

READ  
WATCH  
SHARE  
IT

Digital .  
Networking .  
Monthly .

wiredIn  
USA

December 2014 issue - No 42

[www.wiredinUSA.com](http://www.wiredinUSA.com)

*Season's  
Greetings*



**Power clean up  
in NEW YORK**





# INTERWIRE

TRADE EXPOSITION

## A meeting this productive shows up every other year.

GEORGIA WORLD CONGRESS CENTER | ATLANTA, GEORGIA, USA

Industry leaders are following [www.Interwire15.com](http://www.Interwire15.com) for details on the largest wire and cable meeting place and marketplace in the Americas. Decidedly the most valuable use of your time...until 2017.

WIRE & CABLE MAKING MACHINERY | LIVE DEMONSTRATIONS | SUPPLIES & EQUIPMENT | NEW TRENDS & PRODUCTS | GLOBAL NETWORKING | EDUCATIONAL FOCUS: DUST CONTROL, RAW MATERIALS, PROCESSING, APPLICATIONS, RECRUITING & RETENTION, MANUFACTURING WORKSHOP | PLANT TOUR: SOUTHWIRE SCR | ALSO WITH WAI'S 2ND GLOBAL CONTINUOUS CASTING FORUM

**CORPORATE SPONSORS: PLATINUM** | SONOCO REELS AND SPOOLS • WIRE & PLASTIC MACHINERY CORP.

**GOLD** | CONTINUUS-PROPERZI S.P.A. **SILVER** | CARRIS REELS INC. • GEM GRAVURE CO. INC. •

NEXANS • SIKORA INTERNATIONAL CORP. **BRONZE** | RICHARDSAPEX INC.

**SUPPORTING SPONSORS:** BAUM'S CASTORINE CO. • CHEMSON • COMMISSION BROKERS INC. • HERITAGE WIRE DIE • LLOYD & BOUVIER INC.



The Wire Association International, Inc. | TELEPHONE: (001) 203-453-2777 | [WWW.WIRENET.ORG](http://WWW.WIRENET.ORG)

# #42 EDITOR

Hopefully you are all now refreshed after the Thanksgiving break and looking forward to the Christmas festivities in just a few weeks' time.

The wire and cable industry seems to be ending the year as it started – on a high! Stainless steel, nickel alloy and titanium wire manufacturer Zapp Precision Wire is expanding its operations in Dorchester County, South Carolina, spending \$30m in the process and creating an additional 20 jobs. The full story can be found on page 14.

Following its February purchase of Illinois-based Coleman Cable, Southwire – believed to be the world's third largest producer of wire and cable for the distribution of electricity – is spending \$2m purchasing a new site in Bremen, Indiana, for its manufacturing, OEM and industrial divisions. See page 18 for the details.

In news from Asia, State Grid Corporation of China has begun work on a large-scale ultra-high voltage power project to help alleviate problems with air pollution. The project is estimated to have cost more than \$11 billion and is due to begin operation in 2016. You can find the full details on page 35.

This is obviously the final wiredInUSA of the year and the team would like to thank everyone for their help over the last 12 months and wish you all Season's Greetings and a happy, healthy and prosperous 2015.

**David Bell**  
**Editor**

# CONTENT

#42 **DECEMBER**  
**2014 issue**

## News

### Editor

David Bell  
[david@wiredinusa.com](mailto:david@wiredinusa.com)

### Features Editor (USA)

Dorothy Fabian

### Features Editor (Europe)

Gill Watson

### Editorial assistant

Christian Bradley

### Design

Hélène Phillips  
[helene@wiredinusa.com](mailto:helene@wiredinusa.com)

### Sales & Marketing (International)

Jason Smith  
[jason@wiredinusa.com](mailto:jason@wiredinusa.com)  
+44 1926 834 684

### Accounts Manager

Julie Case

### Publisher

Caroline Sullens

### INTRAS OFFICES

#### Europe:

46 Holly Walk, Leamington Spa  
Warwickshire CV32 4HY, UK  
Tel: +44 1926 334137  
Fax: +44 1926 314755  
Email: [read@wiredinusa.com](mailto:read@wiredinusa.com)  
Website: [www.wiredinusa.com](http://www.wiredinusa.com)

#### USA:

Danbury Corporate Center,  
107 Mill Plain Road,  
Danbury, CT 06811, USA  
Tel: +1 203 794 0444  
Email: [doug@intras.co.uk](mailto:doug@intras.co.uk)



© 2014 Intras Limited UK  
ISSN 2046 - 9497

Publishers of Eurowire and  
Wire & Cable ASIA magazines





18



06

SHOW DIARY  
2015 and 2016

09

MAKING THE NEWS  
Industry news from the USA

26

EUROPE NEWS  
The latest news from Europe

32

INDUSTRY TRADE ASSOCIATION  
Spotlight on awards, education  
and events

34

ASIA & AFRICA NEWS  
The latest news from Asia & Africa

40

PRODUCTS, MACHINES AND  
TECHNOLOGY  
The latest news from machine  
industries

23



12



41



38



33





# DIARY SHOW EVENTS

## 2015

### JANUARY

10-13 January: **Wire and Cable Arabia**  
Dubai, UAE  
Exhibition  
[www.wirecablearabia.com](http://www.wirecablearabia.com)

### MARCH

23-27 March: **NPE2015**  
Orlando, Florida, USA  
Exhibition  
[www.npe.org](http://www.npe.org)

### APRIL

28-30 April: **Interwire 2015**  
Atlanta, Georgia, USA  
Exhibition  
[www.wirenet.org](http://www.wirenet.org)

### MAY

12-15 May: **wire Russia**  
Moscow, Russia  
Exhibition  
[www.wire-russia.com](http://www.wire-russia.com)

### SEPTEMBER

15-17 September: **wire Southeast Asia**  
Bangkok, Thailand  
Exhibition  
[www.wire-southeastasia.com](http://www.wire-southeastasia.com)

### OCTOBER

6-8 October: **wire South America**  
São Paulo, Brazil  
Exhibition  
[www.wire-south-america.com](http://www.wire-south-america.com)

## 2016

### APRIL

4-8 April: **wire Düsseldorf**  
Düsseldorf, Germany  
Exhibition  
[www.wire.de](http://www.wire.de)





Measure & Control Instruments

# OPTICAL FIBRES

## Measurement Instruments

In line data collection,  
display, record and report

CIM PC software:



**LIS-Glass:**

### Laser Interferometric Sensor

- Diameter repeatability:  $\pm 0.005\mu\text{m}$  at 50kHz
- Diameter uncertainty:  $\pm 0.15\mu\text{m}$
- Defect detection 75kHz, event recording
- Ultra fine air line detection,  $0.3\mu\text{m}$ , 400Hz
- Fibre position:  $\pm 2\text{mm}$  range  $\pm 0.1\text{mm}$ , 1kHz
- Spinning frequency profile
- Fibre no circularity measurement

**NCTM:**

### Non Contact Tension Measurement

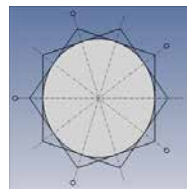
(Drawing force Birefringence principle)

- 0-400 grams  $\pm 1\text{gram}$ , 1kHz
- Measurement field: 4mm  $\varnothing$
- $\pm 1\text{ gr}$  within 10-40°C ambient

**CM5:**

### Coating Monitor 5 axes

- Absolute diameter:  $\pm 0.2\mu\text{m}$ , 400Hz
- XY Positions  $\pm 0.1\text{mm}$  1kHz
- 5 axes Lump & Neck:  $\pm 2\mu\text{m}$ , 3.6MHz sampling
- Coating asymmetry: 30Hz
- Internal defect detection: 800kHz (Airlines, bubbles, inclusions, delaminations...)



**Others:**

- AIR (AIRline detector)
- LDS-T (Laser Diffraction Sensor for transparent product)



TUBE TECH

São Paulo



Moscow



Shanghai



Bangkok



Dubai

WIRE CABLE INDIA



Mumbai

# join the best

w o r l d w i d e

## wire/Tube Düsseldorf: Innovations go global

Take advantage of the highest calibre expertise of the No. 1 international fair as the show goes global. Draw on international synergies from these leading trade fairs. A cycle of regional events, staged in succession around the globe, responding to local market and customer needs. Detailed information on the full programme can be found at:

[www.wire.de](http://www.wire.de)  
[www.tube.de](http://www.tube.de)

For show information:  
Messe Düsseldorf  
North America  
150 North Michigan Avenue  
Suite 2920  
Chicago, IL 60601  
Tel. (312) 781-5180  
Fax (312) 781-5188  
E-mail: [info@mdna.com](mailto:info@mdna.com)  
<http://www.mdna.com>

For hotel and travel  
arrangements:  
TTE Travel, Inc.  
Tel. (888) 674-3476  
Fax (212) 674-3477





# MAKING THE NEWS

## *Cleaning up New York*

New York state governor Andrew M Cuomo has announced \$206 million in awards to four upstate large-scale clean energy projects that will help the state create a more diverse renewable energy portfolio.

The awardees are two large wind farms, a new hydroelectric project in the Mohawk Valley, and a small hydroelectric upgrade to an existing dam in the Hudson Valley.

Once operational, the four projects will add approximately 164MW of new renewable capacity, which will provide about 450,000MWh per year of renewable energy to New York – enough energy to supply 60,000 average-sized homes every year.

The selected projects are the Arkwright Summit wind farm, Jericho Rise wind farm, City of Watervliet Delta hydroelectric project, and the village of Wappingers Falls hydroelectric project.

“These clean-energy projects will bring more renewable energy to the state’s electric grid, helping to meet Governor Cuomo’s vision of a power delivery system in New York state that incorporates a greater amount of renewable energy,” said John B Rhodes, president and CEO, New York state energy research and development authority.

“These four new projects will provide the additional benefit of bringing economic opportunities to communities across the state.”

# High voltage revenue research

Economic growth and electrification in China, India, and parts of the Middle East and Africa are fuelling expansion of the HVTS (high voltage transmission system) market, while focus shifts to rebuilding and extending transmission infrastructure to utility-scale wind and solar projects in remote regions. A recent report from Navigant Research suggests that worldwide revenue from HVTSs is expected to grow from \$20.8 billion in 2014 to \$31 billion in 2023.

“The dramatic expansion of high voltage transmission systems occurring today recalls the initial wave of electrification seen during the 20<sup>th</sup> century in North America and Europe,” said James McCray, senior research analyst with Navigant Research.

“Meanwhile, many existing HVTSs have been operational for 30 to 40 years or more, and are now approaching replacement and upgrade cycles, driving demand for all types of HVTS technologies.”

According to the report, as these technologies become smarter and more powerful, the associated IT systems used to manage complicated HVTS deployments are leveraging digital wireless sensors in every new piece of equipment. With the capital costs and uncertainty associated with new transmission grid and high voltage substation construction, utilities and grid operators are looking to utilize additional capacity on existing facilities and, wherever possible, avoid costly new transmission line construction.





# Powered To Perform



Visit us at:



April 28 - 30, 2015  
Atlanta, GA, USA  
Booth # 3940

The new Spark Tester generation accurately maintains test voltage under any condition including highest capacitive loads.



- Shortest recovery time after disruption/breakdown
- Pin hole and loose patch detection
- Controlled, adjustable test voltage of up to 28kVDC / 15kVAC
- Complete range of electrodes
- Compliance with several standards including IEC 62236, UL 1581, UL 2556

**Zumbach**  
SWISS PRIME MEASURING SINCE 1957

Learn more about the  
Spark Tester Family



ZUMBACH Electronics  
sales@zumbach.ch | www.zumbach.com



# REAL EMERGENCY REELS

Olympic Tug and Barge, a Harley Marine Services company, has ordered four emergency tow storage reels from JK Fabrication. The reels will be used on four barges currently under construction in Portland shipyards, with the last two scheduled for delivery in March and June 2015.

The new order will bring Olympic's total to eight of the patent-pending reels, and will incorporate several upgrades since its first unit was ordered. A new sprocket flange

FM

Bedding



Flame retardant



Halogen-free



Economic

Also available: Mecoline sheathing and insulation compounds

<div style="background-color: #008000; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">TP</div> <p>Thermoplastic</p>	<div style="background-color: #FF8C00; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">RDX</div> <p>Radiation crossl.</p>
<div style="background-color: #0000FF; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">MX</div> <p>Moisture crossl.</p>	<div style="background-color: #800080; color: white; padding: 5px; text-align: center; font-weight: bold; font-size: 1.2em;">PX</div> <p>Peroxide crossl.</p>

## Fire protection from the inside.

FM bedding compounds from Melos and Inhol will significantly increase the flame retarding properties of your cable construction. The economic halogen-free solution for what's important in our lives: safety and health.

**melos** 

Compounds for the cable world

**inhol** 

Specialty compounds for wire and cable



[www.inhol.com](http://www.inhol.com)  
[www.melos.com](http://www.melos.com)



allows operators to retrieve deployed cables more easily, and thread-down base plates allow for easier mobility for transfer of the unit from barge to barge or to other platforms.

JK's emergency tow storage was designed to counter the loss of tow between tug and barge. In the event that connection between a tug and barge is lost during transit, leaving the barge adrift, the emergency reel installed on the barge has a floating line that can be captured

by the tug to re-establish tow connection. The floating line is pulled aboard the tug, the emergency tow wire is paid out completely off the reel, and an auxiliary tow chain is engaged. The design also allows the wire rope to be used as an under-rider, or tandem tow.

Olympic's units will accommodate 1,600 feet of 1.75 inch wire rope; 1,200 feet of 2" wire; or 900 feet of 2.25" wire, and can be installed above or below decks.

# The New Wire Drawing Standard

## Universal

The most commonly utilized die system in the world today.

## Efficient

Maximizes die performance, increasing machine utilization and decreasing production costs.

## Practical

Simple design makes the system easy to use.

## The ParaLoc™ Pressure System

Is your company utilizing the most advanced die technology available? Chances are, your competition already is. Call Paramount to get started today.

**410-272-4600**



**PARAMOUNT DIE**  
Drawing Systems for the Wire Industry

[www.paradie.com](http://www.paradie.com)

1206 Belmar Drive • Belcamp, Maryland 21017 • USA

# Wire expansion

A manufacturer of stainless steel, nickel alloys and titanium wire, Zapp Precision Wire Inc, is expanding its operations in Dorchester County, South Carolina. The company will be investing \$30 million in the expansion, creating an expected 20 additional jobs.

Founded in 1701 in Germany as a craft trade firm, the Zapp Group companies have expanded their interests to include three main business areas of precision strip, precision wire and materials engineering. The group has a global footprint, with operations in Asia, Europe, North America and South America.

Zapp Group opened its first US production facility in Dorchester County in 1996. The expanded facility will allow the firm to accommodate a new production line, as well as manufacturing machinery and equipment. The expansion will add approximately 30,000ft<sup>2</sup> to the existing facility.

# Distribution agreement

TE Connectivity (TE) has announced a distribution agreement with PEI-Genesis (PEI), an international manufacturer, assembling distributor and engineering design firm for connectors and power supplies.

Sofia Shafir, director of product management and engineering at TE Global Aerospace, defense and marine, said: "We are excited to have PEI-Genesis as an authorized TE distributor for the Raychem harness protection products. Their recognized value-add capabilities, industry presence and end-customer engagements are expected to extend the opportunities for Raychem products, in addition to bringing new applications and growth potential to both companies."

In addition to the current Deutsch connector offerings, another TE brand, PEI-Genesis will now stock Raychem cable accessories and protection products, including tubing, boots, devices, backshells, adapters, crimps and more.

"We are delighted to add TE's Raychem cable accessories to our portfolio of TE products," says Russ Dorwart, president and chief operating officer, PEI-Genesis.



# More superconductor research

New observations of electron movement in superconductors could accelerate their development.

Researcher Zhi-Xun Shen and his team at Stanford University have found that lattice vibrations, known to be damaging to superconductors, can also offer an enhancement.

"I've been working on superconductors for a long time," Shen told Chemistry World. "This is a new thing we can try to maybe get much better superconductors. It doesn't happen very often, so we're very excited about it."

Shen's team studied films using angle resolved photoelectron spectroscopy (ARPES). The scientists used X-rays from the Stanford synchrotron radiation lightsource to eject electrons from iron selenide films, and study their properties including energy

and angular momentum. They found that some electrons had less energy than expected, and that the difference was exactly the energy of the vibrations in the selenium titanate substrate. Shen explained that an individual quantum packet of vibration – a phonon – couples to each electron pair, bringing them together to achieve superconductivity. When the electrons are ejected by X-rays, they lose energy to excite these phonons.

"We show unambiguously how the substrate can play a role in enhancing superconductivity," Shen stated. He added that these phonons should help even when electrons are paired up by phenomena other than lattice ripples. He now plans to attempt to use this approach in other materials, to discover whether sandwiching a superconductor between two substrates could provide greater enhancement.

Here's a great solution for:  
**Measuring  
 Sector-Shaped  
 Power Cables.**

>> **BETA LaserMike  
 ActiveScan™  
 Measurement System**

**The solution:**

ActiveScan effectively and reliably measures the height and width of sector-shaped cables, such as straight and pre-spiraled cables, at the hot or cold end of the extrusion line with the highest precision regardless of product alignment or angular rotation.



**Why it's great:**

- Measures product height and width up to 40 mm
- Measures at any line speed with ±0.001 accuracy<sup>1</sup>
- Precisely determines minimum and maximum dimensions
- Completely pneumatic system for reliable, long-lasting operation
- Interfaces with Profibus, Profinet, Ethernet IP, and RS-232
- Conforms to CE standards

<sup>1</sup>±0.02% of product size



(Go to Resources/Literature/  
 Application Notes)

**Discover how ActiveScan can help you  
 achieve greater profits. Download  
 the application note today!**



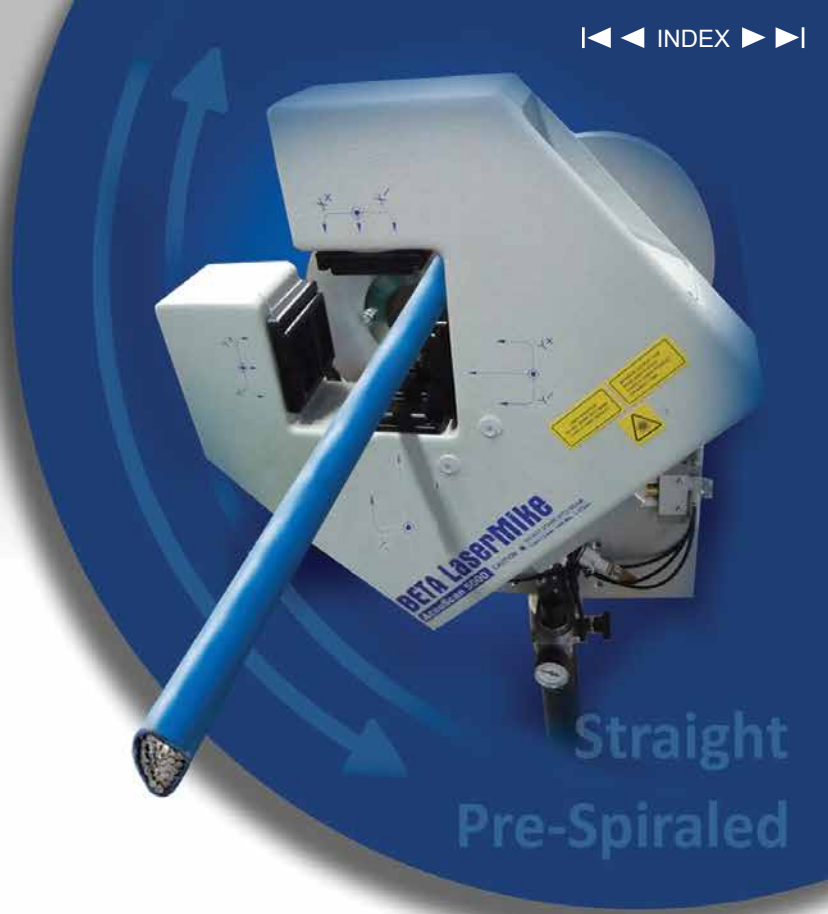
[www.betalasermike.com/wi2](http://www.betalasermike.com/wi2)

**Americas**  
 Tel: +1 937 233 9935  
 Fax: +1 937 233 7284

**Europe**  
 Tel: +44 1628 401510  
 Fax: +44 1628 401511

**Germany**  
 Tel: +49 231 758 930  
 Fax: +49 231 758 9333

**Asia**  
 Tel: +86 21 6113 3688  
 Fax: +86 21 6113 3616



- ✓ **Faster product changeovers**
- ✓ **Complete process control**
- ✓ **Higher productivity**
- ✓ **Greater manufacturing savings**



# Indiana investment

Southwire Company is to expand its operations in Bremen, Indiana, following its acquisition of Illinois-based Coleman Cable in February.

Southwire will invest \$2.1 million to purchase and equip a new 48,000ft<sup>2</sup> facility in Bremen, and relocate its manufacturing capacity for the OEM and industrial divisions.

“Southwire’s acquisition of Coleman Cable, including the Bremen operations, provided a key step in our strategy to grow into new, diverse markets,” said Stu Thorn, president/CEO of Southwire. “We now are working together to position ourselves at the forefront of the wire and cable industry, while continuing to provide world-class

service to our customers. With its central locale and the availability of resources and skilled labor, Bremen provides a perfect focal point for that growth.”

Founded in 1950, Southwire is believed to be North America’s largest, and the world’s third largest, producer of wire and cable for the transmission and distribution of electricity.

Jim Leeper, president of the Bremen town council, said: “Southwire is a valued employer in the community and I’m glad that the town will partner with the state of Indiana to support Southwire’s commitment to grow the Bremen operations and create more good jobs for area residents.”



Digital .  
Networking .  
Monthly .

wiredIn  
**USA**

READ  
WATCH  
SHARE

# EASIER QUICKER NO PAPER

Unique, original-content news  
and information for the domestic  
US wire and cable market



**Every month, wiredInUSA is ....**

- mailed electronically to a specified wire and cable audience
- delivered direct to your email inbox
- available to read online

**It's FREE... so pass it on to colleagues!**

Register online at

**[www.wiredinUSA.com](http://www.wiredinUSA.com)**

America's new online magazine for wire and cable



## Iowa line

Power provider Clean Line Energy Partners LLC has filed plans for a \$2 billion transmission line. The line, awaiting approval from Iowa and Illinois regulators, would carry 3,500MW from northwest Iowa and the surrounding region to communities in Illinois and other states to the east.

In 2012, federal regulators authorized the project's sponsors to negotiate rates and enter into contracts with customers for the 500-mile project, which is under development by the Clean Line subsidiary Rock Island Clean Line LLC.

Backers of the project believe it could enable \$7 billion of new renewable energy projects, with renewable generators and utilities purchasing transmission capacity on the Rock Island Clean Line.

## Component acquisition

Atkore International Inc has acquired the assets of Steel Components, Inc (SCI), a designer and manufacturer of armored cable and steel and malleable iron electrical fittings for steel, flexible and liquid-tight conduit. SCI will operate as Atkore Steel Components Inc.

"We look forward to bringing Atkore's engineering and innovation capabilities to help support their continued success," said John Williamson, president and CEO of Atkore International.

All facilities of Steel Components, Inc will continue to operate at their current locations.



## JV cable approved

Telesintese reports that the board of directors of Brazilian state-owned telecommunications infrastructure provider Telebras has approved a plan to create a joint venture with IslaLink to lay an undersea cable between Brazil and Europe. The deal is yet to be evaluated by regulatory bodies and agencies.

The partnership was announced in January. Under the agreement announced at the time, Telebras will have 35 percent and IslaLink a 45 percent stake in the venture, with the balance held by investment funds.

## Wire acquisition

Alpha Wire has acquired Coast Wire and Plastic Tech of Carson, CA. Coast specializes in custom wire and cable for the medical, instrumentation, industrial, semiconductor, and commercial electronic markets.

“We are pleased to add Coast to the Alpha family,” says Mike Dugar, president of Alpha Wire. “With the addition of Coast’s expertise in custom cable design and manufacturing, we offer a superior array of cabling solutions for our targeted markets, including medical device manufacturers and industrial machine builders.”



# Networking, German style

---

*Niehoff Endex welcomed over 50 visitors to its biennial open house event in October at the Swedesboro NJ, USA, facility. The Niehoff open house provides a casual background while allowing its guests to learn about the organizations and their latest technologies.*

The event began with a brief tour of the facility. The visitors were able to inspect the the ultra-fine wire drawing line MKN101, and an EDR15 rod breakdown line equipped with an AUD2000 rod payoff, R501 annealer, a EWC3.5 dancer and the ECC42 continuous coiler. NENA also showed its D1001 double twist buncher, a couple of vertical braiders, BMV16 and BMV124, and a new process to strand multiwire copper alloy for the automotive cable industry using the D631 double twist buncher.

In the evening, German food, beer and music were on offer for an Oktoberfest celebration on the facility's front lawn.

Day Two consisted of presentations for all attendees, partners and OEMs. Arnd Kulaczewski, Niehoff's MD, summarized the latest Niehoff developments. To address the latest trends in the automotive industry, Bernd Lohmueller presented "Manufacturing solutions for alternative materials to copper for automotive wires". He was followed by Troy Carr's presentation, "A new era in wire drawing lubricants". After a short break, Klaus Eichelmann presented "The missing puzzle part for an effective and productive drawing process!" with Rolf Wurmbach concluding the presentation sessions with "Keep your investment safe and running: beneficial advice for maintaining your equipment".

# FIRE WIRE DAMAGE

A fire at Bekaert's Rome, Georgia, plant on 19<sup>th</sup> November caused extensive damage. The fire appeared to have started in a hood on a bead wire line in the north-central part of the plant. It then spread into the ceiling, said Jeff Oliver, human resources manager of the plant, but no one was injured. "We got everyone out," Oliver said. "Everyone's accounted for."

Employees at the plant were sent home at the time of the fire, and plant personnel will stay in contact with the 225 or so employees to advise them of their job status. "We'll let everybody know what's going to happen," said production manager Robert Winkle.

The plant makes bead wire used in the manufacturing of tires and rubber hoses. A spokesman explained that lubricant that helps draw the bead wire through the system burns off in the lead bath. "When you've got a lead bath and it gets in the tube, every once in a while it'll flame up in the tube, but it has never gotten like that," he said.

Rex Rains, president of CWA/IUE local 83190, which represents 175 of the hourly employees at Bekaert, said the company was already in the preliminary stages of a \$29 million upgrade and estimated the Rome plant already had taken delivery on as much as \$7 million worth of new equipment. "I don't think any of that was damaged. It was all on the other side of the plant. I think it was secured."



# LOOKING TO THE FUTURE

R, the Galician optic fiber communications operator, has selected radio frequency over glass (RfOG) technology from Arris Group Inc to improve bandwidth provisioning, and ensure legacy infrastructure can be expanded with FTTP RfOG extensions.

The technology was implemented from November 2014 by bcSistemas. R has selected a range of Arris solutions including optical network units, optical transmitters, optical receivers for RfOG, optical amplifiers, multiplexers and passives.

# FIBER DISAGREEMENTS

Telecommunications companies operating in Brazil have implied that rolling out fiber optic networks across the country is not a priority, despite government aspirations to use fiber to improve nationwide broadband access.

Eduardo Levy, head of Brazilian telecoms union Sinditelebrasil, has been quoted as saying that there is no point in creating fiber networks in more remote areas that will not be able to pay for the service.

“There is a cost that is not compensated by the demand. People [in areas



“Arris’s RFoG technology will enable us to deliver fiber to more of our network. This means our commercial and residential customers will see a dramatic improvement in service and overall experience,” said Julio Sanchez Agrelo, director of the network division at R. “We are excited about this technology and its potential to reduce our operating costs and maximize our HFC infrastructure investment over the coming years, even as technology advances.”

Pablo Guaglianone, general manager of Arris Spain, added: “As service providers look to deliver next-generation content

experiences, they need to deploy superior infrastructure that competes with established players. Our suite of fiber technologies has the power and scale to meet these demands.”

Jose Antonio Illarregui, bcSistemas managing director, said: “This project demonstrates the benefits of RFoG technology for fiber to the home – allowing the reuse of all the legacy equipment and services in both the headend and in subscribers’ homes, greatly expanding the capacity of the networks and reducing negative factors such as maintenance costs.”

outside large urban areas] do not need [fiber] and do not want it. Fiber is about fixed Internet access and people want mobility,” Levy told Convergência Digital.

The view is at odds with government intentions: during her recent campaign, president Dilma Rousseff talked about her ‘Internet for all’ plan of broadening the fiber optic infrastructure in the country.

Data from the ministry of communications suggests that 42 percent of Brazilian municipalities still lack fiber optic infrastructure. President Rousseff has

expressed her desire to cover most of those locations, but also admits that the necessary investment is unlikely unless there is a legal requirement to do so.

According to to communications minister Paulo Bernardo, the president has ‘a few options to choose from’, but the overall plan is to create a government-sponsored program to promote the development of broadband provision with fiber networks, particularly amongst citizens of lower incomes.

“We can, and we need, to considerably expand our fiber optic networks,” he added.

# EUROPE NEWS

---

# CONSORTIUM CATCHES THE SUN IN BORDEAUX

A consortium of Eiffage, acting through its Clemessy subsidiary, Schneider Electric and Krinner has been awarded a contract for the construction of a solar farm and an extra-high voltage substation in Cestas, near Bordeaux, France. The consortium will also be responsible for the operation and maintenance of what is expected to be the largest photovoltaic power project in Europe. Work is to begin immediately.

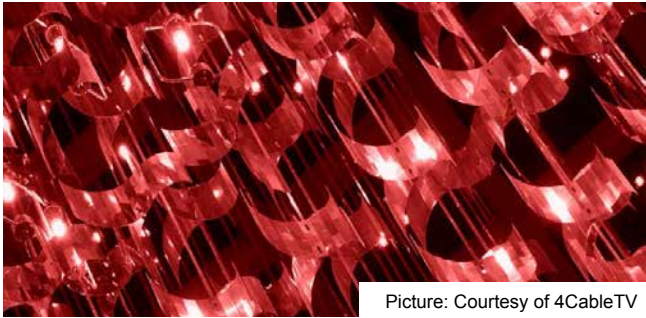
The project will call on the expertise of Clemessy subsidiary RMT for engineering studies, Eiffage Energia for connection work, Eiffage Travaux Publics for earthworks, Schneider Electric for the electrical

conversion chain and Krinner GmbH for screw-in foundations and photovoltaic structures.

This is the latest development project for Neoen, a French provider of renewable energies, and will provide a total peak capacity of 300MW.

The farm will be connected directly to the power grid and will be on-line in October 2015, generating enough power for the daytime consumption of the Bordeaux population.





Picture: Courtesy of 4CableTV

## Technology to reach subscribers

4Cable TV International Inc has announced that a second cable multi-system operator (MSO) has approved the company's patent-pending RF2F technology for purchase by their cable systems. 4Cable's RF2F converts RF signals to fiber to permit cable operators to extend 10,000-foot lines to previously unserved customers.

"We are extremely pleased to see [a] second top-tier MSO approve RF2F for purchase by their system operators," said Steven K Richey, president of 4Cable. "Our sales team is now in a position to market RF2F units to the company's purchasing agents. RF2F units are available as single, dual, quad, 8, or 16 output devices, with each port capable of serving one subscriber."

The top ten MSOs have a combined subscriber base of over 90 million homes and businesses. MSOs are spending approximately \$3,600 to \$5,500 to purchase new subscribers, yet at the end of their existing feeders there are millions of potential customers that can be served. By using the RF2F technology a new customer can be acquired for a cost of under \$1,000 and in many cases for under \$500.



## Superconductor research

A team at Linköping University, researching superconductors, have discovered a potentially important process in a ceramic copper-based material that becomes superconducting at  $-183^{\circ}\text{C}$ .

The superconductor in question is  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ , or YBCO, which consists of two planes of copper oxide, with separate chains of copper oxide between them. The precise role of these copper oxide chains has been unknown for years, but it had been discovered that varying the oxygen doping of the chains influences the critical temperature of the material. Using X-ray absorption spectroscopy and resonant inelastic X-ray scattering, the researchers found that the material undergoes self-doping, whereby positively charged holes are supplied to the copper oxide planes from the chains, when cooled.

This had not been observed before in this material and will almost certainly change researchers' understanding of how superconductivity arises in copper-based high-temperature superconductors. Hitherto a constant doping level has been assumed, but this no longer appears to be true.



## Hungarian cable extension

German cable maker Stahlschmidt is to expand the output capacity of its production facility in Tatabánya, in the north-west of Hungary. The factory, established in 1993, makes a range of cables and connectors for automotive manufacturers.

Szabolcs Székely, chief executive of a local subsidiary, SCS Stahlschmidt Cablesystems Kft, said the company will increase its workforce as a result of the expansion plans, adding: "The group wants to double its turnover by 2017. Hungary is to represent about 80 percent of the designed growth."

The workforce of the plant has already increased from 250 to over 300 during 2014, and in 2015 the manufacturer will create up to 20 new jobs in Tatabánya.

Stahlschmidt supplies its output to various car manufacturers, with the Hungarian plant's output intended for south-eastern European markets. The producers include Audi, BMW, Ford, Peugeot and Citroen. In addition to the plant in Tatabánya, the group operates facilities in Germany, Poland, France, Canada, China and the US.



## New plant for Brazil

Lapp Group, which already has plants operating in Europe, North America and Asia, has opened its first production plant in South America, as well as expanding its sales subsidiaries in Poland and Russia.

The new plant is located in the Brazilian state of Bahia, placing Lapp at the heart of an important market. "Thanks to our new production plant, we are closer to our clients and are able to supply them with our branded products more quickly. The first major contracts show that we have made the right decision," said member of the board of Lapp Holding AG, Siegbert E. Lapp, at the plant's inauguration ceremony.

The Cabos Lapp Brasil plant comprises a production area of 6,200m<sup>2</sup> and is expected to expand to a total of 10,000m<sup>2</sup> in the near future. The new plant will allow Lapp to offer tailored products to its South American market and the company will no longer be subject to fluctuations in the foreign exchange rate or liable for high import duties.



## Steel protection

Turkey's government has announced an increase in import tax on rebar and wire rod, with a view to protecting its domestic steel industry from cheap or poor quality imports. This is expected to impact on Chinese exports.

Most Chinese steel mills use the BOF (basic oxygen furnace) steelmaking process, whilst Turkish mills use an electric furnace with scrap as the raw material.

The international iron ore price index fell to \$80 per tonne, while Turkey's scrap import price is around \$330 per tonne, making the production cost of Chinese steel mills considerably lower than that of Turkey. Added to this, and coupled with export tax rebates on boron-added rebar and wire, Chinese products are more competitive in the Turkish market.

## Michigan grid

ABB has commissioned a power solution to control the flow of power and enhance grid stability in the state of Michigan. The technology provides dynamic voltage support, thereby increasing regional grid reliability while enabling integration of additional wind generation.

The high voltage, direct current (HVDC) Light station was commissioned and handed over to the customer, American Transmission Co (ATC) on schedule.

ABB designed, supplied and installed the 200MW, back-to-back HVDC Light station in upper Michigan. An HVDC back-to-back system comprises two HVDC converters connected directly to each other, without any DC transmission line, making it possible to fully control the power transfer through the connection.

The voltage and reactive power control features of the system enable the integration of additional wind energy and stabilization of the network. Black-start capability allows for fast network restoration, in the case of a power outage, using power from the other end of the system.





## Facilities upgrade

Prysmian Group is to invest over €40 million to upgrade production capabilities in its high voltage and submarine cable production plants in Pikkala, Finland, and in Arco Felice, Italy. The new investment will enable both plants to be fully equipped to manufacture and test large cross section 3-core cables up to 400kV AC.

The investments follow an initial €40 million invested in Finland in 2012, to commence production of HVDC cables at the Pikkala unit. In Arco Felice an additional €50 million was invested in the period 2012/2014 to increase capacity for the production of mass impregnated cables (both paper and PPL).

The latest investments are driven by a contract worth up to €730 million, awarded to the company by 50Hertz Offshore GmbH in May 2014, to design, produce and install the power cable systems for the offshore wind park cluster West of Adlergrund in the German Baltic Sea.

As well as three production facilities dedicated to submarine cables – Arco Felice (near Naples) in Italy, Pikkala in Finland and Drammen in Norway – Prysmian also owns and operates two installation vessels, Giulio Verne and Cable Enterprise.

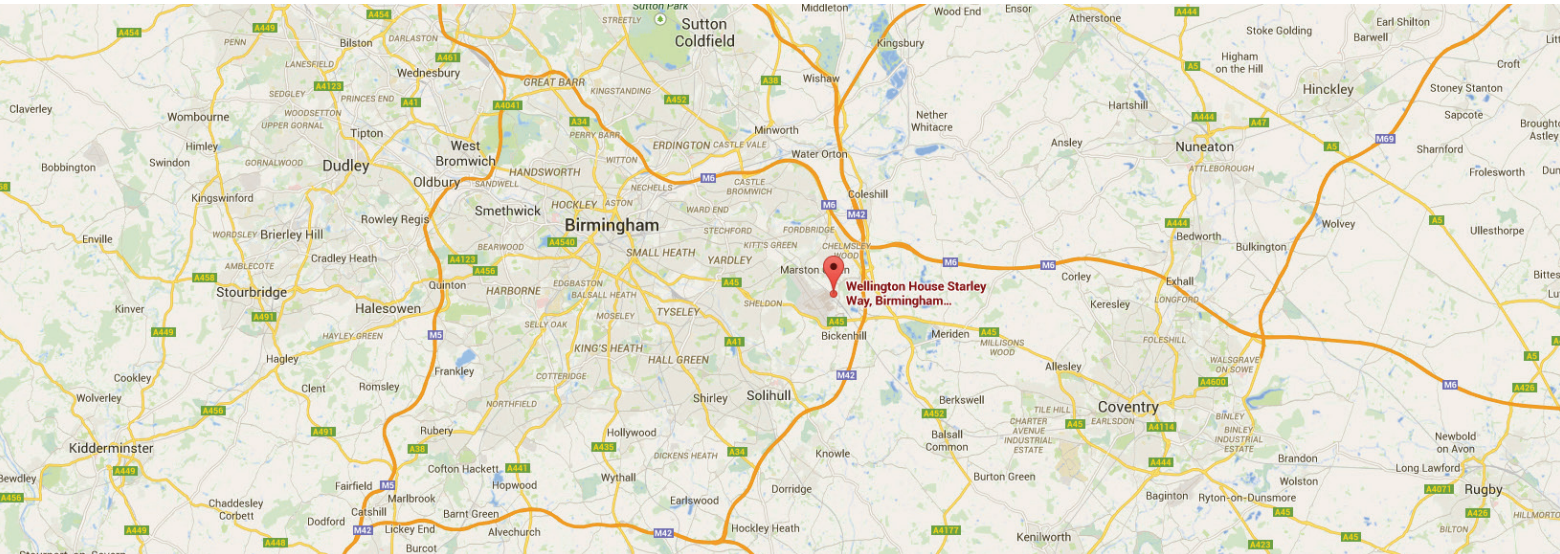


## Fiber acquisition

Huber+Suhner has acquired the Germany-based company Cube Optics AG. Cube Optics develops, produces and sells wavelength-division multiplexing (WDM) products and systems based on precision injection molding and fiber optic technologies. These solutions are said to offer low space requirements with high performance. WDM products and systems provide a cost-efficient solution for boosting data transmission rates.

Established in 2000, Cube Optics currently employs around 140 people in its headquarters and research center in Mainz, with local sales partners in various markets.

Urs Kaufmann, CEO of Huber+Suhner, explained: "As a result of the acquisition of Cube Optics, Huber+Suhner is enhancing the already successful position in broadband communication. Our company will gain access to 'free space optics' technology, to new customers in the growing field of transceiver production and above all acquire extremely well qualified employees. Synergies will be generated by the global sales network of Huber+Suhner and by product combinations. We anticipate a simple integration process characterized by continuity and will continue to rely on the current management team of Cube Optics and on Mainz as a location."



## The IWMA completes its move

The International Wire & Machinery Association (IWMA) – the world’s largest corporate trade association for the wire and cable industry – has taken up residence at its new home near Birmingham International Airport, UK.

The move is part of the association’s long-term expansion plans to develop its membership and grow internationally, and the new offices opened on Monday, 1<sup>st</sup> December.

The association had previously been based in the offices of INTRAS, which publishes EuroWire, Wire & Cable ASIA and wiredInUSA magazines in Leamington Spa, Warwickshire, UK.

The new contact details are:

**IWMA,**  
Wellington House, Starley Way,  
Birmingham International Park,  
Solihull. B37 7HB.

Telephone: +44 (0) 121 781 7367,  
Fax: +44 (0) 121 781 7404  
Email: [info@iwma.org](mailto:info@iwma.org)  
Website (unchanged): [www.iwma.org](http://www.iwma.org)

### Follow us . . .

Remember to follow the IWMA LinkedIn page to ensure you are kept up to date with all activities, whether it is announcements about exhibitions, conferences and events or the educational trust, as well as member news.





# IWMA spices up WIRE & CABLE INDIA

More than 380 exhibitors from 25 countries took part in WIRE & CABLE INDIA and the concurrent fairs Tube India International and Metallurgy India in Mumbai at the end of October.

Industry partners the IWMA, the International Wire and Cable Exhibitors Association (IWCEA), the Italian Wire Machinery Manufacturers Association (ACIMAF), Wire and Cable Industry Suppliers Association (WCISA), Steel Wire Manufacturers Association of India (SWMAI) and the ITA joined with representatives from organizers Messe Düsseldorf India and Messe Düsseldorf GmbH at the opening of the show.

Exhibitors took up 18,000m<sup>2</sup> of space during the three-day show.



IWMA representatives on the stand in Mumbai, India, from left, Andy Lewis, executive manager; chairman Steve Rika; and executive board member Martin Van Der Zwan

Pictured at the opening are, from left, Dr Gerhard Bartz, VDKM; Dr Kurt Eder, VÖDKM/AWCMA; Peter Byroslawsky, ITA; Rahul Sachdev, WCISA; Erhard Wienkamp, Messe Düsseldorf; Steven Rika, chairman, IWMA; Jörg Dübelt, Messe Düsseldorf; Krishnendu Sanyal, Tata Steel Ltd, wire division; Udo Schürtzmann, Messe Düsseldorf India; Prashant Ursekar, Tata Steel Ltd, wire division; Stephen Loynes, ITA; Sachin Warang, Tata Steel Ltd, wire division; Lunia, SWMAI; and Tirthankar Banerjee, SWMAI



# ASIA & AFRICA NEWS

---



# BILLION DOLLAR POWER PROJECT

State Grid Corporation of China (SGCC) has begun work on a large-scale ultra-high voltage (UHV) power project to help alleviate problems with air pollution.

The project, estimated to cost in the region of \$11.2 billion, will involve several new transformer substations and 4,740km of new power lines between inner Mongolia, in the northwest, to the Chinese capital Beijing and down the coast to Shanghai.

It is expected to start operation during 2016.

China's heavy reliance on coal has helped to create an air pollution crisis, frequently resulting in haze over its densely populated east. State Grid said that the new UHV power project will allow China to cut coal usage by 150 million tonnes per year.

State Grid, the world's biggest utility and a pioneer of UHV technology, has revealed plans to spend \$101 billion on 20 UHV lines in China before 2017.

Although critics have argued that the country will be too reliant on costly and untested technology that could expose the system to blackouts, State Grid has said that UHV lines are reliable and designed to prevent outages. In July 2014, State Grid began operating a new UHV power line across five eastern and south western provinces.

The UHV lines will allow China to build power plants near coal mines or gas fields and to send electricity, rather than coal, across the country.



## Further links for Africa

Angola Cables SA has signed a contract to build the world's first submarine cable system across the South Atlantic, with NEC Corporation as the system supplier. The South Atlantic cable system (SACS) will connect Angola and Brazil, directly linking the African continent to Latin America for the first time, offering high speed and high capacity international data transmissions.

In order to meet growing demand from broadband, mobile, broadcasting and enterprise traffic crossing the South Atlantic, SACS will feature the latest four-fiber pair cable and optical transmission technologies with an initial design capacity of 40Tb/s. The cable will land at Sangano, near Luanda, in Angola and in a datacenter in Fortaleza, Brazil.

The operator recently announced the construction of another cable system, COTA (Cable of the Americas) connecting Santos and Fortaleza in Brazil to Miami in the USA. Angola Cables will connect Angola and Africa directly to Brazil and the USA through SACS and COTA, adding to existing connectivity from Africa to Europe through the WACS (west Africa cable system).

Construction of SACS is expected to begin before the end of 2014, and be ready for service in late 2016.



## UAE rebar boom

Dubai's infrastructure improvements are benefitting the local steel industry, with an increase of up to 25 percent anticipated for 2015.

Conares CEO Bharat Bhatia told Khaleej Times: "Key projects like Canal, airport development, theme parks, Etihad railway [and] the extension of the RTA metro will boost steel demand in the local sector and Conares is all set to grab this opportunity. We have plans to set up additional facility in Jebel Ali and aim to produce an installed capacity of one million tonnes by June 2015."

The Gulf region's second largest steel plant in the private sector opines that the local steel manufacturers should increase production to cater to the current demand. Currently, 60 to 70 percent of demand for steel rebar in the UAE market is addressed by the local manufacturers and the remainder covered by imports. The UAE rebar market is estimated to have maintained a stable demand of around three million tonnes for the current year.

Conares currently supplies about 350,000 tonnes of rebar, about ten percent of the total domestic requirement in the UAE, and is among the three major steel rebar mills continuously operating in UAE.



## Regional power grid plan

Pakistan's federal minister for commerce, Khurram Dastgir Khan, has revealed plans to supply other countries with electricity imported from Tajikistan via a connecting grid.

The grid infrastructure, known as CASA-1000 (central Asia south Asia electricity transmission and trade project), will transmit 1,000MW of electricity to Pakistan from Tajikistan. "The electricity can be supplied easily to any country with a deficiency, once the grid is established," Dastgir told the minister of foreign affairs of Tajikistan, Sirodjiddin Aslov.

"The CASA-1000 project will be a classic example of economic interdependence between two regions and provide Pakistan with the much eagerly required electricity," he said. The commerce minister also talked about the desire to create an energy market in the region after the establishment of the grid.

The two sides agreed that a preferential trade agreement between Pakistan and Tajikistan will be necessary to utilize the full potential of the proposed Pakistan-Afghanistan-Tajikistan transit. This is likely to result in an eventual free trade agreement between the two countries.



## On the margins

Plans by the management of Sarawak Cable Bhd are intended to strengthen the group's footing by improving margins and creating jobs in Peninsular Malaysia.

AmResearch reports that the management wishes to improve the margins of two proposed acquisitions, Universal Cable (M) Bhd and Leader Cable Industry Bhd, by focusing on medium voltage and high voltage cables.

Management will also improve margins by leveraging on economies of scale and enhancing efficiencies.

There may also be a move of the group's production lines from the Nilai plant to Sabah, to secure demand there. Consolidation of its operations in Peninsular Malaysia, with a combined market share of 50 percent, would be beneficial for the group and secure more transmission jobs.



## Conducting superconductor demo

LS Cable & System has established a demonstration installation of the world's first superconducting DC cable. The company completed the installation of the 80kV superconducting DC cable at its superconducting power system center in Jeju Island at the end of October, and on 19<sup>th</sup> November started a system demonstration that will last for six months.

Superconducting cable is highly usable in congested urban areas where power demand is on the rise, while space underground for cables is already saturated with cable tunnels and conduits. A dramatic wattage increase can be achieved by simply replacing existing cables with superconducting cables. In addition, when it becomes necessary to build a new cable tunnel, the cross section of the tunnel can be reduced by over 60 percent.

LS Cable & System began its development of a superconducting cable in 2011, and was fourth in the world to produce an AC cable. In 2013, the company was first in the world to produce a DC superconducting cable.



## Communication in the field

Yokogawa Electric Corporation has released a multi-function wireless adaptor, allowing wired devices that transmit/receive digital on/off signals, or receive 4-20 mA analog signals, to function as ISA100 Wireless™ field wireless devices.

Field wireless systems enable plant field devices and host-level monitoring, control, and other systems to communicate wirelessly, and can be installed in difficult-to-wire locations with the added advantage of a lower installation cost. The new adaptor will increase the variety of devices that can be used with field wireless systems, and is expected to lead to a wider use of such systems in plant operations.

An all-weather waterproof and dustproof model, and an explosion proof model that can be used in inflammable gas environments, are expected to be released during 2015.





## Putting fiber out of reach

Among efforts to improve the experience of users in the western and Ashanti regions, mobile network operator, Tigo Ghana, has begun work on a \$3.2 million overhead fiber optic cable project. Both regions have suffered fiber cuts by illegal miners, road contractors and property developers.

“On the average we record about 51 cable cuts every month between the Ashanti and western regions, and this is mainly due to the operations of illegal mine workers and on-going road expansion projects in both regions. Apart from spending millions annually to replace these cables, the impact on customer and user experience is damaging, to say the least,” explained Obafemi Banigbe, chief operations officer for Tigo Ghana.

“Putting the cables on overhead concrete poles would stop people from digging them out [of] the ground and this will boost network quality, improve customer and user experience and also increase Tigo’s coverage footprints in both the Ashanti and western regions,” he added.

The three-phase project will cover 360km between Dunkwa and Kumasi, and will utilize 4,600 poles. Completion is expected by February 2015.

## Zimbabwe’s power growth

Yellow Africa, an independent power producer, has applied to the Zimbabwe energy regulatory authority (ZERA) to construct a 100MW solar power plant in Ntabazinduna near Bulawayo. Power from the plant would feed into the national grid.

“ZERA has received an application from Yellow Africa Private Limited to construct, own, operate and maintain a 100MW solar power plant for the purpose of generation and supply of electricity in Zimbabwe,” said the regulator in a statement. If approved, the project will be implemented in phases of 50MW each.

“The name of the generation station would be Ntabazinduna solar plant. The proposed plant will generate electricity using solar radiation at Ntabazinduna or Mbembesi communal lands in Umguza rural district council,” said ZERA.

ZERA has licensed approximately 15 IPP projects, all now in various stages of development. At present, Zimbabwe produces about half of its national requirement of 2,200MW.

**PRODUCTS &  
MACHINES  
TECHNOLOGY**

---

## Burner passes test of time

QED Wire Lines is celebrating over 75 of its Mark 4 ART (advanced recuperative technology) immersion burner units installed and commissioned in just over two years, with 30 more in the planning stages. The burners are designed to offer unparalleled heat recovery from an extended double-pass integral recuperator that pre-heats the incoming combustion air.



More than 75 units from QED installed

The unit's design is believed to result in better than 76 percent thermal efficiency, offering almost 20 percent fuel savings over traditional immersion burner systems.

Constructed of stainless and high nickel alloy steels, the Mark 4 ART burner is available as an upgrade to all existing immersion burner Galvanizing, Galfan® and Aluminizing furnaces.

Further benefits of the Mark 4 ART burner are said to include easier starting and operation, cooler body temperature, improved flame stability, lower carbon dioxide and nitrogen dioxide emissions, direct spark ignition and UV or flame rod supervision.

## Foaming agent

PolyOne's Colorant Chromatics division has launched a new chemical foaming agent for fluoropolymer wire insulation, said to reduce part density whilst enhancing the stability and efficiency of the manufacturing process.

The company explained that enhanced dispersion of active foaming ingredients produces a consistent cell structure of 200 micron or less. Insulation thickness and density are reduced without adversely affecting electrical, chemical or thermal properties.

In terms of thermal stability, PolyOne said heat resistance from 340°C to 380°C supports effective homogenization of the foaming agent with high performance polymers.



The foaming agent is suitable for FEP, PFA and MFA fluoropolymers.

"It's difficult to minimize the trade-offs between thermal stability, foaming control and high processing temperatures when applying wire insulation," said Barto du Plessis, general manager at PolyOne Colorant Chromatics. "This new technology balances all three performance requirements and boosts productivity without the need for additional equipment investment."

## New IA connectivity

Panduit Corp and General Cable used November's Automation Fair to launch PanGen® industrial automation (IA) connectivity.

PanGen industrial automation offers a portfolio of standards-compliant cable and connectivity for networked IA applications, including industrial Ethernet, high performance control cabling, and industrial fiber optic and connectivity.

"Our PanGen partnership leverages the strengths of two global industry leaders," said Kevin Hoover, general cable director of sales, industrial automation. "Together, we provide comprehensive, high-performance cabling and connectivity solutions to meet the specialized and evolving needs of our customers in the industrial automation market segment."

Steve Timian, Panduit's director of industrial automation solutions, added: "Expanding upon our alliance with General Cable provides customers with the strength of our combined expertise on industrial connectivity systems."

PanGen IA installations are eligible for the PanGen industrial automation 25-year system warranty, provided the installation meets all of the terms and conditions of the PanGen warranty program. General Cable offers a separate extended 25-year product warranty on all General Cable-branded datacom and electronic cabling used in the warranted installation. PanGen cabling and connectivity systems are sold through authorized General Cable and Panduit distributors.

## Flexible flat cables

Cicoil's highly flexible flat cables are designed to provide absolute reliability and uninterrupted operation when utilized in automated medical diagnostic applications. The cables are Class 1 clean room rated and 100 percent contaminant-free. The clear, Flexx-Sil™ rubber jacket allows for quick, easy and safe inspection of the entire flat cable.



Contaminant free cables from Cicoil

Cicoil's solid, one-piece design can incorporate any variety of data, power and video conductors in a single, compact flat cable profile. In addition to every type of electrical conductor, the cables can also include single and multi-lumen tubing for air or liquid transfer, all in the same cable, making them suitable for automated clinical diagnostics, blood screening, and immunoassay analyzing systems.

Cicoil's patented computer-controlled extrusion process ensures that the inner elements do not rub against each other and wear during a lifetime of more than ten million cycles, even under high speed flexing and tight bending radius conditions.

The proprietary Flexx-Sil™ jacket is self-healing from small punctures and is impervious to



long-term exposure to de-ionized water, alcohol, steam, UV light, radiation, humidity, temperature extremes (-65°C to +260°C), autoclave and many chemicals.

Cicoil offers anti-friction coatings, torsion and custom shape designs on request.

Cicoil's light-weight, flexible flat cables are UL and CSA recognized, CE conforming, RoHS and REACH compliant and are manufactured in an automated, climate-controlled environment, with strict quality and inspection controls.

### No wires lost without trace

Amprobe has introduced its AT-7000 advanced wire tracer, that simplifies wire tracing and breaker identification. The tracer, available in two different kits, combines a receiver and powerful transmitter to locate energized and de-energized wires, breakers and fuses.



The new wire tracer from Amprobe. Photograph courtesy of JM Test Systems

The AT-7000 features the new Smart Sensor™ patented sensor array combined with an advanced signal processor that measures small changes in the detected signal multiple

times per second. Wire orientation and direction are displayed on a large LCD color display, accurate to within two 2"(5cm).

The tracer's tip sensor is shaped to allow tracing in hard to reach areas, corners and tight spaces. The Breaker Mode's 'scan and locate' feature clearly identifies a specific breaker or fuse, eliminating the multiple false positive readings common in older technology tracing tools.

The transmitter features three power modes: High, for normal circuits; Low, for precision tracing in difficult areas; and Clamp, which provides a boosted 6kHz signal to improve accuracy and performance where there is no access to bare conductors. The transmitter automatically selects the optimal signal frequency (6kHz or 33kHz) for fast and accurate tracing on energized and de-energized circuits.

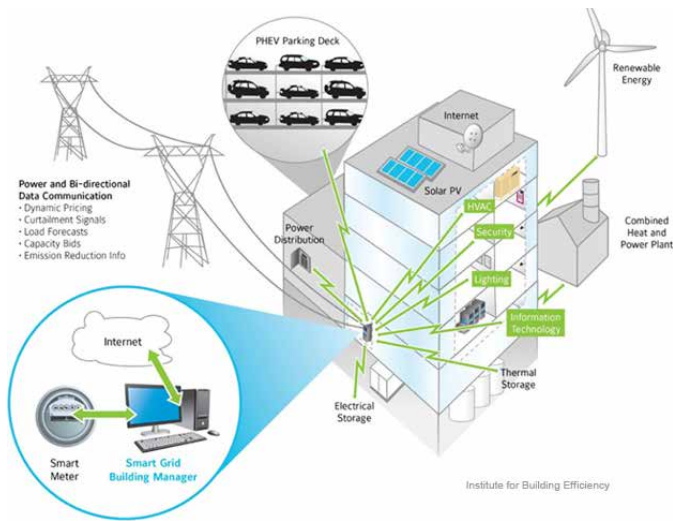
The AT-7000 receiver features non-contact voltage detection of energized wires from 90-600V and 40-400Hz with adjustable sensitivity. A signal booster rechargeable battery pack is available for use in difficult environments and automatically recharges when the transmitter is plugged into an energized circuit.

### Smart cable range

Electrical products manufacturer AFC Cable Systems has launched its range of MC Luminary™ cables.

The new metal-clad cables combine electric lighting and control circuits under a single interlocked armor. MC Luminary™ cable is

suitable for commercial lighting designs in Smart buildings for both LED and fluorescent dimming.



Smart buildings. Photograph courtesy of Institute for Building Efficiency

The MC Luminary cable features two single copper THHN conductors, one single THHN insulated ground, and a twisted jacketed pair of TFN conductors. The MC Tuff Luminary cable is a lightweight galvanized steel interlocked armor cable, and the MC-Lite Luminary cable is an interlocked aluminum armor cable. Both are offered in 120/208 or 277/480 conductor designs with a TFN conductor low voltage control assembly under one armor.

MC Luminary cables are designed to save time and significantly reduce installation costs. By coupling the standard power wiring for lighting fixtures with the low voltage control wiring under a single armor, a single MC Luminary cable will do the job of two cables when connected to LED fixtures, dimmers, switches, occupancy sensors and other controls.

MC Luminary cable reduces procurement time, shipments, installation time, and waste on the project, and contributes to the desired outcome for LEED certification status of Smart building designs.

### New HFFR compounds

Teknor Apex Company has launched new halogen-free flame retardant jacketing compounds for data center cables, control cables, energy cables, and other demanding applications. The compounds are said to exhibit a higher level of flame retardance than other high-performance HFFR materials, without compromising physical or electrical properties.

Halguard® 58300 series HFFR compounds with limiting oxygen indices in the 53–56 percent range enable cables to pass the stringent UL1685 vertical tray test (CSA FT4 / IEEE 1202) and achieve a UL94 rating of V-0 with test specimens as thin as 1/40 inch (0.635mm). The compounds are developed to provide outstanding flame performance while exhibiting the same physical and electrical properties of other high-performance HFFR materials. Available grades are in the 48-52 Shore D hardness range.

Teknor Apex recommends Halguard 58300 series compounds for data centers and other applications requiring exceptional flame retardance, one example being the extensive 'server farms' operated by Internet companies.

“We believe that Halguard 58300 series compounds are the most flame-retardant HFFR products on the market,” said Michael

Roberts, industry manager for the vinyl division of Teknor Apex.

### Labels pass the test

A long-term accelerated ultra-violet (UV) weathering test on Silver Fox's Fox Flo® tie-on cable labels, in accordance with ISO 4892-3 method A cycle 1 (outdoor simulation) has shown the labels to be highly resistant and durable.

Products are often tested for accelerated UV ageing for around 500-1,000 hours, but Silver Fox undertook accelerated UV ageing for 8,000 hours to properly evaluate the effects that accelerated ageing would have on the finished printed label.

As a rough guide, 8,000 hours approximately equates to 12 to 16 years in northern European climates or 6.5 to 8 years in tropical areas.

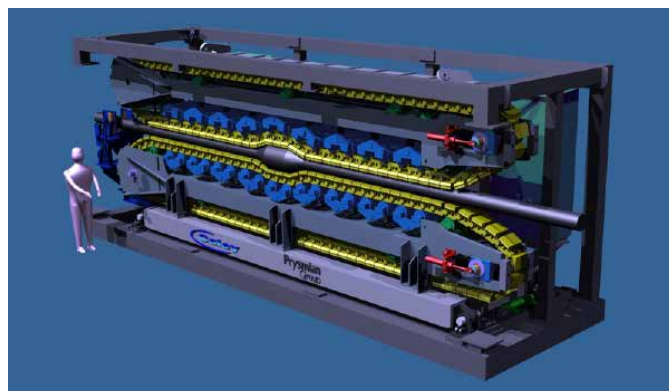
The most common outcome of this accelerated UV test is change of color, resulting from poor pigment stability. Other effects include surface chalking, which can give the illusion of colour change, so it is important, when testing, to assess a measured change in color against changes such as chalking or other surface defects such as cracking or crazing.

The report given by the testing house states: "Testing has been performed for an 8,000 hour period, which is the longest duration to which we have ever tested. For label products, the legibility of any printing is one of the most important characteristics and in this work the legibility of the printing has been assessed against any other changes

that have occurred. In the samples where information was printed on them, such as the Fox-Flo labels, the legibility remained clear and distinct."

### Maintaining the tension

Prysmian has ordered three offshore deepwater cable tensioners from Scottish firm Caley Ocean Systems. The units will have tension capacities of up to 25 tonnes, and will be installed on the Cable Enterprise vessel, which is currently being upgraded in advance of a series of cable installations over the next two years.



Three tensioners from Caley Ocean Systems. Photograph courtesy of Caley Ocean Systems

Caley Ocean Systems' cable tensioner is designed to allow wider parts of the cable to pass through it while still maintaining an even tension.

### Railway cable

Huber+Suhner has launched Radox® EN 50306 300V and Radox® Tenuis-TW 600V cable families insulated with Radox EI 306 electron-beam cross-linked material

and Radox EM 104 sheath material. The lightweight, thin-walled products are designed for the railway market, and are particularly stable under extreme loads.

Radox insulation and sheath materials are resistant to chemical, electrical and mechanical loads. They will not melt, even at extremely high temperatures, and remain dimensionally stable even in the case of short circuiting. They also withstand extremely low temperatures and meet the strict environmental requirements of EN 50306 and the fire safety specifications of EN 45545-2, DIN 5510-2, NFF 16-101 and NFPA 130.

### Cable stress relief

Helukabel has introduced Helutop Easy, a new cable gland technology that quickly and simply relieves stress and strain on cables. Using a patented spring/snap system, the Helutop Easy allows for quick and easy installation in hard-to-reach areas and spaces offering no access for locknuts.



New cable gland technology from Helukabel. Photograph courtesy of Helukabel

Assembly using Helutop Easy is simple – push the cable gland in and turn clockwise –

and can be done by hand. Fastening the gland in this manner achieves the same tight fit expected of traditional glands held in place with locknuts. No tools are required for installation, but dismantling requires a special tool that will not cause damage to the cable gland.

Helutop Easy is said to offer substantial installation cost savings in both time and additional hardware.

The Helutop Easy is currently available in plastic in sizes corresponding to M16 and M20. Additional sizes will be available shortly.

### Charging up

November's European Utility Week conference saw Nexans launch its new range of solutions for electric vehicle (EV) charging. Nexans is part of the Eco2charge project to support the development of electric vehicles.

Nexans has developed what it describes as a smart and modular connection and charging infrastructure solution, which will inter-operate with systems designed by the other Eco2charge partners. Nexans' patented busbar component connects EV charging stations without the need for digging or complicated installation, and adapts to different charging speeds and plug-types. In addition, Nexans has developed a smart energy management system integrated into the EV charging site that allows users to manage demand across the site.





<a href="#">4Cable TV International Inc</a>	28
<a href="#">ABB</a>	30
<a href="#">AFC Cable Systems</a>	43
<a href="#">Alpha Wire</a>	21
<a href="#">Amprobe</a>	43
<a href="#">Angola Cables SA</a>	36
<a href="#">Arris Group Inc / bcSistemas</a>	24
<a href="#">Atkore International Inc</a>	20
<a href="#">Bekaert</a>	23
<a href="#">Cicoil</a>	42
<a href="#">Clean Line Energy Partners LLC</a>	20
<a href="#">Conares</a>	36
<a href="#">CS Stahlschmidt Cable systems</a>	29
<a href="#">Fox-Flo</a>	45
<a href="#">Helukabel</a>	46
<a href="#">Huber+Suhner</a>	31, 45
<a href="#">IWMA</a>	32
<a href="#">Lapp Group</a>	29
<a href="#">LS Cable &amp; System</a>	38
<a href="#">Nexans</a>	46
<a href="#">Niehoff Endex</a>	22
<a href="#">Olympic Tug and Barge</a>	12
<a href="#">Panduit Corp / General Cable</a>	42
<a href="#">PolyOne</a>	41
<a href="#">Prysmian Group</a>	30
<a href="#">QED Wire Lines</a>	41
<a href="#">Schneider Electric / Krinner</a>	27
<a href="#">Southwire Company</a>	18
<a href="#">TE Connectivity (TE)</a>	15
<a href="#">Teknor Apex Company</a>	45
<a href="#">Tigo Ghana</a>	39
<a href="#">Yokogawa Electric Corporation</a>	38
<a href="#">Zapp Precision Wire Inc</a>	14

# EDITORIAL

<u>Beta LaserMike</u> .....	17
<u>Cersa Mci</u> .....	7
<u>Inhol BV</u> .....	12
<u>Messe Düsseldorf</u> .....	8
<u>Paramount Die</u> .....	13
<u>WAI (Interwire)</u> .....	2
<u>Zumbach</u> .....	11

## Marketing:

Contact Jason Smith, wiredInUSA,  
Tel: +44 (0) 1926 834684  
Email: [jason@wiredinusa.com](mailto:jason@wiredinusa.com)

## News:

Contact David Bell, Editor, wiredInUSA,  
Tel: +44 (0) 1926 334137  
Email: [david@wiredinusa.com](mailto:david@wiredinusa.com)

# ADVERTISING INDEX

# ALL YOU NEED THIS CHRISTMAS IS THE HELP OF WIREDINUSA'S TEAM

Digital .  
Networking .  
Monthly .

wiredIn

Contact Jason Smith,  
Tel: +44 (0) 1926 834684  
[jason@wiredinusa.com](mailto:jason@wiredinusa.com)

David Bell, Editor,  
Tel: +44 (0) 1926 334137  
[david@wiredinusa.com](mailto:david@wiredinusa.com)

Target the USA market by advertising in wiredInUSA

[www.wiredInUSA.com](http://www.wiredInUSA.com)