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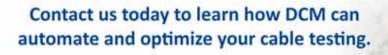
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EDITOR

Now we've all heard stories of thieves taking advantage of the price of scrap these days, but you would be hard pushed to find any willing to have a go at making off with the nuclear-powered USS Long Beach!

It is a sad end that the Long Beach will meet its demise after being sold for scrap, although it was made up of 10,000 tons of steel, 300 miles of electrical cable and 450 tons of aluminum, earning it the radio call sign 'Aloca' after the aluminum manufacturer of the same name. Other vessels have been sunk, sold to other countries or even used, in the case of USS lowa, as a museum. The full story is on page 12.

Staying on a military theme, there are plans afoot to install a \$40m underwater fiber optic cable to improve communications at Guantanamo Bay. The 800-mile cable will run between the bay and south Florida. The survey ship USNS Zeus is expected to arrive at the naval base in the next few weeks. See page 19 for the full story.

David Bell Editor

CONTENT CONTENT CONTENT



The billion dollar deal!





News Editor David Bell david@wiredinusa.com

Features Editor (USA) Dorothy Fabian

Features Editor (Europe) Gill Watson

Editorial assistant Christian Bradley

Design/Production/ Free Subscription Hélène Latour helene@wiredinusa.com

Sales & Marketing (International) Jason Smith jason@wiredinusa.com +44 1926 834 684 Advertisement Coordinator Liz Hughes

Accounts Manager Richard Babbedge

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 Website: 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

HON

Picture : Mike Gieson







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Industry Trade Association Spotlight on awards, education and events



46 Products, Machines and Technology The latest news from machine industries



2012

SEPTEMBER

10-12 Sept: **International Manufacturing Technology Show** McCormick Place Convention Center, Chicago, Illinois, USA Exhibition <u>www.imts.com</u>

OCTOBER

3-5 Oct: Spring World 2012 Chicago, Illinois, USA Exhibition www.wireworld.com/events/

NOVEMBER

11-14 Nov: IWCS Providence, Rhode Island, USA Conference www.iwcs.org

2013

APRIL 23-25 April: Interwire 2013 Atlanta, Georgia, USA Exhibition www.wirenet.org

MAY

7

TBA: wire Russia 2013 Moscow, Russia Exhibition www.wire-russia.com

SEPTEMBER

17-19 Sept: **wire SE Asia 2013** Bangkok, Thailand Exhibition **www.wire-southeastasia.com**

OCTOBER

8-10 Oct: **wire South America** São Paulo, Brazil Exhibition **www.tubotech-online.de**

7

OPTICAL FIBRES

Measurement Instruments

LIS-G: Laser Interferometric Sensor for Glass fibre Diameter repeatability : ±0.005µm, 50kHz Diameter uncertainty : ±0.15µm Defect detection 75kHz, event recording Ultra fine air line detection, 0,7µm 400Hz Fibre position: ±0.01mm, 1 kHz Spinning frequency profile Non circularity measurement

NCTM : Drawing force Birefringence principle Non Contact Tension Measurement 0-400 grams ±1gram, 1 kHz ± 1 gr within 10-40℃ ambient

CM5: Coating Monitor 5 axes

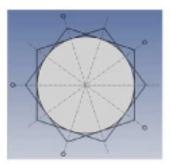
Diameter, lump & neck, defects detection, coating asymmetry Absolute diameter: ±0,15%, 50-400µm, 400Hz Lump & Neck: ±2µm, 500kHz Internal defect detection: 400 kHz (Airlines, bubbles, inclusions, delaminations...)

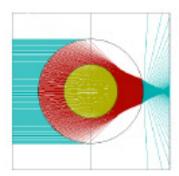
> Measure & Control Instruments

CIM PC CERSA-MCI's instrument data software: collection, display, record and report

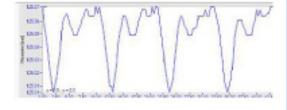
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MAKING THE NEWS

Hydro plant for Manitoba

Manitoba Hydro has officially unveiled the 200MW Wuskwatim hydroelectric plant in Manitoba, Canada.



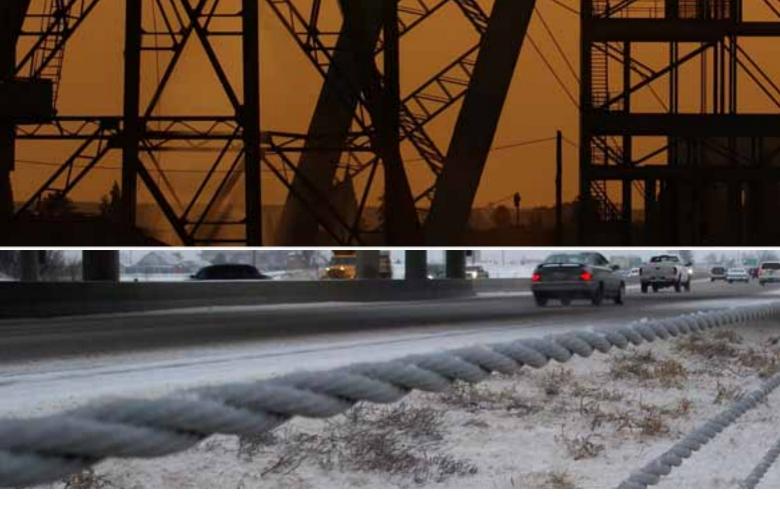
Wuskwatim Power Ltd Partnership, a joint venture between Nisichawayasihk Cree Nation (NCN) and the operator, Manitoba Hydro, has developed the \$1.34bn project.

The first of three generating units was installed in June 2012, with the remaining

two are expected to be in operation by the end of 2012. The electricity generated will be directly fed into Manitoba Hydro's grid.

Manitoba's Premier, Greg Selinger, told renewableenergyworld.com: "For the first time, Manitoba Hydro has fully partnered with a local First Nation impacted by hydro development, ensuring that community members had a say in the planning, design and construction of this facility."

As per a development agreement signed by the parties in 2006, NCN can own up to one-third of the Wuskwatim project through its wholly owned corporation, Taskinigahp Power Corporation and has until July 2013 to exercise the option.





WireCo acquisition

WireCo WorldGroup Inc (WireCo), a producer of wire rope, electro mechanical cable and wire products, has announced the acquisition of Koninklijke (Royal) Lankhorst Euronete Group BV (Lankhorst/Euronete).

Lankhorst/Euronete holds a leading position in international markets for synthetic ropes. Its position supporting the maritime, fishing and offshore markets provides a strategic fit with existing WireCo product lines. Following the purchase of Phillystran in 2009 and Oliveira in 2010, this acquisition completes the execution of WireCo's strategy to establish itself as a major market presence in the global synthetics marketplace.

Headquartered in the Netherlands, Lankhorst/Euronete employs over 1,300 people worldwide and operates manufacturing facilities in Portugal, Brazil and the Netherlands. As a combined organization, WireCo will now have significant capabilities in the engineering, design, and production of steel wire ropes and synthetic ropes.

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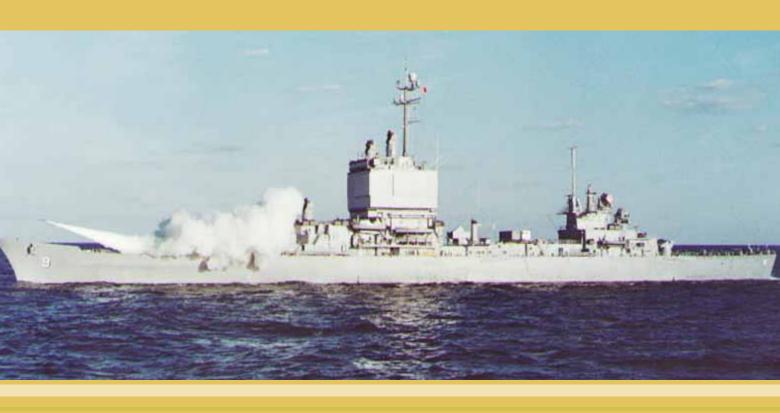
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Nuclear cruiser up for auction

The world's first nuclearpowered surface warship, the USS Long Beach, has been put up for auction as scrap metal, to be dismantled and recycled. The 720-foot (219m) vessel, the first American cruiser since the end of World War Two to be built new from the keel up, boasted the world's highest bridge and was the last such US vessel with teakwood decks, according to Navy history. Long Beach, commissioned in 1961, is not the first warship to be recycled. But the defense contractor that exclusively handles such auctions, Government Liquidation, said it would be the first time in its 11-year history that a nuclear powered guided missile cruiser has been sold for scrap.

Other decommissioned US military vessels have been sunk, sold to other countries or more rarely turned into museums open to the public, as was the fate of the storied battleship USS *lowa*, which opened in Los Angeles as a museum in July.

"I'm sure that Long Beach was always designated for scrapping. We don't make a lot of ships into museums," said Pat Dolan, spokesperson at the US Naval Sea Systems Command.

Long Beach had 10,000 tons of steel, 300 miles of electrical cable and 450 tons of aluminum, earning it the voice radio call sign "Alcoa" after the aluminum maker of the same name.

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juwi begins wind farm construction

juwi Wind has begun the construction of the 30MW Community Wind South wind farm in Nobles County, Minnesota, US. The company will construct the wind farm using 15 turbine units of REpower MM92, each with a generating capacity of 2MW and a hub-height of 100m.

Xcel Energy will buy the electricity generated from the project under a long-term purchase agreement, and juwi will operate the wind farm while part of the project will be owned by the community. juwi's community relations and regulatory affairs manager Aaron Peterson said, "juwi has enjoyed tremendous support from the community, landowners, state regulators and Xcel Energy."

The foundation work for the turbines is being constructed by Signal Energy Constructors and will be completed in October 2012.

US-based juwi Wind is the North American subsidiary of the juwi Group, a major international developer of wind, solar and other renewable energy projects.

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AFL secures distributor for Kazakhstan

Fiber optic cable manufacturer, AFL, has secured Caspian Telecommunications Projects LLP (CTP) as an authorized distributor of AFL products. CTP is among leading providers of fiber optic cable solutions to mining companies, the oil and gas industries and power utilities throughout Kazakhstan.

CTP and AFL have already completed over 50km of aerial optical cable installation in Kazakhstan consisting of SkyWrap® and accessories. "Our partnership with AFL helps to expand our position in Kazakhstan and enables us to offer the highest quality fiber optic cable and accessories to our customers," said Artem Sigutin, project manager for Caspian. "We are excited about our future prospects with AFL and with our customers."



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CANADIAN CONTRACT



CVTech Group subsidiary Thirau Itée has secured two transmission line contracts worth \$14.1m from Hydro-Québec. Under the contract the company will construct electricity transmission and distribution lines in the province of Quebec, Canada.

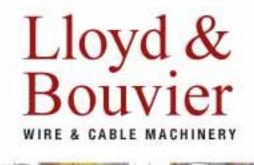
CVTech president and chief executive officer André Laramée said: "Quebec is investing like never before in its electrical infrastructures and we are favorably positioned to capitalize on all business opportunities that may arise in this sector."

Thirau, under the first \$6.3m contract, will construct a 34.5kV, 33km overhead distribution network to supply electricity to the Romaine III camp and complete the contract by the end of October 2012.

According to the terms of the second \$7.8m contract the company will build a 230kV, double-circuit steel line for the addition of a second power supply to the Francheville substation.

Work was expected to begin during July.

Canada-based CVTech is a management company and its subsidiary, Thirau Itée, provides services to the electric power industry for the maintenance of transmission and distribution lines.





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US seeks fiber-optic cable

The US military plans to install a \$40 million underwater fiber-optic cable to improve communications at Guantanamo Bay. A spokesman for the Guantanamo military commission has said that the cable will run 800 miles (1,290km) between Guantanamo Bay and South Florida. Army Lt Col Todd Breasseale anticipates that the system could begin operating within two years.

Communications at the base currently rely on a single satellite; technicians frequently need to reroute bandwidths to meet the needs of various organizations based in Guantanamo.

Cuban authorities have been notified about the project, and the survey ship USNS Zeus is expected to arrive at the naval base within the next few weeks.

The fiber-optic cable project is proposed in the fiscal 2013 budget and would require congressional approval.

ADTRAN and Troy Cable partnership

ADTRAN, a provider of networking solutions, has announced that Troy Cable selected ADTRAN as a strategic partner to deliver a full range of carrier access and enterprise solutions for the Broadband Technologies Opportunities Program (BTOP) funded SmartBand Project.

Troy Cable is deploying a 595-mile fiber optic Middle Mile network across the region that will enable high bandwidth voice, video and data to nearly 150 anchor institutions and 4,000 businesses in the area. Troy Cable selected ADTRAN's portfolio of carrier access and enterprise solutions, including the Total Access[®] 5000 multi-service access platform (MSAP), Total Access[®] 900 series IP business gateways and the NetVanta[®] 7100 unified communications platform to deploy an end-toend solution that can deliver speeds up to 1Gbps per customer.

Troy Cable chose ADTRAN for the ultra high service density and virtually unlimited network bandwidth supported by ADTRAN's fiber solutions. The Total Access 5000 MSAP provides a scalable architecture that allows service providers to create a high-capacity fiber access network that easily handles the most bandwidth-intensive applications and enables the delivery of next-generation services. The flexibility of the Total Access 5000 also allows Troy to deploy both GPON and Active Ethernet from a single chassis giving them the ability to utilize both technologies to meet the different needs of their customer base. Digital . Networking . Monthly .

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CCCA in STEP

The Communications Cable and Connectivity Association (CCCA) and the Sustainable Technology Environments Program™ (STEP) Foundation, are pleased to announce that CCCA has joined the STEP Foundation board of directors as a supporting member. Environmental sustainability - to eliminate or decrease the environmental harm caused by the production and consumption of goods - is a major initiative of many business entities today. The STEP Foundation addresses that issue related to the technology within a building. Founded by InfoComm International® and CompTIA, STEP was created by manufacturers, designers, integrators, and users to enable building owners to plan for, and implement, sustainable technology projects that provide both economic and environmental benefits.

CCCA is comprised of leading manufacturers, distributors and material suppliers who are committed to functioning as a major resource for well-researched, fact-based information on the technologies and issues vital to the structured cabling industry.

"CCCA and its members have been supportive of STEP since its inception because it offers a scalable framework for evaluating sustainable technology systems," said Bill Kloss, CCCA's chairman. "As a supporting member, CCCA can now participate directly in the development and organic evolution of STEP to include the building cabling infrastructure. We are also delighted," continued Kloss, "that our membership affords closer ties and collaboration with InfoComm, TIA, BICSI and Comp TIA. Through these alliances, users can rely on best practices that are sustainable, science-based and industry ratified."

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Wire plant in dispute

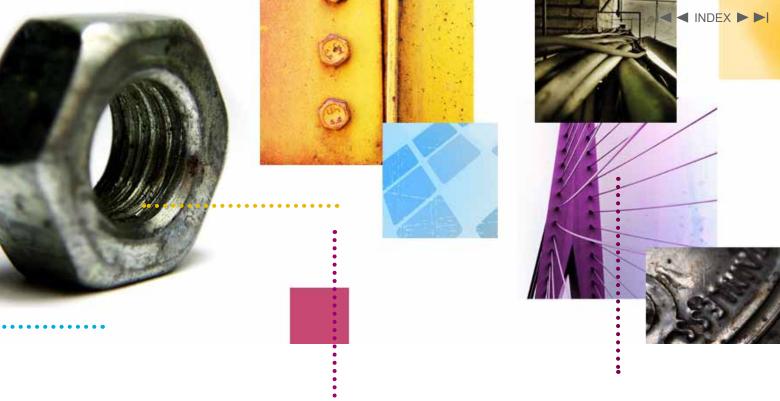
On 17th July, striking workers from Davis Wire converged on the King County Courthouse in Seattle, where they officially joined a lawsuit alleging that the company created sweatshoplike conditions by working employees off the clock and denying employees rest and meal breaks in an unsafe environment and failing to pay them statutorily-required overtime wages.

The move was followed by a rally at Davis Wire, in Kent, to mark nearly two months of strike action. Workers were joined by family members, religious leaders, labor leaders, elected officials, and community members.

New manager at Miltec

Miltec UV, a manufacturer of high performance UV curing systems and electrodeless bulbs, is to welcome Mike Bartley as the new mid-west US sales manager.

Mr Bartley has extensive knowledge on UV curing including ultraviolet and electron beam curable coatings used in flexible and rigid packaging. His high level of technical support and 35 years of experience in coating formulations are expected to be a great asset in assisting customers with complex UV applications.



Actuant revenue forecast down

Manufacturer Actuant Corp, which makes wire and pipeline connectors, switches, transformers and cables, has forecast fiscal 2013 revenue below analysts' expectations, saying weak demand in Europe and China is likely to continue, sending its shares down 5 percent in early trade.

For fiscal 2013, Actuant said it expects to earn between \$2.15 and \$2.30 per share on revenue of \$1.67 to \$1.70 billion.

Analysts were expecting earnings of \$2.27 per share, excluding items, on

revenue of \$1.71 billion, according to Thomson Reuters I/B/E/S. The company stated that end markets in Europe and China had softened in the third quarter. CEO Robert Arzbaecher said in a statement, "Our growth rates moderated from the strong pace of the past nine quarters."

The ADVA FSP 3000 is a scalable Wavelength Division Multiplexing (WDM) system specifically designed for enterprises and service providers that require a system that will multiplex, transport and protect high-speed applications over fiber optic networks.

Logical appointment



Lightwave Logic Inc, a technology company focused on the development of a next generation non-linear optical polymer materials platform for applications in high speed fiber-optic data communications and optical computing, has announced that Dr Babu G Sundar has been appointed as its principal investigator.

Dr Sundar has over 13-years of experience working in medicinal and organic chemistry at Astra Zeneca Pharmaceuticals and most recently Cephalon. He has published 25 manuscripts, has been granted ten patents, and has been the lead author on seven journal publications.

Dr Louis Glasgow, chief technology officer for Lightwave Logic, said: "Babu has enormous talent and experience. He will bring to the company fresh thinking and new insights with problem solving abilities that will be crucial to the acceleration of our development effort. This is a tremendous addition to the team and the entire scientific staff is excited to have him on board."

Fastener acquisition

Precision Aerospace Components, a supplier of fasteners and components to the military and aerospace industries under its Freundlich Supply and Tiger-Tight companies, has acquired the assets of Fastener Distribution and Marketing Company (FDMC).

FDMC is the parent company of Aero-Missile Components, (AMC) and Creative Assembly Systems (CAS). AMC provides fasteners and other components to the military and aerospace industries; CAS provides fasteners and other products to the transportation and housing infrastructure markets.

Announcing the transaction, Andrew Prince, president and CEO of Precision Aerospace Components, said, "This transaction complements all four operating companies by providing access to greater combined



resources serving a broader addressed market. I am excited about bringing these two management teams together to further the company's long term objectives."

Richard McVaugh, an experienced fastener industry executive and president of FDMC, will assume the role of president of each of the Precision Aerospace subsidiaries.

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Bekaert and Southern Steel in South-East Asia partnership

Bekaert and Malaysian group Southern Steel Berhad (SSB) have signed an agreement to establish a joint venture, 55% owned by Bekaert and 45% by SSB, to be finalized by 30th July.

SSB will inject its interests in Southern Wire Industries Malaysia Sdn Bhd (SWI) and Southern Speciality Wire Sdn Bhd (SSW) into the joint venture, while Bekaert will bring in the galvanized wire activity platform, which is part of PT Bekaert Indonesia.

Henri-Jean Velge, Bekaert Group executive vice president wire, said: "Developing a partnership with Southern Steel will create a production and sales platform for our joint wire and ropes activities in South-East Asia that responds to our ambitions for growth in the region." Dr Tan Tat Wai, group managing director of Southern Steel Berhad, added: "This joint venture will enable us to leverage our mutual capabilities and technological expertise, for the benefit of the new organization and of its customers."

Southern Steel's wire operations encompass two production plants in Malaysia; one in Shah Alam and one in Ipoh. The product portfolio includes a wide range of galvanized and specialty steel wires and ropes, and complements Bekaert's existing product range of steel wires manufactured in its wire plant in Karawang, Indonesia.

EUROPE NEWS



Neil Middleton,

Neil's new role

Technical cabling expert Neil Middleton has joined UK distributors Concordia Technologies. He joins from Brand-Rex Speciality Cabling Solutions at Leigh, Greater Manchester, where he was project manager, having previously also held a variety of technical management positions within the communications division of Brand-Rex.

Middleton will lead a team focusing on the development of products and services for the communications and Internet Protocol (IP) security markets. This will include structured cabling for industrial applications, business and the home and products for CCTV, alarm and access control.

Middleton also has experience of product development with the former BICC Cables' Communications division at Whiston, developing optical fiber cables.

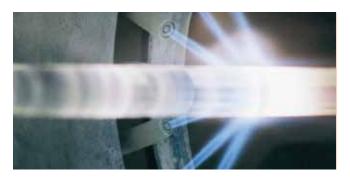


Largest submarine cable?

nkt cables has engineered, developed, manufactured, installed and commissioned a 245kV 3-core high voltage submarine cable. With a diameter of 270mm it is believed to be the largest submarine cable in the world. The cable route is approximately 24.5km, connecting the GIS station at Grenaa with the offshore transformer platform at the Anholt offshore wind farm.

The submarine cable has been engineered, developed and manufactured at nkt cables' new factory in Cologne. Cable laying and offshore installation was a cooperation between nkt cables and JD Contractor. Installation and site commissioning was handled by the nkt cables installation department.

The Anholt Offshore Wind Farm will be the largest in Denmark, with an installed capacity of 400MW. The wind farm is scheduled for completion by the end of 2013.



Cables for ferry terminal

Prysmian Group has been awarded a contract to supply high-tech power cables for the new Macau Taipa Ferry Terminal in Macau (PR China), a strategically important infrastructure linking the sea transportation in the Guangdong area (South China) covering Macau, Hong Kong and Zhuhai. The contract, worth up to €5 million, is for the design, supply, installation, and commissioning of special fire-resistant cables.

The selected power cables feature electrical and mechanical characteristics able to increase the level of safety in case of fire. Prysmian Group has developed a range of high-performance cables for the construction and infrastructure sector (FP200 Gold, FP Plus, FP100, FP400, FP & FP600S Firefix) and installed its fire resistant and Afumex (low fire-hazard) cables in several prestigious locations worldwide, including the Burj Khalifa in Dubai; the Guggenheim Museum of Bilbao, and the Drax Power Station in UK.

The Macau Taipa Ferry installation is scheduled for completion by the end of 2013.



Video demos

PWM has produced a series of videos demonstrating four of its highperformance cold welders in action. The videos show how PWM's P1500, P1000, EP500, and HP200 cold welders utilize the multiple upset technique to create strong, permanent welds on copper and aluminum wire and rod, without heat, flux or fillers.

Steve Mepsted, managing director of PWM, said: "We have been manufacturing cold welding machines and dies for over 25 years, but still find that many wire and cable manufacturers are unfamiliar with the process and the benefits it offers. Cold welding is cleaner and easier than electrical welding and also more cost-effective, particularly for joining large rod sections up to 30mm diameter.

"The videos give manufacturers an opportunity to watch the process from start to finish. They can see how our user-friendly machines operate and view the welds produced by our precisionengineered UK-made dies."



Spring tournament

This year's UK Spring Manufacturers' Association Golf Tournament was held at Brookfield Golf Club in Crewe, on Friday, 29th June 2012.

As ever, the event was highly popular, with 47 golfers from 15 different companies taking part. The companies participated who this year were Jowitt Grinding Wheels, Lee Sprinas, Clifford Sprinas, Hanson Springs, Allevard Reina, Springtech, Transworld Engineering, United Springs, Continental Springs, Longcroft Engineering, Rochdale Springs, Helical Technology, Owen Springs, Fox Wire and UKSMA.

Team winner was Clifford Springs, with Mike Gilmour, of Clifford Springs, taking the individual first prize.



Drum return program

Nexans has developed a new program to collect and reuse its wooden cable drums. This is the latest phase in Nexans' packaging purchasing green initiative, launched in 2010, when it became the world's first cable manufacturer to upgrade to drums holding the PEFC[™] certification (Programme for the Endorsement of Forest Certification schemes). Nexans' Green Drums now hold both PEFC (for Europe) and FSC (Worldwide) certifications.

Already, over 280,000 of the drums that Nexans uses to dispatch electrical cables to customers have been collected and reused up to five times over the past years. These drums represent more than 35 per cent of yearly total drums used worldwide by Nexans, and a saving of more than 94,000m³ of timber – approximately 100,000 uncut trees (45 hectares of forest) saved every year.



Nuclear contract

Swedish manufacturer Habia Cable has signed a contract with Korea Hydro & Nuclear Power (KHNP) to supply nuclear safety grade cables to the new Shin-Ulchin 1&2 (APR 1400) nuclear power plants on the Korean east coast. Deliveries are planned to take place through an 18-month period starting in 2014. Habiatron Q class cables have been installed in all new nuclear power plants built in Korea since the construction of Younggwang 5&6 in the late 1990s.

Micael Lindberg, vice president and head of the nuclear division at Habia Cable, commented: "Korea's nuclear industry is expanding fast and is one of the few countries besides China, Russia and India that is investing in the construction of new power stations. Our unique, safety class products are designed to withstand the most demanding working conditions such as extreme radiation and excessive heat and today have a service life of up to 60 years."

Habia Cable holds the environmental certification of the international standards institute IEEE (IEE 383:1974) and testing to standard 383:2003 is pending with results expected by the end of 2012.



Multimedia Polska expands fiber network

Polish cable operator Multimedia Polska has expanded its fiber network in the town of Kutno by 1,000 subscribers, with plans to add another 600 by the end of July. This will bring the number of fiber customers in Kutno to nearly 5,000 residents.

Multimedia Polska estimates that about PLN 1 million has been spent on modernizing the network in the town over the past two years. All potential customers of Multimedia Polska within the range of its fiber optic network in Kutno will have the opportunity to subscribe to an Internet service at up to 60Mbps, which is currently the fastest available from any operator in the area.

Oklahoma transmission line



ITC Great Plains has reported that its electrical transmission project in southeastern Oklahoma is in service. The project include includes an 18-mile, 345kV high-voltage electric transmission line from Hugo to Valliant and 345kV/138kV substation.

WFEC CEO Gary Roulet said completion of the ITC 345kV project should reduce transmission congestion, improve reliability and reinforce long-term economics of the Hugo Plant, and, "Access to regional generation resources should positively benefit consumer electric bills," he added.

The substation is adjacent to a Western Farmers Electric Cooperative's (WFEC) power plant in Hugo and connects the WFEC 138kV transmission system.

ITC's investment in the Oklahoma project in the Southwest Power Pool region is intended to assist rebuild of the nation's electrical grid. ITC Grid Development vice president Terry S Harvill said the company recently earned federal certification as a transmission operator in the Southwest Power Pool region.

ITC Great Plains is a transmission-only utility operating in the Southwest Power Pool region, and has no involvement in power generation.

Connexion

Facebook tag that !

facebook

Vous partez déjà ? Ne ratez plus rien ! Accédez à facebook.com sur votre téléphone mobile.

Social networking site, Facebook, has taken a stake in a \$450 million project to link South Asian countries via an undersea cable. The project is expected to be ready some time in 2014.

"We're making this investment to support our growth in South Asia and to better serve our users in that region," said Facebook spokeswoman Charlene Chian.

The Asia Pacific Gateway will run from Malaysia to South Korea and Japan, with branches to mainland China, Hong Kong, Singapore, Taiwan and Vietnam. It will have a total design capacity of 54.8 terabits per second using 40Gbps channels, but it will be possible to upgrade it to 100Gbps per channel when the technology becomes available. Facebook's Chian said: "The entire project is expected to cost approximately \$450 million, and each of the 12 members of the consortium will have a percentage ownership of the asset proportionate to its investment in the project. We are not disclosing any specifics on our investment."

Utiliser Facebook Mobile

The other partners in the consortium are TdC, China Mobile, China Telecom, China Unicom; Taiwan's Chunghwa Telecom; Korean network operators KT and LG Uplus; NTT Communications of Japan; StarHub of Singapore; Viettel Group and the Vietnam Posts and Telecommunications Group. NEC will build the cable.

Inscription

C'est gratuit (et ça le restera toujours)

Prénom :	
Nom de famille :	
Votre adresse électronique :	



Industry partner of wire Southeast Asia 2013

The International Wire and Machinery Association are delighted to be an industry partner of the wire Southeast Asia 2013 exhibition which will take place in Bangkok, Thailand 17th–19th September 2013.

Returning to Thailand for the 10th edition, wire Southeast Asia is the region's most significant trade exhibition for the wire and cable industries.

ASEAN represents 600 million people across 10 countries and is strategically located between China and India and has free-trade agreements with both, thus offering international business to an incredible growing market.

The steel industry in ASEAN registered a growth rate of 16.8% in 2010 and Southeast Asia is expected to be one of the fastest growing regions in the world with a projected average annual growth rate of 7.6% for the next ten years.

For over 15 years, wire Southeast Asia has established a track record of delivering thousands of manufacturers, processors and engineers from some of the world's leading companies, enabling access to the most senior decision makers from the wire and cable industries.

<u>"Orchid" enhanced exhibitor package for wire Southeast Asia 2013</u>

The IWMA has released details of its "Orchid" exhibitor package for the wire Southeast Asia 2013 exhibition which will take place in Bangkok, Thailand, 17th–19th September 2013.

This 12m² enhanced shell scheme package will cost just US\$7,000.00 and provides an excellent opportunity for companies to achieve a great stand location within the IWMA block of member companies.

Returning to Thailand for the 10th edition, wire Southeast Asia is the region's most significant trade exhibition for the wire and cable industries.

IWMA "Orchid" exhibitor package features:

- Fully carpeted booth
- Fascia board with name in black
- Square table with 3 leather chairs
- 1 power socket 5 Amp/220V plus 3 spotlights
- 1 information desk and wastepaper basket

<u>Plus....</u>

- Thai/English interpreter
- Daily booth cleaning
- Overnight security for items left on IWMA stand
- Free hospitality and beverages on IWMA stand
- Free internet service on IWMA stand
- IWMA stand with additional interpreter service
- Help/local advice/practical experience from IWMA office
- No management charge for IWMA members

OPTIONAL EXTRAS

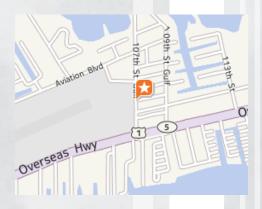
- Preferential hotel rates at conveniently situated Sheraton Grand Sukhumvit Hotel, Bangkok (subject to availability)
- Meet & greet service at airport
- Additional fittings/furniture

Alternative booth sizes are available as follows:

 $9m^2 = US$5,320$ $15m^2 = US$8650$ $16m^2 = US$9,200$ $18m^2 = US$10,310$ $20m^2 = US$11,420$ $24m^2 = US$13,640$ A management fee of £175 (plus UK VAT) will be made for non-members which includes one year's free IWMA membership.will be made for non-members which

If you wish to book this exclusive package or require more information then please visit **www.iwma.org** or contact the office on Tel: **+44 (0)1926 834680** or Email: **info@iwma.org**

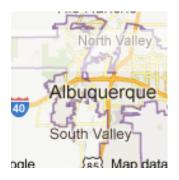
Medical network

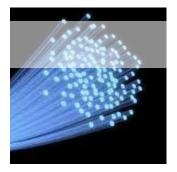


On 18th July, the Rural Nebraska Healthcare Network (RNHN) held a ribbon cutting ceremony at the Regional West Medical Center Tranquility Garden in Scottsbluff, to mark the completion of its new \$18million fiber optic medical network, which extends throughout the Nebraska region.

Construction of the 750-mile fiber optic network began two years ago. It spans 12 western Nebraska counties, and connects nine primary care hospitals and dozens of affiliated health care clinics in western Nebraska. In addition, it provides connection to national research networks such as National Lambda Rail and Internet 2 in Denver, Colorado. The network will eventually enable additional telecommunications products and services that will help sustain it and further advance underserved rural Nebraska communities.

The project was funded by the Rural Healthcare Pilot Program of the Federal Communications Commission (FCC), in conjunction with additional funding from Zayo Group and the support of Regional West Foundation, Fiberutilities Group and G4S Technology LLC (formerly Adesta).







NEW MEXICO NETWORK

Zayo Group has announced plans to build a high bandwidth network in Albuquerque, New Mexico including fiber optic cable stretching from the South Valley to the foot of the Sandia Mountains. The fiber build, in support of a 4G expansion for one of Zayo's wireless customers, will be 158 route miles of new network. With numerous on-net and near-net buildings throughout the Albuquerque metro, Zayo's fiber presence will provide access to high bandwidth communications for major industries in the area, specifically aiding those in research and development, government, and manufacturing.

This expansion marks Zayo's entrance into greater Albuquerque as a bandwidth infrastructure provider. The fiber build will cover Albuquerque from the suburb of South Valley to Bernalillo, east to Highway 556, and west to Highway 448. Zayo currently offers high bandwidth communication services from a single point of presence in Albuquerque to other cities across its national network, but was unable to offer fiber based solutions within the Albuquerque metropolitan area.

ASIA & AFRICA NIE HOUS

lessandro Paiva

Picture

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Three-day Internet blackout

During July, Lebanon suffered three days with only patchy Internet connectivity after a crucial fiber optic cable was severed, 30 miles off the coast of Egypt. Telecoms Minister Nicholas Sehnaoui posted on his Twitter account that nearby Cyprus had agreed to reroute traffic until the cable was repaired. "This will increase the speed back to normal all over Lebanon," he said.

However, Internet in the capital Beirut remained slow, or not working at all, hampering businesses that are already suffering in some places because of the threat of a spillover from the conflict in Syria.

"It is like running an engine at less than full power. A three-day outage for Lebanon is like losing 10 percent of the country's monthly productivity, especially for a service-based economy," said Khaldoun Farhat, CEO of private Internet provider Terranet. He says Lebanon is in dire need of a backup cable.

Lebanon's entrepreneurs are known to persevere, even during the depths of war, but its slow and costly Internet service has been embarrassing. Ookla, a company that tests Internet speeds around the world, has often ranked Lebanon last on its global Net Index, and the country has generally been lower down than many less developed nations such as Afghanistan and Burkina Faso.

Many blame Internet problems on a policy which allocates 80 percent of the market to the state-owned landline provider Ogero, pushing out private companies. The state monopoly is a significant financier for the treasury, critics say.

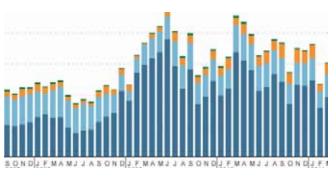


Steel prices up in June

Statistics Centre – Abu Dhabi (SCAD) – has issued its monthly report on the prices of building materials for the month of June and the second quarter of 2012. The report presents an analysis of the movements in the prices of the various materials used in the construction industry in Abu Dhabi.

According to SCAD, and reported by ameINFO, the prices of several building materials groups have undergone changes during June 2012 compared with May 2012. Steel prices increased by 4.8 percent – reflecting price rises in this group in the range of four percent for 6-8mm steel bars, and 19.9 percent for binding wire. Other groups recording increases during the period include concrete and cement.

Groups showing a reduction in price include construction labour, glass, power cables (by 3.9 percent) and household wire.



China copper imports up

Reuters reported that China's copper imports rose 47 percent from a year earlier to 2,502 million tonnes in the first half-year of 2012, while aluminum imports increased 33.3 percent to 614,000 tonnes.

Customs data showed that the figures indicate imports of copper anode, refined metal, alloy and semi finished copper products stood at about 346,000 tonnes in June 2012, around 17 percent lower than the 419,741 tonnes recorded in May.



New wire facility

Longhai Steel Inc, a producer of steel wire products in China, has announced that at the end of the second quarter of 2012 it began production of steel wire in its second production facility. The company expects to increase steel wire production to full capacity by the end of 2012.

The company's 600,000 tonnes production facility, completed in the third quarter of 2011, is located in Hebei, China, the largest steel-producing province in the country. The facility has a high-speed production line capable of producing a wide variety of conventional and higher value steel wire. Longhai Steel sold all of the initial production to a major distributor in Hebei.

"We are pleased with the smooth production ramp at our second facility," stated Steven Ross. executive vice president of Longhai Steel. "Since we commenced test production, we have met or exceeded all of our internal performance and production goals. We will complete testing by early August and commence volume production by the end of the third auarter."



Cote d'Ivoire fiber project

The press agency AIP has reported that the government of Cote d'Ivoire has announced plans to deploy a 6,700km optic fiber backbone to connect every prefecture and sub-prefecture of the country. The first two phases of the project, due to be completed in 2013, will involve a 1,400km cable connecting San Pedro, Tabou et Man, Odienne, Korhogo and Ferkessedougo, and the other, measuring 549km, between Abidjan, Bondoukou and Bouna. The first will be financed by Huawei Technologies and the second by the national telecommunications fund.

The infrastructure will be owned by the state and operated by one or more operators under a public service contract.

The government will guarantee equal access to all third-party operators over the network.



Chris Wood, WIOCC CEO

Connectivity in Lesotho

Submarine cable consortium WIOCC is delivering Internet connectivity to businesses, institutions and consumers in Lesotho. WIOCC will use terrestrial and submarine fiber-optic cable network for Internet connectivity. Its arrival has already enabled a reduction in pricing of Internet services by up to 67 percent. This is supporting the Lesotho Government's 8th Millennium Goal to make new technologies available to its citizens and organizations.

Educational institutions, such as the National University of Lesotho, are already benefitting, with Basotho students able to access web-based resources.



Kuwait order

LS Cable & System has won a 400kV extrahigh voltage cable project worth \$110 million from the Kuwaiti Ministry of Electricity and Water. The company will supply and install 400kV extra-high voltage conductor with insulated cables and connectors on a turnkey basis.

Kuwait is currently building a new town on its border with Saudi Arabia named Sabah Al Ahmad. This is the second contract LS Cable & System has won from the Ministry of Electricity and Water of Kuwait following a similar contract worth \$107 million won last spring.

Unlike ordinary extra-high voltage cable using pure copper for the conductor, the conductor with insulated cables to be installed at Sabah AI Ahmad will comprise conductors coated with enamel to reduce transmission resistance. This technique is said to raise transmission capacity by over 20%. With this type of conductor the overall weight and thickness of the cable can be reduced, greatly reducing the cost of cable manufacturing and power grid implementation.



Aluminum makers turn to Middle East?

Trading Charts reports that aluminum production is moving to the Persian Gulf and major industry figures, such as Rio Tinto, Alcoa Inc and Norsk Hydro ASA, believe that the region can produce aluminum more cheaply and attract global market share.

The aluminum market is currently oversupplied; market participants suggest that half of the world's production is unprofitable at current prices. Producers and state-owned companies hope Persian Gulf production can take advantage of local low energy costs and lower shipping rates. Such a shift will be at the cost of more costly aluminum smelters in Europe and America.

Rio Tinto, Alcoa and Norsk Hydro have all closed smelters this year as prices fell below the cost of production.

Construction is underway on a \$10.8 billion joint venture between Saudi Arabian Mining Company and Alcoa. A JV between Norsk Hydro and Qatar Petroleum reached full capacity of 585,000 tonnes per year last year and Sohar Aluminum, which Rio Tinto owns with Oman Oil and Abu Dhabi National Energy Company, reached full capacity in 2009.



Al-Faw cable landing station in operation

ameINFO has reported the service launch of the AI-Faw Cable Landing Station (CLS) in Iraq, built by Reliance Globalcom in alliance with the Iraqi Telecommunications and Post Company (ITPC).

With this development, Reliance Globalcom becomes the first private subsea service provider to activate capacity submarine and directly connect Iraq to countries in the Middle East, Asia, Europe and North America. Built with an initial design capacity of 680Gbps with two diverse routes, Reliance Globalcom has initially lit 50Gbps on each route to cater for the existing market demand. The two routes are integrated into the Falcon network, thereby offering a resilient network.

Considering the low broadband penetration in Iraq, the Falcon landing provides a significant milestone towards establishing direct connectivity from Iraq to the rest of the world, and will help boost the nation's telecom sector.

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Elastomers for vehicle charging

Teknor Apex Company has developed two Flexalloy[®] PVC elastomer compounds to provide manufacturers of charger cable for electric vehicles (EVs) with more cost-effective alternatives to other elastomers in both insulation and jacketing. The products will be introduced to the market at wire China.

The new compounds are Flexalloy 89504-90, a 90 Shore A formulation for insulation, and Flexalloy 9610-78 for jacketing, with Shore A hardness of 78.

The materials exhibit brittle points of -46 and -38 °C, respectively, and are both rated for a maximum continuous operating temperature of 105°C.

Mike Patel, wire and cable industry manager for the vinyl division of Teknor Apex explained that, unlike standard flexible vinyl, Flexalloy compounds are based on ultra-high molecular weight PVC resin. They are designed for improved toughness, abrasion resistance, and low temperature properties and to provide elastomeric resilience and resistance to compression set, but can be processed on standard PVC equipment.

"Teknor Apex developed these two new Flexalloy products especially to meet the requirements of UL Type EVE for the high production volumes and rugged end use performance posed by EV charger cable," said Patel.



HFFR cables

Flame-retardant cables for the highly regulated railway, marine, military and automotive industries may achieve new standards of safety, durability and ease of installation with insulation and jacketing compounds based on DuPont Vamac ethylene acrylic elastomer (AEM).

Close collaboration between DuPont and wire and cable makers has resulted in a

combination of properties said to outperform other commonly used polymers for flameretardant cables, with enhanced fire and oil resistance, better low temperature flexibility (without plasticizer), and superior heat resistance up to 175°C.

These collaborative programs have yielded innovative jacketing and insulation solutions, designed to fulfill the most stringent industrial requirements in, for example, the automotive and railway industries. For the automotive industry, Vamac G is suited to applications such as transmission wire jacketing, protective ignition wire sleeving and battery cables; and for high flame retardance, low smoke and low toxicity in the railway industry, Vamac DP is recommended for power and communication cables. MPO-MPO pre-terminated cables, LC-LC cassettes and MPO cords, in both intelligent and non-intelligent architectures.

"Extended performance margins are crucial high-bandwidth multi-fiber in array systems like RiT's Smart Xlight fiber optic line," commented Dr Ben Eshay, RiT's CTO. "The tests performed by this respected laboratory certify that our products support high-density, high bit-rate protocols and installations, future-proofing the datacenter through the provision of 10, 40 or 100 gigabytes per second bandwidth. This is a benefit that data center engineers can leverage to create maximum flexibility and superior performance in their data center designs, especially when coupled with the deployment of RiT's intelligent infrastructure management solutions."

Smart certified solution

The Smart Xlight[™] end-to-end fiber optic cabling solution from RiT Technologies has been certified by an independent laboratory to exceed 10 Gb/s and 100Gb/s performance requirements, as specified in the ANSI/TIA-568-C standard.

The independent testing was performed by Intertek, one of the world's largest independent testing organizations, across multiple channel configurations that included RiT Smart Xlight end-to-end 10G configuration, RiT Smart Xlight end-to-end 100G configuration, LC multi-mode cords, LC-MPO cassettes,

High-density optical fiber cable

Japan's Nippon Telegraph and Telephone (NTT) has developed a high-density multifiber optical fiber cable for outdoor fiber networks. To expand NTT's FTTH services, NTT Labs' new optical fiber cable has smaller diameter, lighter weight, and higher density by using bending loss insensitive optical fiber (BIF) and optical fiber ribbon.

The cable will be used by NTT's regional companies, NTT East and NTT West, from late July.

Quad-Lock for tough environments

Torus Quad-Lock fencing, from UK fencing manufacturer Tornado Wire, uses continuous horizontal and vertical wires, joined with a high-pressure bonded knot. This, says the manufacturer, gives four-way movement resistance which makes it ideal for extreme environments. Mesh sizes can be as small as 50mm x 50mm, making it suitable for any agricultural or equestrian application.



As well providing strength to the mesh, the Torus knot is small and unobtrusive and the small mesh sizes create a wide range of new product options, says managing director Kenny Campbell.

Reel cables for cranes

In partnership with the Dangjin coal-fired power complex of Korea East-West Power

(KEWP), LS Cable & System has developed special cables for industrial cranes used in power plants and ports.

The partnership has developed two types of cable; a composite optical-electrical cable (6/10kV) and a power supply cable (0.6/1kV), both now in use at the Dangjin coal-fired power complex. The opticalelectrical cable is for cranes that transport large freight containers. It consists of a power supply cable and a communication cable for control and monitoring equipment. A power supply cable is designed for small cranes and conveyor systems.

Both cables are specially designed for increased abrasion resistance and tensile strength and to prevent cable twisting. A tough textile braided sheath covers the cables to prevent twisting, then a smooth flame retardant polychloroprene coating is applied to the outer surface to protect the cable against moisture, oils, solvents and chemicals. According to LS Cable & System, the cables will function even under extreme conditions including fire, extreme bending and heavy loads.

New products for Walro Flex

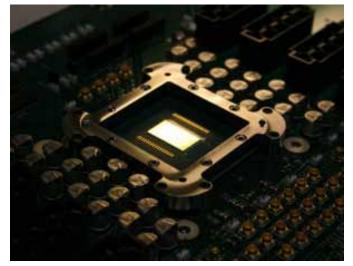
Manufacturer Walro Flex has expanded its product range to include double-insulated welding and blasting cable. The company started production of its blasting cable for detonation applications in the mining industry in January. The OEM-specified Manufacturer claims sub-20nm breakthrough cable is manufactured as solid conductor, stranded conductor or multiples of each from as small as a 0.5mm outer diameter to a 1.2mm outer diameter, with other sizes available on request.

The blasting cables are insulated in polyvinyl chloride, high-density polyethylene or halogen-free insulations, meeting the safety requirements of the South African mining industry, says sales and marketing manager Peter Willers, adding that Walro Flex has already manufactured and sold a significant volume of blasting cable to the local industry.

Walro Flex began manufacturing the double-insulated welding cable in May. The cable uses dual insulation materials, with the outer layer meeting the SANS 1576 welding cable specification. It can be used for low-voltage, flexible power cable applications, as well as standard duty welding applications in the mining, panel building and industrial sectors.

The cable has been SABS-approved and is manufactured to the SANS 1574-3 specification, with a voltage rating of 600/ 1,000V. Walro Flex's cable manufacturing facility consists of four main process divisions - the rod breaking and wire drawing, the extrusion, the stranding and bunching, and the highly flexible, superfine conductor departments.

The problem of creating copper interconnects in sub-20nm chips has been resolved, according to semiconductor manufacturing specialist Applied Materials. The company, an equipment maker for the semiconductor, flat panel display and photovoltaic markets, has developed a new manufacturing technique which it claims will enable chipmakers to build interconnects far smaller than the current 20nm limit.



Announced at the Semicon West event in July, Applied Materials' Endura Amber system promises to shrink copper interconnects in semiconductors to 10nm or less.

A modern semiconductor can contain over 60 linear miles of copper wiring across as many as 10 billion vertical connections - and more will be demanded as process sizes shrink, and increasing features are added to chips.

Where the interconnects meet the chip features, the wiring needs to be the same size. The result is tiny copper wires, just 20nm wide for the latest generation of NAND flash parts. Creating these interconnects at such a small size causes real problems, largely due to bubbles forming as the small holes are filled with copper to create the connection. Below 20nm a single bubble in a single interconnect can render a chip useless.

Cat 5e cable on Xtra-Guard®

Featuring an abrasion-resistant thermoplastic elastomer jacket with low temperature flexibility and superior resistance to solvents, chemicals and fuels than ordinary PVC, the new Cat 5e cables from Alpha Wire are designed to provide rugged, durable connectivity for the most challenging networking needs.

Xtra-Guard Industrial Ethernet cables are available in a choice of unshielded, foil shield, or Supra-Shield® foil/braid. Alpha Wire's Supra-Shield uses a combination of aluminum/polyester/aluminum foil and tinned copper braid said to offer exceptional EMI performance and flexibility. The cables are UV and fluid resistant, meet UL 1666 Riser and CSA FT-4 flame tests, and are suitable for use in NFPA 79 applications.

This connectivity cable is available in a temperature range of -50° C up to $+125^{\circ}$ C

on FEP-insulated conductors and -50°C up to +105°C on polyethylene-insulated conductors. The TPE jacket is available in black with standard lengths of 152m (500 feet). Other colors, including red and teal, are available on special order.

Specific applications for Industrial Ethernet include robotics/actuators at the machine device level, PLCs at the control level, and servers at the corporate enterprise level, along with any application that includes temperature extremes, outdoor, mechanical abuse, exposure to chemicals, or electrically noisy environments.

Aluminum armor option

Belden Inc has developed continuous aluminum armor cladding for its standard and special cable constructions, including instrumentation, control, variable frequency drive (VFD) and industrial communication and networking products. The continuous armor eliminates the need for conduit and is easier to install and re-route, reducing both the physical cost and the labor cost of installation. Impervious to fluid ingress and suitable for installation in harsh and hazardous locations, Belden continuous aluminum armor is MC rated for superior crush resistance.

Plant and facility designers in fields such as oil and gas, petrochemical, and pulp and paper need cabling with robust

protection from impact or crushing, as well as environmental protection. Continuous armor aluminum is impenetrable because it is applied as a continuous strip of aluminum, which is wrapped around the cable and welded at the seam for impenetrability. Corrugation permits bending without kinking.

With the addition of continuously corrugated aluminum armor, Belden now offers three types of MC armor.

Belden cables also can be protected by aluminum interlocked armor and galvanized steel interlocked armor.

Also available from Belden is Belclad corrugated aluminum or steel tape, sealed to prevent the ingress of chemical, water or other fluids into the cable core.

Aluminum cable offers splice of life

Helukabel has introduced Heluwind® WK Powerline ALU - a new, highly flexible, power cable made of finely-stranded aluminum, said to offer customers the performance capabilities of a copper cable at a fraction of the cost.

"Since the Powerline ALU is made of aluminum its weight is reduced by nearly 50 percent, it is quicker and easier to install, as well as being less expensive than comparable copper power cables," says one improves the safety and protection

Uwe Schenk, global segment manager -Wind at Helukabel. "Powerline ALU is our attempt to further the development of the industry in the United States and Canada by making wind turbines more affordable."

Stiff aluminum power cables prevent the installation of a single cable length; during installation an aluminum cable may need to be spliced up to 80 times with an additional interruption in the cable to make the flex connection to the inverter. The process can take up to three days.



The installation advantage of the flexible Powerline ALU is that only one length of cable is required with only one splice, between the copper loop cable and the power line, and a crimp cable lug to connect the power line to the inverter. This procedure takes only four to six hours.

In addition, reducing the splice count to

of the turbine's power cable since most technical failures are caused by bad splices.

Cleer solution for fiber optic cables

Cleerline Technology Group has launched a new range of fiber optic cables described as "affordable, and easy to install" for the custom installation sector. Branded Cleerline, and available in Europe through distributors, Amber International, the ground-breaking Non Strip Fiber (NSF) is a fast and safe alternative for custom installers said to simplify and improve the fiber termination process.

Supplied in both single and multimode duplex options, Cleerline's cables incorporate an extra patent pending coating around the fiber without the need for any adhesives to guarantee a polishfree, "two-minutes-and-under" time-saving solution. Unlike all other types of fiber cables, NSF's proprietary polymer coating removes the need for stripping the acrylate "buffer" 250um coating. This allows the installer to quickly terminate mechanical splice style connections. It also eliminates the risk of glass scarring or imperfections caused by stripping when terminating either mechanical or epoxy style connectors.

Mark van Zon, international sales manager at Amber International, commented, "Fiber can now be used without expensive equipment or specialist skills. NSF cables are also great value for money, and supplied in a choice of lengths which make them very versatile, whatever the application."

With the single-mode reaching up to 12km, and the multi-mode up to 500km, the NSF fiber optic cable is suitable for use in homes as well as larger commercial applications such as offices, gyms, schools and museums.

Safeguarding communication

Utilizing DuPont[™] Kevlar[®] fiber, Fiber-Line has launched a range of cable components for broadband communications and above ground installations. With its patented Swellcoat[®] technology, Fiber-Line's new products eliminate water penetration, and ensure continued, reliable information flow.

Fiber-Line's products for above ground cables are made with DuPont Kevlar, which provides 15 percent more strength and 15 percent less stretch to the cable – critical for the protection of people and property during ice storms. The same amount of material will produce 15 percent more strength with less cable sag.

"Advanced protective materials are important to DuPont, and our work with Fiber-Line is a great example of how we re-invent our offerings every day," said Thomas G Powell president of DuPont Protection Technologies. "As populations and economies grow, they need critical communications flow that is reliable. Kevlar AP provides a new twist on an essential product to create a higher performing solution – one that helps us make broadband cable more accessible to people around the world."

"Fiber-Line and DuPont have worked closely together on these protective solutions since our company was born in 1987," said Vince Pappas, Fiber-Line president and CEO. "We know DuPont Kevlar well and we've created a joint solution that brings a new offering to the cable industry – it combines the benefits of Kevlar and Kevlar AP with our Swellcoat technology to make products that our customers need."

Dual Block for underground cable

Hendrix/Kerite Cable, a provider of underground power distribution products, has developed a dual water blocking capability for Hendrix primary underground cable.

Water is among the enemies of long-life in primary cable, as water entering the cable core can lead to premature failure. Hendrix Dual Block helps prevent this from occurring. A fill compound is continuously applied into the conductor interstices to prevent longitudinal water migration, and a water-swellable powder is applied under the polyethylene jacket to prevent water from migrating along the neutral wires, under the jacket. Used together, these two applications provide a reliable barrier that prevents water from entering the cable core.

Dual Block is now an option for all Hendrix stranded conductor cables.

Yellow ink for wire and cable

Videojet Technologies Inc has launched V491-C yellow ink for its 1710 model continuous ink jet printer. The new V491-C yellow is specifically formulated to resist ink code transfer when printing on extruded and spooled cable and wire. addition. V491-C ink is In suitable for cable printing and coding prior entering the high temperature to vulcanization curing process.

"Our customers in the wire and cable marking industry will benefit from a highperforming printer that is reliable, easy to maintain and is now complemented by yet another high-contrast pigment ink," says John Kirschner, Videojet supplies marketing director.

The V491-C yellow ink helps cable and wire manufacturers designate product qualifications and specifications with exceptional readability on colored cable production lines where yellow ink provides optimal contrast.

Boasting excellent adhesion, the ink can withstand contact, pressure and residual heat as freshly manufactured and coded cable or wire is spooled for storage and shipment — reducing the risk of ink code transfer and fading.

In addition, while most pigments infade or even disappear completely during the curing process, the V491-C yellow ink can with stand 350°F (117°C) highpressure steam heat and retain its color and critical code information.

Make sure your new machine or product receives all the publicity it can get!

Send us the details and a photograph for our new Machines, Products & Technology section in wiredInUSA.

To make sure your editorial is published in the September edition – send us the details by **23rd August** to ensure its publication.

All editorial should be sent to editor David Bell at david@wiredinusa.com



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Marketing:

Contact Jason Smith, wiredInUSA, 46 Holly Walk, Leamington Spa, Warwickshire, CV32 4HY. United Kingdom Tel: +44 (0) 1926 834684 Email: **jason@wiredinusa.com**

News:

Contact David Bell, Editor, wiredInUSA, 46 Holly Walk, Leamington Spa, Warwickshire, CV32 4HY. United Kingdom Tel: +44 (0) 1926 334137 Email: **david@wiredinusa.com**





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David Bell, Editor, wiredInUSA, 46 Holly Walk, Leamington Spa, Warwickshire, CV32 4HY. United Kingdom Tel: +44 (0) 1926 334137 Email: david@wiredinusa.com

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Contact Jason Smith, wiredInUSA, 46 Holly Walk, Leamington Spa, Warwickshire, CV32 4HY. United Kingdom Tel: +44 (0) 1926 834684 Email: jason@wiredinusa.com

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