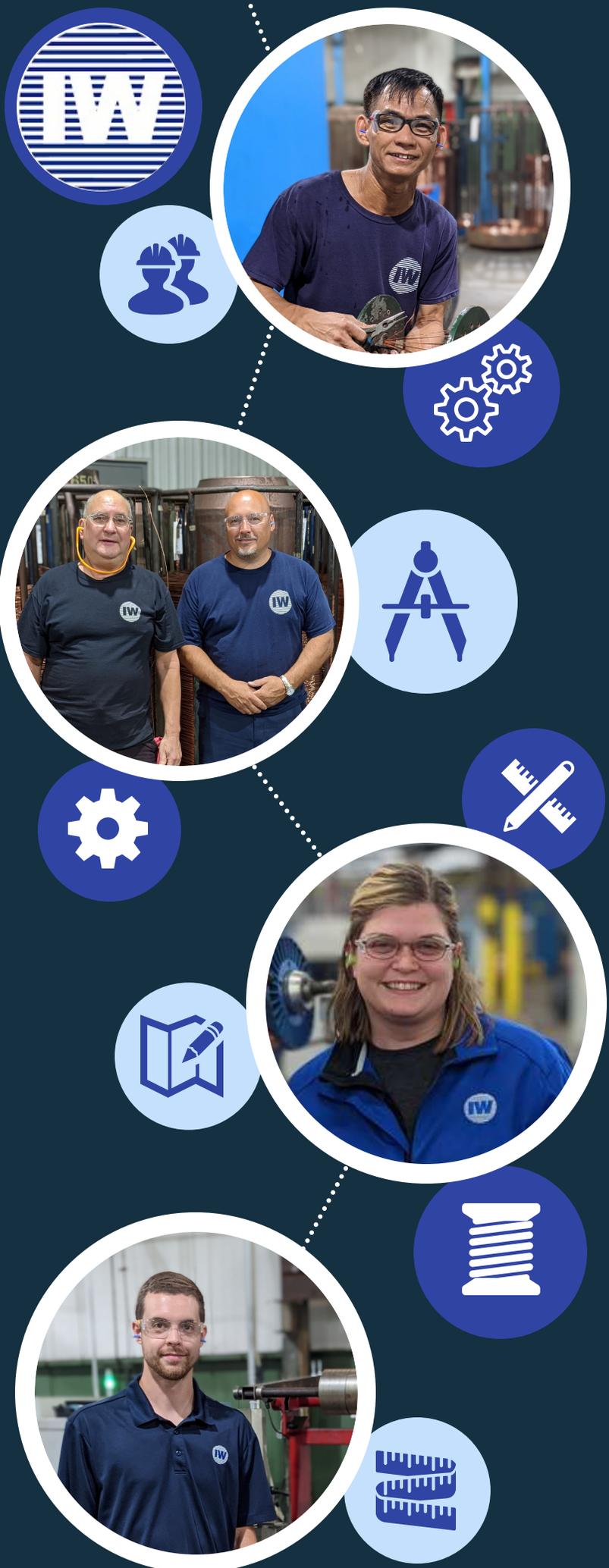


International Wire Q3 2021 Marketing Newsletter



"This is our company. The way we serve our valued customers is a direct reflection of our values and the pride we're taking in being the best wire fabricator in the world."

GREG SMITH,
PRESIDENT AND CEO

This issue features:

-  IW gives back to the community
-  IWCS: new Business Unit - RFQ online
-  Product Spotlights
-  What's new in IW digital space
-  Successful career stories
-  Construction Industry trends
-  International Wire news

IW gives back to the community



International Wire is committed to giving back to the communities in which the company operates. Greg Smith, CEO and President of IWG, made a \$25,000 donation on behalf of all IWG associates to Mercy Flights Central in October 2021.

Mercy Flight Central is an independent, non-profit organization of air medical professionals, founded in 1992. They are devoted to integrity, compassion, and excellence providing critical care to the sick and injured.

Mercy Flight Central provides air medical services to New York State residents and beyond. Since its inception, the organization has served more than 15,000 patients and grown to 70 employees. Mercy Flight Central's three base locations serve the regions of the Finger Lakes, Central New York, and Mohawk Valley, including service to the Lower Adirondacks. The organization provides the highest level of pre-hospital critical care to patients, it has 3 helicopters, that can travel within a 150-mile radius of base locations. Each helicopter is equipped with medical equipment that includes advanced airway management, cardiac monitoring, and ultrasonography devices. Air medical teams provide advanced life support to critically ill and injured patients requiring treatment and rapid air medical transport to specialized medical centers across the northeast.

"I believe there is a purity to our mission that very few causes can claim. We are independent, community-based, and nonprofit. We exist for only one purpose: To appear from out of the sky and save lives. With speed, skill, and compassion, we will help people survive the worst illnesses and accidents and go on to fulfilling futures. This is our pledge to you", Jeff Bartkoski, CEO and President of Mercy Flight Central, said. He outlined, that IWG's donation will go toward the capital campaign to purchase the new aircraft.

"As we all know, the impacts of COVID-19 have added a significant burden to our entire healthcare system. As a result, resources have been stretched to their limit in many cases. Still, the need for critical care in our community has never been greater. This is why I have chosen to give back to an incredibly important resource in our community," Greg Smith said.

After the check presentation, the IW team took a tour of the aircraft, and the Mercy Flight Central team toured the IW Plant 1 manufacturing facility.

* To learn more about Mercy Flight Central or donate visit www.mercyflightcentral.org



International Wire Cable Services, a New Business Unit of IW, enables online RFQ !

International Wire Cable Services



Reliable supplier for your bus bar wire, braids, grounding wire and more



Great Customer Experience

- Request for quote through IW website
- Search and compare products online
- Wide variety of packages available
- Value-added services



Exceptional Service

- Dedicated team supporting all inquiries
- Call us for special and custom orders
- Stocking program



Engineering Support

- Engineering consultation on product selection
- Custom design to a customer's drawing
- New product development
- Broad Wire & Cable Industry knowledge and expertise



Fast Delivery

- Next day shipping on stock orders
- 1-2 weeks lead time for production orders
- Shipping across the US



Guaranteed Quality

- ISO9001:2015
- Manufacturer-Direct: we control the whole process – from production to shipping wire to our customers
- Certificates of compliance available

Product Spotlight

Automotive Ethernet Cable

Our Bare Wire Division supplies the copper wire for the twisted pairs used for Automotive Ethernet:

.35mm - 7/.248mm Bare Bunch

Application:

Automotive Ethernet Cables are the data link for sending messages between several areas of an automobile including:

On-Board Diagnostics

- Engine, transmission, driveshaft, and wheels

Infotainment

- Entertainment, and guidance

Advanced Driver Assistance Systems

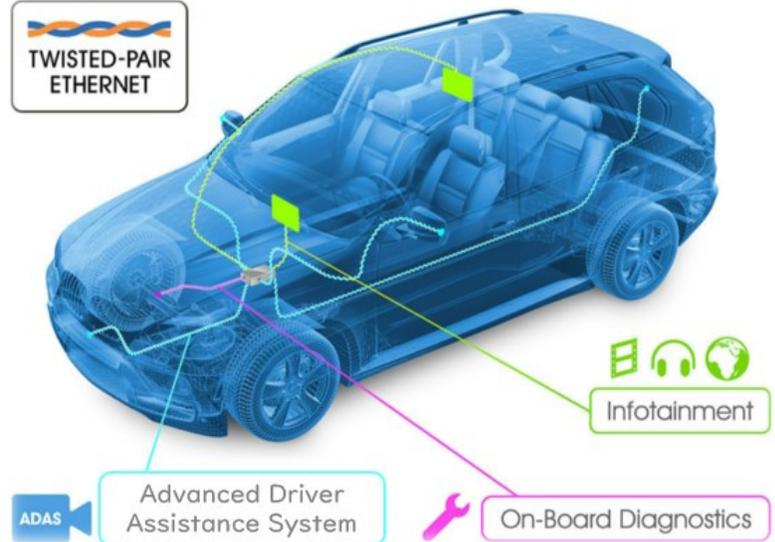
- Sensors and cameras to detect nearby obstacles or driver errors and respond accordingly

Specification:

DC Resistance, Gram Wt., Lay, Outside Diameter, Avg. Strand Diameter

End Users / Markets:

Automotive Manufacturers



VFD Power & Control Cable

OWL Wire supplies a critical component used in VFD Cables:

8 - 7x19/.0108 Tinned Copper Rope, 2.21"

Application:

Variable frequency drives (VFD's), also known as variable-speed or adjustable-speed drives are used to power AC motors in a variety of industrial motion control, commercial flow/pumping, and extrusion applications. (i.e., pumps, fans, compressors, conveyors, and more)

Benefits of using a VFD over traditional DC drives include more precise motor control and improved power efficiency.

The cables are built to withstand high voltage spikes, high noise levels, and adverse environmental conditions.

Specification:

Gram Weight, Outside Diameter, DC Resistance

End Users / Markets:

Industrial Manufacturing, Oil & Gas Industry, and basically wherever AC motors and pumps are used!



Multiple Strands of 7x19/.0108 T/C



Market Watch

About 25% of the world's electrical energy is consumed by electric motors in industrial applications.

Growing emphasis to reduce energy consumption to achieve a net-zero energy goal is one of the key trends contributing to the growth of the VFD market.

Product Spotlight

Ground/power straps

Tinned copper flat braids in various configurations and gauge equivalents supplied by Continental Cordage

Applications:

- frame ground,
- battery interconnect
- relay & solenoid connections

Specification:

End Count, Diameter, DC Resistance

End Users:

Commercial Users

Markets:

Automotive



Aircraft Engine Wiring Harness

Hamilton Products provides over braiding of engine harness with temperature and corrosion-resistant materials

Applications:

Engine harnesses are designed to withstand the grueling environment of an engine in operation. Harnesses should be resilient to intense levels of vibration and exposure to potentially harmful fluids. Critical to on-engine applications, harnesses are braided with the combination of materials to offer maximum resilience to high temperatures.

Specification:

A specification is provided by FAA Certified Repair center. Overbraid should cover multiple legs and joints, should be tight and made of high-temperature resistant materials

End Users:

Commercial Users

Markets:

Aerospace



Product Spotlight

Microwave/RF Test Assemblies

Center silver-plated copper conductor and shielding are provided by High-Performance Conductors

Applications:

- 5G test and interconnection
- component and device R&D, and production test
- high-speed digital test devices and assemblies
- modular test instruments like PXIe and AXIe
- RF switches

Specification:

End Count, Diameter, DC Resistance

End Users:

Military and Commercial Users

Markets:

Electronics/Data Communication



International Wire blog is live!

Check our website for:

- IWG Newsletters
- Company News
- and more...

FROM OUR BLOG



Q1 2021 Marketing Newsletter

International Wire recently released its quarterly marketing newsletter. Inside this edition, we cover: International Wire's Role in the Copper World What Markets do we serve? How can we grow? Spotlight on our products from our North American markets The heart of IWG



Q2 2021 Marketing Newsletter

At International Wire, our employees are our greatest asset and foundation of our company. In an era where technological innovations have allowed for the automation of many business processes, nothing replaces the ingenuity and innovation that our employees bring to the table.

Read More

www.internationalwire.com





“My story is a real-life testament that shows with hard work and dedication a person can go as far as he wants to go. I began my career 38 years ago as a Single Twist Bunch Cook operator at Owl Wire in Canastota. I ran a pool of machines for a little over a year on the third shift and was offered a Setup Position on the same shift, so I grabbed it. Setup was an interesting job because I had the opportunity to move around the plant while working with different people and different equipment. I was in Setup for a total of 3-4 years and was given the “Lead” title on the 1st shift. At the time, this was the stepping stone to getting into Supervision which was my goal at the time. My responsibilities were to watch over and assist Production when needed, lead weekend crews, and the most interesting of all, help develop new or existing products as well as the employees running them. This was my passion, working on products and people to make them

the best I could. I was also able to work side by side with different machine vendors, to test different products and constructions on their equipment, to improve the quality of products made in the industry.

I was offered a Supervisor position in the early '90s and didn't accept it at first, as I was waiting on the shift that best fitted me and my lifestyle. I enjoyed playing softball, basketball, volleyball, and golf while meeting new people. After meeting my lifelong partner Annie, that's when I decided to make the move into Supervision in the mid-late '90s. I was in supervision for around 3 years when I was given the title of Lead Supervisor on 1st shift. This was a real struggle at first, mainly because the group I was leading were the same people I worked under and/or besides for many years prior. With respect, trust, and a lot of communication, we were able to build a strong team for years to follow. During this transformation as a Supervisor, I was given the opportunity to take different Management and Leadership Training to sharpen my skills.

In 2008, the opportunity arose for me as a Plant Manager in Canastota. When it was first mentioned to me, I had reservations as I really enjoyed the position I was currently at. After discussions with my colleagues, I decided to take for the position, and after 13 years in the position, I continue to be challenged weekly.”

Paul Wood, Operations Manager at IWG Owl Wire & Cable



“I started my journey in the Wire & Cable industry during my senior year in high school in 1979. I joined Owl Wire as a Respooling Operator on the third shift, so I could attend classes in the mornings. My first memories from those early days were the smell of gear oil, drawing solutions made from animal fat, and drive belts slipping. One thing that impressed me right away was the diverse culture. There were people of all ages, genders, various ethnic backgrounds, all worked together to get the job done and had fun doing so. I spent my first three years in the Respooling Department. In 1983 there was an opening in the Multiwire Drawing Department, where I spent the next year. In 1983 I bid on and was awarded a job in Quality Control. Working in Quality Control made me realize there was more to the wire world than I originally thought.

During this time I learned a lot from working with the experienced machine operators. The duties in the QA Department included testing each reel of wire to ensure adherence to customer requirements, maintaining drawing solutions, die control, and generating Certifications of Compliance prior to each shipment.

In 1999 the Specifications Department was created. The job entailed working closely with Sales Department to make sure we were providing our customers what they needed. I learned a lot working with our customers' purchasing and engineering people over the years. Helping them to design new products for both cost savings and new endeavors has been very rewarding. It's a good feeling when you receive a call or e-mail thanking you for your efforts.

I have been at Owl Wire for 42 years. Time does fly when you are having fun! I have made a lot of friends over the years and have some good memories. I would suggest anyone looking for a new employment opportunity to fill out an application. You may find a second home.”

Steve Raushi, Specifications Manager at IWG Owl Wire & Cable



Construction Drives Copper

"Construction is the single biggest end market for copper and is responsible for around 28% of demand. In addition, construction activity influences electrical networking and transport demand. Put together, those three end markets make up more than two-thirds of copper demand."

~ Motley Fool



Residential boom offsets the gloom

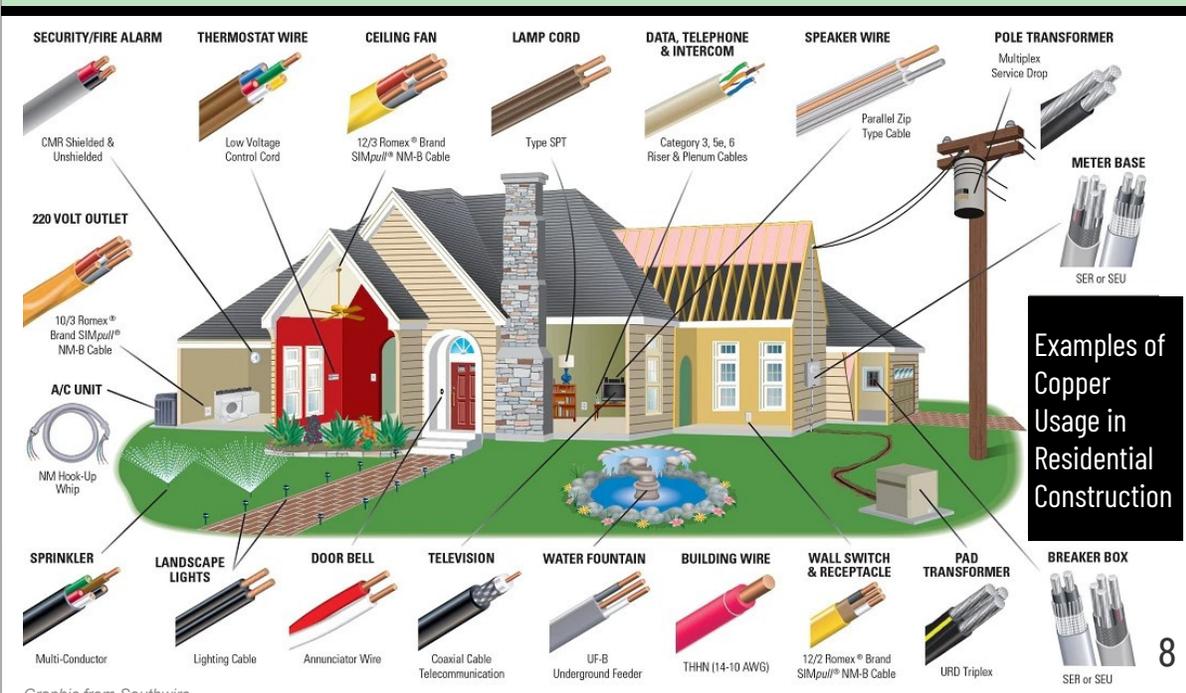
The residential construction sector has been the star performer of the US economic recovery from the COVID-19 crisis, posting double-digit growth rates since the third quarter of 2020, and making significant contributions to the rebound of the economy and offsets weakness in the non-residential sector.

Residential construction is expected to moderate in 2022, but private non-residential construction is set to rebound as economic reopening drives the need for remodeling and rebuilding.

"The single-family building market has moved off the unsustainably hot pace of construction of last fall and has reached a still hot but more stable level of activity," said Robert Dietz, the NAHB's chief economist.

The government's new infrastructure spending plan will see an extra \$550bn being spent on everything from road improvements to broadband upgrades, to power network improvements and the replacement of water pipes. Assuming it is spread out over 5 years, the additional \$550bn is equivalent to a 7% boost each year for the next five years, overwhelmingly focused on the non-residential sector. However, economists suspect that the decline in residential spending may offset the recovery in non-residential spending next year, but overall the market remains strong.

Source:  ING THINK Economic and Financial Analysis



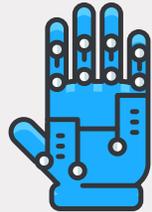
Examples of Copper Usage in Residential Construction



International Wire News

Welcome to Industry 4.0

What is Industry 4.0?



Generally speaking, Industry 4.0 describes the growing trend towards automation and data exchange in technology and processes within the manufacturing industry, including artificial intelligence, robotics, quantum computing, 3D printing, and the Internet of Things (IoT).

At IW, we are taking steps to utilize Industry 4.0 to optimize performance, reduce waste, drive productivity and growth and generate revenue to remain competitive in our industry.

3D Printing of Parts at IW

3D

3D Printing is one of the key pillars of Industry 4.0, where IT merges with manufacturing resulting in digital manufacturing which is the next manufacturing revolution.

Additive manufacturing, the technical name for 3D printing, transforms the way we build objects, opening up a universe of new possibilities. By gradually adding layers of materials, instead of cutting and soldering, 3D printing allows us to build parts with new geometries. And new geometries have different physical properties: think of a honeycomb structure that gives you greater resistance with less weight. This is where 3D printing becomes a very powerful tool for industrial applications: we can now build lighter parts that are more heat resistant, stronger; and we can build the same products with fewer parts.

3D Printing Equipment at BW and HPC



We have several desktop 3D Printers that print with nylon, glass-filled nylon, carbon-filled nylon, and ABS.

NEW

IW's Newest Edition!

The Industrial 3D printer CreatBot D600 Pro – 3D prints very large and complex parts using advanced filaments like PEEK, Ultem, Nylon, PC, or ABS.



From spools to pulleys and anything in between, the 3D printers at IW are saving us time and money every day!

Welcome to the future of Manufacturing!

