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#43 EDITOR

Happy New Year!

2015 gets the year off to a bright start with news of Pelican Wire's acquisition of Rubadue Wire as part of its expansion plans. The two companies will operate under Pelican Holdings Group while Ted Bill, president of Pelican Wire, will act as chief executive of both firms. Full details can be found on page 12.

Corning has also been on the acquisitions trail, reaching agreement to buy TR Manufacturing Inc., which is located primarily in Fremont, California. The deal is expected to be completed by the end of the first quarter of 2015. The full story is on page 14.

Land and tree clearing is underway (see page 16) along the 58-mile route of American Transmission Company's 138,000V transmission line in Michigan. Construction of the new line, needed to improve electric reliability in the area, was first announced in 2012 and construction is scheduled to begin this month.

A recall of over 7,000 Jaguar F-type convertibles was due to begin at the start of January to correct a wiring problem connected with the front-passenger airbag. You can find the full story on page 18.

David Bell
Editor

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NEWS

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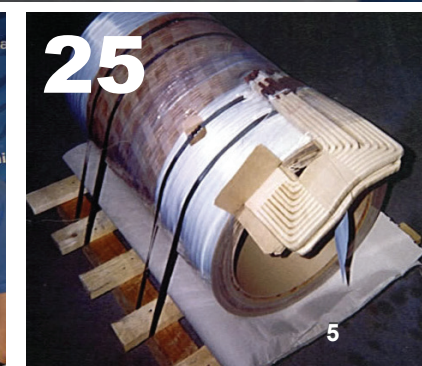
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DIARY SHOW EVENTS

2015

JANUARY

10-13 January 2015

Wire and Cable Arabia

Dubai, UAE

Exhibition

www.wirecablearabia.com

MARCH

23-27 March 2015

NPE2015

Orlando, Florida, USA

Exhibition

www.npe.org

APRIL

28-30 April 2015

Interwire 2015

Atlanta, Georgia, USA

Exhibition

www.wirenet.org

MAY

12-15 May 2015

wire Russia

Moscow, Russia

Exhibition

www.wire-russia.com

SEPTEMBER

15-17 September 2015

wire Southeast Asia

Bangkok, Thailand

Exhibition

www.wire-southeastasia.com

OCTOBER

6-8 October 2015

wire South America

São Paulo, Brazil

Exhibition

www.wire-south-america.com

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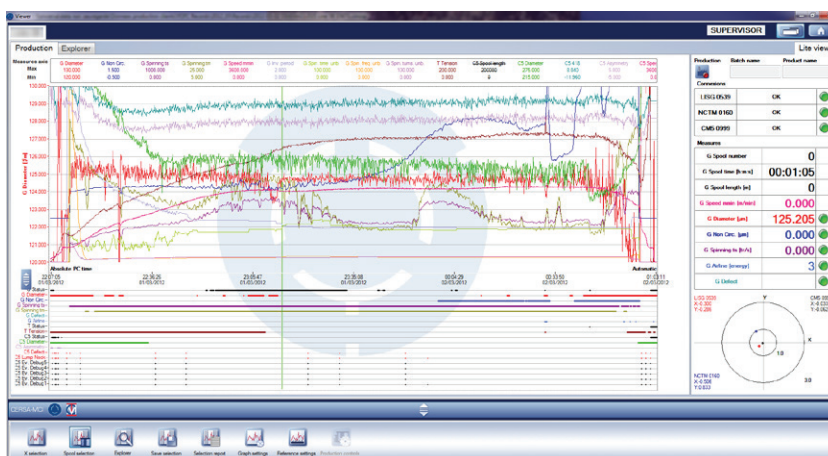
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- Spinning frequency profile
- Fibre no circularity measurement

NCTM:

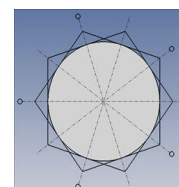
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- $\pm 1\text{ gr}$ within 10-40°C ambient

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- LDS-T (Laser Diffraction Sensor for transparent product)



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MAKING THE NEWS

Detroit grid failure

In early December, a major cable failure in Detroit plunged parts of the city into darkness for seven hours.

Over the next four years, DTE Energy Co is spending hundreds of millions of dollars to upgrade the system, following a long period of neglect. The city's power grid has suffered from its aging power transmission lines, which have failed under the stress of high demand and heat. Power to downtown areas has been lost on several occasions in recent years.

"This is a case where a part of the old system that hadn't failed before, failed," said mayor Mike Duggan. "Every month that goes by, we'll be more and more on a more modern system and the likelihood of this happening will go down. But it's part of rebuilding the city."

While the power was out, state and local police officers directed traffic

throughout downtown and temporary stop signs were placed in the middle of some intersections. Work was halted and crews were sent home from Cobo Center, where a major renovation and expansion of the convention hall is underway.

Some places, such as Detroit Receiving Hospital and many other public safety buildings, were forced to use backup power. Wayne State University closed for the day, and service was suspended for a time by the Detroit People Mover, an elevated rail line looping downtown.

Detroit Public Schools said it dismissed students at midday because of the outage. Other affected facilities included Joe Louis Arena, home of the Detroit Red Wings, but the power was restored and an evening game against the Florida Panthers was played as scheduled.

System diagnostics

ZCorum will provide a suite of services to the Highlands Cable Group. Included in the agreement is access to ZCorum's newest diagnostic tools and provisioning of subscriber devices. Highlands is also now offering ZCorum's VoiSelect service, a managed VoIP offering for residential and business customers that includes individual voice accounts, hosted IP/PBX and SIP trunking.

The diagnostics tools include PreEqualization Analyzer, ZCorum's proactive network maintenance tool for DOCSIS networks. The software-based tool makes use of the pre-equalization data coming from cable modems in order to identify the severity and approximate location of upstream impairments in the cable plant.

Highlands will also be utilizing TruVizion, ZCorum's application to provide advanced diagnostics for cable modem, DSL or fiber networks, including live modem data, historical readings as well as interactive mapping. The license includes access to TechVizion, a companion mobile app used by technicians to help them troubleshoot issues and verify signal levels while in the field.

Arthur Skinner, vice president of worldwide sales for ZCorum, said the new tools will have a powerful impact on operational efficiency for Highlands Cable. "TruVizion will provide increased visibility into their DOCSIS network, allowing them to significantly reduce the time needed to diagnose and resolve customer issues. Plus, PreEqualization Analyzer and Upstream Analyzer give them the tools they need to more efficiently maintain their upstream cable plant. In fact, with PreEqualization Analyzer they can even find and fix upstream impairments before service is affected."



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WIRE SCOOP BY PELICAN

Pelican Wire Company has acquired Rubadue Wire. Ted Bill, president of Pelican Wire, described the acquisition as: "A perfect opportunity to expand our business", continuing: "I'm pleased to be bringing these two strong American manufacturing companies together."

The two companies will operate under the umbrella of Pelican Holdings Group. Rubadue Wire will continue to maintain its brand, facility, and management team in Greeley, Colorado, and Pelican

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Wire will continue to operate from its Naples facility.

“We created Pelican Holdings Group to manage our expansion plans and to continue to increase shareholder value for our employee owners,” said Bill, who will serve as CEO of the group.

Pelican Wire Company is a custom manufacturer of wire and cable products for electrical heating and temperature measurement, specializing

in resistance wire, thermocouple wire, and custom wire.

Rubadue Wire is a pioneer in the wire and cable industry, credited with creating the world's first triple-insulated wire and developing a self-bonding fluoropolymer product line known as Coilbond. The company has since expanded into a variety of multi-layer insulated wires and other value-added solutions in the wire and cable industry.

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Assemblies acquisition

Corning Incorporated has reached an agreement to acquire TR Manufacturing Inc.

Located chiefly in Fremont, California, TR Manufacturing provides fiber optic and copper cable and component interconnects, and electro-mechanical assemblies to OEMs. TR Manufacturing will be a wholly owned subsidiary of Corning, reporting to Corning's optical communications business segment.

"We are excited about the opportunity to expand Corning's capabilities to service the growing bandwidth demand of all network operators," said Clark S Kinlin, executive vice president, Corning Optical Communications. "TR Manufacturing's expertise, supported by Corning's global infrastructure, will allow the new entity to better meet customer needs for innovative solutions. We look forward to building a bright future together with their talented team."

The acquisition is expected to be completed by the end of the first quarter 2015.

Wind across Quebec

Boralex Inc and Témiscouata regional county municipality have announced the commercial commissioning of the first 23.5MW from the Témiscouata wind farms.

“The Témiscouata I community wind power project is promising from both an environmental and economic perspective. To date, the two wind farms under construction have generated more than \$6 million in direct economic spin-offs in Témiscouata as well as a host of indirect benefits,” noted Témiscouata municipality warden Guylaine Sirois. “The wind farms will bring in steady revenues for the next 20 years that will help support our municipalities and economic development in our region,” she continued.

The Témiscouata II wind farm, with a capacity of 51.7MW, is under construction, with the roads and the foundations completed on target to the initial schedule. Commissioning is expected in late 2015.

Clearing the way for power

Land and tree clearing activities are underway along the 58 mile corridor of American Transmission Co's 138,000V transmission line project in Michigan.

"About 60 percent of the easements we need for the new transmission line have been acquired," said Brett French, senior external relations manager for ATC. "A major milestone was achieved when we acquired the easement rights of about 20 miles of the corridor from the state of Michigan. This portion of the new line will be built in an abandoned railroad corridor and will be transformed into a recreational trail after the power line is built."

Surveying, staking, and brush and tree clearing are underway

in preparation for the start of construction in January 2015. Contract crews from AECOM, Asplundh Tree Expert Co and MJ Electric are performing the work. Activities in the corridor will be limited during the gun deer-hunting season.

The new line is needed to improve electric reliability in the area. The project was first announced as part of ATC's Bay Lake project in spring 2012. The new line will run between the Holmes substation, along the Menominee River and the Old Mead Road substation near the New Page mill in Escanaba. The project was approved by the Michigan public service commission in January 2014.

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Luxury wiring issue

The US national highway traffic safety administration has announced that Jaguar Land Rover North America is to recall over 7,000 Jaguar F-Type convertibles to correct a wiring problem connected with the front-passenger airbag.

According to NHTSA's summary of the problem, in some cases the seatbelt harness assembly is incorrectly wired, affecting the airbag sensors. The sensors may not detect the presence of a child seat or small person.

"In this case of a child seat being fitted, the occupant classification system will not disable the passenger airbag," NHTSA said. "If a small person is present in the passenger seat, the (system) will

indicate that the seat is not occupied and the supplemental restraint system will not deploy if required."

It added: "In the event of a crash necessitating deployment of the front-passenger airbag, a child or small stature occupant may be at an increased risk of injury."

Jaguar Land Rover said it has received "three field reports related to this concern," but that there have been no accidents or injuries.

Affected vehicles were built between August 2012 and October 2014. The recall is expected to begin on 5th January 2015.

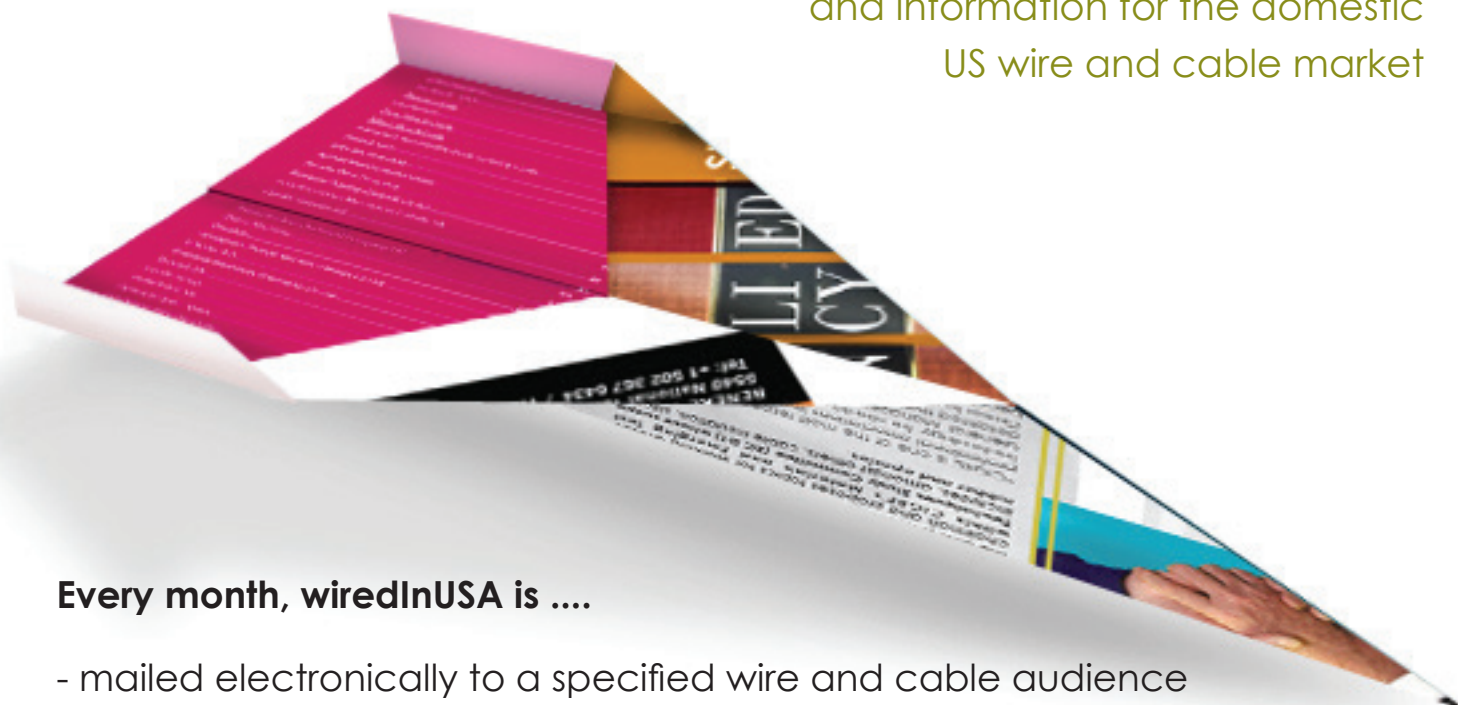
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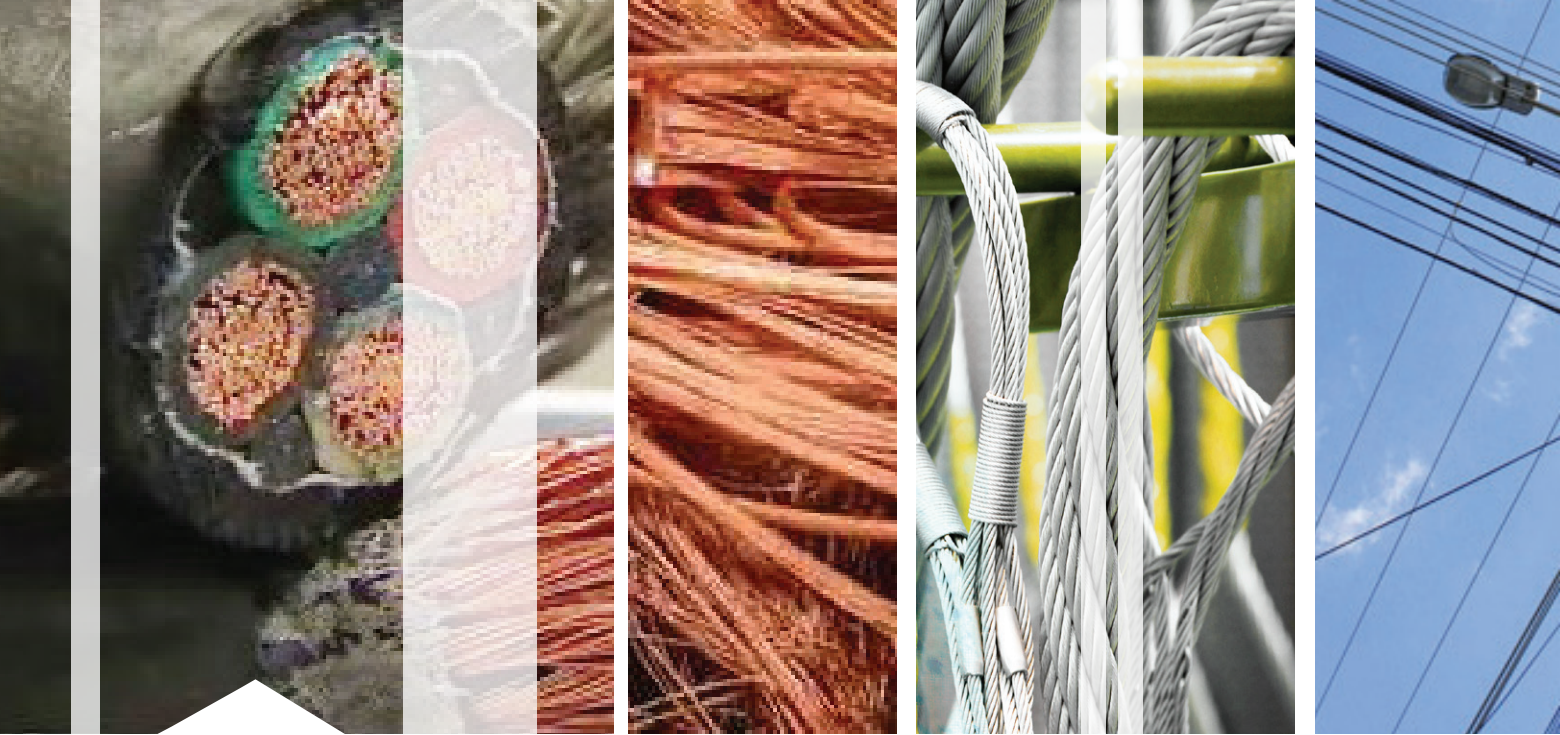
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Following a tradition of renewables

Solar energy will form part of the energy supply for Ameren Missouri's 1.2 million electricity customers. Following over a month of successful testing, the O'Fallon renewable energy center (Ameren Missouri's first solar center and the largest investor-owned utility scale solar facility in Missouri) is online.

The center has 19,000 solar panels covering 19 acres and generates nearly 6MW of electricity to Ameren Missouri's grid.

"This is an exciting milestone for Ameren Missouri," said Michael Moehn, president and CEO of Ameren Missouri. "The solar energy center is a clear example of Ameren Missouri's commitment to

power the quality of life for customers with cleaner energy from a diverse mix of sources."

Ameren Missouri's Integrated Resource Plan (IRP) calls for construction of a second solar energy center in 2016 and the company will add renewable generation using wind power, hydroelectric and landfill gas.

The company's first hydroelectric energy center, the Keokuk Energy Center, opened in 1913 and in 2012 the company opened the Maryland Heights renewable energy center, one of the largest facilities in the nation to create energy from landfill gas.



Data at the speed of light

Stanford engineers have designed and built a prism-like device that can split a beam of light into different colors and bend the light at right angles. The device will allow computers to use light, rather than wires, to carry data.

The researchers used optical link – a tiny slice of silicon etched with a pattern that resembles a bar code. When a beam of light is shone at the link, two different wavelengths (colors) of light split off at right angles to the input, forming a T shape.

“Light can carry more data than a wire, and it takes less energy to transmit photons than electrons,” explained electrical engineering Professor Jelena Vuckovic, who led the research.

In previous work her team developed an algorithm that did two things: it automated the process of designing optical structures and it enabled them to create previously unimaginable, nanoscale structures to control light. Now she, with lead author Alexander Piggott, a doctoral candidate in electrical engineering, has employed that algorithm to design, build and test a link compatible with current fiber optic networks.

Both 1,300nm light and 1,550nm light, corresponding to C-band and O-band wavelengths widely used in fiber optic networks, were beamed at the device from above. The bar code-like structure redirected C-band light one way and O-band light the other, right on the chip.

EUROPE NEWS



SHARING POWER ACROSS EUROPE

Researchers at Cardiff University are working with Belgium’s Leuven University on the MEDOW project – the development of a “super grid” to enable sharing of renewable power across Europe.

Professor Nick Jenkins, leader of energy at Cardiff School of Engineering, said: “Wind power is a source of clean, renewable electricity. We need to make more of it to become less reliant on expensive imported fossil fuels. In 2012, over half of the energy that the EU consumed was imported from outside the union.”

MEDOW is working to develop a DC grid – an efficient way of transmitting and sharing power. The premise is that a pan-European grid, rather than single point-to-point connections, will reinforce reliability and help balance power supply and demand.

Professor Jenkins added: “New wind farms are likely to be placed offshore, where wind speeds are higher and turbines less intrusive. As offshore wind power is generated a long way from where it is used, we need to find better ways of transporting the power to the onshore grid. Increasing our use of wind power will also support the future electrification of heating and transport, which could make a big difference to carbon emissions and reliance on fuel imports.”

MEDOW (Multi-terminal DC grid for offshore wind) is a Marie Curie Initial Training Network funded by the European Commission and is coordinated by Cardiff University’s School of Engineering. The team is working with a total of five universities and six industrial organizations.



UK distributor

The lubricant specialist manufacturer Metalube has appointed RopeQuip as the UK distributor for its Rope-Tek WRD range of wire rope lubricants.

Rope-Tek WRD lubricants are designed to reach fully into a rope's core, providing corrosion protection and lubrication. When pumped, the lubricant temporarily becomes fluid, allowing for better penetration into the rope, before returning to a grease.

RopeQuip, part of the Hendrik Veder group, is a wholesaler of steel wire rope and related products to construction companies, rigging shops and ship chandlers. Douglas Hunt, commercial director at Metalube, said: "We are really excited about our new collaboration with RopeQuip. The company has a fantastic reputation and our Rope-Tek WRD range is an ideal fit for their business."



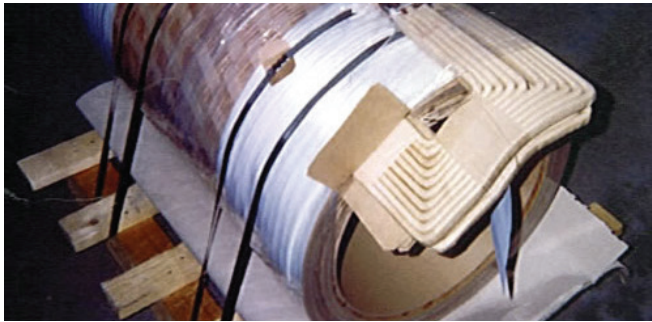
Canadian commission

ABB has commissioned its upgraded HVDC back-to-back station at Eel River, New Brunswick, Canada. Delivered to NB Power, the upgraded 42-year-old link will enable a reliable power exchange between the New Brunswick and Hydro Quebec grids.

The converter station provides a bi-directional asynchronous interconnection. As part of the upgrade program, ABB replaced the existing equipment with its latest converter valves and MACH control and protection system. ABB Power Systems division HVDC business head, Olof Heyman, commented: "In addition to enhancing grid reliability and power stability, our HVDC solution enables efficient transmission of electricity across this important interconnection."

The company also upgraded an aging valve cooling system from an air-cooled system to a water-cooled system in order to reduce the total valve and cooling system losses by approximately 65 percent.

NB Power's president and CEO, Gaëtan Thomas, said: "These upgrades will allow our customers to continue experiencing the benefits of this station while helping us keep our rates low and stable over time."



Italian anniversary

Italian Windings, a joint venture between Elettromeccanica Mercanti, DUE ESSE and MTW, is celebrating its first anniversary.

“We are glad to announce that due to the very positive results of 2014, we will keep investing in this joint venture throughout the next year. Our new website has had visitors from over 40 countries, the fairs where we participated have created the occasion for new encounters, and a well-planned, persistent sales and marketing activity has brought new opportunities to our doors,” said Nicola Mercanti, co-owner of MTW.

The aim of Italian Windings is to become the single contact, on a national and international level, for the supply of windings for distribution and power transformers of between 10kVA and 100MVA. The first year of trading has brought new commissions from South America, Africa and Europe.

Mirco Scarabello, owner of DUE ESSE, stated: “Overall, the achievements of 2014 have proven our efforts right. Guaranteeing high quality of product and service yet being more competitive through the sharing of knowledge and costs is the correct approach to support those transformers companies that need to outsource in order to handle production peaks.”



Power in deep water

Chevron's Jack and St Malo oil and gas fields are the deepest installation to date for Nexans' power umbilicals, integrating HV power supply and umbilical functions within a single cable cross-section. The fields are located within 25 miles of each other, approximately 280 miles south of New Orleans, at a water depth of 2,100m.

Nexans' cable and umbilical manufacturing facility in Halden, Norway, has designed and manufactured the 42km power umbilical in two separate lengths. The design allows for a high voltage supply to be provided for deepwater projects.

A power umbilical includes a number of steel tubes as well as fiber optic elements and signal cables for control and monitoring purposes. By eliminating the need to transport and install a separate power cable and a control umbilical, the power umbilical significantly reduces transportation and installation costs.



Streamlining production

As a part of its group-wide switchover to SAP's ERP system, US cable manufacturer Southwire will install Advaris Cable MES. In August the manufacturing execution system by Advaris Informationsysteme GmbH went live in the first Southwire cable factory in Mineral Wells, Texas, where Southwire produces industrial cables. Advaris MES is a core component of Advaris Cable, an integrated operations management system for length-based manufacturers.

The installation of Advaris Cable MES is a pilot project for the subsequent installation in all of Southwire's cable plants.

Installation was preceded by an exhaustive evaluation of relevant MES systems.

One decisive factor in favor of the system developer was its specific orientation to the cable and wire industry.

Functions covered by Advaris Cable MES include detailed production scheduling, with the target criteria of meeting deadlines and minimizing setup times.

Subsea Sea Lion

Alcatel-Lucent and the Finnish government-owned venture Cinia Group will deploy an undersea cable system to provide the first direct cable link between the Nordic region and continental Europe.

The project, named Sea Lion, calls for the deployment of a new 100G system that will span over 1,100km from Helsinki in Finland, to the Rostock-Ribnitz area in Germany. Completion is expected in early 2016.

Designed with an ultimate capacity of 15Tbit/s, Sea Lion will play a critical role in strengthening the provision of reliable and secure ultra-broadband connectivity for cloud and data center applications. The data will be transported across the country through the Finnish fiber optic network running along the national rail infrastructure.

Jukka-Pekka Joensuu, executive vice-president of the Cinia Group, said: "Broadband connectivity is a major growth opportunity for the foreseeable future and the development of a robust telecommunication infrastructure is vital."

Philippe Dumont, president of Alcatel-Lucent submarine networks, said: "We are delighted to support the Cinia Group in its rollout of this new cable system, which will be a catalyst to strengthen global digital connectivity."



Power lines down

Denmark's DONG Energy Distribution has removed approximately 4,200km of overhead power lines from the northern part of Zealand and the Greater Copenhagen district. Thousands of overhead line poles have been taken up from residential areas and roads, and 8,000km of cables have been buried in one of the largest infrastructure projects in Denmark.

Anders Vikkelsø, vice president of DONG Energy, stated: "The planning of the cable laying began back in 2000 after a severe hurricane hit Denmark at the end of December 1999. Today, we've completed the cable laying, and I'm pleased that the consumers in our grid area no longer have to fear major power cuts when Mother Nature takes its toll, causing trees to fall down on overhead line poles and power lines. Now that the power cables are buried in the ground, we can avoid this."

Many municipalities on Zealand have also taken the opportunity to upgrade the outdoor lighting, and more municipalities are expected to follow suit in the near future.



Project progress

CT Offshore has completed the installation of the inter-array cables for Dong Energy's 312MW Borkum Riffgrund 1 project. The company's SIA vessel installed 44 cables at the project site, located 37km off the German coast. The commissioning date for the project is in the first half of 2015.

CT Offshore is now preparing to install cables at another Dong Energy development, Gode Wind 1 and 2 projects.



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CabWire 2015 world technical conference – a date for your diary!

The IWMA is delighted to announce that the 7th biennial CabWire world cable and wire technical conference will take place on Tuesday, 3rd November 2015 in Düsseldorf, Germany, home of the wire industry.

The conference will be held at the Congress Centre, and is already attracting interest following the successful CabWire conference which was held at the Palazzo Turati, Milan, in November last year, and attracted 200 wire and cable professionals from all over the world.

Preparations are well under way with Dr Probst, retiring CEO of Leoni AG, committed as a keynote speaker, and Acelor/Mittal preparing to host a visit for delegates to its rod mill in Duisburg on Wednesday, 4th November.

There will also be an event at a downtown Düsseldorf location on the Tuesday evening where delegates will get the chance to network and socialise.

If you would like to be involved by presenting a paper at this exciting event, then please forward by email a short abstract of no more than 75 words to the IWMA office at info@iwma.org

There are also a variety of promotional opportunities available, such as sponsorship and table top displays. Similarly, if you are interested in attending as a delegate and would like to be kept up to date with conference developments then please get in touch.

www.cabwire.com

DEADLINES

- Abstract deadline: 13th February 2015
- Acceptance notification: 31st March 2015
- Manuscript deadline: 30th September 2015

ABSTRACT SUBMISSION & PAPERS

In order for the conference organisers to assess the scope and content of a proposed technical article please submit a 75 word abstract.

Accepted speakers will receive an Author's Guide with details about manuscript and presentation preparation. Only original papers not previously published will be eligible for paper awards presented by the IWMA or possible publication in the association's newsletters and magazines.

Accepted authors receive:

- Complimentary meeting registration
- A copy of the conference proceedings materials
- Access to the conference sessions, tabletop exhibits and reception

Check your category:

Ferrous Non-ferrous Electrical Fibre Optic General

Author(s) _____

Title of paper _____

Company _____

Address _____

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Abstract (75 word maximum) _____

Please send me further information when available on:

- Attending the conference as a delegate
- Booking a tabletop exhibit
- Conference sponsorship

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ASIA & AFRICA NEWS

TRANS - PAC ANNIVERSARY



Hawaiian Telcom recently celebrated the 50th anniversary of the first trans-Pacific undersea cable, connecting Hawaii and Japan to the US mainland. The institute of electrical and electronic engineers (IEEE) recognized this anniversary as an IEEE Milestone, one of only two in Hawaii (and fewer than 200 worldwide). IEEE Milestones recognize significant technical innovations that benefit humanity.

In 1964, Trans Pacific Cable 1 (TPC-1) was inaugurated by president Lyndon Johnson and Japan's premier Hayato Ikeda. Hawaiian Telcom (then Hawaiian Telephone Company), American Telephone and Telegraph (AT&T), and Kokusai Denshin Denwa International (KDDI) of Japan partnered to build it, sharing the \$83 million cost. This historic engineering feat improved global communications and contributed to deep-water submarine cable technologies.

Hawaiian Telcom officials and IEEE Board members attended an anniversary and plaque dedication ceremony at Hawaiian Telcom's headquarters in downtown Honolulu. A similar celebration sponsored by KDDI was held in Tokyo, Japan.



Joint solar venture

Yingli Green Energy Holding Co Ltd, known as Yingli Solar, has revealed that its wholly owned subsidiary, Yingli Green Energy Singapore Co Pte Ltd (Yingli Singapore), is to collaborate with Kasikornbank Public Plc (KBank), Huawei Technologies Co Ltd and Solventia Solar Energy Co Ltd to deploy solar power in Thailand. The recently signed memorandum of understanding shows the companies plan to jointly provide turnkey solar power solutions for both power plants and distributed generation projects throughout the country.

“Yingli’s collaboration with KBank, Huawei and Solventia Solar Energy is designed to accelerate solar power’s expansion in Thailand by simplifying PV deployment for power suppliers and consumers. As industry leaders, our companies’ cooperation will help establish Thailand as an innovative regional leader in the transition to a clean, low-carbon future,” said Ms Angie Koh, managing director of Yingli Singapore.

With Thailand’s strong year-round solar irradiance and rising demand for electricity, the Thai government has established a target of 3GW target for total solar power capacity by 2021, and to meet at least 20 percent of its energy demand with renewable resources by 2022.



Wire cuts

Major Taiwanese wire rod producer Yieh Hsing has cut its list prices for carbon steel wire rods for December. The company decided to reduce its prices for Al-killed wire rods and rimmed wire rods by around \$18 per tonne.

After the announcement, its list prices for Al-killed wire rods were around \$620 per tonne, with rimmed wire rod at \$610 per tonne. Prices for blast furnace killed wire rods will be fixed on order.



Power share

Subhiddin Muhiddinov, a senior consultant to the Tajik president's press center, has confirmed that a hydroelectric agreement between Tajikistan, Kyrgyzstan, Afghanistan and Pakistan was signed in Istanbul on 4th December 2014. The first deputy prime minister led the Tajik delegation, while Afghan, Kyrgyz and Pakistani delegations were led by their respective energy ministers.

The project, known as the Central Asia South Asia Electricity Transmission and Trade Project (CASA-1000), is expected to be completed by 2018. Tajikistan's share in the energy export will be 70 percent, while Kyrgyzstan will export 30 percent.

Afghanistan will consume 300MW of the exported energy while Pakistan will receive 1,000MW. It is anticipated that the project will boost energy trade in the region, leading to sustainable development.



First for Pakistan

JA Solar Holdings Co Ltd has supplied 100MW of solar modules to the first large-scale solar farm in Pakistan.

The solar farm is located on a 500-acre plot within the Quaid-e-Azam Solar Park in Bahawalpur, Pakistan. The park will address the country's energy shortage and is a key project of the China-Pakistan economic corridor, a development program for energy and infrastructure projects to connect China to southern Pakistan and to develop trade. Energy demand in Pakistan is growing at approximately eight percent annually, leaving the country with an estimated deficit in energy production of 6GW.

Punjab, the province in which the project is located, enjoys some of the highest solar irradiance in the world, with approximately 3,000 hours of sunlight each year. This solar project is located in an arid region where temperatures reach 50°C during the summer.



Saudi fiber expansion

Mobily has completed the fiber optic network coverage of over a hundred residential quarters in more than 20 Saudi Arabian cities. In a statement, the company said that Jazan, Onaizah and Al-Hofuf are among prominent cities that were covered by fiber optic network during the last phase.

Mobily's continued expansion of its fiber optic network is to cover cover most cities and provinces in the Kingdom.

Nasser Al-Nasser, chief operation officer, said: "Mobily is in a race with time for the deployment of fiber optic network in all regions of the Kingdom. Mobily is moving ahead with important steps that [will] lead to the implementation of its objectives [to] preserve the sustainable development to achieve the maximum benefit from fiber optic services."



Tajikistan power support

The Asian Development Bank (ADB) has approved a \$54 million grant to improve the electricity supply to households and industry in Tajikistan. The ADB Tajikistan resident mission (TJRM) has said that the project aims to reduce energy losses through metering the entire high and medium voltage transmission grid and to expand transmission capacity in Sughd province.

"Investments in loss reduction are a priority for the energy sector," said Levan Mtchedlishvili, senior energy specialist at ADB's central and west Asia department. "And this project will enable Barqi Tojik to account for all electricity flows and associated costs. It will quantify technical and non-technical losses at the wholesale level of the entire grid."

The project will install around 1,100 wholesale electricity meters, as well as current and voltage transformers and a settlement system. It will also build a 95km transmission line connecting Roudaki and Ayni substations.

The Government of Tajikistan and Barqi Tojik will provide counterpart funding of \$13 million. Barqi Tojik will be the executing agency for the project, which is due for completion in 2020.



Renewables growth in Japan

ITOCHU Corporation plans to construct a large-scale photovoltaic power plant on land in Okayama city, Okayama prefecture, and will commence the power generation business through an operating company established jointly with Fuyo General Lease Co Ltd and Ene One Solar Co Ltd (a joint venture of Saisan Co Ltd and Shinwa Energy Inc).

The planned plant is scheduled to be completed in December 2016, and will commence operation with an initial power output capacity of approximately 37,000kW. Average annual power output is expected to be approximately 43,000,000kWh, which is equivalent to the annual power consumption of approximately 7,600 standard homes.

The power generated by the plant will be sold to Chugoku Electric Power Co Inc for 20 years. Including this latest project, ITOCHU will have a total power output capacity from renewable energy of approximately 480MW in five countries.



Kenyan network growth

Communications and IT services provider AccessKenya Group is planning a \$3.3 million investment in fiber optic network deployments in Nairobi, Thika, and Mombasa during 2015.

“Our interest is in helping businesses grow by delivering affordable but critical end-to-end solutions for enterprises and even smaller companies,” said Jonathan Somen, AccessKenya chief executive.

The first stage of this plan, a fiber optic network in target areas around Nairobi, has just been completed. Somen said the company will target new business by offering cloud connectivity and managed services to data centers, with data rates of up to 2Gbps if necessary.

Clients will layer services such as real-time CCTV monitoring, VoIP, and video on demand, on top of pure connectivity. In addition, customers will have seamless access to and from anywhere on the globe through the Internet and the networks of Internet Solutions and new parent Dimension Data. AccessKenya was acquired by South African firm Dimension Data in 2013.

**PRODUCTS &
MACHINES
TECHNOLOGY**

Low friction – lead free

General Cable has launched a high speed, extra low friction (XLF) line of low- and medium-voltage industrial power cables, benefitting from lead-free EPR insulation.



Part of the new extra low friction line from General Cable

The XLF technology is said to provide a significant reduction in installation pulling force, up to 80 percent compared with standard cable, which makes it easier and safer to install into conduit, duct or cable tray. The incorporation of lead-free insulation makes the 600V and 5kV to 35kV industrial low- and medium-voltage cables ROHS compliant.

“The high speed XLF jacket technology delivers real cost savings to the electrical contractor, and provides for added flexibility in both the planning and installation phases of a project,” said Kris Morrow, General

Cable’s product manager for industrial products.

“Installers will experience a substantial reduction in pulling force due to the lower coefficient of friction provided by the XLF technology,” said Todd Sweeney, vice president and general manager, North America, industrial and cord products.

“Our high speed XLF cable offers a value-added advantage to the electrical contractor in time, labor and installed cost. We are particularly excited about the integration of the XLF technology into our high performance LSZH, CPE and XL-CPE product lines, resulting in the industry’s only complete, low friction cable offering available from stock.”

Looking at fasteners

General Inspection LLC (Gi) is supplying three new LaserLabs™ to one of the world’s largest fastener manufacturers. Two units will be delivered to Illinois and one will be shipped to the manufacturer’s Mexico plant.



General Inspection delivered three of its new LaserLabs

Each LaserLab features the patented eight-laser array, centring device, top

tooling and magnetic stage. These features combined ensure that parts do not move, and do not need to be rotated for a complete 360 degree dimensional inspection.

In just a few seconds, LaserLab can scan a part, measuring all dimensions – including lengths, diameters, radii, angles, and external thread measurements – and display the results, all accurate to a few microns. Out-of-tolerance features are clearly highlighted, and a complete roster of all dimensions is displayed for entry into an Excel spreadsheet. Once tolerances have been assigned with the appropriate part number, they can be stored in memory for quick recall if/when that part is to be inspected again.

The manufacturer will place all three LaserLab units into its quality labs for first-piece inspection and final audits.

Large diameter cleaver

AFL has launched high precision Fujikura CT-105 and CT-106 fiber cleavers, with the capability to cleave flat and angled fibers of between 80µm and 1.25mm diameter.

“Fujikura continues to expand its specialty fiber optic product line with technologies that support our customers’ needs around the globe,” said Brad Hendrix, global specialty market manager for AFL. The new cleavers are aimed at the medical, oil and gas, and research and development markets.

The LDF cleaver provides extensive programmable features including a programmable automatic clamp function,

an angle cleaving function (0-15° for fibers up to 800µm), storage for up to 100 program modes, and a blade life of 20,000 cleaves with a cladding diameter of 125µm and applicable optical fiber, including glass optical fibers and capillary. The product also supports single fibers and features a color LCD monitor.



Large diameter optical fiber cleaver CT-106. Photograph courtesy of www.fujikura.co.uk

Plenum ribbon cable

Sumitomo Electric Lightwave has announced the introduction of its new dry flexible indoor plenum rated ribbon cable, said to be the industry’s first with up to 432 fibers.

The cables have been developed to improve fiber density and ease of installation in the enterprise network. The 432 fiber plenum cable has a diameter of only 0.85 inches for space savings within data center and network applications.

The new cable features a dry central tube design for fast splicing plus a non-preferential bend axis. Its dielectric construction eliminates the need for grounding or bonding.

As with all 4th Level[®] ribbon cables, the 432-fiber plenum cable features Sumitomo's patent - protected Easy Split and Peel™ technology, allowing the installer to peel back the ribbon easily by hand to expose the underlying color coded fibers. This exclusive ribbon design increases the speed with which fibers can be either fusion spliced or terminated with MPO splice-on connectors for cost effective real-time and on-site cable builds.

"Sumitomo's expertise and leadership in ribbon fiber design and manufacturing has led to the development of the most advanced and reliable data center and enterprise network ribbon cables," said Bill Charuk, senior data center product manager at Sumitomo Electric Lightwave.

Fiber enclosures

CABLExpress has launched enhanced H+ fiber enclosures, designed to provide data center professionals with increased scalability in their layer one infrastructures. The H+ enclosures are said to feature the highest port density in the industry, enabling efficient usage of conditioned rack space.

IT research company Gartner Inc stated that the optimal efficiency of data center infrastructures is necessary to effectively manage the increased speed and capacity of data flow required in today's environments. "New dimensions in corporate and personal computing will demand more performance, more capacity and quick, seamless access to enormous databases in more cost effective and efficient infrastructures that take up less space, and consume less power," the

company said in a research note.

The enhanced H+ fiber enclosures feature sliding trays, each housing four separate modules with six LC duplex ports. This functionality allows users to customize their infrastructures to meet organizational needs and provides scalability for future growth. The enclosures are available in 1U, 2U and 4U configurations for 72, 144, and 288 duplex LC ports respectively.

"The H+ enclosures enable data center managers to take a modular and scalable approach to designing their cabling infrastructures, based on the specific needs of their organizations," said Lisa Belodoff, vice president of CABLExpress. "The proper use of high-density data center solutions helps increase overall efficiency by maximizing space and resources."

Cable yarn

Coats plc has launched Glasmo SM VO, a new fiberglass coated yarn designed for use in telecommunication cables. Its adhesion properties and inherent strength are said to reduce cable manufacturing costs by



reducing the processes in cable production. The new fiberglass coated yarn from Coats. Photograph courtesy of Coats plc

Glasmo SM VO's oval-shaped cross section increases the surface area of the yarn, and its

chemistry promotes the adhesion between the fiberglass components and the PVC cable jacket. This combination eliminates the need for a preheating process, so streamlining production and reducing cable manufacturing costs. The coating process also increases the strength and stability of the fiber, so that smaller cables use less PVC for the jacket while still meeting strength specifications and so further reducing the manufacturing cost.

Rajiv Sharma, global CEO, industrial division, Coats plc, said: "Glasmo SM VO is another example of the innovation in our specialty business. We are continuing to develop high technology products with enhanced strength and performance features which are providing cost savings and benefits for our customers."

Glasmo SM VO is designed for use in drop wire telecommunication cables, including copper, fiber optic, shielded and coaxial cables, and can be produced to customer specifications.

Quick change

Maillefer's continuous type change (CTC) aims to significantly cut costs in medium voltage rubber cable production by allowing a change of tooling without stopping the line.

Conventional type changes can be time consuming, but by installing CTC into the crosshead, type change times are significantly reduced, saving not only time but materials and energy. Conventional type changes can demand hours of

downtime and piles of scrap material, but type changes with CTC require only minutes with almost no cable loss.

CTC is already widely used in XLPE medium voltage cable production around the world and is now being developed for rubber insulated medium voltage cables. Test runs have been carried out, including three changeovers with a 20kV cable. The test series was initiated with a conductor cross-section area of 240mm² and concluded with a 50mm² conductor. The cables were cured in nitrogen atmosphere.

Based on an average of recent insulation material price levels, type change costs without CTC can be up to €5,000 per change and with CTC are only €75.

CTC is designed to significantly reduce the overall downtime of frequent type changes, while not demanding heavy investments.

Cable approval

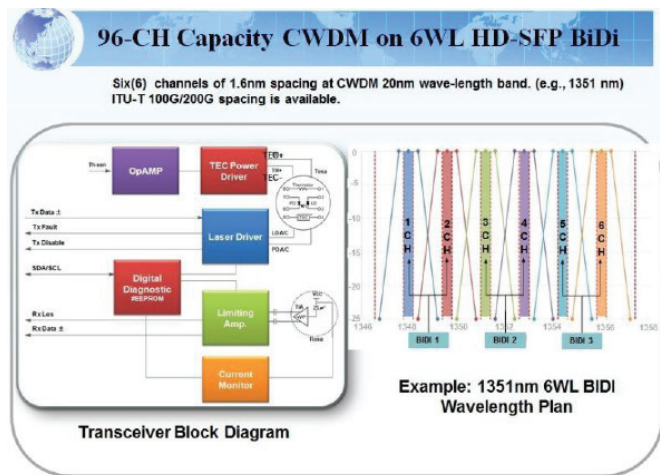
Radox[®] 155S FLR (for 0.35mm²-6mm² cross sections) and Radox[®] 155 (for 8mm²-25mm² cross sections) have been officially approved by the Ford group. The Radox family cables are already fitted in some Ford vehicles, and are now officially listed. Official approval will help the company's current and new customers to use the products in all Ford models around the world without further cable verification.

The cables were subjected to mechanical, electrical and chemical stress tests in an independent testing laboratory to confirm that they satisfy all the requirements of ISO

6722 and LV 112 and are, therefore, also compliant with Ford's ES-AU5T-1A348-AA standard.

High-density data

Optowiz is to launch its high-density bi-directional HD-SFP in six wavelengths, at data transmission speeds of up to 6.1Gbps over a one-core single-mode fiber.



High-density bi-directional HD-SFP has been launched by Korean manufacturer Optowiz. Photograph courtesy of Optowiz

Making this high density SFP available in the North American markets, Optowiz, based in Korea, is starting its marketing campaign with a USA partner.

Optowiz CEO Dr KJ Yang commented that each 20nm CWDM wavelength is divided for three bi-directional channel groups, yielding six Tx and Rx channels, and that these six channels over CWDM wavelengths of 1.6nm spacing effectively gives a total of 96 data transmission channels. The 6WL HD-SFP for single core or double core fiber duplex has already been deployed in the field. "The 96 channel HD-SFP for bi-directional transmission

at 6.1Gbps will be available during the first quarter 2015 and Telecordia GR-468-CORE testing was successfully completed," Yang added.

Food safe solutions

The Lapp Group presented several new products for the food and beverage industry, including its new Skintop® Hygienic stainless steel cable gland, at the SPS IPC Drives 2014 exhibition. The cable gland has certifications from Ecolab® and is designed to EHEDG requirements.

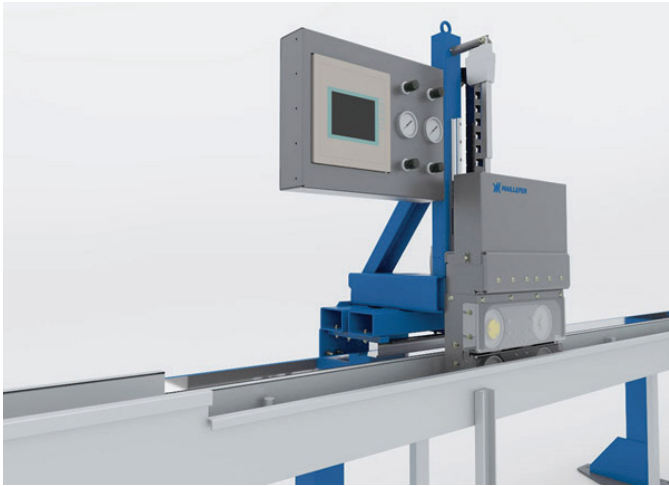
Skintop Hygienic can easily be cleaned. "The rounded shape with no corners or angles, and the precision fit with very low tolerances in production mean that there is nowhere for residue to accumulate," said product manager Cornelia Kuntzer. The material used for the Skintop Hygienic is stainless steel class V4A (1.4404), which guarantees long-term resistance to demanding ambient conditions, and the sealing materials are food safe.

Skintop Hygienic was the first product to be tested under the new requirements for EHEDG hygienic design certification. From October 2014, the testing procedure has been altered to include practical tests under extreme conditions. "We expect to be awarded the certification by the end of 2014," explained Cornelia Kuntzer.

The Skintop Hygienic cable gland will be available from the Lapp Group by January.

New coating line

By optimizing the critical parameters and components in the production line, Maillifer of Finland is said to have attained a speed of 1,000m/min with its new secondary coating line, OEL 40///Explore. Main development areas proved to be the compression caterpillar, cooling trough and crosshead alignment bench.



Compression caterpillar CCA 1000, part of the new secondary coating line. Photograph courtesy of Maillifer

The new line design makes it possible to achieve high line speeds and still keep the tube diameter within accurate tolerances. When line speeds reach 800m to 1,000m/min, the cable enters the clinching caterpillar at elevated temperatures. The caterpillar grip needs to be firm but gentle, to avoid affecting the product geometry. A new motorized multi-pass design ensures efficient cooling under low tension, as needed by high line speeds demanding longer cooling lengths.

When production speeds are increased, the speed difference of the fiber bundle and buffer tube increases dramatically. These components are accurately kept apart by Maillifer's new crosshead alignment bench.

New tight buffer cables

Nexans has launched a new fiber cable for indoor and outdoor use. The new LANmark-OF tight buffer universal cable uses a new rodent-proof glass yarn.

The LANmark-OF cable is developed for horizontal and vertical installations, indoor and outdoor in a duct. It is dielectric and fully dry and has 900um buffered fibers. The second coating provides additional protection of the fibers and facilitates the handling when terminating the fibers in a patch panel. The easy strip tight buffer design allows stripping the fiber over 10cm in one action. It is described as a cost effective solution for short and medium distances.

The LANmark-OF tight buffer universal is said to be most suitable for direct termination by either anaerobic or hot melt connectors as well as with splicing of pigtails.

High carbon rod for exports

Handan Steel, a subsidiary of Hebei Steel Group, has successfully produced 102 tonnes of 5.5mm high carbon wire rod (SWRH82B) with all specifications to meet the technical requirements for exports.

In order to expand its share of the global market, the steelmaker has strengthened efforts in the development of high carbon wire rod. SWRH82B high carbon wire rod is used for the manufacture of high strength spring wire.

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