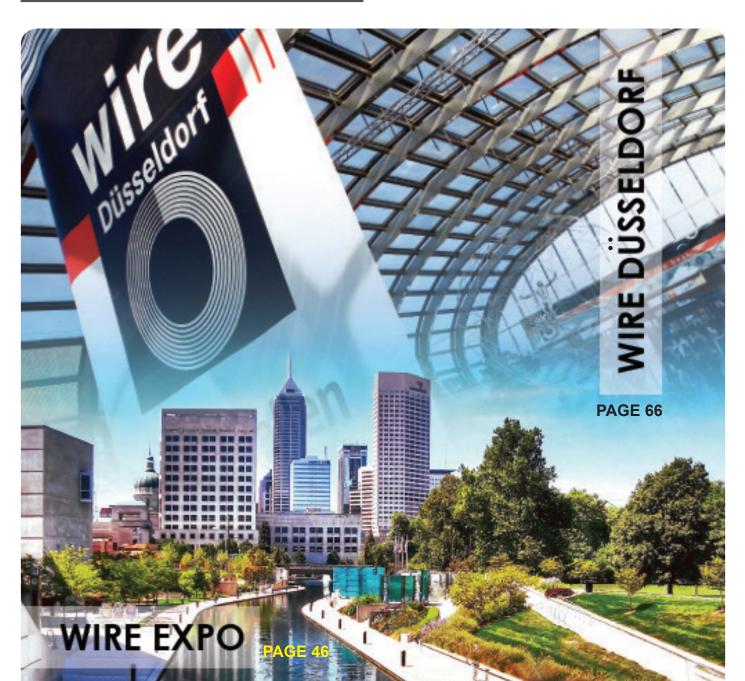




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#34 EDITOR

The wire and cable exhibition season is full steam ahead with wire 2014 in Düsseldorf, Gemany, and then Wire Expo in Indianapolis, USA, from 5th to 7th May.

Both sections feature heavily in the largest-ever issue of wiredInUSA – the Düsseldorf section starts on page 66 and Wire Expo on page 46.

If you're attending either show, please feel free to stop by and collect your free CD copy of wiredInUSA and copies of sister publications EuroWire and Wire & Cable ASIA.

In Germany we can be found on stand 11D28 and at booth 108 at Wire Expo.

America's first offshore wind farm is also taking shape, with Prysmian and Caldwell Marine International being awarded contracts for the provision and installation of intra-array, export power and underwater cables for the site. See page 9 for the full story.

Repair work has also been undertaken on suspension cables at the William E Gordon radio telescope in Puerto Rico following damage during an earthquake measuring 6.4 magnitude in January. Read all about it on page 10.

David Bell Editor

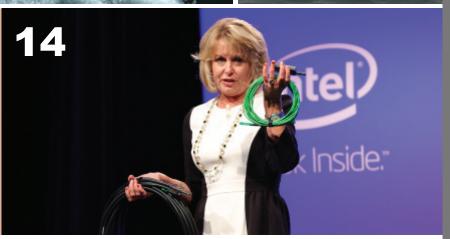
















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6th - 7th May 2014

66WIRE DÜSSELDORF 7th - 11th April 2014

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PRODUCTS, MACHINES AND TECHNOLOGY

The latest news from machine industries

DIARY SHOW EVENTS

2014

APRIL

7-11 April: wire Düsseldorf 2014
Düsseldorf, Germany
Exhibition
www.wire.de

MAY

6-7 May: Wire Expo 2014
Indianapolis, Indiana, USA
Exhibition
www.wirenet.org

14-15 May: National Electric Wire Processing Expo
Milwaukee, Wisconsin, USA
Exhibition
www.epishows.com

14-17 May: Lamiera Bologna, Italy Exhibition www.lamiera.net

JUNE

16-18 June: **Guangzhou International** Guangzhou, China Exhibition www.metalchina-gz.com

17-18 June: Polymers in Cables
Philadelphia, Pennsylvania, USA
Conference
www.amiplastics-na.com

SEPTEMBER

24-27 September: wire China 2014
Shanghai, China
Exhibition
www.wirechina.net

OCTOBER

28-30 October: wire India Mumbai, India Exhibition www.wire-india.com

NOVEMBER

9-12 November: **IWCS**Rhode Island, USA
Conference and table top exhibition
www.iwcs.org

2015

APRIL

28-30 April: Interwire 2015 Atlanta, Georgia, USA Exhibition www.wirenet.org

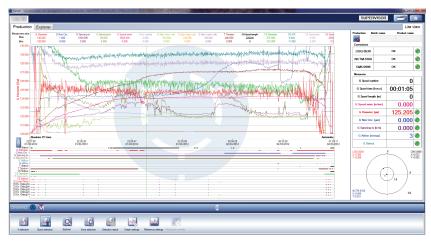


OPTICAL FIBRES

Measurement Instruments

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CIM PC software:



LIS-Glass:

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- Diameter repeatability: ±0.005µm at 50kHz
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- Ultra fine air line detection, 0.3µm, 400Hz
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- Spinning frequency profile
- Fibre no circularity measurement

NCTM:

Non Contact Tension Measurement

(Drawing force Birefringence principle)



- Measurement field: 4mm Ø
- ± 1 gr within 10-40°C ambient

CM5: Coating Monitor 5 axes

- Absolute diameter: ±0.2μm, 400Hz
- XY Positions ±0.1mm 1kHz
- 5 axes Lump & Neck: ±2μm, 3.6MHz sampling
- Coating asymmetry: 30Hz
- Internal defect detection: 800kHz (Airlines, bubbles, inclusions, delaminations...)

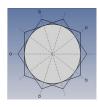


Others:

AIR (AIRline detector)

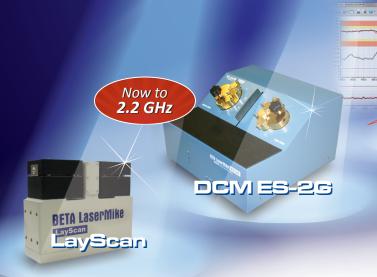
LDS-T (Laser Diffraction Sensor for transparent product)





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MAKING TIHE NEWS

Cape Wind contracts

Contracts for the provision and installation of intra-array, export power and underwater cables for America's first offshore wind farm have been awarded to Prysmian and Caldwell Marine International.

According to the terms of the contracts, the onshore transmission cables will be manufactured by Prysmian at its South Carolina manufacturing facility, and installed in a series of duct banks between the point of landfall and the electric grid interconnection at the NSTAR Barnstable substation.

Caldwell Marine International will install the submarine intra-array and export cables using specialized vessels and equipment.

Cape Wind's president, Jim Gordon, said this is the first US offshore wind project to be fully permitted and to have been issued a commercial lease and received approval for its construction and operations plan. Cape Wind has secured long-term power purchase agreements with National Grid and NSTAR, the two largest electric utilities in Massachusetts.



High level cable repair following earthquake

The operations of the William E Gordon radio telescope in Arecibo, Puerto Rico were restricted in January following damage sustained by a 6.4 magnitude earthquake, centered 37 miles northwest of Arecibo.

A structural survey by Arecibo Observatory staff revealed serious damage to a main suspension cable section, with apparent breach of several cable strands within the cable that supports the 900-ton focal platform of the telescope. There are 18 main suspension cables in all.

"In an abundance of caution, telescope motion had been very limited since the earthquake," said Robert Kerr, the observatory's director and a principal scientist at SRI International, which leads a multi-organization team to manage, operate, and maintain the Arecibo Observatory.

"Nevertheless, the telescope continued its science mission, including participation in a ten-day global ionospheric study in late January and continuing a productive search for pulsars in the sky above Arecibo."

Arecibo Observatory has now completed the immediate repair of the telescope. The repair design was created by consulting engineers Ammann and Whitney, and the repair itself carried out by Arecibo Observatory staff.

The Arecibo Observatory is operated by SRI International, teaming with The Universidad Metropolitana and the Universities Space Research association, in a cooperative agreement with the National Science Foundation.

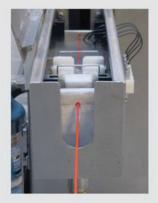
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Mill modernization

The Ontario provincial government is lending \$7m funding to Ivaco Rolling Mills to modernize its steel billet and hot-rolled wire rod facility in L'Orignal. The company plans to increase capacity and improve the quality of its steel products, expanding its opportunities to supply steel to automotive, advanced manufacturing and energy companies.

New technology will make the plant more energy efficient, require less raw materials and reduce particulate emissions.

"The investment we're announcing today will help Ivaco improve its competitiveness while increasing environmental protection. Support for manufacturing is part of the Ontario government's strategy to create jobs and grow the economy for a more prosperous and fair Ontario," said Eric Hoskins, minister of economic development, trade and employment.

Ivaco has capacity to produce up to 850,000 tons of wire rod and 450,000 tons of steel billet per year.

DeWAL hits 40

Forty years ago Hugo DiClemente and Edward Walsh established DeWAL Industries, converting polymer resins into precision films and tapes. Today the company has sales locations in Canada, China, Germany, Mexico, Russia, Shanghai, South Korea, Switzerland, Taiwan and the UK.



DeWAL manufactures about 150 polymer films and pressure sensitive tapes, plus countless custom films and tapes in skived and unsintered PTFE, skived UHMW-PE, expanded PTFE, and porous and filled PTFE and UHMW, FEP and polyimide tapes.



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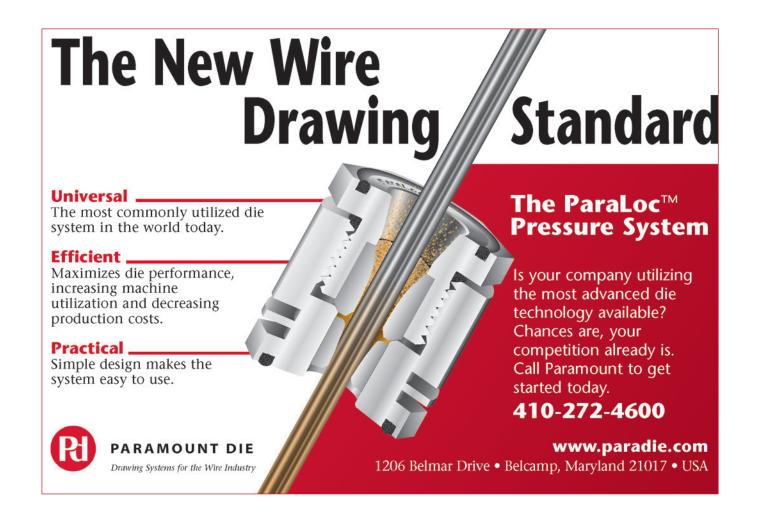
Cables offer 800Gps

Intel will shortly begin commercial production of an 800 gigabit per second optical network cable. The new cable is based on technology developed in its Silicon Photonics facility.

The new optical cables are designed to allow servers to communicate more efficiently than is possible using traditional copper cables. Optical fiber having become the norm for data transfer over long distances, many ISPs are offering direct fiber-to-the-home services even though the use of finer optic cables in data centers has lagged behind.

"The biggest hurdle to higher optical connections has been cost," said Victor Krutul, marketing director of Intel's Silicon Photonics Solutions group. He added that the new technology has been engineered with consideration to cost, but prices and likely shipping dates are not yet available.

Facebook already uses Intel spec server racks and other optical-ready equipment. The company could become Intel's first customer for the ultra high-speed data cables.





Product manager appointment

American Kuhne has appointed Larry Fitzgerald as product manager for wire and cable. Working with specialized upstream and downstream equipment suppliers, Fitzgerald's focus will be on extruders and systems for wire and cable.

Having spent over 20 years in extrusion, wire and cable, Mr Fitzgerald has extensive domestic and international experience including roles with Xaloy, Entwistle, Merritt Extruder, and Davis-Standard. He holds a BS in mechanical engineering from Ohio State University, has completed advanced coursework at Indiana

University, and has made presentations at wire and cable seminars both at home and abroad.

"Solving customer challenges with high quality, reliable equipment has made American Kuhne the preferred provider of engineered solutions for plastic, rubber and silicone extrusion," said Bill Kramer, president. "We are excited to combine Larry's wire and cable knowledge to our processing expertise and in-house screw design to meet the demands of this specialized segment," he added.





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Compounding takes its toll

S&E Specialty Polymers has expanded its current tolling capabilities to 15,000,000lb per year. The company is fully equipped to handle a wide variety of polymers including PVC, PVC alloys, low smoke zero halogen, TPOs, TPRs, flame retardant and UV-based concentrates.

"This is a service that many of our customers kept asking us for and we wanted to accommodate the increased demand," said Duane Shooltz, president and COO of S&E Specialty Polymers.

"We have now reached the point that we feel we can meet their tolling needs with the level of quality and service that we have always held for ourselves. As a result, we are happy to strengthen our tolling presence in the marketplace and help our customers in even more ways than before."

S&E Specialty Polymers can supply customers with the raw materials and the formulas they wish to use, while benefitting from S&E's processing knowledge and engineering experience. S&E has also worked with customers to develop formulas to meet specific requirements through non-disclosure agreements and then used S&E's purchasing power to produce a less expensive product.



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Mr Sabonnadiere will continue in his current position under his current contract during the transition period.

Gregory B Kenny, president and CEO, said: "An accomplished business executive with a strong technology background, Emmanuel has been instrumental in the transformation and advancement of our European operations, building relationships with key customers, and significantly advancing our submarine and land turnkey project businesses in terms of technology and operational performance.

General Cable's Europe CEO on the move

General Cable Corporation has announced that Emmanuel Sabonnadiere, executive vice president, president and CEO for Europe and the Mediterranean, will move from his current position, and the company has launched a formal search for a successor.

"He has a talented and dedicated team, which will enable us to build on and improve our businesses throughout the European and Mediterranean region.

"Emmanuel will be working closely with me, the global operating committee and the Europe and Mediterranean team, to provide an orderly transition. Emmanuel may continue to represent the company in certain of its business investments, including our Algerian joint venture, while providing ongoing technical, strategic and business development consulting services for General Cable."



Tier2 acquisition

AFL has acquired the Canada-based fiber construction services firm Tier2 Technologies. The acquisition will expand AFL's portfolio of telecommunications services.

"Tier2's highly experienced management team possesses an in-depth understanding of FTTx deployment and very impressive self-perform 'build' capabilities. This expertise better enables AFL to effectively complete FTTH/GPON deployments as we significantly expand our offering into the Canadian market," said Mike Booth, EVP, network services of AFL. "We are excited to bring the Tier2 team into the AFL family and are also pleased that the leadership team at Tier2 will remain with AFL."

AFL provides design, project management and installation services from locations within the US, Canada and Europe. Tier2 provides consulting, engineering, project management, construction, splicing and testing services to the telecommunications industry across the US and Canada, with a focus on FTTx, transport and industrial networks.



Chinese fasteners verdict

The Canada Border Services Agency (CBSA) has declared the final results of its re-investigation of certain carbon steel fasteners from China and Chinese Taipei.

It updated both the normal values and export prices of certain carbon steel fasteners originating in or exported from China and Chinese Taipei and updated the amounts of subsidy of certain carbon steel fasteners originating in or exported from China, pursuant to the Special Import Measures act.

Exporters who are not the manufacturer of the subject goods received normal values only to the extent that their suppliers/manufacturers provided sufficient information to permit the determination of normal values and export prices. If the exporter or its suppliers/manufacturers provided insufficient information, normal values for that exporter will be determined by advancing the export price of the goods by 170 percent.

With respect to the subsidy portion of the re-investigation, which relates only to subject goods originating in or exported from China, the government of China did not respond to the government subsidy request for information. However, the CBSA considered the information from the manufacturers/exporters that provided a complete response to the request in order to determine amounts of subsidy. For all other exporters, including those that provided insufficient information, the amount of subsidy applicable will be 1.25 Chinese renminbi per kilogram.

EPTAC IPC certifications

The Habilitation Center, an AS9100C registered contract manufacturer, has achieved new electronics industry certifications in hand soldering and cable/wire harness operations.

The Hand Soldering Operation certification is compliant with the IPC J-STD-001 and the IPC-A-610. The Crimp Termination certification is compliant with the IPC/WHMA-A-620. The soldering course introduces the basics of soldering in wires and terminals, through-hole and surface mount technologies using both tin lead and lead-free alloys.

The Crimp Termination course utilizes the IPC-A-620 cable and wire harness standard and addresses the assembly and inspection criteria regarding cable/wire preparation, measuring and testing cable assemblies,

crimp terminations and insulation displacement connections.

"These key certifications send a strong message to the electronics industry that as an electronic manufacturing service (EMS) provider, we are committed to complying with the IPC standards," said Linda Cooke, director of manufacturing.

Habilitation Center. which The provides training and compensable work to over 250 individuals with special needs, handles complex, high-volume products. Its areas of expertise include electronic and mechanical assembly, cable and wire harness solutions for a range of market sectors including electronics, aerospace, aviation, defense, telecommunications, government and industry.







MEDICAL EXPANSION FOR WIRE MAKER

Fort Wayne Metals, a producer of custom-drawn, precision fine wire for medical and surgical products, has announced plans to expand its operations in Allen County, Indiana.

Fort Wayne Metals, a producer of custom-drawn, precision fine wire for medical and surgical products, has announced plans to expand its operations in Allen County, Indiana. The move is expected to create 106 new local jobs by 2017.

The company will spend \$29.4 million to build and equip a 33,000ft² facility at its 50-acre campus in Fort Wayne. The company already has seven production facilities, a warehouse, a research and development center and a metallurgical laboratory in Fort Wayne as well as a production, warehouse and sales facility in Ireland. The expansion will allow it to increase production of composite materials, as well as its stainless steel, nickel, cobalt, nitinol and titanium wire.



Solar plant in Japan

First Solar has completed a 1.3MW DC solar photovoltaic (PV) power plant at Kitakyushu-shi. It will generate approximately 1,400MWh of solar electricity per year, which will be purchased by Kyushu Electric Power Company.

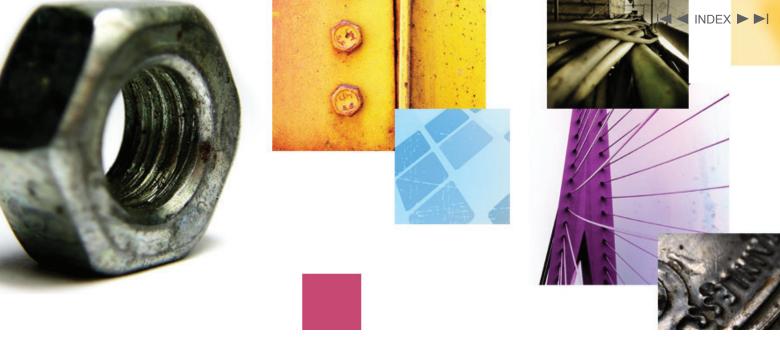
"Japan has ambitious solar power development goals to help mitigate the dependency on nuclear energy," said Joe Kishkill, First Solar's chief commercial officer. "The completion of the Kitakyushu-shi project supports that commitment along with providing electricity users with a fuel alternative that is safe, can be rapidly deployed, and has the smallest carbon footprint."

First Solar holds 100 percent equity in the project, which was constructed by Obayashi Corporation and Yaskawa Electric Corporation.

New addition to AD

Houston Wire & Cable Company (HWCC) has become a member of Affiliated Distributors (AD), a community that provides independent distributors and manufacturers of construction and industrial products with support and resources that accelerate growth. As a member of AD, HWCC will be an authorized supplier of electrical wire and cable to independent electrical distributors.

"We are very excited to join the Affiliated Distributors organization. AD has a long history and well recognized position in the electrical distribution marketplace, and we are delighted to be associated with such a fine organization," stated James Pokluda, president and CEO of HWCC. "HWCC's sales and service platform and AD's strong affiliate membership will be a powerful combination."



Allied Alan deal is done

Allied Wire & Cable has finalized the purchase of Alan Wire inventory and machinery. Alan Wire, based in California, was a specialist supplier of military specification cable constructions and, as such, the acquisition will expand Allied's own range of products for the military and aerospace sectors.

All wire and cable will be relocated from its previous location in California to Allied's headquarters in Collegeville, Pennsylvania.

Allied will also expand its in-house service capabilities with the addition of two laser printers from Alan Wire, offering a permanent printing solution that won't wear in tough environments. A twister, tape wrapper, braider, striper, and extruder are also included in the Alan Wire inventory.

Big cable contract for Saudi Aramco

A McDermott International subsidiary has been awarded the contract to provide an electrical power supply system for Saudi Aramco in the Abu Ali and Khursaniyah fields in the Arabian Gulf.

The project includes the construction and installation of two 20km 230kV subsea circuits, routed offshore to connect land-based facilities. The cables weigh approximately 95kg per meter.

"The subsea cables for this project are some of the largest ever transported and installed in the Arabian Gulf," said David Dickson, president and CEO.

Technical modifications to an installation barge in the McDermott fleet enable it to lay the large, heavy cable in shallow water, an operation that presents a variety of complex technical challenges. Project completion, including hookup and commissioning, is expected in the third quarter of 2015.

First quarter results

Optical Cable Corporation (OCC) has announced financial results for the fiscal first quarter ended 31st January 2014.

The company achieved consolidated net sales of \$16.5 million during the period, compared to net sales of \$17.3 million for the same period 2013. OCC's sales in its commercial markets increased during the first quarter of fiscal year 2014, compared to the same period last year, but the increase was offset by decreases in the company's specialty markets.

Net sales to customers in the US increased 5.7 percent, and net sales to customers outside of the US decreased 24.2 percent. Gross profit decreased to \$5.4 million, compared to \$6.5 million in the same period last year, while gross profit margin, or gross profit as a percentage of net sales, decreased to 32.7 percent from 37.7 percent in the first quarter of fiscal year 2013.

OCC recorded a net loss attributable to the company of \$412,000, compared to net income attributable to the company of \$130,000 for the first quarter of fiscal year 2013.

Neil Wilkin, president and CEO of OCC, said: "OCC's financial results in the first quarter reflect timing of larger projects, the seasonality typically experienced in the first quarter and overall macroeconomic weakness. We anticipate a number of new product launches during the coming year. These new product launches will mark a culmination of efforts to maintain and build on OCC's role as a market leader and to position the company to take advantage of growth opportunities."



Environmental efforts

The Superior Essex copper data cable manufacturing facility at Hoisington, Kansas has achieved a 98 percent landfill waste diversion rate for 2013, believed to be an industry-leading environmental milestone for the cable manufacturing industry. As a consequence of the plant's sustainability practices, over 4,000,000lb of waste were recycled or reused instead of being sent to a landfill.

Landfill waste diversion is defined as the prevention and reduction of generated waste through source reduction, recycling, reuse, or composting.

"This achievement in landfill waste diversion is an example of the high goals we have set for ourselves in environmental stewardship. It is important

to Superior Essex that we not only improve our sustainability performance each year, but that we also achieve performance levels that are considered world-class for any manufacturing industry," stated Lindsay Allen, vice president of marketing for Superior Essex International LP.

Superior Essex has also announced that its communications cable products are now fully compliant with the EU's RoHS 2 directive and the REACH restricted substances list. While compliance with RoHS 2 and REACH are not required under US or Canadian law, these directives are being utilized by North American agencies and companies to ensure environmental standards in the products they buy.

100GB fiber network

RST Fiber has activated a 3,100-mile fiber optic broadband network, claimed to be the first privately owned 100GB IPv6 backbone network in the US.

RST built the North Carolina network with some of its own fiber, and some acquired from the state's NCREN fiber network, which has expanded recently to reach all 100 North Carolina counties.

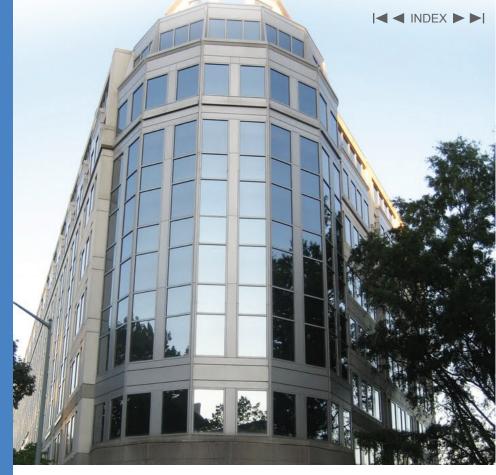
Gigabit Internet speeds provide service at around 100 times the speed of standard cable Internet but, while common in many parts of the world, are still relatively rare in the US. RST CEO Dan Limerick explained that some locations will be close enough to

the physical fiber to tap right into the 100GB pipe, but other locations will be wirelessly connected to the network. New wifi technology allows for those wireless connections to maintain gigabit speeds, he added.

The network already reaches from the mountains to the sea, but Limerick says RST intends to continue to expand its physical fiber lines to make more connections possible. "I call it, for lack of a better term, a spider web," he said. "We're building the network like a spider builds its web, slowly expanding from the core out. In this case, the core is the backbone line that we're announcing now."



CHINESE WIRE ROPE INVESTIGATION



The US's international trade commission has approved anti-dumping investigations into carbon and some alloy steel wire rod from China. The trade panel agreed that there is a reasonable indication that US industry was materially injured by imports of these products, following a complaint brought by companies including ArcelorMittal USA LLC, Nucor Corporation, Charter Steel, Evraz Rocky Mountain Steel and Gerdau Ameristeel. The producers claim that the rod was sold at 100 to 110 percent below fair market value and that Chinese producers benefited from government subsidies.

The imported wire rod is used for fencing, nails, barbed wire and rope.

The US department of commerce is expected to make a preliminary countervailing duty determination in April and its anti-dumping duty determination in July.

Imports from China rose from 144 tons in 2011 to over 614,000 tons in 2013, the companies said in their request for an investigation.





Rebar mill in Kazakhstan

A new long rolling mill from Siemens Metals Technologies has been brought into operation for Evraz Caspian Steel LLC, a Kazakh steel producer. The rolling mill is part of a new facility designed to produce 450,000 tonnes of rebar per year to supply the construction industry in Kazakhstan and adjoining central Asian countries. The end products can be rolled in single, two-slit or three-slit mode.

Evraz Caspian Steel belongs to the Russian Evraz Group. The new mill comprises an eight-stand roughing mill, a six-stand intermediate mill with Red Ring stands in an HV arrangement, and a finishing mill with four horizontal Red Ring stands. All the rolling stands are equipped with a quick-change device. The diameters of the end products

can range from 10mm to 40mm, with the smaller diameters produced in two-slit or three-slit mode.

The contract with Siemens also comprised a billet reheating furnace, including a feeder and descaling station, a quenching line, shearing systems, a 78m cooling bed, and machines for counting, bundling, tying, weighing and label printing. Siemens also supplied the fluid systems and a water treatment plant. The scope of supply also included the low voltage power distribution system, the main and auxiliary drives, motors, and the basic and process automation. Siemens was also responsible for supervising the installation and commissioning.



More fiber for Europe

Global Marine Systems has placed an order for Nexans' fiber optic cable to fulfill three major telecommunications projects. The contract covers the supply of approximately 1,050km of Nexans URC-1 fiber optic cable.

The URC-1 cables are an unrepeatered design, capable of connecting land stations up to 500km apart without the need for amplification by subsea repeaters.

Global Marine will deploy two 250km fiber optic cables to connect the Ny Aalesund observation station on the Arctic island of Svalbard to Longyearbyen, the administrative capital. Since the satellite station at Longyearbyen is already connected to mainland Norway this extension, headed by UNINETT, an organization serving communication solution for universities, research institutes and high schools in Norway, will provide Ny Aalesund with high-speed access to the international network.

A second project will provide communications for oil platforms in the North Sea. The third project is part of the ongoing expansion of broadband services to isolated communities in Scotland, funded by a partnership of Scotlish government, Highlands and Islands Enterprise, Broadband Delivery UK and BT.



Offshore boost for German power

DONG Energy is increasing its offshore wind power capacity in Germany, and has signed a contract with Nexans for the delivery and installation of 140km of 34kV cables. The inter-array cables will link individual turbines at the 582MW capacity Gode Wind 1 and 2 wind farms and connect them to an offshore transformer platform, off the Lower Saxony coast.

The new agreement is part of a larger contract between DONG energy and Nexans for the supply of a total 900km of medium voltage cable for internal farm cabling.

Trine Borum Bojsen, MD of the German wind sector at DONG Energy, said: "The order for Nexans shows that the German supplier industry already occupies a key position in the international offshore business, as the outline contract with Nexans not only includes the supply of our German projects Borkum Riffgrund 1 and Gode Wind, but also the supply of our UK wind farms."



Greece network improvements

The European Investment Bank (EIB) is to provide a €235 million loan to the Greek Public Power Corporation (PPC) in support of electricity network improvements in the country.

Covering a period to 2015, the multi-investment program aims at renovating and reinforcing the electricity distribution network, as well as extending it to enable 186,000 new connections across peninsular and insular Greece.

The program is intended to benefit consumers and suppliers by improving the infrastructure and increasing the effectiveness of balancing electricity supply with requirement.

The project will be managed by the Hellenic Electricity Distribution Network Operator, a subsidiary of PPC.

The energy sector in Greece has been financed with a total of €4.6 billion since the country's accession to the European Union, with PPC being the main beneficiary of EIB loans in the sector.



Agreement secured on fasteners

Chinese steelmaker Baosteel has signed a cooperative agreement with the Netherlands-based Nedschroef Group to supply high strength cold forged steel rod for Nedschroef's automotive fasteners.

Nedschroef is among the largest suppliers of fasteners and cold-heading machines in the world. Founded in 1894, Koninklijke Nedschroef Holding NV manufactures fasteners, cold-heading machinery and tooling for the automotive sector. Nedschroef is comprised of 24 facilities in 14 countries, employing 1,600 people and generating 2011 sales of \$671 million. In 2013 the group opened a new production site in Kunshan, China, with the name of Nedschroef Fasteners Kunshan Co Ltd, to supply the increasing Chinese car market. The plant mainly supplies high specification automotive fasteners.

Baosteel is the only Chinese supplier of high strength cold forging steel for the China-based production facilities of General Motors, Volkswagen and Nissan.



Cabling firm gets Advanced

Swiss cabling producer Reichle & De-Massari (R&M) has acquired the business activities and operating assets of the Bangalore-based fiber optic products manufacturer Advanced Fiber Systems (AFS). The management and employees of AFS will be transferred to R&M in India.

"This acquisition is a key milestone to expand our business in India. We can now actively participate in the growing fiber optic network deployments, fiber-to-the-home (FTTH) roll-outs and data centre projects," said Laurent Amestoy, executive VP of R&M Asia-Pacific.

"AFS has been a certified assembly partner of R&M for many years, so the quality and innovation in fiber optic solutions will continue," added Gaurav Ahluwalia, MD of R&M.

R&M, which began its operations in India in 2006, offers cabling solutions for Cat 5e, Cat 6 and Cat 6A systems, and a range of single-mode (OS1, OS2) and multi-mode (OM3, OM4) fiber optic systems.



New build cable vessel

DeepOcean UK, a subsidiary of Deep Ocean Group Holding BV, has entered into a seven-year charter agreement with Maersk Supply Services, for a new build cable lay vessel. The vessel is the DOC 8500, a Damen offshore carrier which has been designed specifically to suit DeepOcean's requirements.

The DOC 8500 will extend DeepOcean's capabilities in the larger cable-laying end of the market, representing a new focus on interconnector projects, in addition to oil and gas sector and renewables work. The specially equipped vessel will be delivered from the Damen Galati yard in Romania.

René Berkvens, Damen Shipyards group chief executive officer, said: "We are very proud of being contracted by Maersk Supply Service and DeepOcean for this cable layer. This particular vessel has been adapted in close cooperation with our clients, drawing on the expertise of all three companies to create a state-of-the-art offshore construction vessel."

The 138m long, 27.5m wide DOC 8500 features 2,200m² of unobstructed deck and will have a top speed of 12 knots.



Subsea cabling study

The European Marine Energy Centre (EMEC) Ltd will share learning on the performance of subsea cabling in high energy environments to support the development of commercial wave and tidal energy sites.

The project will see EMEC and Engineering Technology Applications Ltd (ETA) review existing data to assess the reliability of subsea cables installed in the harsh wave and tidal conditions at EMEC's test sites at Billia Croo, on the west coast of Orkney, and the Fall of Warness, off the northern island of Eday. To date there has been little information published about how subsea cables survive and perform in high energy marine environments, and as commercial wave and tidal sites around the UK enter the initial planning phases, information on how subsea cables may perform in areas such as the Pentland Firth and Orkney waters (PFOW) will be vital to project developers and investors.

The report will cover cable armoring, marine growth, anthropogenic interactions, and cable movements, as well as performance of the cable, and will take factors such as seabed type, current speed, wave loadings, cable usage, cable type, and installation methods into consideration.



Scottish wind farms get the go-ahead

What is believed will be the world's third largest offshore wind farm has been cleared for construction in the Moray Firth, off the coast of Scotland. Formal consent has been granted for adjacent projects by Moray Offshore Renewables Ltd (MORL) and the Beatrice Offshore Windfarm Ltd (BOWL) for a total of 326 wind turbines.

The developments will be capable of generating up to 1,866MW of electricity.

Scottish energy minister Fergus Ewing said: "The Scottish Government is committed to the successful and sustainable development of an offshore wind sector, which could lead to a potential inward investment of £30 billion and support up to 28,000 direct jobs and a further 20,000 indirect jobs, generating up to £7.1 billion for the Scottish economy. As this industry develops, our enterprise agencies are working to secure supply chain development for Scotland.

"The Scottish government wants to see the right developments in the right places, and Scottish planning policy is clear that the design and location of any onshore and offshore wind farm should reflect the scale and character of the landscape or seascape and should be considered environmentally acceptable."







IWMA all set for Düsseldorf

The IWMA is proud to be a main international industry partner of wire and will have its usual stand number 11D26 in hall 11, ready to provide members an extensive range of services, for those exhibiting and visiting the event.

Members are welcome to visit the stand for some refreshments and a discussion with board members and staff about how membership can assist their business in the global market.

The IWMA stand will also offer members a comprehensive office service, with Internet, telephone, printing and photocopying facilities available, as well as a meeting room for those requiring a quieter environment for business discussions.

The association will also be holding its gala dinner and reception on Tuesday, 8th April at the Messe Düsseldorf Congress Centre.

This event, which is sold out, will be marked by a pre-dinner cocktail reception followed by a four-course dinner with wines.



Three appointments to IWMA Executive Board

The International Wire and Machinery Association's executive board has been strengthened following the appointment of three new members at its AGM in February.







Don Neville, managing director of RichardsApex Europe Ltd; Glyn Dawson, managing director of Whitelegg Machines Ltd; and Martin van der Zwan, co-owner of Cable Tapes UK Ltd, were all appointed at a meeting prior to the "Meet the Industry" luncheon at The Mere Resort, near Manchester, UK, on 12th February.

Prior to his current position Mr Neville worked extensively in the wire and cable machinery sector throughout the Far East and North America, commencing in 1990 with Nokia-Maillefer followed by positions at both SAMP Sistemi and Niehoff Endex North America.

With a strong background in international market development he is looking forward to supporting the IWMA in all its existing and emerging programs, designed to further the interests and opportunities of the membership at home and abroad.

Mr Dawson has been involved with the wire industry since his early years, and joined Whitelegg in 1992 after travelling widely and working at the Emil Jaeger Maschinenfabrik in Germany. Although having had no technical training, Glyn's keen mind allowed him to master the ranges of CNC controlled machines and he commissioned these all over the world.

He looks forward to more involvement with the IWMA and working with the executive board for years to come.

Martin van der Zwan began working in the cable industry in 1977 at the BICC Wrexham factory. He served his time there working originally within the factory and then moved to work study and then material control. He retired from Pirelli (now Prysmian) in 2008 and set up his own company called Cable Tapes UK Ltd with Paul Haines, his business partner, and to date been very successful.

He is a great supporter of the association's educational trust and believes it should strive to encourage young talent to come into the industry, ensuring it stays at the forefront of technology. He now feels that his knowledge and experience of the cable industry could be used to support other companies within this area with advice and assistance where required.





Sumatran grid improvements

Indonesian state-owned electricity company PT Perusahaan Listrik Negara (PLN) will spend \$5.24 billion on improving power transmission facilities in Sumatra.

Minister for state-owned enterprises Dahlan Iskan confirmed that PLN will work on the project with other five state-owned firms. Sumatra has, for years, experienced frequent blackouts due to the island's inadequate power facilities.

"We will have further meetings about the project. The idea is how to build transmission from electricity-surplus areas in southern Sumatra to the north," said M Aprindy, corporate secretary of PT Adhi Karya, one of the partner companies.

Details of the scale of the transmission network have not been confirmed.

PLN's operations director for Java, Bali and Sumatra, IGN Adnyana said the Medan area in North Sumatra suffers electricity supply shortages; demand for electricity in the area reaches 1,700MW during peak hours while the supply is only 1,450MW.

"Currently a number of power plants are under construction in Palembang [South Sumatra], which will be completed by 2016. When the plants are completed, the transmission network will help the north of the island. The transmission network will be a long-term plan," he said.

PLN's director for construction, Nasri Sebayang has said that the company is looking at 25 projects to be completed this year under a fast-track program, offering a total capacity of 3,539MW.



Undersea consortium

Telekom Malaysia Bhd, together with 14 other international telecommunications operators, has formed a consortium for the installation of undersea fiber optic cables linking Singapore to France.

Its chairman, Datuk Seri Dr Halim Shafie, reports that the 20,000km cable system is expected to carry commercial traffic by early 2016. 'The new cable system, SEA-ME-WE 5, will connect south east Asia, the Middle East and western Europe involving 17 countries. It will provide comprehensive connectivity with the ability to start or terminate traffic from point-of-presence in Singapore, Marseilles and Palermo," he said.

The collaboration partners include Bangladesh Submarine Cable Company Ltd, China Mobile International Ltd, China Global Telecommunications Ltd, China Network Communications Group Co Ltd, Emirates Integrated Telecommunications Co, Orange (formerly France Telecom), Myanmar Post and Telecom.

The joint venture is part of Telekom Malaysia's initiative to support the government's national broadband plan and the economic transformation program (ETP).



Back in business

Fifteen months after fire destroyed its original factory, Oman Fiber Optic Company (OFOC) has commenced production of fiber optic cables at its new factory at Al Rusayl.

Mohammed Bin Harith Al Barashdi, CEO of OFOC, said that the new plant will cater to both domestic and export markets, producing all types of cables for internal and external usages including all-dielectric self-supporting (ADSS) fire resistant cables, non-metallic and metal armored cables.

He continued that OFOC designs various types of optic cables and all types of communications networks and networking projects.

OFOC had posted a net profit of 4.26 million rials for the year 2013, compared with a net loss of 1.56 million rials in the previous year. Turnover for the year increased eight percent over the previous year's turnover, despite the halt to cable production caused by the fire.



Cable boost for South Africa

CBI Electric African Cables has opened a new factory in Vereeniging, Gauteng province for the manufacturer of high voltage cable.

The facility, partly funded by the government, will be the first in sub-Saharan Africa to design and manufacture high voltage cables of up to 275kV with conductor sizes of up to 2,500mm².

At the launch, CBI Electric MD, Alan Dickson, said: "South Africa's growing electricity demand as well as the high copper price necessitated an investment by the company, supported by the [government], to build a world-class production facility." The factory's cables will enable large energy consumers to distribute up to 350MVA at 132kV and 547MVA at 275kV on a single cable circuit.

Dickson added that, in June 2014, CBI Electric will be installing Cape Town's first locally produced, 132kV, 1,600mm² underground cable system.

Trade and industry minister Rob Davies said that CBI Electric African Cables had received funding from the DTI's manufacturing competitiveness enhancement program.



Rod prices stay low for fasteners

Despite a small rise in prices for bar and rod from China Steel Corporation, the transaction prices of aluminum-killed wire rods has not increased accordingly. The current price level remains in the range of \$650 to \$670 per ton.

The drop in the raw material price leaves China's wire rod price remaining weak.

The Taiwanese screw industry has reported better orders from its export markets, but demand for Al-killed wire rods is still not strong. Thus, industry sources said that the transaction prices for Al-killed wire rods will remain weak for the short-term.



"Innovative Enterprise"

China's Ossen Innovation Co Ltd has announced that its Jiujiang subsidiary, Ossen (Jiujiang) Steel Wire & Cable Co Ltd, has been honored by the Jiangxi provincial government as an "Innovative Enterprise" in the province.

In addition, Ossen (Jiujiang) Steel Wire & Cable Co Ltd was recognized as a "First Class Export Enterprise" by the same Jiangxi government agency.

"Ossen is very pleased to receive these additional acknowledgments," said Dr Liang Tang, chairman of Ossen Innovation. "We are grateful that our manufacturing operations continue to be recognized as producing important and pioneering infrastructure solutions for use in China and abroad," he concluded.

Ossen Group manufactures and exports PC wire, PC strand, galvanized PC wire, galvanized PC strand and PC indented wire and is a major trader in wire rod. The group's manufacturers Ossen (Maanshan) Steel Wire & Cable Co Ltd and Ossen (Jiujiang) Steel Wire & Cable Co Ltd have three PC strand production lines, four drawing machines, two PC wire stablization lines, a galvanizing line and an unbonded PC strand processing line. Total capacity is around 100.000 tonnes.



Copper news

Data from the Kazakhstan state statistics agency reveal that output of refined copper from the country fell by 22.9 percent to 44,363 tonnes during January and February, compared with the same months 2013, while crude steel production surged by 36.6 percent to 593,682 tonnes.

Elsewhere, the Zambia government is concerned that if copper prices (already near a four-year low at \$6,300 per tonne) fall below \$5,000, then the viability of Zambian mines will be under threat. Zambia produced 915,773 tonnes of copper between January and November 2013, up from 755,359 tonnes in the same period of 2012.

Copper exports are important to Zambia's hard currency, and falling prices have recently brought down the local kwacha currency by almost ten percent.

Copper markets have slumped following concerns over slowing Chinese demand for the metal, and fears that credit upheaval in China could unwind financing deals using the metal as collateral. This could cause a flood of copper into the market. There is estimated to be bonded copper stocks of around 750,000 tonnes in China.



Multi-nation cabling

The Dubai-headquartered telecom operator du is part of a 15-strong international consortium to build the Sea-Me-We 5 undersea cable system. The 20,000km system will connect 15 countries from Southeast Asia to Europe, and will branch to the UAE through du's landing station in Fujairah.

The SEA-ME-WE 5 system is expected to be carrying commercial traffic by early 2016. Fully loaded, it will be capable of carrying 24,000Gbps, and is designed to provide upgradable transmission facilities by adopting 100Gbps technology.

"Through this we would like to be a key player in leading our country's aspirations in becoming a business hub, taking the lead in e-governance, smart city initiatives in addition contributing to the UAE readiness to host historical events like Expo 2020," said Fareed Faraidooni – chief operations officer, du.

The operator already has investments in two other cable systems: Meets (Middle East-Europe terrestrial system) is a terrestrial network in partnership with three other regional operators — Zain, Zajil and Vodafone Qatar; and the EIG (Europe India gateway) submarine cable, represented by a 16-member consortium of regional and international operators.



New wire rod and bar mill

Hyundai Steel Company will build a new combined wire rod and bar mill in the city of Dangjin in South Chungcheong province, South Korea. German manufacturer Friedrich Kocks GmbH & Co KG will supply a reducing and sizing block as the finishing mill for the bar line.

The mill, with an annual production capacity of 800,000 tonnes, will mainly supply bar in engineered steel grades to the Hyundai Motor Company.

The 5-stand heavy-duty block RSB AUL (adjustable under load), with a nominal roll diameter of 370mm, features the 3-roll design and is equipped with a closed-loop size control system and high speed remote control of passes and guides of the 3-roll stands in the mill line.

On completion the reducing and sizing block will finish roll the total production of straight and coiled bar in all sizes from 16mm to 100mm diameter.

INDIANA CONVENTION CENTER | INDIANAPOLIS, INDIANA, USA



BACKGROUND

The WAI Operations Summit & Wire Expo is organized by WAI and is held biennially in a different industry hub within the US for the wire and cable manufacturing industry. The event incorporates technical paper presentations, a comprehensive exhibit, on-floor production solutions demonstrations, networking activities, and more.

VISITORS

The WAI Operations Summit & Wire Expo attracts attendees from the local and national markets and participants from overseas markets. These attendees, most with purchasing influence, represent the ferrous, non-ferrous, and electrical segments of the industry. The attendee profile has grown to include interest in several industries allied to wire and cable including:

- automotive
- manufacturing
- environmental and reclamation
- appliance

- building
- furnishings
- housewares
- communications
- medical instrumentation
- fasteners
- electronics
- energy



American Kuhne

Booth 348

American Kuhne provides extruders and small diameter turnkey extrusion systems specifically designed to meet the needs of the wire and cable segment, including: energy, fibre optic, telecom, building, automotive, high temperature, construction, medical, oil and speciality.

American Kuhne's ultra series extruders are available in sizes ranging from 3/4" (19mm) to 8" (203mm). These extruders feature a heavy-duty double reduction gearbox, deep finned cast barrel heaters, single- or dual-bolt heated clamps and die hinge support arms. The control panel can be mounted to the extruder base or floor.



The ultra series from American Kuhne

"Solving customer challenges with high quality, reliable equipment has made American Kuhne the preferred provider of engineered solutions for plastic, rubber and silicone extrusion," said Larry Fitzgerald, product manager, wire and cable.

"We leverage our processing expertise and in-house screw design to meet the demands of this specialised segment," he added.

American Kuhne – USA Website: www.americankuhne.com

Balloffet

Booth 521



Balloffet machines are well known worldwide

Balloffet recut machines for diamond dies are well known around the world for their high quality, reliability, productivity and low maintenance requirement. The company is upgrading and continuously developing its machines for the best interests of its customers.

The company's research and development department now has available the equipment to control the diameters of the diamond dies and enamelling guides in three to ten seconds.

Also a diamond die producer since 1870, Balloffet manufactures:

- natural and synthetic mono-crystalline diamond dies
- polycrystalline diamond dies
- compacting and stranding dies
- shaped dies
- enamelling guides (dies)
- special tooling with diamond insert

Balloffet Die Corporation – USA Website: www.balloffetdie.com

Beta LaserMike

Booth 316

Beta LaserMike will be exhibiting its new high-speed AccuScan 5000 series diameter and ovality gauge claim to have the highest single-scan accuracy in the industry. The latest cable testing solutions include the new DCM ES-2G LAN/Data testing platform now to 2.2 GHz and the new SCS-700 LAN/Data cable testing platform with high- and low-frequency measurement capabilities.

The new dual-axis AccuScan 5000 gauges perform high-speed diameter and ovality measurements at 2,400 scans per second per axis. The improvements in the single-scan calibration algorithm ensure each scan is highly accurate and reliable.



The AccuScan 5000 family

AccuScan gauges effectively measure transparent, translucent and opaque products up to 80mm in diameter. All gauges offer highly flexible communications including RS-232, Ethernet/IP, Ethernet TCP/IP, DeviceNet, Profibus, Profinet, CANOpen, analogue and digital.

The latest DCM ES-2G testing platform extends the high-frequency measurement range to test Cat 5e/6/6a/7/7a cables

now up to 2.2 GHz. This bench-top system is also optimised to test next-generation 40 Gb/s Cat 8 cables. The base unit includes automatic four-pair switching and the baluns needed to interface the cable under test to an external vector network analyser for fast cable testing.

Testing can be performed in less than three minutes. The heart of the system is the Windows-based software engine that includes a simple, easy-to-use test program with automatic comparison to the test specification, full test reporting, and data management.

The new DCM SCS-700 enables cable makers to efficiently and effectively test both the high- and low-frequency characteristics of Cat 5e/6/6a cables. The high-frequency (HF) testing range is to 700MHz. The low-frequency option includes an integrated LCR meter that enables users to test resistance, mutual capacitance, and capacitance unbalance at frequencies down to 100Hz.

The low-frequency (LF) testing capability also enables cable makers to test longer cable lengths up to 10km and avoid the cutting and scrapping of product to perform required tests. Dual-frequency testing can be performed with a single connection to significantly reduce set-up and testing time. The automated four-pair switching platform enables HF and LF cable tests to be performed in less than three minutes. As with all DCM cable testing systems, the SCS-700 is equipped with easy-to-use test software for comprehensive test data management and reporting.

Beta LaserMike application specialists will also be available to discuss the following measurement and control solutions for wire and cable: LayScan lay length measurement system; LaserSpeed length and speed gauge; high-frequency spark tester and pre-heater systems; LN Series lump and neckdown detectors; BenchMike table-top cut sample measurement system; DataPro process controller and data management system; and the SRL Pro on-line structural return loss (SRL) prediction and analysis system.

Beta LaserMike – USA Website: www.betalasermike.com

C M Caballé SA

Booth 515

With over 70 years of experience in the design and manufacture of rotating machinery for the production of power and telecommunication cables as well as steel ropes, Spanish company C M Caballé provides the cable industry with a wide array of stranding, twinning, bunching and cabling machinery.



Caballé's rigid strander CES-36x630

The firm is constantly developing new, high quality equipment to meet the ever-changing needs of the wire and cable Industry.

The company's portfolio includes the following equipment for:

- Power cables: double twist stranders, rigid stranders, drum twisters, single twist stranders, bow skip stranders, tubular stranders, planetary stranders and SZ stranders
- Telecom and LAN cables: double twist pairing-quadding machines, single twist cabling lines, group twinners, drum twisters, shielding-jelly filling-sheathing lines and SZ stranders
- Steel ropes: double twist stranders, tubular stranders, planetary stranders and bow skip stranders
- Ancillary equipment: pay-offs, take-ups, capstans, caterpillars, taping machines and binders

Caballe will show the new range of rigid stranders and drum twisters that have been redesigned and upgraded in collaboration with top energy cable producers to manufacture the following products:

- Compacted conductors of copper and aluminium for LV, MV, HV and EHV insulated conductors
- Sector conductors (Milliken) of copper and aluminium for high and extra high voltage insulated conductors
- Aluminium overhead conductors (AAAC, ACSR) with round or trapezoidal wires
- Screening with copper wires (single or multi-wire) for MV and HV conductors
- Armouring with galvanised steel wires

Construcciones Mecánicas Caballé SA – Spain Website: www.cmcaballe.com

Cemanco

Booth 214

For 25 years, Cemanco has provided quality parts and machinery to the wire and cable industries.



Quality is the name of the game for Cemanco

To reach and maintain top quality of the finished product during wet drawing of non-ferrous materials the choice of the right drawing tools is essential. Cemanco ceramics in zirconium or aluminium oxide are manufactured to the highest standards regarding raw materials, density and surface finish with each finished part subjected to two separate levels of end control. Customers can choose from over 2,000 drawings for standard machines like Niehoff, SAMP, Herborn, Henrich or Syncro. As a specialist for ceramic wear parts the company also offers a wide selection of standard ceramics like flanged eyelets, ceramic rods, tubes and bow guides in a variety of qualities and surface finishes. Pulleys and sheaves are available in a choice of materials ranging from aluminium or steel coated with ceramic or tungsten carbide to solid ceramic or composites with metal or plastic flanges and solid ceramic inserts as well as plastic materials. In addition to an extensive inventory Cemanco offers customers assistance with individual solutions. Custom parts can be provided with short turn around times even in smaller quantities.

The company offers KMK spooling traverses that are known for their cost efficiency, longevity and precision. These mechanical rolling ring drives are easy to maintain and have been the bench mark for take-up traverses for many years.

Recently KMK added a dual, laser-guided, self-adjusting traverse system that automatically optimises winding results for a variety of spool types. The system has been designed as a cost effective step towards automation and rationalisation of the spooling process providing consistently high quality winding results.

Roller guides for wire and cable and wire straighteners complete Cemanco's product programme. Guides are available in many standard sizes from stock or as individual solutions, with standard hardened and chrome-coated rollers or with special coatings like ceramic or tungsten carbide. Straighteners come with standard quick opening levers and cover material diameters from 0.02" to 1.6", either with V-grooved rollers or custom radius grooved rollers.

Cemanco – USA

Website: www.cemanco.com

Clinton Instruments

Booth 105

Clinton Instruments will introduce a new addition to the ST-CAL calibration system, the Sensitivity Module, SM. This equipment will check the spark tester's fault detection sensitivity and will assure compliance with EN50356 (IEC/CEI 62230).



The ST-CAL calibration system will be on display

The system utilises a rotating spark gap that controls arc duration and gap distance. When the test is initiated, the SM will produce a specific number of controlled faults, which the spark tester must correctly identify to meet the norm.

The sensitivity module will work with high frequency, power mains frequency and DC spark testers from any manufacturer. The SM is compact and portable making it easy to test units while they are installed in the factory.

The operator simply selects the type of unit to be checked and will then have visual confirmation of the detection current and number of faults produced via a digital display on the front panel. Once the procedure is started the SM will complete the specified number of faults without additional operator input.

The SM is offered as an accessory to the ST-CAL voltage calibration unit, which allows voltage calibration of most common spark test units including AC, both mains and high frequency, as well as DC equipment. With the ST-CAL system, spark test voltages up to 30KV AC and 40KV DC can be calibrated easily.

The operator interface is a Windows 8 tablet computer that controls the process as well as the printing of a certificate or by utilising the onboard USB port to download the test results on to a memory stick. The file can then be kept for historical use in any computer.

When these two units are used together the operator will be assured that the spark test unit will meet all known specs once the calibration is finished.

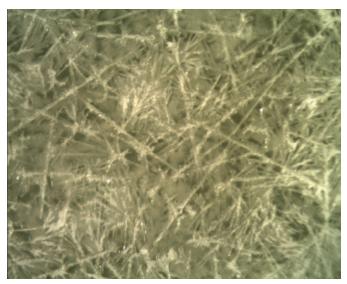
Clinton Instrument Company – USA Website: www.cicsparkers.com

Condat

Booth: 534

Condat offers an extensive product range for wire drawing, including pre-coatings, powder lubricants, neat oils and greases, soluble oils and pastes, weaving lubricants, cleaners and protective products.

Condat continues to develop close partnerships with its customers to offer high performance products with environmental responsibility and compliance to the latest legislation.



Optimal crystallised coverage with Vicafil TS7112

Backed by a strong team of industry experts, Condat offers lubricant solutions for the most demanding applications and continues to develop new and innovative products and services for the wire industry such as Vicafil TS 7112, a simple, efficient and more environmentally friendly surface treatment product.

Condat – France Website: www.condat-lubricants.com

Die Quip



The die saver MGF-200

Die Quip specialises in innovative solutions for wire, bar and tube production facilities. This year the company will feature several options of new quality cutters from many lines to provide innovative cutting solutions for a variety of production situations.

The cutting line includes Knipex pliers and hand tools, Krenn triangle blade bolt cutters, air powered, battery, electro-hydraulic and full hydraulic cutters. The entire line can be viewed online at www.wirecutterstore.com

Eliminate huge inventories, hidden labour costs, high overnight and two-way freight fees for rush orders and wasted good dies from short runs with a Die Quip in-house die shop. Production costs decrease with an efficient internal die shop, and Die Quip has the expertise, training, support and machinery.

Die Quip offers a variety of options in specialising a work cell designed to maximise production in each facility. Its line of grinders operates manually, semi-automatically and fully automatically to optimise each operation. The right training and machinery allow each die to be sized quickly for production and allow for immediate adjustments to accommodate any production run.

The company works to solve production die issues through die geometry, equipment adjustments and operator training. In-house die shops have proven to be an effective and cost efficient solution in eliminating several common production problems.

Die Quip – USA

Website: www.diequip.com

Flymca and Flyro

Booth 236

Flymca is continuously manufacturing special solutions for stranding and cabling purposes adapted to the global cable market. Its range of expertise covers the complete range of machines for stranding and laying-up of conductors for the power cables field, as well as for the steel ropes market. Off-shore, submarine and umbilical cables production is also part of the scope of supply.



Flymca and Flyro – catering for the whole wire and cable industry

The stranding technology, under unceasing development, is one of Flymca's key areas of expertise. A huge technical knowledge helps customers to achieve goals together with a complete capability that goes from research and development to final delivery, and later after-sales service going through the whole engineering, manufacturing, assembling, software and quality control, as well as installation and commissioning by experienced staff.

The company is also involved in the high voltage area, delivering a screening line

and several sets of take-ups over 100 tons with reels diameter of 5m; the fibre optic market, delivering an armouring line based on a 30 bobbin tubular with a bulkhead to locate the fibre optic reel; and a bow cabler prepared for laying-up of control cables and insulated conductors located in reels with a diameter of 1,600mm, with precise tension control for conductors from 4mm² to 185mm².

Sister company Flyro deals with used machinery, covering the whole wire and cable industry with a huge inventory. Special offers can be made combining used and new equipment as well as revamped solutions, modernising equipment mechanically and also using updated electrical solutions to achieve better and quicker production.

Flymca and Flyro – Spain Website: www.flymca.com Website: www.flyro.es

Fort Wayne Wire Die

Booth 303

Since it was founded in Indiana, USA, in 1937, Fort Wayne Wire Die has been at the forefront of innovation in wire die manufacturing and remained a constant in the evolution of optimum die quality and performance value.

Today, this constant extends throughout the vast international wire manufacturing market as it maintains production facilities in the USA, Canada and the Philippines, sales offices in Germany and China, and sales agents in more than 30 countries.



A range of dies from FWWD

All of these locations are integrated under one corporate vision and structure, giving wire manufacturers the assurance that, no matter where your brand is sold in the world with Fort Wayne Wire Die as single-source supplier, clients can achieve the consistency your customers expect and maximise the return on your die investment.

Fort Wayne Wire Die – USA Website: www.fwwd.com

Gem Gravure Co

Booth 121

Gem Gravure Co is a proud co-sponsor of the keynote at Wire Expo 2014. Dr Philip Cornwell, an award winning professor and key official at Rose-Hulman Institute of Technology, will address the kind of manufacturing expertise needed for the future. Dr Cornwell will present 'The Technical Professional Of 2020' on Tuesday, 6th May.

Gem is famous for ink. It designs and manufactures premier inks for the wire and cable industry, including low VOC and VOC-exempt inks. Ink is the key to successful ink jet printing. It contains the components that actually form the printed code. Materials used to create the ink are responsible for appearance on the surface when printed, adhesion and physical characteristics of the code and operation in the printer.

The colour of an ink can be created by dye, soft pigment or heavy pigment. This component gives the code its colour and opacity.

Dye inks are bright colours but transparent. They do not show up when printed on dark surfaces. Dye inks run standard printers, without any mixing during operation. They tend to be easier to operate in the printer with fewer maintenance requirements (print head cleaning, etc). Dye inks are less likely to survive exposure to direct sunlight and high temperatures after printing.



Gem Gravure – famous for its ink

Soft pigments run in most standard printers, like the dye-based inks. Some are opaque, producing codes that stand out on dark surfaces. Soft pigments withstand more

exposure to direct sunlight and heat than dye inks. They are much less likely to fade or disappear. Gem yellow and orange inks are examples of opaque soft pigmented inks.

Heavy/hard pigments require pigmented printers for good operation. Heavy pigments generally contain titanium dioxide, giving them a bright white colour. Mixing is required to keep the titanium dioxide evenly distributed throughout the ink. These inks appear bright and easy to read on any colour surface. Gem white inks are examples of this type of ink.

Gem Gravure Co Inc – USA Website: www.gemgravure.com

KEIR Manufacturing

Booth 531

KEIR Manufacturing is an American manufacturer of high-purity 99.8% alumina ceramic guides – the Frontiersman™ line of air wipes, and composite flyer bows serving the worldwide wire and cable industry.

The company is dedicated to making products that enable manufacturing processes to run more efficiently and productively through the application of leading edge materials. Its solutions are focused on continuous process improvement, energy savings and longer operating life.

KEIR's patented SureShot and SplitShot air wipes provide an effective drying method that does not depend on high-volume air consumption. The efficient design yields effective drying using a very low volume of compressed air and lasts longer due to the rugged ceramic insert lining the wire path. This equates to over 25 per cent reduction in compressed air usage and an operating life of years versus months.



BackBone bow from KEIR Manufacturing

Its triaxially braided composite Standard and BackBoneTM flyer bow constructions have greater durability than layered/laminated designs, allowing them to take more hits and endure higher stress, yielding increased operating life and less machine downtime.

The more aerodynamic BackBone[™] design functions at lower power consumption and higher TPM with improved wire quality and a further reduction in bow breakage. Up to 40 per cent less energy (AMPS) is used along with a decrease in the wire scrapped.

KEIR Manufacturing Inc – USA Website: www.keirmfg.com

MGS Group

Booth 103



Automatic dual take up from the MGS Group

The MGS Group, which consists of MGS Manufacturing, Hall Industries and Northampton Machinery Co, is an international supplier of automation and technology solutions for product handling and twisting systems, customised to optimise all applications.

Products to be featured at Wire Expo include: Fully automatic dual take-up with a unique robot handling system for depalletising and palletising, various dual reel take ups from fibre to 1,000mcm cable, the Northampton triple twist twinner, the latest design in slip ring brushes and holders, plus the standard product range which includes: Pay-offs, take ups, rewinders, dancers, accumulators, capstans, length counters, air wipes, swage tools, electric brazers, double twist bunchers, twinners, tape heads and single twist cablers.

The MGS Group – USA Website: www.themgsgroup.com

Nextrom and Rosendahl

Booth 333

Nextrom and Rosendahl will be co-exhibiting on Booth 333.

Nextrom is a supplier of optical fibre glass preform manufacturing equipment, producing fibre draw towers and associated machinery for the global fibre market using MCVD, OVD and VAD technologies. Besides providing optical fibre equipment, Nextrom is a supplier of fibre optic cable production lines.

Rosendahl, a global supplier of high-tech wire and cable manufacturing solutions, offers products and turnkey solutions in the fields of extrusion, corrugation, fibre optic cable and SZ stranding.



Be sure to visit both companies on booth 333

Together, the companies combine leading edge know-how and state-of-the-art technology in close cooperation with its customers and product suppliers.

Nextrom Oy – Finland Website: www.nextrom.com

Rosendahl Maschinen GmbH – Austria Website: www.rosendahlaustria.com

Paramount Die

Booth 532

Paramount Die is more than just a die company, with its sales engineers averaging over 20 years of experience in the wire industry. In addition to helping its customers with their die needs, Paramount also offers expertise in all areas of the wire drawing process.

Several wire industry trends have dramatically shaped the company's development over the past ten years. Perhaps the most dramatic has been the ever-growing trend for wire drawers to outsource their finished die requirements.

As this has caused wire drawers to become somewhat more dependent on die suppliers, great pressure has been placed on the company to increase capacity for die finishing, to reduce finished die costs, and to improve lead times.

Paramount has been able to reduce die costs by standardising on cost-effective carbide inserts and by increasing quality and capacity through automation. It is working to take the human factor out of the manufacturing process.

Many of its highly automated machines now run on "lights out operation" meaning that they will continue to manufacture product as long as there is raw material being fed into the system. This not only improves the production output, but also the quality (eliminating the human error aspect). Paramount's highly automated production equipment combines high volume speed and efficiency with accuracy and repeatability. Average lead times

have been reduced from three weeks to just less than five days by investing heavily in finished inventory.

As the company continues to grow domestically and globally as a high quality, high volume producer of carbide drawing dies, it becomes very important for it to continually invest in new manufacturing and innovative technology.

It is leading the way on another industry trend, "eco-friendly products". Paramount is a leader in supplying eco-friendly products to the wire industry. Its die design allows the carbide insert to be easily recycled, and many of its customers worldwide participate in this programme.

Paramount will exhibit a full line of wire drawing dies and related equipment. Products featured will be the TR-Series carbide drawing inserts, the new 'T' series inserts for PC wire, extrusion dies, stranding dies, shape dies, polycrystalline diamond dies, ParaLoc pressure, non-pressure holders and ParaLoc accessories.

Paramount Die Company – USA Website: www.paradie.com

Pourtier and Setic of America

Booth 442

Pourtier and Setic of America has rebranded its new machine division, located in Greenboro, North Carolina.

With more than 20 years' continuous presence and after several recent major machine installations in the USA, the Gauder

Group subsidiary now promotes the sales of its Pourtier and Setic product range under the name "Pourtier and Setic of America".



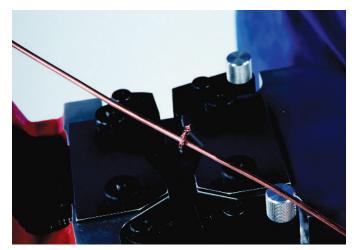


Left: The Setic AST1000R for Cat 8 cables Right: Rigid strander from Pourtier

This product line includes Pourtier's successful rigid stranders and drum twisters for producing low, medium, and high-voltage cable and conductors, as well as Setic's large and small double twist bunchers, and a complete line of machines for the production of LAN and special cable.

Pourtier and Setic of America – USA Website: www.gaudergroup.com

PWM Booth 402



The M101 from PWM

PWM, which celebrates 30 years of service to the wire and cable industry this year,

will showcase its comprehensive range of high-performance manual cold pressure welding machines. The products will be presented by Joe Snee Associates, PWM's exclusive distributor for the USA and Canada.

The versatile M101, one of PWM's best-selling machines, is the largest cold welder on show. Precision engineered to produce strong reliable welds on copper wire 0.04" to 0.141" (1mm to 3.6mm) and aluminium wire 0.04" to 0.197" (1mm to 5mm), the M101 is also used to weld profiles and strips for armouring lines.

Low maintenance and easy to operate, the M101 can be used on a workbench or supplied with a trolley, enabling the operator to move it quickly to the work area.

PWM's hand-held M10, M25 and M30 models, for wire 0.0039" to 0.071" (0.1mm to 1.8mm) diameter, are comfortable to hold and simple to use. The larger BM10 and BM30 cold welders, for use on a workbench, are durable, low-maintenance machines for similar wire sizes.

PWM cold welding equipment is designed and made to high quality standards by skilled technicians in PWM's own UK workshops. Dies are individually hand-made in matched sets, in standard or custom sizes, to suit round or profile wire.

PWM Ltd - UK

Website: www.pwmltd.co.uk

QED

Booth 335

QED specialises in equipment for heat-treating, cleaning and coating of steel wire. Custom designed and built, its high-speed lines are for galvanising, Galfan®, patenting, annealing, and oil tempering processes. Combining innovative design concepts with 30 years' practical experience, QED has developed a range of products and equipment that is both technologically advanced and ruggedly dependable.



The latest Mk4 advanced recuperative burners on QED immersion burner galvaniser

With a view to improved efficiency and to minimise environmental impact, QED developed the dual loop pressure control combustion system. This system maintains a steady output and close air-gas ratio. It now uses this patented combustion control system on all its multiple burner furnaces.

QED has recently upgraded its fluidbed technology with proportional, closed-loop feedback and mass flow controls. The Siemens PLC-based system provides much higher thermal efficiency and lower fuel costs than previous systems. Fluidbeds operate from DV=120 to DV=240 and from 1.5t/h to 8t/h production.

The latest development in galvanising furnaces is the advanced recuperative technology mark 4 immersion burner. This burner offers dramatically higher combustion efficiency from a double pass pre-heat design with extended heat-transfer area. Constructed of stainless and high nickel alloy steels this modularly constructed burner offers an extended operating lifespan and reduced maintenance.

In addition to the fuel savings, the new burner runs with a cooler skin temperature, providing a more pleasant working and maintenance environment.

The company also supplies the latest development in HighTurbulence® pickling and galvanising technology. The multiple stage cleaning systems have high turbulence acid that greatly accelerates the pickling process. Now with computer control, nitrogen wiping in galvanising and Galfan offers significant savings and accurate coating weights.

QED Wire Lines – Canada Website: www.qedwire.com

Refractron

Booth 434

Refractron celebrates its 30th anniversary this year, and designs and manufactures complex ceramic products.



Porous ceramics, structural ceramics and dessicants from Refractron

The company produces specialty ceramics and desiccants which encompasses three product lines. These product lines are categorised as porous ceramics, structural ceramics, and desiccants. Each of the product groups are manufactured with proprietary materials used to reduce costly downtime associated with maintenance. Some of the markets it serves are wire manufacturing, mineral processing, waste water filtration systems and refrigeration.

For wire drawing, the Izory® (proprietary magnesia partially stabilised zirconia – MgPSZ) drawing cones and guides have quickly become recognised as the tool for making premium wire. Refractron claim Izory's® performance will increase wire production, and that its pristine finish and outstanding material properties contribute to making quality wire with limited maintenance. In addition, each part is laser

marked with part numbers and lot numbers to ensure quality control. The company can also personalise parts with customer numbers for ease of inventory control.

Refractron carries a full range of parts to support wire drawing including rings, rolls, eyelets, air wipes, drawing cones and guides.

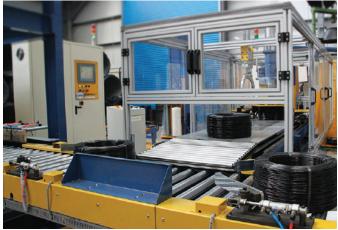
Refractron – USA Website: www.refractron.com

Simpacks

Booth 1025

Simpacks offers a range of coilers, including:

- Dual head automatic coiler which can coil 18 AWG up to 8 AWG solid building wire or strand. It can also coil flat wire/cable. This coiler is capable of producing 6-7 coils per minute at a length of 100m
- New single head short length coiler for building wire cables, both round and flat, in a variety of lengths from 2m to 100m, at 6-10 coils per minute



Steel coilers from Simpacks

Simpacks coilers can process round or flat cable, solid or stranded cable, telephone

cable, battery cable, armored cable, annealed steel wire and special cable.

The new automatic coiler, strap and coil holder are available for all packaging solutions, including 2/4 straps on coil for wire, cable and steel applications. Controls, including Allen Bradley, Siemens, Telemecanique, Mitsubishi and Omron, can be chosen by the customer.

Simpacks – USA

Website: www.simpacks.com

Joe Snee Associates

Booth 402

Joe Snee Associates is the exclusive US and Canadian distributor for PWM, which is celebrating 30 years of service to the wire and cable industry, and is the New England representative for Beta LaserMike and AW Machinery.

Showcased on the booth will be a number of working handheld and manual cold pressure welders. PWM's manual range includes hand-held, bench and trolley-mounted cold welders, with capacities from 0.0039" to 0.141" (0.1mm to 3.6mm) copper and 0.197" (5mm) EC aluminium.

The M101, one of PWM's best-selling machines, is designed to weld copper wire 0.04" to 0.141" (1mm to 3.6mm) and aluminium wire 0.04" to 0.197" (1mm to 5mm). The M101 is also used to weld profiles and strips for armouring lines. The smaller range BM10 and BM30 cold welders will also be shown.

PWM's hand-held M10, M25 and M30 models are for wire from 0.0039" to 0.071" (0.1mm to 1.8mm), are comfortable to hold and simple to use.

Beta LaserMike is a supplier of process control and inspection equipment for measurement of diameter, capacitance, eccentricity, wall thickness and non-contact length and speed. It also supplies pre-heaters, SRL/FFT, lay length and excess fibre length (EFL) systems.

AW Machinery supplies complete extrusion lines as well as discrete components from control panels, pay-offs, take-ups, flyers, cooling troughs, cablers and accumulators –virtually any piece of equipment used in the production of electrical, communication and fibre optic cables.

Joe Snee Associates – USA Website: www.jsnee.com

Ultimate Automation

Booth 141



The UMW-65 model

Ultimat personnel will be available to discuss the two axis wire forming and welding machines, suitable for the manufacture of supermarket shelving, and point-of-purchase displays, as well as its range of ring forming and welding machines.

All models feature a 'closed die' forming and cutting system, giving high quality square, burr-free cut and butt weld. Options include secondary bend head for high speed production of complex wire forms and automatic part unloading systems. With models available for a wire range from 2 to 16mm, Ultimate has a machine to suit all requirements.

Ultimate Automation Ltd – UK Website: www.ultimat.com

Windak Group

Booth 406

Windak will launch its new website – www. windakgroup.com – at Wire Expo, with a whole new company look and new Windak Group logo.

With the introduction of its website, Windak has made it easier to communicate with its customers, and added a service page where customers can send warranty or service requests.

Each registered customer can use the user portal to track orders, see order history and check new offers. The pace of business today requires efficient communication and servicing its customers promptly is vital for Windak to remain a competitor in automatic packaging equipment for the cable industry.

Windak also celebrates 20 years since being founded in Stockholm, Sweden.



The Quickpack QP3-H from Windak

A new high speed coiling line Quickpack QP3-H will be on display at Expo. Faster, with more servo control and fewer settings, this machine will give customers a quicker return. The QP3-H targets products from 2mm to 12mm in diameter, and coil lengths from 5m to 100m per package.

The output is up to eight coils per minute, depending on the type of cable and winding length. Almost all movements in this fast single-head machine are controlled by servos with very few mechanical setting changes for different packages.

Coils can be bound, shrink-filmed or put in boxes, all in one complete solution.

Windak Inc – USA Website: www.windakgroup.com

Wire & Plastic Machinery

Booth 415

Wire & Plastic Machinery Corporation sells second-hand wire, cable and optical fibre manufacturing equipment.

Featuring the most comprehensive range of machinery with over 30,000 items in stock, equipment is offered 'as is', checked for operability or completely reconditioned to customer specifications.

Machinery is available for rod breakdown to fine wire drawing machines, stranders, bunchers, extrusion and jacketing lines, braiders, planetary and single twist cablers, drum twisters, pay offs, take-ups, caterpullers, rewind lines and more.

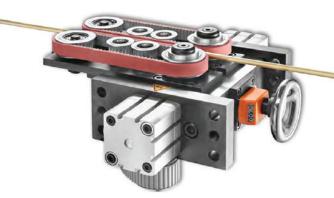
Wire & Plastic Machinery has eight North American locations, with complete rebuilding facilities in Bristol, Connecticut, and Bonham, Texas.

Wire & Plastic Machinery Corp – USA Website: www.wireandplastic.com

Witels Albert

Booth 203

Witels Albert USA will be presenting both new and field-proven solutions from its range of straightener, roll, guide, feed and pre-former products. The company will turn the spotlight onto engineering solutions for straightening applications and the feeding of process materials.



Feeding unit NAK 60 Z with centric material clamping

Visitors to the stand can see the new products in action. The show also gives visitors the opportunity to learn more about the latest ideas from the world of wire, tube, rope and cable production and to familiarise themselves with the services and what Witels Albert can offer.

Witels Albert USA – USA
Website: www.witels-albert-usa.com

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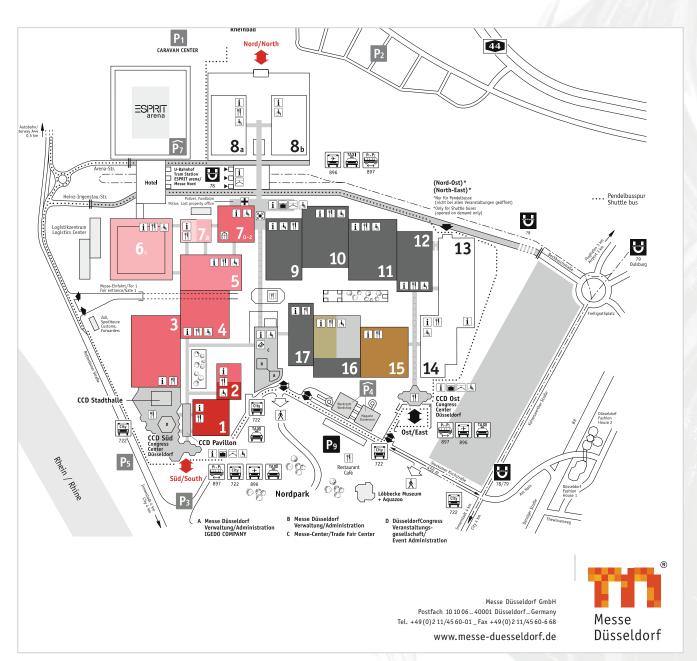
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wire Düsseldorf

Düsseldorf, Germany

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www.wire.de



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Wire, Cable and Fibre Optic Machinery, Wire and Cable Production and Trade / Draht-, Kabel- und Glasfasermaschinen, Draht- und Kabelproduktion und -handel



Hall Halle 15



Fastener Technology / Umformtechnik



Hall Halle 16



Mesh Welding Machinery / Gitterschweißmaschinen



Hall Halle 16



Springmaking / Federfertigungstechnik

Alphabetical list of exhibitors

Please visit www.wire.de or email info@wire.de (Exhibitors list correct at time of going live)

Download the wire Düsseldorf 2014 brochure here

AIM Inc

Booth: 11A25

AIM will demonstrate the latest innovations in wire bending technology and automation. Modular, fast and dependable equipment powered with the latest technology suitable for companies that grow with their markets.

AIM Inc - USA

Website: www.aimmachines.com

Aztech Lubricants

Booth: 09F20

Aztech Lubricants is a global provider of wire drawing and lubricant solutions. With over 125 years of cumulative expertise, it excels at providing a full line of calcium, sodium and potassium stearate-based drawing powders, RP oil, drawing oils and precoats.

Its key name brands will be showcased at this year's show, including EZDraw, EZClean and EZCoat. Additionally, Aztech offers a complete line of AZWipe spiral brushes. It has manufacturing and distribution capabilities in the USA, South America and Asia.

Aztech Lubricants – USA Website: www.aztechlube.com

Beta LaserMike

Booth: 11D72

BetaLaserMike, aglobal provider of precision measurement and control solutions, will

showcase several new offerings from its product lineup.



AccuScan 5000 from Beta LaserMike

The company will feature its solutions for in-process dimensional monitoring and control, as well as for automated cable testing. Among these will be the ultra-fast AccuScan 5000 Series gauges, 3-axis LN3040 lump and neckdown detector, Excess Fibre Length (EFL) measurement system, and the recently patented LayScan lay length measurement system.

Highlights include its newest products, such as:

Ultra-fast AccuScan 5000 Series: These dual-axis gauges perform high-speed diameter and ovality measurements at 2,400 scans per second per axis and provide the fastest single-scan accuracy in the industry. The improvements in the single-scan calibration algorithm ensure each scan is highly accurate and reliable. The high-speed tolerance checking option permits the early and precise detection of lumps and necks to eliminate costly

product waste. The STAC (stranded, twisted, armoured and corrugated) logic software option provides accurate max/min OD or enveloped readings at a higher rate, allowing for faster process control of complex cable constructions. AccuScan gauges effectively measure transparent, translucent and opaque products up to 80mm in diameter. All gauges offer highly flexible communications including RS-232, Ethernet/IP, Ethernet TCP/IP, DeviceNet, Profibus, Profinet, CANOpen, analogue and digital.

LN30403-axis lump and neckdown detector: The new LN3040 quickly and reliably spots product flaws before they become costly production problems. Fast-sensing and processing technology instantly detects sudden changes in the product diameter to effectively catch the smallest of flaws. The LN3040 measures product diameters up to 40mm and detects flaw height down to 0.05mm at line speeds up to 3,000m/min. It is designed with a user-friendly operator interface, accepts a range of inputs, and provides highly flexible communications such as RS-232, Ethernet/IP, DeviceNet, Profibus, and Profinet.

LayScan lay length measurement system: The latest version of LayScan solves scrap, costly rework, and productivity loss problems due to manual, time-consuming lay length measurement methods and crosstalk performance issues from lay variations. LayScan enables manufacturers to simultaneously measure four pairs at the cabler and twinner to confirm the accuracy of twisted-pair cable construction during production. A data acquisition and control system effectively collects and processes

each lay length and allows off-line analysis tools such as trend charts, statistical analysis or FFT analysis to readily observe, measure and report systematic lay variations. The LayScan system measures lay lengths up to 25.4mm at speeds up to 152.4m/min with 0.025mm accuracy.

EFL measurement system: Beta LaserMike's latest EFL measurement system enables manufacturers to efficiently, accurately and reliably produce loose tube fibre and fibre ribbon cable. It does this by effectively controlling the excess fibre length to make sure the fibre-to-jacket ratio of product meets exact production specifications. This eliminates time-consuming costly techniques such as cutting cable, and exposing and cleaning cable fibres to measure product and calculate the excess fibre length-to-jacket ratio. The EFL measurement system integrates Beta LaserMike's LaserSpeed® length and speed gauges and EFLTrakTM software.

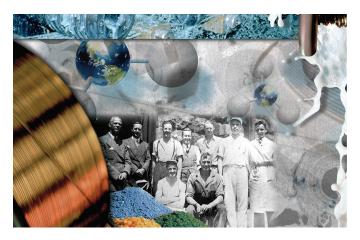
In addition to its in-process measurement systems, Beta LaserMike will present its line of DCM automated cable testing solutions. The company offers both bench-top and fully integrated turnkey solutions for accurately and reliably testing LAN/data, telecom, coaxial, and aerospace/defence cables. DCM cable testing systems enable cable makers to test more cable faster for higher quality results.

Beta L	aserMike – USA	
Websi	te: www.betalasermike.cor	n

Blachford

Booth: 09D14-01

Blachford has been supplying the global wire drawing industry and many of the world's largest wire drawing companies since the 1950s with cost effective, meticulously researched, and innovative wire drawing lubricant programmes that are tailored to the exacting technical specifications of its customers' processes.



Blachford has been supplying the wire industry since the 1950s

Blachford is known for being an innovator and solutions provider, and for continuous research of new technologies that aid in the production of wire.

The company's reputation for developing lubricant products and programmes that precisely match its customers' technical process requirements is well earned because new lubricant product design is one of its core competencies.

Its field engineers and experienced research and development team work closely with customers to fully understand each application's technical requirements. Then, working together, the customer's field engineers and Blachford's R&D team

design products and programmes that meet the specific goals.

The company is dedicated in its commitment to ISO 9001 approved product quality. Dr John Blachford, the owner, is well known throughout the chemical industry for his promotion of Responsible Care® and the necessity for his companies to act as responsible corporate citizens. The team is committed to working with its customers to ensure optimum product performance and to use its products in a responsible way.

Whether working to develop products that impart specific finished wire characteristics, or to enable customers to produce more quality tons faster and less expensively, Blachford's unique combination of data-driven product design and customer-focused approach helps to give its customers a competitive edge.

Blachford – USA Website: www.blachford.com

Clinton Instrument Company

Booth: 09E38

The Clinton Instrument Company introduces an addition to the STCAL spark test calibration system: the SM sensitivity module. This equipment checks the spark tester's fault detection sensitivity and assures compliance with EN50356 (IEC/CEI 62230).

The unit utilises a rotating spark gap that controls arc duration and gap distance. When the test is initiated, the SM produces a

specific number of controlled faults, which the spark tester must correctly identify to meet the norm.



The SM sensitivity module from Clinton Instrument Company

Once the procedure begins, the SM completes the specified number of faults without additional operator input. The sensitivity module works with high frequency, power mains frequency, and DC spark testers of any manufacturer.

The SM is compact and portable, making it easy to check spark testers while they are installed on the wire line. The operator simply selects the type of spark tester to be checked and will then have visual confirmation via a front panel digital display of the detection current and number of faults produced.

The SM is offered as an accessory to the STCAL spark test voltage calibration system, which performs voltage calibrations of the most common spark test units including AC (mains and high frequency) and DC equipment, easily calibrating spark test voltages up to 30KV AC and 40KV DC.

The operator interface is a Windows 8 tablet computer that controls the process and can download the Calibration Certificate to a memory stick through the onboard USB port. The certificate can then be printed and kept for historical use in any computer.

Combined use of the STCAL spark test calibration system and SM sensitivity module assures the operator that the spark tester complies with all known specifications.

Clinton Instrument Company – USA Website: www.cicsparkers.com

Die Quip

Booth: 09D06-01

The goal of making more wire per die is easily reached with a Die Quip die finishing machine. As a global manufacturer, the company has established a line of machines to grind, polish and size dies in a quick, efficient, accurate process eliminating operator error and guesswork.



The MGF-200 Die Saver from Die Quip

Better dies pull more wire and cause less production problems so Die Quip designed stand-alone machines for finishing dies in all sizes, and for larger production runs it can build work cells to keep maximum efficiency and eliminate downtime from size changeovers. Its approach to a modern die shop brings huge benefits to the whole production process by implementing a workflow system that sets procedures and incorporates training to maximise each machine's capabilities.

The company has designed many extensive training options and on-site consultations that teach operators how to use its equipment, choose diamond tooling for maximum results and different methods of making dies. Technicians can spend time in customer facilities designing a programme customised to meet production needs and provide reference materials such as the exclusive die training handbook.

Die Quip supports its customers through installation, training and troubleshooting for the life of the machine.

Die Quip – USA

Website: www.diequip.com

Fiber-Line

Booth: 09E70

Fiber-Line will exhibit featured products and technologies. The company utilises its processing and coating technology expertise to add performance to high performance fibres like aramid (Kevlar®), PBO, polyester, fibreglass, and carbon. The fibres provide greater differentiation and productivity improvements – enabling thinner, stronger and lighter products.

The company offers an extensive line of strength members, ripcords, binders, fillers, FRP, FRP upjacketing, extruded products and performance-enhancing coatings. Showcased at this show will be a new line of strength members, SyntheticWire™ for ropes, cords and cables. These products create a more stable cable that lasts longer and has a reduced failure rate.

Fiber-Line Inc – USA

Website: www.fiber-line.com

Gem Gravure

Booth: 16A31

GEM Gravure is the exclusive distributor for KBA-Metronic product identification equipment in the United States and



PTFE inks from GEM Gravure

Canada. As such, GEM staff will join KBA-Metronic staff as co-exhibitors. A visit to the stand will be an opportunity to see the latest in continuous ink jet printers well suited for wire and cable applications.

It will also be a chance to discuss the latest ink innovations from GEM. The new high temperature ink jet inks for marking BKG7761 Black Ink and GNG7765 green ink are growing in popularity. They are used for marking FEP, ETFE and PTFE prior to sintering. This type of printing has historically been done with contact markers without the option of variable information, or serialisation.

Anothernewink offering from GEM, BLG 1866, is an aqua coloured ink for all colours of wire. It provides exceptional adhesion to a variety of jacketing materials. A sister ink to WTG 1860 white wire harness ink, the new blue ink's popularity has grown rapidly.

GEM Gravure Co Inc – USA Website: www.gemgravure.com

Huestis Industrial

Booth: 09F05-01



Stephen Bettencourt, left, and Howard Fancher, of Huestis, at a previous Düsseldorf exhibition

Huestis Industrial manufactures high quality machines and ancillary equipment for

the wire and cable industry. It will exhibit the company's latest technology as well as standard models of Huestis Air Miser air wipes, and cable jacket strippers, as well as literature of all of its machines and product lines. Stand personnel will be able to handle all requests and enquiries.

Huestis Industrial Inc – USA
Website: www.huestisindustrial.com

InfoSight

Booth: 06G21

InfoSight addresses many marking challenges for the wire, pipe, tube and steel industries – helping manufacturers reduce costs, increase product traceability and eliminate errors.

It is now possible to track the entire wire production process with one barcoded tag – from beginning to end – without re-attachment and without re-identification after the pickling and/or annealing process.

Barcoding provides:

- Improved traceability of each piece back to the parent material
- Automatic data collection during processing
- Error proofing and tracking
- Inventory accuracy and improved efficiency in taking inventory
- Improved shipping accuracy
- Field identification

Plastic and paper tags used in the past had the potential to make the inventory process easier with their ability to hold barcoded information, virtually eliminating human error. These tags were able to survive the process of pickling for periods of up to 90 minutes. However, when it came to the process of annealing, at temperatures of 1,400°F (760°C) or greater, these tags would vanish in a puff of smoke. Applying tags after the annealing process meant a wait of several days until the coils cooled. This opened the door to more potential for human error.



Early metal tags survived through the annealing process, but in some cases would not withstand the pickling. They required noisy stamping machines that were difficult and expensive to maintain.

One of the tags produced by InfoSight

Barcoding systems for metal tags were not suitable for all industrial applications. This meant the use of manual inventory control, which again meant the risk of human error.

InfoSight created the first non-contact, laser-markable tag system in 1995. The next step in the process was developing tags that would survive the many different annealing and pickling processes utilised by the world's wire manufacturers. InfoSight developed the Pic-Anneal® laser printable tag. The Pic-Anneal® tag has a two-hour resistance to acid baths of 20% H₂SO₄ at 180°F (82°C) and 24% HCL at 100°F (38°C). It also withstands 1,400°F heat for 48 hours and 1,800°F (1,000°C) for two hours.

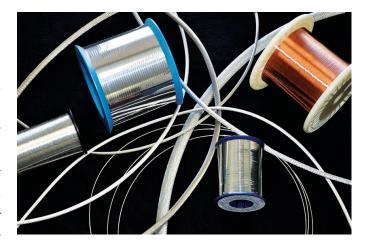
The Pic-Anneal® Laser-Marked tags measure 3" wide and a slot or hole is punched near the top for easy attaching to wire coils. The tags are marked with a CO_2 laser, resulting in black print across the white surface. The barcodes printed on the tags are readable by standard barcode readers.

InfoSight supplies a full selection of metal tags – all designed to withstand harsh manufacturing environments. These can be custom size and pre-print metal tags to cover most customer specifications. InfoSight also offers a line of laser printers which allow customers to print their own metal tags and to change their layout and barcodes, as needed.

InfoSight Corp – USA Website: www.infosight.com

IWG High Performance Conductors

Booth: 09B56



On display from IWG High Performance Conductors

IWG High Performance Conductors will be displaying high performance and high temperature conductor applications: silver and nickel-plated copper and high strength copper alloy conductors (tensile flex, RoHS compliant 35 EF, 80EF, CS95), bare and tinned copper wire.

Also on show will be single end, bobbin wound, flat wire, stranded and rope-lay constructions, lightweight/tight tolerance constructions, used in aerospace, space, medical electronics, defence, industrial markets, tinsel wire and thermocouple alloys.

MinVasive components in the medical product line include micro-diameter, hybrid, polyimide, thermoplastics and fluoropolymers tubing.

IWG High Perfomance Conductors – USA Website: www.iwghpc.com

KEIR Manufacturing

Booth: 10C63

Keir Manufacturing Inc is an Americanbased manufacturer of high-purity 99.8 per cent Alumina ceramic guides, the FrontiersmanTM line of air wipes, and composite flyer bows serving the global wire and cable industry.

The company is dedicated to making products that enable manufacturing processes to run more efficiently and productively through the application of leading edge materials. Its solutions are focused on continuous process improvement, energy savings, and longer operating life.

Keir's patented SureShot and SplitShot air wipes provide an effective drying method that does not depend on high-volume air consumption. The efficient design yields effective drying using a very low volume of compressed air and lasts longer due to the rugged ceramic insert lining the wire path. This equates to over 25 per cent reduction in compressed air usage and an operating life of years versus months.



A split shot air wipe from Keir

Keir's triaxially braided composite Standard and BackBone™ flyer bow constructions have greater durability than layered/laminated designs allowing them to take more hits and endure higher stress, yielding increased operating life and less machine downtime.

The more aerodynamic BackBone™ design functions at lower power consumption and higher TPM with improved wire quality and a further reduction in bow breakage. Up to 40 per cent less energy (AMPS) is used along with a decrease in wire scrapped.

Keir Manufacturing Inc – USA Website: www.keirmfg.com

Madem Group

Booth: 12E08

Headquartered in Brazil, Madem Group has forests, saw mills and manufacturing plants in Brazil, Spain and Bahrain, producing more than 400 containers/trucks of knock down reels per month.

The company has 65 years' experience and more than 400 employees.

Madem Group – Brazil

Website: www.madem.com.br

Mathiasen Machinery

Booth: 12A52

Mathiasen Machinery buys and sells used wire and cable machinery internationally. Machinery is purchased for inventory or it can be sold on an exclusive basis. MMI has interest in locating individual machines, complete lines or entire plants.



A wide range of photographs of second hand machinery will be on the Mathiasen Machinery stand

Consignments, warehousing, appraisals and liquidation services are also offered. MMI has buyers seeking all types of good

quality used wire and cable machinery, serving the domestic and international ferrous and non-ferrous wire machinery markets.

Its stand will display photographs of a wide variety of second hand machinery. Customers are asked to bring their surplus machinery list and photos for evaluation.

Mathiasen Machinery Inc – USA Website: www.mathiasen-machinery.com

Paramount Die

Booth: 10D37

Paramount Die is more than just a die company with its sales engineers averaging over 20 years of experience in the wire industry. In addition to helping its customers with their die needs, Paramount also offers expertise in all areas of the wire drawing process.

Several wire industry trends have dramatically shaped the company's development over the past ten years. Perhaps the most dramatic has been the ever-growing trend for wire drawers to outsource their finished die requirements.

As this has caused wire drawers to become somewhat more dependent on die suppliers, great pressure has been placed on the company to increase capacity for die finishing, to reduce finished die costs, and to improve lead times.

Paramount has been able to reduce die costs by standardising on cost-effective carbide inserts and by increasing quality and capacity through automation. It is Paramount Die Company - USA working to take the human factor out of the manufacturing process.

Many of its highly automated machines now run on "lights out operation" meaning that they will continue to produce product as long as there is raw material being fed into the system. This not only improves the production output, but also the quality (eliminating the human error aspect). Paramount's highly automated production equipment combines high volume speed and efficiency with superior accuracy and repeatability. Average lead times have been reduced from three weeks to just less than five days by investing heavily in finished inventory.

As the company continues to grow domestically and globally as a high quality, high volume producer of carbide drawing dies, it becomes very important for it to continually invest in new manufacturing and innovative technology.

It is leading the way on another industry trend, "eco-friendly products". Paramount is a leader supplying eco-friendly products to the wire industry. Its die design allows the carbide insert to be easily recycled and many of its customers worldwide participate in this programme.

It will exhibit a full line of wire drawing dies and related equipment. Products featured will be the TR-Series carbide drawing inserts, the new "T" series inserts for PC wire, extrusion dies, stranding dies, shape dies, polycrystalline diamond dies, ParaLoc pressure, non-pressure holders, and ParaLoc accessories.

Website: www.paradie.com

Phenix Technologies

Booth: 12B27



Test systems and component from Phenix Technologies

Phenix Technologies is a manufacturer of high voltage, high current and high power test systems and components.

Its wide range of electrical testing equipment is used for testing cables, circuit breakers, motors, reclosers, rubber goods/protective gear, switchgear, transformers and more. All of the major components of the test systems are produced in its 70,000ft² modern manufacturing facility and headquarters, located in Accident, Maryland, USA.

All aspects of electrical and mechanical design, software design and production are performed and controlled by an ISO9001 certified quality programme. Phenix's engineers offer a unique blend of theoretical knowledge and practical experience that is vital to the development of custom solutions for industry leaders.

As members of worldwide professional and technical organisations, its engineers offer innovative solutions for any project. The service and calibration department assists customers during and after installation, traveling to over 100 countries.

Phenix offers a wide range of testing solutions for utilities, transformer and motor manufacturers/repair shops, cable manufacturers, independent testing companies, and original equipment manufacturers.

From portable test sets to over 1,000,000 volt custom test systems, Phenix's product line includes:

AC dielectric test equipment; AC/ DC kilovoltmeters: AC/DC hipot/ meaohmmeters; circuit breaker test equipment; DC dielectric test equipment; electrical protective rubber goods test equipment; cable testing equipment; tangent delta bridges; insulation analysers; liquid dielectric test sets; motor test systems; partial discharge and RIV measurement equipment; resonant test systems; recloser test systems; transformer test equipment; and variable voltage transformers and power supplies.

Additional sales offices are located in Atlanta, Georgia; Basel, Switzerland; and Taipei, Taiwan. In addition, Phenix Technologies' representatives are located across the US, and in more than 50 countries.

Phenix Technologies – USA Website: www.phenixtech.com

QED Wire Lines

Booth: 12A25

QED specialises in equipment for heat-treating, cleaning and coating of steel wire. Custom designed and built, the high-speed lines are for galvanising, Galfan®, patenting, annealing and oil tempering processes. Combining innovative design concepts with 30 years practical experience, QED has developed a range of products and equipment that is both technologically advanced and ruggedly dependable.



QED mark 4 immersion burners on a high carbon line

With a view to improved efficiency and to minimise environmental impact, the company has developed the dual loop pressure control combustion system. This system maintains a steady output and close air-gas ratio. This patented combustion

control system is used on all the company's multiple burner furnaces.

QED has recently upgraded its proven fluidbed technology with proportional, closed-loop feedback and mass flow controls. The Siemens PLC-based system provides much higher thermal efficiency and lower fuel costs than previous systems. Its fluidbeds operate from DV=120 to DV=240 and from 1.5t/h to 8t/h production.

The latest development in galvanising furnaces is the advanced recuperative technology mark 4 immersion burner. This burner offers dramatically higher combustion efficiency from a double pass pre-heat design with extended heat-transfer area. Constructed of stainless and high nickel alloy steels, this modularly constructed burner offers an extended operating lifespan and reduced maintenance.

In addition to the fuel savings, the new burner runs with a cooler skin temperature, providing a more pleasant working and maintenance environment.

The company also supplies the latest development in HighTurbulence® pickling and galvanising technology. The multiple stage cleaning systems have high turbulence acid that greatly accelerates the pickling process. Computer control, nitrogen wiping in galvanising and Galfan offers significant savings and accurate coating weights.

QED Wire Lines – Canada Website: www.qedwire.com

Rad-Con

Booth: 09D06-03

Rad-Con specialises in the annealing production process, and is a manufacturer of new bell-type annealing furnace equipment, and a provider of systems that help existing annealing facilities operate better.

The product range includes:

Convection bell-type annealing furnaces; 100 per cent hydrogen protective atmosphere; spheroidise annealing (SA) of hot-rolled wire rod; quality surface, clean and decarb-free.

Anneal: Furnace for annealing of drawn wires in batch: low and medium carbon steel wires; copper and copper alloy wires; aluminium cable on reels.

Rad-Con Inc – USA

Website: www.rad-con.com

Reelex

Booth: 09F06

Reelex Packaging Solutions will publicly debut several new innovative packaging and equipment concepts representing the future of wire and cable packaging. Known as the preferred packaging method for LAN and coaxial cables for more than 40 years, Reelex packaging is a patented method of winding flexible products into a figure-eight coil featuring tangle and twist-free payout.

This packaging method has become the standard for major wire and cable manufacturers around the globe and is quickly being adopted as the package of choice for products such as fibre optics, building wire, plastic tubing and more.



The new SlingPack™ from Reelex

The company manufactures a range of Reelex coiling, packaging and ancillary equipment, including the new RS1 variable-traverse coiling machine and the new MMPO all-in-one offline delivery system. The RS1 is a new entry-level Reelex machine designed for small manufacturers, distributors and speciality projects and is equipped with a variable-width traverse capable of winding everything from fibre optics to pneumatic hose.

Designed for, but not limited to, use with the RS1 is the new MMPO delivery system – a low-cost all-in-one delivery option featuring motorised payoff, dancer, buffer, anti-reverse and footage counter on one frame.

Reelex will have video demos on display as well as examples of the latest in cable packaging innovation, including the new SlingPackTM package—combining low-cost, low-waste, and easy handling. Also on display at its booth will be examples of the ProFlexTM shrink package, a demonstration of the new G2 control system, and other innovations.

Reelex Packaging Solutions Inc – USA Website: www.reelex.com

Rockford Manufacturing Group

Booths: 15D35 and 15F24

Rockford Manufacturing Group (RMG), Fastener Engineers and Lewis Machine's integrated in-line wire processing solutions are the epitome of lean manufacturing.

Customers quickly realise reduced inventory, improved productivity, greater flexibility and most importantly, reduced total cost.



The Model 200 from RMG

The Lewis 1SHVF straightening and cutting machine will be on display, along with the newest member of the in-line wire drawer family, the Model 200. This unit is capable of drawing a wire diameter range of 0.4mm to 2.5mm with a maximum 20 per cent area reduction. Also on display on stand 15F24 will be the Model 910 Spacesaver inline wire drawer.

The in-line wire processing equipment is being used by many manufacturing processes including fastener production, nail making, wire bending, concrete products, steel bar processing, welded wire products, screw machine parts and wire straightening and cutting.

RMG is the only OEM for Fastener Engineers, Lewis Machine and G C Patterson equipment and a good source for all tooling, spare parts and technical service requirements.

Rockford Manufacturing Group – USA Website: www.rmgfelm.com

SPX Precision Components

Booth: 09F09-01

The Fenn Division of SPX Precision Components will once again exhibit at wire 2014, as part of the North American Pavilion.

A manufacturer of metal forming machinery, Fenn has been established for over 100 years. Now part of SPX, a Fortune 500 company, Fenn continues to maintain a solid reputation built on decades of process knowledge and machine engineering.

Fenn's extensive product range includes rolling mills, wire flattening and shaping lines, power and friction driven turks heads, drawbenches, swaging machines, torin spring coilers and a complementary range of ancillary equipment.

The products produced with Fenn machines serve a wide range of markets, including renewable energy, materials research, aerospace, oil and well screens, agriculture, automotive, medical, superconducting technology, power transmission and military.

Fenn recognizes the growing need of the industries served for a total, metal forming solution. In this regard, it is proud to be uniquely positioned to offer technical processes and engineering expertise to supply the ideal machine, designed and built to grow businesses.

SPX Precision Components, Fenn Division – USA Website: www.spx.com

Teknor Apex

Booth: 09F05/03

A new low-smoke, flame-retardant thermoplastic elastomer (TPE) compound enables manufacturers of power and other flexible cords for appliances and consumer electronics to produce non-PVC insulation and jacketing that does not contain phthalate plasticisers or halogen additives. It was announced by Teknor Apex Company.

Halguard® E 59001 halogen-free, flameretardant (HFFR) compound is designed for flexible cords that meet UL 62 requirements and for appliance wire that complies with UL 758. In addition to appliance wire, potential uses include power cords for computers, HDMI cables for televisions, wiring for device chargers and USB connectors, and other electronics applications.

Typical Properties of Halguard® E 59001 Compound

Property	Value	Test Method
Hurdress, Shere A	88	ASTM 0-2140
Specific grantly	1.12	ASTM D-792
Terrelle strength, pd (MPs)	2:100	ASTIM D-658
Dongston, %	530	ASTM D-638
Flecutal modulus, psi (MFs)	18,100 (185)	ASTIN D-790
Brittle point, 10	-49	ASTRE D-740
Volume resistivity at 35 °C, 13 one	4.83 X	ASTRI DIOSZ
Dielectric sonstant at 1 MHz	2.89	ASTM D-150
Orospalien lautor at 1 MHz	1.15.25	A81M (1-160
Owygon Index, % O ₂	30	ASTM D-2863
Deformation at 158 °C. %	1.0	UL-1581
Oil resistance, 166 hrs. of immersion at 60 °C	Complies	UL-42
Sunight resistance, 720 hts. weatherometer exposure	Complies	UL-1581

Typical properties of the new compound

The new compound enables cables to meet the requirements of UL VW-1 and Cable flame tests as well as the IEC 61034 smoke test. When tested in accordance with UL 1581, Halguard E 59001 meets deformation and heat shock requirements at 150°C, compared to 121°C for PVC. As a TPE-based formulation, Halguard E 59001 is inherently elastic, eliminating need for plasticiser.

"Halguard E 59001 is based on proprietary polymer chemistry that yields a better balance of properties than standard HFFR cable compounds based on polyolefins," said Mike Patel, industry manager for Teknor Apex.

"At the same time, our new compound exhibits mechanical and electrical performance comparable to that of PVC while meeting the needs of wire and cable manufacturers who require an alternative to halogenated, plasticised materials."

Teknor Apex Company – USA Website: www.teknorapex.com

Wire Association International

Booth: 11B25

The Wire Association International will feature information and a floor plan for Interwire, the largest wire and cable show in the Americas, to be held April 28th to 30th 2015, in Atlanta, Georgia, USA. Also, a range of the association's publications, products and services, including Wire Journal International: the WJI 2014 Reference Guide: and its India publication, Wire Bulltin; as well as association technical books, reports and DVDs. Also, news about the WAI's 2014 International Technical Conference as well as information for WAI membership opportunities, its chapter network and WAI's Internet site. Details will also be available on the association's Operations Summit and Wire Expo, to be held May 6th and 7th, in Indianapolis, Indiana.

Wire Association International – USA Website: www.wirenet.org

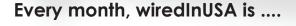


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New ceramifiable compound

AEI Compounds Ltd has developed a new thermoplastic halogen free flame retardant compound, TP0851; a ceramifiable sheathing compound for cables designed to preserve circuit integrity in the event of fire. TP0851 has been successfully tested in emergency alarm, communication and lighting circuits. Other fire-survival cable applications are now being tested.

The ceramifiable material forms a strong char during burning, providing enhanced cable fire protection, and allows the cable to continue to function in serious fire situations. When TP0851 is used with silicone rubber insulated cores it will comply with even the most strenuous fire performance specifications. Traditional fire survival cable constructions using Mica tapes are unnecessary.

The use of TP0851 for cable sheathing in certain cable constructions is said to improve cable production efficiency and allow faster cable termination performance.

TP0851-sheathed cables have met the fire test requirements of BS EN 50200 for PH120, and the enhanced BS 8434-2 with a 930°C flame and water spray with aluminum laminate tape screens.

Ties that bind

3M is offering a new alternative for electricians requiring rugged cable ties. The 3M steel-barbed cable ties are said to provide high strength and precision tightening.

Designed to fasten wire bundles and harness components quickly and securely, the cable ties consist of a smooth nylon strap with a head, or pawl, containing a stainless steel barb. When engaged, the barb presses into the nylon strap, providing a tight grip and a strong, long-lasting hold.



Designed without notches, the 3M barbed cable tie has infinite locking positions, at any point along the strap, allowing more precise positioning than typical ratchet-type cable ties. The nylon strap's ribbed pattern provides extra grip to prevent slippage.

The cable ties are available in black and natural, and in seven different lengths between 4 and 28 inches.

Cable rejuvenation for the nuclear sector

Areva Inc has signed an exclusive agreement with Novinium® to offer patented cable rejuvenation technology to the nuclear industry. The partnership with

Novinium will provide nuclear power plants with a safe and cost-effective method of extending the life of underground cable infrastructure.

Areva will offer Novinium's Ultrinium™ fluid using its patented sustained pressure rejuvenation injection method for nuclear power plant applications. Novinium's cable rejuvenation technology restores the full dielectric strength of a cable, and is said to extend the life and reliability of the cables for a further 40 years at a fraction of the cost and time it would take to replace it.

"At Areva, we take every opportunity to better serve our utility customers," said Tom Franch, senior vice president of reactors and services at Areva Inc. "With Novinium as a partner, our customers will have access to a technology that can improve the safety, performance and long-term reliability of their cable infrastructure, an important consideration when renewing licenses at nuclear power plants."

Conductor with composite core

The specialty materials company, Celanese Corporation, and cable producer Southwire Company LLC have worked together to introduce introduced a new option for utility transmission lines. The new C7TM overhead conductor has a multi-stranded composite core of Celanese's Celstran® continuous fiber reinforced-thermoplastic rods (CFR-TPR).

"Designed for utilities that want greater flexibility, reliability and ease of installation, the C7 overhead conductor uses Celstran technology. That involves an innovative combination of carbon fiber and a heat-resistant Fortron® PPS (polyphenylene sulfide) matrix...capped with a layer of high performance PEEK (polyether ether ketone)," said Michael Ruby, Celanese global composites business manager.



"This combination of materials provides distinct advantages compared to alternative high temperature low sag (HTLS) technology and conventional conductors."

The Celanese/Southwire developed transmission conductor is said to deliver almost double the capacity of the same diameter aluminum conductor steel-reinforced (ACSR) conductor, and exhibits less sag. The design allows for minimum sag at higher power transfer, and the stranded Celstran core means there is no single point of failure for the overhead conductor.

Roll out the wire barrel

A multi-conductor wire barrel packing system from Cerro Wire is said to greatly facilitate the installation of branch circuit wire. Designed for easier



handling for the contractor, it has a smaller footprint and there is less material handling than using individual reels on a wire cart. Setup time is faster. This new payout tool also reduces overall waste due to having a longer package length. No assembly of the system is required.

The multi-conductor paralleled wire barrel packing system is available with THHN 14-10 AWG cable, and with 4, 5, 6, or 7 conductors. The barrel package is available in a variety of wire color bundles.

Portable strippers and twisters

The DCF series from the Eraser Company includes a range of wire strippers and twisters. Models DCF1, DCF2/3, and DCF4 use centrifugal force to cleanly remove the insulation from round magnet and enamel wire. Combined, these units can strip wire from 35 to 9 AWG and are suitable for stripping of coils, chokes and transformers. Basic units can strip up to 2.5", or a drilled-through version allows for infinite strip lengths.

The DCFR can strip square, rectangular, and flat magnet and enamel wire using a rotating carbide rasp head. The DCFT uses a twisting head with three fingers to neatly twist together the ends of pre-stripped stranded wires, and the DCFH produces twisted pairs by twisting a looped wire on a hook.

The power units on the DCF series allow for variable speed control, and use of either 115V or 220V. An optional bench kit enables all models to be used as bench-mounted machines.



Fairview Microwave Inc has introduced a new line of low loss test cables using LL335i and LL142 coax, and rated to 18 GHz.

The LL335i and LL142 cables allow for higher power transmission because, due to the thermal stability of the PTFE tape dielectric, the resulting higher temperatures do not affect the cable. Where phase stability requirements are critical, the new low loss cables allow for a 75 percent lower phase shift. This cable configuration offers attenuation levels of 20 to 35 percent lower than comparable cables.

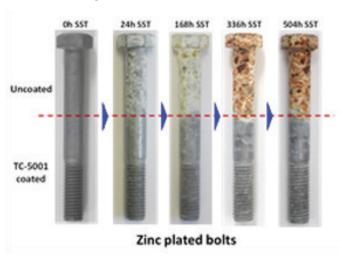
The new RF assemblies are equipped with a choice of stainless steel TNC, SMA and N-type connectors and a heavy duty booting to improve strain relief. A double-shielded flexible coax provides shielding greater than 95 dB and VSWR of less than 1.35:1.

Greg Arnold, technical sales manager at Fairview Microwave, said: "These low loss, phase stable, double shielded cables offer engineers and technicians improved performance over standard RG-type cables in a rugged design, ideal for heavy-use

test environments where repeatability and stability are paramount."

Self-healing coating

NEI Corporation has introduced Nanomyte TC-5001, a nanotechnology-enabled, single component, clear coating, suitable for dipping, brushing and spray application. The new coating is designed to protect zinc-plated and galvanized steel surfaces from rusting under severe environmental and operating conditions. Applications of the coating include hardware (rods, pipes, bolts and screws), automotive components and farming equipment.



The dense barrier coating can be used alone or in combination with Nanomyte PT-100, a self-healing conversion coating. In salt-spray tests (SST, ASTM B117), uncoated zinc-plated steel bolts are said to have exhibited white rust in 24 hours and red rust after 168 hours, while the Nanomyte coating provided significant corrosion protection, even after 504 hours of salt-spray.

Nanomyte TC-5001 is part of an expanding portfolio of anti-corrosion coating systems,

including pretreatments and topcoats, designed to protect steel, aluminum and magnesium from corrosion.

Uncoated zinc-plated bolts begin to exhibit rust after just 24 hours of salt spray testing, while TC-5001 coated bolts show significant corrosion protection even after 504 hours of testing

Zero water peak fiber

OFS has introduced AllWave® One zero water peak (ZWP) single-mode optical fiber, a full-spectrum fiber designed to bend to network demands while lowering attenuation across the optical spectrum.

AllWave One fiber is said to improve the performance of optical transmission systems operating over any part of the wavelength range between 1,260nm to 1,625nm. Compared to OFS's AllWave fiber, AllWave One fiber has a very low 0.18 dB/km attenuation specification at 1,550nm, a 40 percent smaller minimum bend radius, a 67 percent lower bend loss and a 33 percent improved polarization mode dispersion (PMD) link design value.

The bending performance of AllWave One is 33 percent better and attenuation performance is 15 percent better than AllWave+ fiber in the S-, C-, and L-bands. Like AllWave fiber and AllWave+ fiber, AllWave One fiber will intermix with the installed base of single-mode fibers having a nominal mode field diameter of 9.2 micrometers.

fiber provides AllWave One reliable performance, superior to ITU-T G.652.D and G.657.A1 recommendations. With a composition of high purity synthetic silica throughout the core and cladding, the fiber offers mechanical reliability and stable low loss. OFS's patented ZWP fiber manufacturing process eliminates hydrogen-aging defects and provides a 50 percent increase in usable spectrum compared to G.652.A and G.652.B fiber.

consumption. Furthermore, increased capacity through higher spectral efficiency has always been the driver of long haul economics, and TeraWave fiber supports this increase through optimized fiber properties.

"This achievement will have increasing value as transmission technology approaches the 'non-linear Shannon limit'. TeraWave fiber increases the practical capacity of optical fiber to better support future bandwidth demands."

Long haul fiber

OFS' TeraWave™ fiber is an improved ITU-T G.654B large area single-mode fiber designed for 100GB/s and 400GB/s coherent transport in terrestrial long haul systems. TeraWave fiber has been designed to provide higher transmission speeds over longer distances with more wavelengths, reducing the need for signal regeneration.

TeraWave fiber offers a combination of optimized effective area, high cabling performance, and reduced attenuation compared to conventional ITU-T G.652.D single-mode fibers. With 50 percent of the effective area of conventional G.652.D fiber types, TeraWave reduces nonlinear impairments for coherent transmission, enabling the launch of higher signal power for increased optical signal noise ratio (OSNR).

David DiGiovanni, chief technology officer of OFS, said: "The longer optical reach enabled by TeraWave fiber means fewer regeneration sites helping to save capital cost, rack space in huts, and power

Active optics platform technology

TE Connectivity (TE) has revealed its latest development in fiber optics, its Coolbit optical engines. This platform engine, which converts data from electrical signals to optical signals, will be the driving technology behind TE's 100G, 300G and 400G active optics.

During 2014, TE will bring four active optics products to market that will include Coolbit optical engine platform: 100G QSFP28 active optical cables (AOCs); 100G QSFP28 transceivers; 300G mid-board optical modules; and 400G CDFP AOCs.

TE's latest 25G active optics are designed to help to achieve the cooling at component level that is so important as data center energy consumption concerns rise, along with the need for more data.

Power consumption is low, with QSFP28 modules performing at less than 1.5 watts per transceiver. At component level alone,

this low power consumption can translate into significant system savings.

Preliminary TE tests reveal mid-board optics at 5 watts per port and the CDFP active optical cable assembly (AOC) at 6 watts per port. The CDFP AOC is part of the MSA that is currently underway. The MSA provisions 8 watts per port – TE's CDFP AOC is said to yield 25 percent power savings over this specification. Coolbit optical engines are suitable for both high density and high bandwidth requirements.

Coolbit was developed at TE's fabrication facility in Jarfalla, Sweden, using 25G VCSEL and PIN devices, a TIA amplifier and a driver IC.

Low smoke TPEs

A new series of low-smoke, flame-retardant thermoplastic elastomers (TPEs) from Teknor Apex Company is designed to provide non-PVC insulation and jacketing without halogenated flame retardants or phthalate plasticizers, while avoiding the processing limitations of highly filled halogen-free flame retardant (HFFR) polyolefin compounds.

Halguard® E 59000 series HFFR compounds contain no plasticizers but compare well with plasticized PVC in mechanical and electrical performance. Their polymer chemistry differs from the polyolefins in other HFFR compounds, and they incorporate intumescent flame retardant formulations rather than the metal hydrate fillers used to render the polyolefin products flame retardant.

While having flame performance similar to that of polyolefin HFFR compounds, together with greater oil-resistance, Halguard E 59000 series TPEs exhibit lower density, lower melt viscosity, and higher elongation at break, and avoid the processing challenges of high loadings of metal hydrate fillers.

Teknor Apex recommends the Halguard E 59000 series compounds for flexible cords. The various grades in the Halguard series are formulated to meet different needs; for example: E 59001 meets deformation and heat shock requirements at 150 °C, compared to 121°C for PVC, and is designed for cords that meet UL 62 requirements and for appliance wire that complies with UL 758; E 59002 provides even better flame properties, but does not meet the UL 62 oil test; E 59010 exhibits a high volume resistivity, even in water, making it well suited for insulation, but it does not meet IEC 61034 smoke test requirements on its own.

Silica sleeving



TPC Wire & Cable Corp, supplier of wire, cable, connectors and accessories, has launched its heat protective Thermo-Trex® silica Ultra-SleeveTM as an alternative to the ceramic Ultra-Sleeve for use in steel mills, manufacturing plants, foundries, glass factories and welding and cutting shops.

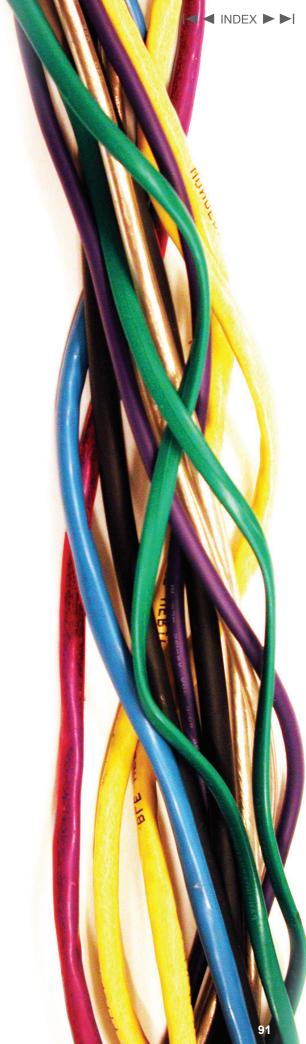
Thermo-Trex silica Ultra-Sleeve uses 96 percent pure silica fiber, which has none of the negative health effects of asbestos or ceramic sleeves. The sleeve is designed to provide short term temperature resistance up to 3,000°F (1,650°C) together with flame resistance, flexibility and tensile strenath.

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