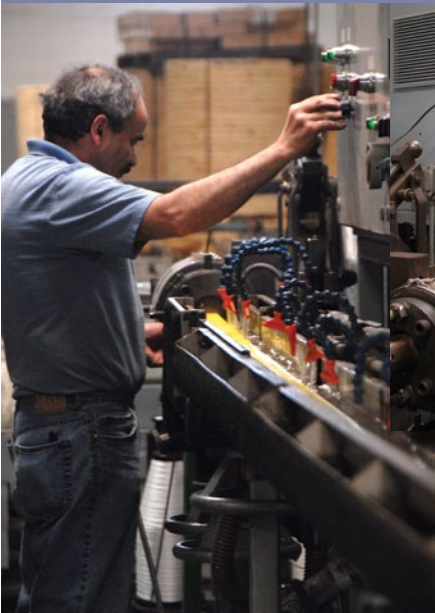


STAGE 4:
The jacket extrusion process culminates with ink-jet printing.

MANUFACTURING OPERATIONS



Jacket Extrusion Process



Ink Jet Printing



Cooling Trough



Hipot/Dielectric Withstanding Voltage Testing



TESTING

INSPECTION:

The quality control department oversees a series of tests, ranging from testing for physical properties like tensile and elongation to electrical testing for continuity and dielectric withstanding voltage. In addition to in-process testing and inspection, JMWC performs many other types of tests to ensure that their wire and cable products meet and or exceed customer specifications and industry standards as well as UL, CSA and Various Electrical Codes.



Testing Physical Properties



Electrical Testing -
Continuity Testing



Spooling Process



