

wiredIn
USA

**America's online magazine
for wire and cable**

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EDITOR

This weekend the wire and cable industry makes a move to Atlanta, Georgia, for Interwire – the largest and longest-running exhibition in North America for our industry.

What follows is a week of debuting new machinery, talking with old friends and making new ones at the Georgia World Congress Center with exhibitors, speakers and visitors heading into town from more than 50 countries.

Feel free to stop by Booth 222 to get your free issue of wiredInUSA and sister publications EuroWire and Wire & Cable ASIA. Our coverage starts on page 42.

\$575m gets you a lot these days – including a subsea fiber optic cable system between Argentina and Brazil. Seaboard Networks and Grupo Werthein have announced their agreement to build the APBR system. It will be a four-fiber pair system with an initial maximum design capacity of 48Tb per second and an expected completion date in the second half of 2018. The full story can be found on page 9.

David Bell
Editor

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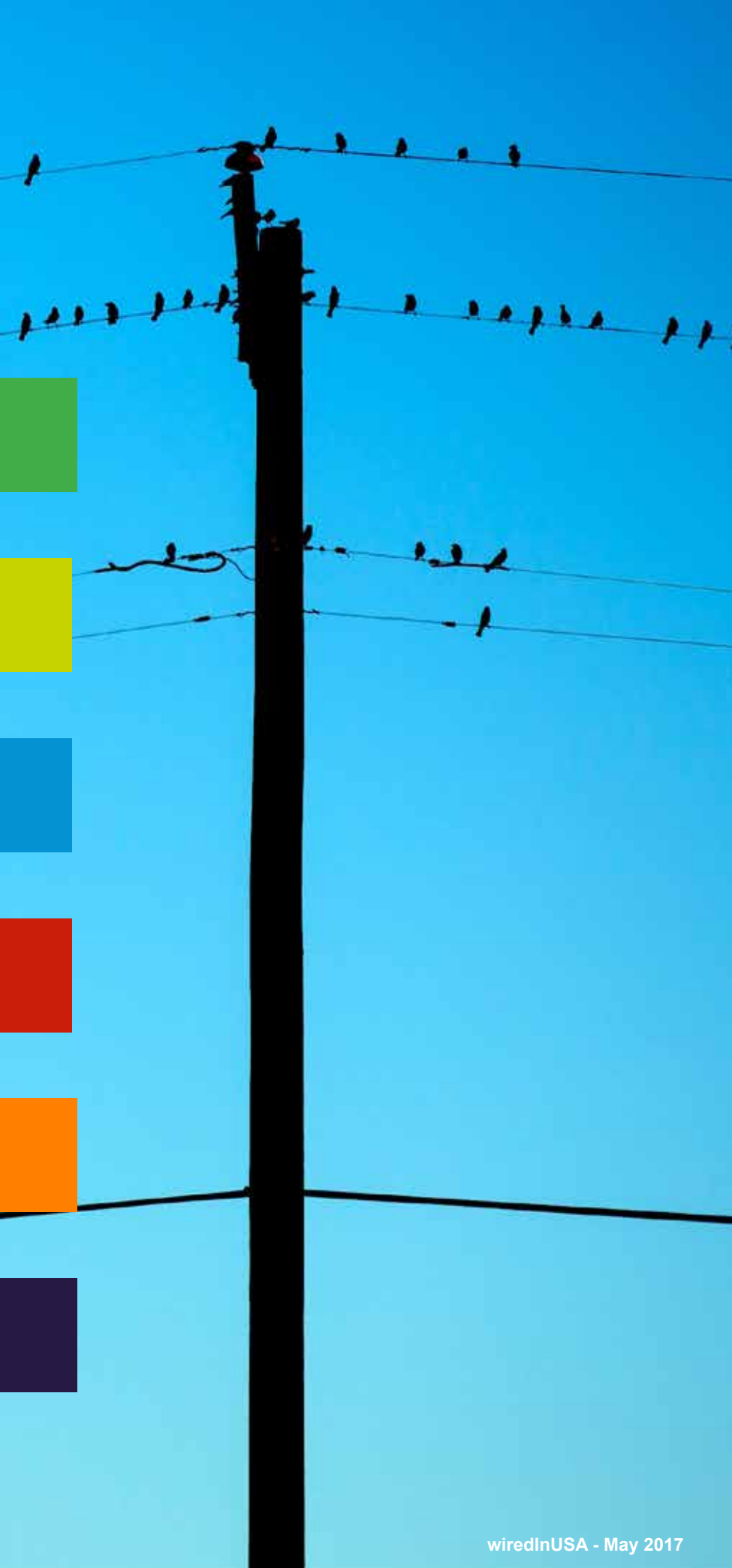
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DIARY

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MAKING THE NEWS

Linking Brazil with Argentina

Seaborn Networks and Grupo Werthein have announced their agreement to build the ARBR subsea fiber optic cable system between Argentina and Brazil. The ARBR system will provide onward connectivity via Seabras-1 and will be developed and owned by Seabras Group and Werthein. Seabras is the sole owner of the entire Seabras-1 submarine cable.

Seaborn is the operator of both Seabras-1 and the ARBR system; a total project size of over \$575 million.

Larry Schwartz, chairman and CEO of both Seaborn Networks and Seabras Group, said: "This project responds to the Argentine market need for substantially more international capacity on a next generation system while also offering the country's first independent operator model for a critical submarine cable route."

Argentina's communications minister, Oscar Aguad, commented: "Argentina needs a global modernization of communications infrastructure and this first independent submarine cable system is a very important step."

"Given that it has been sixteen years since the last submarine cable was built from Argentina to Brazil, combined with the fact that this is the primary route for data and voice communications between Argentina and the rest of the world, this new and independent route is overdue," said Dario Werthein of Grupo Werthein.

The ARBR system will be a four-fiber pair system with an initial maximum design capacity of 48Tb per second, and an anticipated completion date in the second half of 2018.



Wire formers form alliance

Automated Industrial Machinery (AIM Inc) and T Butler Engineering Ltd (TBE) will work together to market solutions that link AIM's smart CNC machines with TBE's high volume production and customized turnkey solutions. Both companies will offer the other's products, with AIM also providing support for TBE customers in North and South America.

"Nothing is more important than making our customers more productive," said Constantine Grapsas, president of AIM, Inc. "We are thrilled to announce this strategic alliance with TBE, which will

simplify the customer experience across sales, service and support and empower our mutual customers to be far more productive."

Commenting on the announcement Thomas Butler, MD of TBE, Ireland, said: "We believe that we can combine TBE's niche capability for complex and integrated projects, with AIM's smart bending solutions and vast presence in the United States; together offering an unparalleled level of manufacturing capability and flexibility to our mutual customers."

August Strecker heads to Atlanta

Strecker will be demonstrating at Interwire, Atlanta, Georgia, USA, three welding machines: the handheld KSCZ 170 cold welder for copper wire from 0.3mm to 1.8 mm (0.012 to 0.07 inch); Strecker type SE 1 for copper strands from 0.2mm² to 6mm² (24 to 10 AWG), offering flashfree welds on stranded conductors; and the Strecker type 1a-LNV-V20 standard working machine for steel, copper, brass, aluminum or stainless steel wire, with a variable annealing device, the

V20 welding and annealing controller, 0.75kW grinding motor and the Strecker D13 shear.



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Wind across the Midwest



Xcel Energy will gain 1,550MW of new wind generation with a total of seven wind farms to be built in Minnesota, North Dakota, South Dakota and Iowa, growing the company's regional wind portfolio by 60 percent.

"This investment in renewable energy keeps bills low for customers while giving them the clean energy they want and helping us achieve 63 percent carbon-free energy by 2030," said Chris Clark, president, Xcel Energy-Minnesota. "Wind energy is at historically low prices right now, so we're able to reduce emissions while securing long-term cost savings for our customers."

Xcel Energy is proposing a combination of owned projects and power purchase

agreements representing more than \$2.5 billion in capital investments. The company is taking advantage of federal production tax credits to secure low wind energy prices.

Advances in turbine technology, improved wind forecasting and a newly expanded transmission system have all played a role in the ability to build new wind farms.

"We're significantly increasing the amount of wind generation on our system in part due to the recent completion of Midwest transmission projects that connect wind-rich areas to our customers," Clark continued.

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Leadership appointment



James (Jim) O'Leary

WireCo WorldGroup has announced that its interim chairman and interim chief executive officer, James (Jim) O'Leary, has assumed the role of executive chairman and chief executive officer. Mr O'Leary will continue to serve as chairman on the WireCo board of directors.

Mr O'Leary previously served as chairman and chief executive officer of Kaydon Corporation, prior to which he held leadership roles at Beazer Homes, US Industries, and Hanson PLC. He holds a master of business administration degree from the Wharton School of the University of Pennsylvania and a bachelor of business administration degree from Pace University.

Kosty Gilis, a managing director of Onex, said: "We are thrilled that Jim will be joining WireCo as its new chairman and

chief executive officer. We have known and worked with Jim for a number of years and believe that his experience running a leading global industrial products company, which served a diverse range of end-markets, makes him superbly qualified to lead and grow WireCo in the coming years."

Dexter Paine, chairman and founding partner of Paine Schwartz Partners, added: "I have been impressed with Jim's leadership style."

Mr O'Leary said of his appointment with WireCo: "I am excited to be its CEO and look forward to working with the thousands of committed, talented WireCo associates across the globe. I appreciate the opportunity to work with both Onex and Paine Schwartz Partners in helping WireCo realize its fullest potential."

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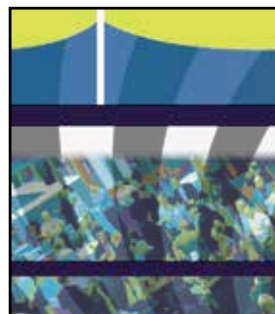
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Scrutiny for wire importers

Four US steel producers have sought antidumping duties on carbon and alloy wire rod imports from Belarus, Italy, Russia, South Africa, South Korea, Spain, Turkey, Ukraine, UAE and the UK.

In a statement for the companies, Gerdau Long Steel North America, Nucor, Keystone Consolidated Industries and Charter Steel have also requested countervailing duty investigations of the wire rod sector in Italy and Turkey.

The mills allege dumping margins ranging from 21.64 percent (Ukraine) to 821.4 percent (Russia).

“The substantial increase in low-priced and unfairly traded carbon and alloy steel wire rod from the [ten] subject countries since 2014 has injured American manufacturers and their workers,” said Paul Rosenthal of Kelley Drye & Warren, counsel for Gerdau, Keystone and Charter Steel.

In 2014, the US mills won antidumping duties of 106.19 percent to 110.25 percent, and countervailing duties on Chinese wire rod imports. “They were a major supplier. Once you address a major supplier it’s not all that unusual for others to take advantage of an opportunity in the marketplace,” commented Kathleen Cannon, a Kelley Drye attorney, adding that the US wire rod mills are “experienced in this arena” of fighting for unfair trade relief.

US Department of Commerce will determine within 20 days of the request whether or not to initiate the antidumping and countervailing duty investigations.

Raising the bar in production

Outokumpu has upgraded stainless bar production in its facilities in Richburg, South Carolina. New capabilities include a new coil-to-bar line to cover bar sizes from 0.6 to 1.25 inches and full reinforcement bar capabilities. Investment in the new lines increases Outokumpu's stainless bar production capacity by over 15,000 tonnes annually.

Bob Beatty, head of the Outokumpu Stainless Bar, USA, commented: "The new investment allows us to expand our capacity in the area of coil-to-bar peeling where we have been capacity constrained. The line utilizes hot-rolled coil bar feedstock which is straightened, peeled, chamfered and polished to finished bars. This new capacity helps us to expand our business in key growth markets, including the important automotive segment where we have a strong position."

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Scope:
Management of the Implementation of Submarine Fiber Optic Cable
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February 22, 2020
February 22, 2017

Subsea certification

Submarine cable system company WFN Strategies has, after two years of development, successfully achieved accredited certification to ISO 9001 international standard. The ISO 9001 standard is utilized to certify quality management systems that focus on continuous improvement, customer satisfaction and the active involvement of both management and employees in a process-based approach.

“WFN Strategies is honored to be the first submarine cable implementation organization to achieve compliance to the ISO 9001 standard,” said managing director Wayne Nielsen.

“Our ISO 9001 process has been developed over the last two years with an outside quality team in order to work hand-in-hand and seamlessly with our PM 2.0 project management system while maintaining excellence in work product in accordance with robust international standards,” continued Nielsen. “Achieving certification to these latest ISO standards demonstrates WFN Strategies’ ongoing dedication to achieving the highest levels of corporate governance and quality responsibility.”



100 years on the ropes

Union Wire Rope, a WireCo WorldGroup brand, is proud to announce one hundred years in the design and manufacture of wire ropes and assemblies. Union Wire Rope products are used in construction, logging, industry and surface mining.

Just before the United States entered World War I commodity prices were steadily increasing. Industries were experiencing shortages of supplies and rising prices, and the lack of wire rope had become so acute that drilling and production of petroleum products were threatened. Founder Henry Black, with a consortium of oil men, purchased approximately 12.5 acres of land on the east bank of the Blue River in Kansas City, Missouri, and on 17th

May 1917, Black Steel and Wire Company became a reality.

In 1927 a new management team reorganized the company as Union Wire Rope. After the war, Union was still strong in the oilfields but began to seek other types of business. This led to the development of shovel and drag hoist ropes for the mining industry, which have played a large part in Union's continued growth.

In 1958 Armco Steel acquired the assets of the Union Wire Rope Corporation, and in 1988 Union was acquired by WireCo WorldGroup, making WireCo the largest wire rope manufacturer in the United States and where Union Wire Rope remains.

Development ended by conservation concerns



Image By Pacific Southwest Region
U.S. Fish and Wildlife Service

After a period of litigation a federal court has halted a wind energy project in southeast Oregon following concerns about the area's declining sage grouse population.

The project proposal was for development on 10,500 acres of private land in Harney County near Steens Mountain, calling for 40 to 69 wind turbines and a 230kV transmission line to bring the energy to the electrical grid. The US bureau of land management approved the project, and Harney County granted a key permit, but environmental groups, including the Oregon Natural Desert Association and the Audubon society of Portland, challenged the BLM's environmental review. The environmental review was needed because the transmission line's

right of way would cross public lands. After an appeal court ruling last year, siding with opponents of the scheme, the federal court has withdrawn approval of the development. Greater sage grouse need sagebrush all year round for mating, nesting and rearing their broods, and for food through the winter. Loss of sagebrush habitat has contributed to the decline of the sage grouse population in Oregon.

Bob Sallinger, conservation director of the Audubon Society of Portland, responded: "Steens Mountain never should have been considered for industrial wind development. We strongly support the transition to renewable energy sources, but it needs to be done in a responsible manner."

Solar dedication

Green Power EMC and Silicon Ranch have dedicated a 52MW solar energy plant in Jeff Davis County, Georgia.

The 480-acre facility uses 630,000 solar panels that track the sun from east to west. Silicon Ranch hired McCarthy Building Companies to construct the facility, and the energy will be purchased by 30 EMCs.

The new plant is the second in Jeff Davis County to be completed by the

partnership between Green Power and Silicon Ranch. At a combined 72MW AC, the two projects make Jeff Davis County one of the top solar communities in the United States.

Under the agreement, Silicon Ranch will own and operate the solar array, and Green Power EMC will purchase all the energy and environmental attributes it produces at cost-competitive rates over the life of the contract.



image: www.siliconranchcorp.com

Still searching for connectivity

Google is making further investments in undersea fiber optic cable to develop its network connectivity around the world.

The company has announced that it will partly fund the Indigo project to connect Jakarta, Singapore, Perth and Sydney.

The cable will run for approximately 9,000km (almost 5,600 miles) and provide a capacity of roughly 18Tb per second.

Google has now invested in five submarine cables in the Asia-Pacific region and seven overall.

With this investment the company hopes to better compete with other cloud providers and consumer Internet companies.

Alcatel Submarine Networks will build the cable, expected to be operational by mid-2019. Other Indigo investors include the cable company SubPartners and ISPs AARNet, Indosat Ooredoo, Singtel and Telstra.

Only Google and its fellow investors will use Indigo, though Singtel and Telstra will sell capacity to their customers as part of their telecom businesses.



New cable lab

The US certification company Underwriters Laboratories (UL) has opened a wire and cable laboratory in North Jakarta to be operated by its subsidiary, PT UL International Indonesia.

The company president, Ben Miller, said that the Indonesia location was chosen because of the country's fast-growing economy.

UL said in a statement that the laboratory has been accredited by the National Accreditation Committee as a testing laboratory, and by the product certification

agency LSPro for the certification of Indonesian national standards.

Miller added that UL standard certification requires ongoing surveillance and comprehensive monitoring of products, from design to sale.

Anthony Tan, vice president and managing director for UL ASEAN region, explained that UL already operates two laboratories in Singapore in the consumer technology and transaction security fields, and a textile and consumer goods laboratory in Vietnam.



EUROPE

NEWS

Aussie wind investment



The site of the Mount Gellibrand wind farm
Photograph courtesy of victorianvolcanoes.com

Acciona Energy, Spain, has started work on the 132MW Mount Gellibrand wind farm, in the Australian state of Victoria, with an estimated investment of \$258 million Australian dollars (approximately \$195 million in USD).

The electricity generated at Mount Gellibrand will be traded on the wholesale electricity market.

Last year, the Victorian government committed to purchasing the renewable energy certificates generated from 66MW of the wind farm following a public tender process.

The contract allows the government to buy certificates for up to ten years.

“We are very pleased to have achieved viability for 132MW of wind power capacity in Victoria, which will mean higher investment, more jobs and a greater contribution of clean energy to the community, within our clear growth strategy in the country,” said Acciona Energy Oceania managing director Andrew Thomson, speaking during the site’s ground breaking ceremony, also attended by Victorian renewable energy advocate Simon Corbell, Colac Otway shire mayor Chris Potter, and local business and community representatives.

Private funding to further development



Economy minister
Manuel Caldeira Cabral

Dublin-based energy developer WElink Energy has signed a contract with China Triumph International Engineering Co Ltd (CTIEC) for the construction of a 220MW solar farm in Portugal.

The Solara4 solar project is said to be the largest privately funded solar farm in Europe, and is the first in WElink's series of planned investments in Portugal. The project will cover 800 hectares of land in Vaqueiros, in the Algarve, and is expected to be generating electricity by the middle of 2018.

Portugal's economy minister, Manuel Caldeira Cabral, remarked during the signing ceremony: "Consumers have in the past paid higher prices for the promotion of renewable energy. We do not want to stop the progress that renewable energy can have, but fortunately the technology has evolved, and evolved in a way that solar energy can now be competitive, paying the investment with unsubsidized tariffs."

New plant for specialist cables



Image: Leoni AG

Leoni has begun the construction phase of its "Factory of the Future" project in Roth, Germany. The plant is intended to underpin Leoni's core business in the cable sector and lay the foundations for use of digital technologies and the strategic expansion of its solutions business. The company plans to invest €90 million in the facility, focusing production on cables for the car industry and the development and production of data cables for autonomous driving.

With a planned output of about 400,000km of cable per year, the new facility's products will range from glass fiber cables for telecommunications and infrastructure, through to high voltage and charging cables for cars with alternative drive systems. In addition to the laboratory and development center, the site will offer an educational and advanced training facility.

Based on an estimated construction period of about two years, Leoni expects to begin relocation from the existing plant in early 2019. The relocation of around 800 employees to the new factory is likely to be completed in mid-2020.

France's largest wind project gets go-ahead



Ailes Marines' offshore Brittany wind farm is, at present, France's largest marine renewable energy project, designed to produce 496MW when at full power.

Plans have been approved for the Baie de Saint-Brieuc development, where 62 wind turbines will cover 103km². The €2.5 billion project will start producing power in 2020 and supply an estimated 1,850GWh per year to the French national grid.

At its closest the site will be 16km off the Brittany coast, between Ile de Bréhat and Saint-Malo. Having been a key location during the Second World War the area has been swept for unexploded mines and bombs.

Offshore construction is due to begin in the latter part of 2018, funded by Ailes Marines' backers, Iberdrola, RES and Caisse des Depots.

Wire rod annealing plant



The new plant being installed in Kocaeli, Turkey

Diler Iron and Steel Industry and Trade Inc, part of Diler Holding and a leading Turkish company specializing in wire rod coils for automotive applications, has ordered a new bell-type annealing plant from Danieli Olivotto Ferrè, for heat treating coils in a protective atmosphere.

The new plant, to be installed in Kocaeli (Turkey), is designed mainly for spheroidizing annealing of coiled rods and wire and will accommodate charges stacked up to 1,900mm high (indicating a charge weight of between 1,650kg and 2,350kg).

The plant will process coils under a protective nitrogen protective atmosphere and will consist of three bases designed for a maximum workload capacity of 40 tons, plus two bell furnaces and a cooling hood. The workspace volume for both diameter and height is 4,000mm: large dimensions allow each base to load stacks of up to seven coils, ensuring the highest production flexibility and charge configuration.

HTSC on trial



TenneT is planning a trial run of underground superconducting high voltage cable in the Dutch electricity grid. The project will be a first, as a section of superconducting cable of this length (between 2km and 4km) has not yet been installed anywhere else in the world.

The 150kV cables currently in use require a right of way of at least 12m wide to dissipate the generated heat. HTSC (high temperature superconducting) cables require only a 3m strip because they generate no heat, and no magnetic field.

Working with several leading institutes on the project — Delft University of Technology, University of Twente, the Institute for Science and Sustainable Development, HAN University of Applied Sciences, and Imtech Marine – TenneT has yet to find a suitable location for the test run.

Superconducting cables are expensive, costing approximately three times as much as a standard 110kV or 150kV cable, and initially it will only be possible to use them in sections of up to 4km. The superconducting state in high temperature superconducting cables is achieved by refrigeration to -200°C using liquid nitrogen and this limits the cable length.

Auction successes



In the first of two German auction rounds, DONG Energy has won the right to build three offshore wind projects in the German North Sea. DONG Energy submitted six projects in the bid and won with OWP West (240MW), Borkum Riffgrund West 2 (240MW) and Gode Wind 3 (110MW). The three projects are planned to be commissioned in 2024.

For two of the projects – OWP West and Borkum Riffgrund West 2 – DONG Energy made bids at €0 per MWh, meaning that these projects will not receive a subsidy on top of the wholesale electricity price. The Gode Wind 3 project was awarded based on a bid price of €60 per MWh.

New mill for Belarus

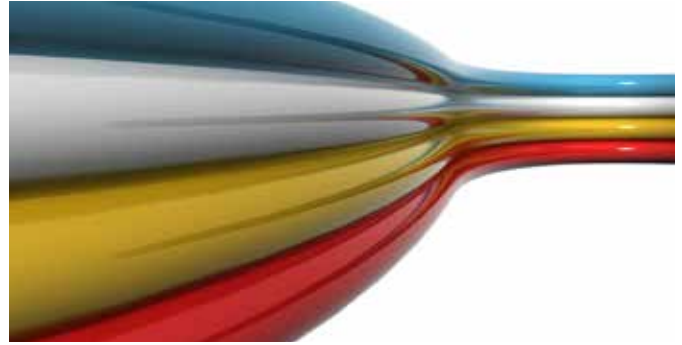


President Alexander Lukashenko

Belarusian Steel Works (BMZ), the managing company of Belarusian Metallurgical Company holding, will receive funds from a Belarusian centralized fund to launch production of rolled steel and build a wire rod mill. The agreement has been signed by Belarus president Alexander Lukashenko.

The project will raise the output and sales of products, with exports expected to increase foreign currency revenues.

New record for HVDC



Borealis and Borouge have announced a new world record of 640kV for extruded HVDC cable technology. The record-breaking voltage level, and the robustness of a cable system based on Borlink™ LS4258DCE and Borlink™ LE0550DC, was proved by type and pre-qualification testing in accordance with Cigré recommendation TB496. This new material technology is said to enable the efficient delivery of greater transmission capacity over longer distances, with better interconnectivity among countries and grids, and better connection of renewable energy sources to future grids.

Working in partnership with NKT Cables the companies have now set the 640kV record for the highest voltage for extruded HVDC technology, described as “clear proof” of system robustness and technical margin.

In real terms, one pair of 640kV HVDC extruded cables can transmit over 3GW of power from renewable sources. This is equal to the combined output of the six biggest hydroelectric power plants in Sweden. A single pair of 640kV extruded HVDC cables could transmit enough power to supply around three million households.



ASIA & AFRICA

NEWS



Pushing London Array into second place

State Power Investment Corporation (SPIC) of China is developing an 800MW wind energy farm off the coast of Jiangsu province.

Set to enter full operation in 2018, the farm will overtake the 630MW London Array as the world's largest offshore wind site.

The construction of the Yancheng project will occur in three phases.

The first 100MW installed capacity consists of 25 4MW Siemens turbines, which are already operating, just 10m from shore. By March 2017, this portion of the project had generated 190 million kWh of electricity.

The second phase of construction is currently underway, set to boost installed capacity by another 400MW by October 2017 using 100 wind turbines. Once installed, it will become Asia's largest offshore booster station and China's first booster station to follow European standards.

Due to start in the second half of 2017, the third phase of the project is situated further south.

Wind turbines with 300MW of capacity will be erected in the water at a depth of 18m, 36km from the shore. This final phase of construction is expected to be completed during 2018.

Russian producer plans wider range



Russian aluminum producer UC Rusal has installed a new rolling mill at its Kandalaksha aluminum smelting facility in Murmansk.

Part of a \$19.8 million cast house modernization project currently underway at the plant, the Properzi rolling mill is expected to produce up to fifty thousand metric tons of products each year. At present the plant produces wire in only 9mm diameter, but once in full production the new mill will produce wire rods ranging from 9mm to 25mm in diameter.

In addition to new diameters of wire, the press will allow the plant to produce wires in different alloys. Rusal believes that the main consumers of the new wires will be primarily cable manufacturing plants, both domestic and overseas.

"The launch of the rolling mill at Kandalaksha aluminum smelter is another step within Rusal's strategy to increase the output of value added products," explained Rusal's CEO Vladislav Soloviev. "...The smelter will start operating at full production capacity in 2017, having increased the production of the smelter up to 72.5 thousand tonnes per year."

Cooperation secures HVDC contract



A consortium of Siemens and Sumitomo Electric Industries Ltd has an order from the Indian transmission operator Power Grid Corporation of India for an HVDC transmission system. The 200km long HVDC connection will be India's first DC link featuring voltage-sourced converter (VSC) technology. VSC offers a stable and flexible reactive power control, independent of active power control, and additional features to support AC systems.

Siemens will supply two converter stations with two parallel converters, each rated 1,000MW, using its VSC HVDC technology. Sumitomo Electric will be responsible for the XLPE HVDC cable system in the DC circuit.

The Pugalur-Trichur ± 320 kV HVDC system will connect Pugalur in Tamil Nadu to Trichur in Kerala state, south-west India. The Trichur converter station will be connected via underground XLPE HVDC cable to a transition station, also being built by Siemens. Sumitomo Electric will supply a 128km XLPE HVDC cable system comprising four cables for a route of 32km each.

Wire education



The team of electrical technicians from Sri Lanka's Batticaloa district

Kelani Cables has supplied training in the manufacture of electrical wire to a team of electrical technicians from Sri Lanka's Batticaloa district. Training was provided under the Kelani Visura CSR program to a selected team of 50 technicians representing Akkaraipattu, Batticaloa and Kalmunai.

The group was taken to two of the largest Kelani Cables factories, in Kelaniya and Siyambalape, to understand the manufacturing of various types of wires and their production processes. In addition, a workshop to upgrade their knowledge with the latest techniques in the electrical technical sphere was conducted by B Sudakaran, a chief engineer in Batticaloa. The exercise was in response to research indicating that the regional engineers had little understanding of the wire manufacture process.

Developing cable reach



The Superior Essex Taboro plant

LS Cable & System plans to spend \$24.6 million to establish LS Cable & System USA in Taboro, North Carolina. The company will take control of a power cable plant, currently held by its US subsidiary Superior Essex.

Superior Essex has 17 factories in seven countries, including Germany and Italy, and is headquartered in Atlanta, Georgia. The Taboro power cable plant produces medium voltage and low voltage cables and is said to account for around 1 percent of the MV and LV cable market in the US.

LS Cable & System aims to quadruple its US manufacturing sales to approximately \$200 million by 2021. The company plans to maximize the use of its sales connection with US power authorities and expand beyond its east presence towards the west.

LS Cable & System CEO Myung Roe-hyun said: "As LS Cable & System has secured its power cable manufacturing base in the US, the company can now brace for US protectionist policies and expect benefits from infrastructure investment expansion at the same time."

Chandigarh upgrade



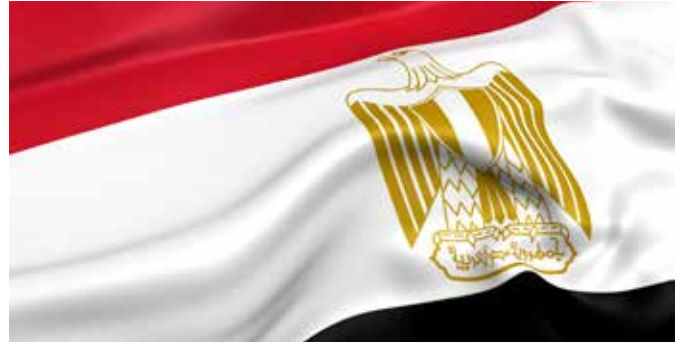
After receiving approval from the Joint Electricity Regulatory Commission (JERC), the Chandigarh Electricity Department has launched a tender for the conversion of overhead lines to an underground system and a replacement of infrastructure in the city's Sector 8.

Sector 8 was chosen for the pilot scheme as its infrastructure is around 50 years old and frequently breaks down, especially during peak summer season. Department officials feel the scheme will help reduce distribution losses and outages. With augmentation of the power distribution system, load growth over the next five years will also be regulated.

At present the department only has one 220kV substation, with five 33kV substations and 13 66kV substations across the city. A substation is usually assumed to have a life span of 25 years; six 66kV substations have exceeded that time span.

The Chandigarh administration is also in the process of implementing a smart grid project under the National Smart Grid Mission (NSGM). The administration is to meet 70 percent of costs, with 30 percent of the total project cost borne by NSGM.

Egyptian investment



Huawei Egypt is set to increase its investment in the Egyptian market. The strategy was announced by the CEO of Huawei Egypt, Teri Liu, during a meeting with Sahar Nasr, the Egyptian minister of investment and international cooperation.

Huawei has made Egypt its regional hub for North Africa since 1999, serving 22 countries in the region. Huawei Egypt was established in 2002, together with several specialized regional centers of expertise including the North Africa and Middle East Training Center, and the Technical Assistance, Applications, and Software Research Center.

Huawei Egypt's CEO indicated that the company, in partnership with Chinese fiber optic specialist YOFC, is planning an optical fiber factory. Coordination is underway with the Ministry of Communications and Information Technology.

Teri Liu invited the Egyptian minister to visit the company's research and development center in Beijing. The minister called on the Chinese company to enhance cooperation with Egypt in the fields of research and training.

Solar sales



CSI New Energy Holding Co Ltd, a wholly owned subsidiary of Canadian Solar Inc, has completed the sale of two solar power plants to Shenzhen Energy Nanjing Holding Co Ltd, a subsidiary of Shenzhen Energy Group Co Ltd. The transaction was closed in March 2017 and the company expects to recognize revenue from the sale of the plants when all revenue recognition criteria have been met.

The plants, both located in China, have a total capacity of 69.5MW.

“We are pleased to have closed the sale of two additional solar power plants in China to Shenzhen Energy,” commented Dr Shawn Qu, chairman and chief executive officer of Canadian Solar. “We are well on track to monetize our operating solar power plants in China and other countries. Shenzhen Energy is an important strategic partner of Canadian Solar, and we look forward to further expanding our strong partnership with them for more opportunities in the future.”

Increasing network



Angola Cables has announced the completion of the marine survey for the South Atlantic Cable System (SACS), and the start of cable loading on the Angolan side of SACS. When completed, SACS will interconnect with the Monet cable system (between the United States and Brazil) and the West Africa Cable System (WACS).

SACS is a 6,165km, 40Tb per second cable of four fiber pairs that will connect Angola to Brazil, linking Africa and the Americas. Angola Cables is one of 12 members of the consortium that manages WACS (and one of its largest shareholders), a cable system that provides carrier level services to operators in Angola and sub-Saharan Africa across 11 countries. A 14,530km cable running between Yzerfontein (South Africa) to London, WACS has four fiber pairs and includes 14 landing points, 12 along the western coast of Africa and two in Europe.

Completion of the marine survey means that final manufacturing can be completed, and any minor route and/or cable type adjustments can be fine-tuned based on the actual survey findings. With the loading of the pre-laid shore end (PLSE) the construction of SACS is underway.

A world map is shown in a light gray color, centered on the Atlantic Ocean. A horizontal orange band is overlaid across the middle of the map, containing the main title text. The text is white and centered within the orange band.

Products, Machines & Technology

Plug and play system

Infrastructure specialist Siemon has expanded its LightHouse® advanced fiber cabling solutions with a comprehensive Base 8 plug and play system of fiber enclosures, modules, adapters, assemblies and jumpers.

Current 40Gb (40GBASE-SR4) and 100Gb (100GBASE-SR4) per second multimode fiber applications, deployed for backbone switch-to-switch links in the data center, are based on eight optical fibers with four fibers transmitting and four receiving at either 10Gb or 25Gb per second.

When using 12-fiber MPO/MTP solutions for these 8-fiber applications, 33 percent of the optical fiber is unused. While conversion cords or modules can be used to enable 100 percent fiber utilization, these solutions add cost and complexity, and increase insertion loss.

Siemon's new Base 8 system is designed to enable 100 percent fiber utilization, eliminating the need for conversion cords or modules while providing a complete end-to-end Base 8 fiber system to support current and future eight-fiber applications.

"With current and future fiber applications all dominated by fiber counts that are divisible by two or eight fibers, including 200 and 400Gb per second over multimode and singlemode that are currently in development, using a Base 8 plug and play system offers the simplest, most efficient migration to advanced fiber speeds in the data center," said Alberto Zucchinali, EMEA data center solutions and services manager for Siemon.

Cables for testing times

Pasternack has released four new 1mm flexible cables, operating up to 110GHz, designed to deliver precision results for vector network analyzer (VNA), semiconductor probe, automotive radar and military radar testing. The cables are suitable for applications such as test benches, radar, microwave radio and millimeter wave radio.

Pasternack's new VNA test cables deliver precise results using a coaxial cable and 1mm stainless steel connector interfaces. The coaxial test cable is covered by a non-conductive Nomex® outer sleeve. This light armoring protects the 0.27 inch diameter cable and improves stability during flexure. The cables feature 50 Ohm impedance, a maximum VSWR of 1.5:1 and excellent phase/amplitude stability under flexure.



▲ The new cables from Pasternack

The cables will operate over a temperature range from -65°C to $+125^{\circ}\text{C}$. The vector network analyzer cables are RoHS and REACH compliant, plus the cable assembly is fully tested and comes with serialized test data. The cables are available in standard 6 and 12 inch lengths with male-to-male or male-to-female configurations.

"We are extremely excited to add these 110GHz test cables to our growing line of test and measurement products. As the number of millimeter wave applications continues to grow, our customers can take advantage of our off-the-shelf solutions," said Dan Birch, product manager at Pasternack.

Heavy duty reels

Magnetek Inc, a supplier of digital power and motion control systems for the material handling, fluid power and marine terminal industries, has announced its new cable reel product line.



▲ The new cable reel product line from Magnetek

Magnetek cable reels are designed to be mounted on moving machinery and used to supply power for automatic winding of flexible power or control cables. Both spring-driven and motorized electric cable reels are available, as well as slip ring assemblies.

Available in five sizes, Magnetek's industrial duty spring reels are designed as a cost-effective, pre-engineered solution for general purpose applications such as

overhead material handling cranes, mobile cranes, construction cranes, emergency and rescue vehicles, monorails, excavators and welding systems.

Mill duty spring reels, available in a range of sizes, are designed for optimum performance on overhead cranes, monorails, and magnet cranes operating in rugged environments such as mills, foundries and other heavy duty industries.

Magnetek's motorized cable reels are intended for long travel lengths and high voltage applications, such as log handling gantry cranes, port gantry cranes, mobile excavators, ship-to-shore cranes, deck and construction cranes - particularly on runway motions, and hoisting equipment of all types.

Custom-engineered slip ring assemblies are also available for any size or configuration and deliver consistent power to rotating components, ensuring continuous revolution.

Communication and fiber optic slip rings are also available. Magnetek cable reels may be packaged with any of the company's power and motion control products.

Design to be seen

Radiopaque clad wire that improves the visibility of stents and wire under fluoroscopy is available from Massachusetts-based Anomet Products.

Anomet's radiopaque clad wire can be custom-manufactured with varying degrees of visibility, by modifying the alloy composition and cladding thickness.

Suitable for use with stents, guide wires and related medical devices, the new composite wire is believed to be cheaper

than solid wire with marker bands and can be manufactured to precise OEM specifications.



▲ Anomet Products' range of radiopaque clad wire

Available with outside diameters of between 0.05mm and 1.52mm, the radiopaque wire can incorporate gold, platinum-iridium, tantalum, tantalum-tungsten, and similar alloys bonded to high strength wires such as 316LVM stainless steel, nitinol, and MP35N® with 2 percent or more cladding thickness.

Two popular wire examples are tantalum-cored stainless steel and gold-clad nitinol. These premium medical-grade wires are priced according to composition and quantity and can be supplied on spools. They will not flake, blister or delaminate.

Safer cables on track

Nexans has launched its Flamex® SI-FR line of fire-resistant cable products for the critical power and control systems used in trains.

The new cables are designed to maintain circuit integrity during a fire, enabling conductors and operators to travel to safety, out of a dangerous situation, if a fire were to break out. All Flamex cables help to limit both fire spread and the release of harmful smoke.

Flamex SI-FR cables will withstand the harsh operating conditions, such as variations in temperature, snow, rain, sunlight and heavy vibrations, encountered on rolling stock, and are particularly suitable where high temperatures are involved. The cables can operate at up to 170°C with a maximum operating voltage of 3kV or 6kV.

In addition to being fire retardant the new Flamex range of power, control and communication cables is designed to emit only low levels of smoke during fire. The cables are compliant with EN 45545-2 requirements for the highest hazard level class, and meet the fire resistance requirements laid out by EN 50200 or IEC 60331 standards.

The range is asbestos-free and RoHS compliant.

The perfect recipe?

Traditional XLPE cables are produced with ready-made compounds with predefined recipes of base LDPE, antioxidants and peroxide. Maillefer has developed Smart Dosing for combining separate compounds online during extrusion.

Online dosing offers several improvements. A range of suppliers offer base LDPE grades for cable insulation without peroxide and antioxidants, offering customers a freedom of choice. Traditional XLPE compounds are limited to chemicals that are solid at room temperatures, otherwise the compound

would suffer from chemical sweat-out. Shelf life makes storing premix compounds a concern.

Online dosing removes some of these restrictions and gives the cable manufacturer a wider selection of peroxides and antioxidants.

Online dosing offers a significantly longer shelf life, and using alternative peroxides can even result in increased extruder outputs and longer production runs.

Maillefer's Smart Dosing is a system for both antioxidant and peroxide dosing, consisting of two separate feeders with gravimetric loss in weight measurement for accurate dosing, that also ensures that cable insulation cleanliness will not be compromised.

Smart Dosing has no impact on extruder stability, but is said to guarantee thorough distribution of injected ingredients and ensure high product quality.

During development, model cables produced with online dosing of XLPE have shown good geometrical properties as well as excellent peroxide and antioxidant homogeneity in the insulation material.

Underground record cable

A record 640kV extruded DC cable system has been successfully tested and qualified by NKT Cables.

The commercialization of the first 640kV extruded DC underground system will increase the maximum power transmission of cable systems by 20 percent, and allow better integration of distant renewable energy sources into global energy systems

with minimum energy loss. A single pair of 640kV DC cables can transmit enough green energy to supply three million households.

Michael Hedegaard Lyng, president and CEO of NKT Cables, commented: "The development of interconnector grids globally represents some of the biggest infrastructure projects of our time, and we are proud to pioneer the associated technology. The interconnector market is expected to grow significantly and with this 640kV cable system we are underlining our leading position within this promising market."



▲ The 640kV extruded DC cable tested by NKT Cables

The new system will reach a transmission capacity of over 3GW, 20 percent higher than the existing top solution based on 525kV technology.

The new system is technically and commercially qualified according to the international recommendation Cigré TB 496.

The cables use the same design and utilize the same DC XLPE insulation material as the company's 525kV cable system, and the accessories for the 640kV cable system are the same as for the 525kV system.

The insulation material was developed jointly with Borealis.

Cable packing development “pays off”

Windak Group has launched its new development for in-line packaging, designed to eliminate rewinding of master reels.

Windak’s new change-over cable packing system is a complete line consisting of two pay-offs feeding into the pay-off accumulator, allowing for continuous operation with “on-the-fly” cable splicing.

After extrusion, the robust take-up accumulator allows for continuous operation of the take-ups at the end of the line.

At full cable length the change-over station’s in-line capstan and clamp holds the cable in place while the cable is cut.

After the cut, the cable is fed into the second take-up. The operator then attaches the cable to the reel and the winding process restarts.

The process is repeated until the desired number of cut lengths is reached. Reel sizes can be 12 to 84 inches.

Driving compound development

Melos and Inhol are offering a range of radiation crosslinkable, high temperature-resistant compounds for automotive applications. Halogen-free and halogenated products using Melos

cable compounds have been approved worldwide by car manufacturers.

The Mecoline range consists of six thin-wall insulation compounds for primary wire, with several solutions for battery cables including flexible or semi-flexible and oil-resistant compounds, based on either polyolefines or fluoroelastomers.

Halogen-free Mecoline I RDX 1213 F and Mecoline I RDX 1229 F are suited to operating temperatures up to 125°C.

These fast curing, radiation cross-linkable formulations can be processed at very high line speeds. Their main applications include small gauge primary insulation (SAE J1128) and appliance wire.

Halogenated Mecoline RDX compounds are suitable for higher temperatures of 150°C to 225°C, with some products offering high abrasion or chemical resistance, and high flexibility to serve applications such as battery cables in hybrid cars or electric vehicles.

Formulations are specifically designed for industry standards including ISO 6722, ISO 14572, SAE J1127 or SAE J1128.

INTERWIRE

TRADE EXPOSITION



Global Ferrous Rod & Wire Symposium





Interwire 2017 and The WAI's 87th Annual Convention

Convention: May 8-11, 2017 | Exhibits: May 9-11, 2017

Introduced in 1981, Interwire is the largest and longest-running wire and cable marketplace in the Americas. Hosted biennially, Interwire is an international trade event that includes exhibiting companies, speakers, and visitors from more than 50 countries.

When industry professionals look for new wire and cable technology, supplies and equipment they choose Interwire, the benchmark for wire business in the Americas.

Global Ferrous Rod & Wire Symposium

Running concurrently with Interwire, this “conference within a conference” is a technical program about rod and wire processes for the ferrous segment.

Company	Booth	Company	Booth
Accuracy Technical Services LLC	555	CardConnect	765
Ace Metal Inc	851	Carris Reels Inc	1341
Advaris GmbH	552	Cavallero Plastics	141
AESA SA	965	Ceeco Bartell Products, Bartell Machinery Systems	723
AFI Systems LLC	110	Cemanco LC	1511
Agape Industrial Inc	1000	CERSA-MCI	701
AIM Inc	1111	Chase/NEPTCO	1304
AITMAC Inc	323	Chemetall	1301
All Wire Forming Machinery Inc	1762	Cheng I Wire Machinery Co Ltd	1166
Amacoil Inc	812	Chengdu Centran Industrial Co Ltd	205
America Bybon Corp	1602	Chhaperia International Company	1361
American and Efird LLC	1517	China Council for International Trade	1611
American Kuhne	1556	China Council for International Trade	1614
Appleton Manufacturing	118	China Council for International Trade	1615
ATE Applicaziomio Termo Electroniche Srl	1173	China Council for International Trade	1616
AW Machinery LLC	1700	China Council for International Trade	1617
Aztech Lubricants LLC	854	China Council for International Trade	1623
B & H Tool Co Inc	551	China Council for International Trade	1706
Balloffet Die Corp	1300	China Council for International Trade	1710
Baum's Castorine Co Inc	1839	China Council for International Trade	1712
Beacon Reel Company	1364	Cimteq	1607
Bechem Lubrication Technology LLC	1267	Clifford Machines and Technology	1727
Beijing Orient Pengsheng Co Ltd	113	Clinton Instrument Co	1001
Bekaert	759	CM Furnaces Inc	755
Beneke Wire Company	311	CMEC International Exhibition Ltd	1311
Bergandi Machinery Co	801	CMEC International Exhibition Ltd	1323
Beta LaserMike (An NDC Technologies Brand)	1031	CN Wire Corp	1523
Blachford Corp	605	Cobre Y Aleaciones Escocia AS	117
Black Sea Technology Inc	1159	Commission Brokers Inc	719
Bloom Engineering Company Inc	700	Condat	1549
BMS Birlesik Metal San Ve Tic AS	964	Confex Technology Ltd	671
Boockmann GmbH/The Slover Group	359	Conneaut Industries Inc	1610
Breen Color Concentrates Inc	1806	CTS – Cincinnati Thermal Spray Inc	264
Cable Consultants Corp	241	Davis-Standard LLC	1023
Calmec Precision Limited	559	DEM SpA	1457

Company	Booth	Company	Booth
Die Quip Corp	1101	Häfner & Krullmann GmbH	570
Dino-Lite Scopes (BigC)	119	Hangzhou Dongxing Telecommunication	
Domeks Makine Ltd Sti	1241	Material Co	246
Dongguan Dewei Wire Co	1605	Hangzhou JR Exhibition Co Ltd	511
Dynamex Corp	1357	Hangzhou JR Exhibition Co Ltd	1522
Ebner Furnaces Inc	1506	Hangzhou Juli Insulation Co Ltd	800
Elecomtape Global Inc	1711	Heany Industries Inc	818
Electron Beam Technologies Inc	213	Heatbath/DuBois Chemicals	717
Electronic Drives & Controls Inc	553	Houghton Industrial Inc	753
Enercon Industries	211	Howar Equipment Inc	523
Enkotec Co Inc	132	Huestis Industrial	541
ERA Wire Inc	1154	ICE Wire Line Equipment Inc	1164
Esteves Group USA	1004	Ideal Welding Systems	1211
Etan Products Inc	1306	iiM AG measurement and engineering	1065
Eurobend GmbH	365	InnoVites	1606
Eurolls SpA	1819	Integrated Control Technologies	858
EuroWire Magazine	222	International Wire & Cable Symposium	226
EVG Inc	251	International Wire & Machinery Association	500
Fabritex Inc	816	International Wire Group Inc	611
Facts Inc	228	IP Automation Inc	1719
Fenn LLC	711	Iron Tiger Manufacturing Inc	1469
Fil-Tec Inc	116	Isabellenhutte Co	1600
Filtertech	1150	Jiangsu Kemaite Technology	
Fine International Corp	451	Development Co Ltd	1564
Fisk Alloy Inc	1835	Jianyin Hygrade Electromechanica	
Flymca & Flyro	1713	Technology Co Ltd	258
FMS USA Inc	430	Joe Snee Associates/PWM	1358
Foerster Industries Inc	405	Joe Tools	1651
Fort Wayne Wire Die Inc	1331	Jouhsen-Bundgens Inc	353
FSP-One Inc	1504	Jun-En Enterprise Corporation	271
Fuhr GmbH & Co KG	1064	Kablosan Turkey-FBC Yayincilik Ltd Sti	1843
Gem Gravure Co Inc	805	Kabmak Muh Ve Mak San	1151
George Evans Corp	810	Kalmark Integrated Systems Ltd	1010
GMP Slovakia sro	1841	Kar-El Demir Tel San Ve Tic Ltd Sti	133
Granite Falls Furnace	1562	Keir Manufacturing Co	802
Guill Tool & Engineering Co	705	Keystone Steel & Wire Co	242

Company	Booth	Company	Booth
King Steel Corp	866	OMCG North America Inc	1350
Kinrei of America	651	Ozyasar Tel Ve Galvanizleme	1059
Lämneå Bruk AB	850	P & R Specialty Inc	351
LaserLinc Inc	332	P/A Industries	333
Leggett & Platt Wire Group	1242	Paramount Die Co	1539
Leoni Wire Inc	522	Parkway-Kew Corp	432
Lloyd & Bouvier Inc	1531	Phifer Wire Inc	751
Lukas Anlagenbau GmbH	1656	Pioneer Machinery USA	317
M & M Industries Co Ltd	140	Pittsfield Plastics Eng Inc	423
Madem Reels	122	Plas-Ties Co	111
Madison Steel Inc	401	Pourtier & Sefic of America	1011
Magnetic Technologies Ltd	310	Precision Die Technologies Inc	210
Maillefer Extrusion Oy	531	Precision Process Inc	864
Mathiasen Machinery Inc	1100	Premier Wire Die	1825
Melos GmbH/Inhol BV	959	PrintSafe	1452
The Meltech Company	673	Progress Maschinen & Automation AG	1808
Metal Link Inc	665	Promostar Srl	233
Metal Resource Solutions Inc	767	Properzi International Inc	741
Metalloid Corporation	331	Q8 Oils	771
MFL Group	1219	QED Wire Lines Inc	853
MGS Manufacturing Inc	1240	Qual-Fab Inc	1067
Micro Products Co	431	Queins Machines	1305
Microdia USA	823	Raajratna Stainless Wire Inc	231
Mid-South Wire	260	RAD-CON Inc	1051
Milacron Canterbury Engineering/Genca	1140	Radyne Corp	151
Morgan-Koch Corp	1451	Rainbow Rubber and Plastics	1458
Mossberg Associates Inc	1468	Rautomead Ltd	232
Mossberg Industries Inc	250	Reel Options by Vandor Corp	650
Nano-Diamond America Inc	461	Reel Power Wire & Cable	1753
Nantong Yingjie Metal Products Co	1855	Reel Power Wire & Cable	1851
Nation Grinding Inc	1662	Refractron Technologies Corp	1707
Niagara Composites Industries Inc	1053	Richards Apex Inc	341
Niehoff Endex North America Inc	841	Roblon A/S	859
Nylene Canada Inc	400	Rockford Manufacturing Group FELM	1807
Oden Technologies Inc	1829	Rosendahl Nextrom	951
OMA USA Inc	1657	Roteq Machinery Inc	1631

Company	Booth	Company	Booth
S&E Specialty Polymers	330	Teknor Apex	305
SACO AEI Polymers	216	Tektapes	217
SAMP USA Inc	1227	Tensor Machinery Ltd	659
Sanxin Wire Die Inc	459	Thermoplastics Engineering Corp	1747
Sarkuysan SA	811	Tilos Group	1360
Schlatter North America	1123	Traxit North America LLC	450
Schnell SpA	1812	Troester GmbH & Co	1165
Shanghai Sehong New Materials Co Ltd	1503	Tubular Products Co	1351
Shanghai EverSpring Ceramic Co Ltd	1849	Ulbrich Stainless Steels & Special Metals Inc	1817
Shanghai HOSN Machinery Technology Co Ltd	831	United Wire Co Inc	1158
Shenyang Jingong Cable Material Co Ltd	501	Upcast OY	123
Sikora International Corp	730	Vinston US Corp	417
Sivaco Wire Group	505	W Gillies Technologies LLC	550
Sjogren Industries Inc	814	WAFIOS Machinery Corp	1005
Skaltek Inc	504	Weber & Scher Mfg Co Inc	1530
Sonoco	641	Windak Inc	1641
Star Materials Co Ltd	865	wire 2018/Messe Düsseldorf North America	1303
Steel Cable Reels	316	Wire and Cable ASIA magazine	222
Stolberger Inc DBA Wardwell Braiding	1510	Wire & Cable Technology International	240
Subec AB	1508	Wire & Plastic Machinery Corp	1131
Supermac Industries Ltd	223	wiredinUSA magazine	222
Supreme Superabrasives Co Ltd	301	Wire Lab Co	1259
Suzhou Nanda Metal Technology Co Ltd	1501	Wire Machine Systems Inc	1251
Sweed Machinery Ltd	558	Wire World	1827
Sylvin Technologies Inc	150	wired up	1515
T & T Marketing Inc	1265	Witels Albert USA Ltd	1307
Takikawa	455	Woodburn Diamond Die Inc	804
Tantec Est Inc	1507	WTM Srl	871
Tapeformers Ltd	1500	Yield Management Corp	1845
Taubensee Steel Wire & Co	441	Zhejiang Baichuan Conductor Technology Co Ltd	244
Taymer International Inc	950	Zumbach Electronic Corp	1540
Technical Development Corporation	230		
Tecnofil SA	652		
Tecvil	254		
Teknikor	411		

AIM Inc Booth 1111

AIM will present automated work cell solutions: Input wire from straight and cut or coil and form, weld and systematically arrange the finished parts. During the past few years, the company has developed new benders and accessories that it will unveil at Interwire.

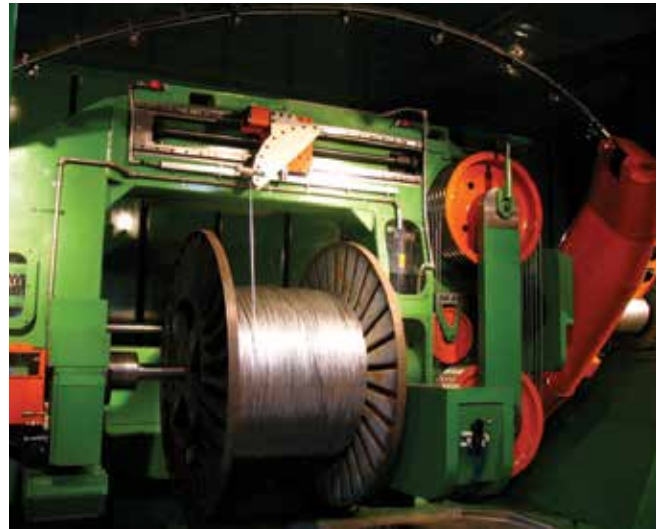
From its patented hybrid forming solution, the versatile Synchro AFM line is capable of fast output and low-cost maintenance. The newest innovation in wire bending, upgraded and updated 2D and 3D CNC wire bending solutions, are complete with single and double bending head machines with Fanuc robotics integration and complete automated systems.

In all instances, wire can be fed directly from a coil, straightened, bent and cut using a software package that provides flexibility and simplicity in programming and is offered in all “universal languages.”

AIM Inc – USA
Website: www.aimmachines.com

Bartell Machinery Systems Booth 723

Bartell will focus on innovation by featuring its advanced wire and cable production systems. These systems are aimed at improving production efficiencies while producing high quality products. These



▲ 1,800mm roll form strander

systems include:

- High-speed side loading roll form strander, up to 300mm²
- Modularized roll form unit, producing 240mm² compact aluminum at 200m/min
- Backtwist high-speed data cable twinning
- High performance OPGW strander
- High-speed strip armoring lines, with 300mm² wide coil width
- High-speed 2,200mm single twist roll form strander, up to 500mm²

Bartell Machinery Systems LLC – USA
Website: www.bartellmachinery.com

Beneke Wire Booth 311

Beneke Wire is in its 49th year of continuous operation, producing high quality wire in all aluminum alloys from 1.58mm to 25.4mm diameter. Custom engineering goes into every coil of wire for cold heading quality, screw machine stock and wire with special

finishes. Beneke's special heat-treating process can also eliminate many costly secondary operations.



▲ Custom engineering from Beneke Wire

Beneke's special finishes can help control tool wear, head ovality and surface defects, resulting in improved production, higher yield and reduced scrap and disposal problems.

Beneke Wire Company – USA
Website: www.benekewire.com

**Beta LaserMike/NDC
Technologies
Booth 1031**

NDC Technologies, a global provider of precision measurement and process control solutions, will exhibit the latest Beta LaserMike products for in-process dimensional monitoring and automated quality cable testing at Interwire.

These products deliver higher accuracies, production efficiencies and savings

for profit-minded wire and cable manufacturers.

NDC will be introducing the latest addition to the AccuScan 6000 Series four-axis diameter gauge family: the AccuScan 6050. Like the AccuScan 6012 gauge which was released previously, the AccuScan 6050 provides comprehensive measurement coverage around the product's circumference to instantly detect changes in product diameter.



▲ The A6012 6050 from NDC Technologies

The AccuScan 6050 measures products up to 50mm, while the AccuScan 6012 measures products up to 12mm. Both gauges deliver fast scan rates at 9,600 scans/sec, high ovality accuracy up to 100 per cent and high flaw-detection accuracy with 25 per cent improvement over three-axis gauges.

Flexible communications allow for easy integration into production environments.

NDC will also exhibit its innovative LayScan measurement system to accurately and

consistently measure the lay length of twisted pairs in data communication cables, such as Cat 5e/6/6a/7a/8 products. 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.

Also on display will be the DCM ES-2G bench-top system for testing Cat 5e/6/6a/7/7a/8 cables up to 2.2 GHz. An automated four-pair switching platform enables operators to perform cable testing in less than three minutes. Easy-to-use testing software offers complete test management and reporting capabilities.

NDC will also debut the latest BenchMike off-line diameter and ovality measurement system for sample/part inspection with enhanced features and functions.

In addition, NDC will preview the recent version of the InControl™ process visualization and control system with intuitive graphical user interface and advanced, productivity-enhancing features.

Other products on display include:

- High-speed AccuScan 5000 series two-axis diameter and ovality gauges
- LN series three-axis lump and neckdown detectors
- CenterScan eccentricity measurement system
- Preheaters and Spark Testers
- CapScan capacitance measurement system

- SRL Pro structural return loss prediction software
- LaserSpeed® length and speed measurement system

NDC Technologies – USA

Website: www.ndc.com/betalasermike

Blachford Corporation Booth 605



▲ Specialty chemical supplier Blachford

Blachford Corporation is a wire lubricant and specialty chemical supplier. Based in the USA and Canada, 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 programs tailored to the exacting technical specifications of individual wire drawing processes.

In 2011, Blachford developed and introduced a technical advancement with its Low Dust Dry Wire Drawing Lubricants. The first generation of these

Candor Sweden AB Booth 651

low dust lubricants were sodium-based formulations that were designed to be more cohesive and adherent to the wire than standard products. Low dust lubricants are less likely to produce nuisance dust when exiting the die (feathering) or when cooled on the wire and bent around a capstan prior to the next die box, improving housekeeping both on the machine and in the facility.

The low dust lubricants have enabled many customers to realise significant benefits including lower observable dust creation, lower lubricant consumption, longer die life and higher drawing speeds.

After the successful implementation of its low dust sodium lubricants, Blachford began working to develop low dust lubricants that were calcium-based.

In 2016, Blachford introduced its newest innovation – Low Dust Calcium Lubricants. These new beaded low dust calcium lubricants are designed to reduce dust generation during handling and use through greater wire adherence and lubricant cohesion, as compared to standard wire drawing lubricant powders.

Initial testing indicates that these new beaded products build a beneficial lubricant film, retain that film better than standard products and give improved drawing performance over standard calcium lubricant powders.

Blachford Corporation – USA
Website: www.blachford.com



▲ Wire plating plant from Candor

Candor, founded in 1946, specializes in wire cleaning and plating plants and is a supplier of chemicals for various applications.

The company will present the latest developments of the Copperjet, a high-speed copper coating plant, chemical or electrolytic, for high quality welding wires.

The plant will copper coat the wire at high speeds up to 25-30m/s with best possible cleaning and coating quality.

A modular design makes it possible to satisfy a wide range of quality demands and applications for CO₂, MIG, FCW and SAW welding wires but also stainless steel welding wires with ultrasonic or electrolytic

cleaning. The Copperjet is available with optional Candojet HW hot water spray pre-cleaning, high current density spray pickling, and Copperjet copper coating, with looping of the wire or straight wire pass line with Copperjet technology.

The company will also present its technology for wire plating plants for both ferrous and non-ferrous wires.

Candor offers single- and multi-wire cleaning and plating lines for ferrous and non-ferrous wires for various applications such as:

- Welding wire cleaning and copper coating
- Ultrasonic and electrolytic wire cleaning for round and shaped wires
- Candojet HW – hot water wire cleaning for round and shaped wires
- Single- and multi-wire electrolytic plating plants for wires such as tinning, coppering, nickel plating, silver plating and galvanising for all sorts of wire materials.

Candor Sweden AB – Sweden
Website: www.candorsweden.com

Clinton Instrument Company Booth 1001

Clinton Instrument Company, specialist in spark test technology for the wire and cable industry and inventor of the high frequency sine wave spark tester, is returning to Interwire, to keep up its record of taking part in every one of the exhibitions since its inception.

The company will be exhibiting its latest B-series full line of DC spark testers. DC testers excel at testing fine wire with delicate insulation, and group testing of multiple conductors as well as large wires requiring test voltages up to 50kVDC. These new designs combine the latest in control technology with the robust and reliable DC spark testing platform.

These new DC spark testers share the same new features as the rest of the B-series equipment, including a split electrode design for easy string up and digital signal processor (DSP) based voltage regulation and fault detection.

The fault detection circuit has been upgraded and test voltage is now monitored directly from the electrode, instead of a transformer winding. The fault circuitry can differentiate between four types of fault conditions: simple pinholes, a series of closely spaced pinholes, direct metal contact from the center conductor to the electrode, and gross lengths of bare wire.

The new “RC” controller comes fixed to the unit, but can be detached and mounted remotely up to 60m away from the test module/electrode.

It has a large alphanumeric display/user interface and can be rotated in its bracket to accommodate different viewing angles.

The display makes configuration of the equipment easy; all configuration

parameters can be changed directly from the front panel menu structure. Once configured, the system can be passcode protected.

In cases where a local display is not required, or centralised process control is desired, the equipment can be configured and controlled directly from PLCs or computers using Modbus RTU (RS-485 full duplex).

Optional communication protocols include Ethernet/IP, Profinet, Profibus, Modbus TCP and analog communications, making the equipment compatible with previous Clinton equipment with analog control.

When simple control output is all that is required, there are four sets of relay contacts that provide information without requiring advanced programming.

These include “High Voltage ON” signals to alert operators of the presence of high voltage, a fault relay which actuates when a fault is detected, a “Voltage Watchdog” which will change state when the test voltage has risen above or dropped below a preset level, and a “Bare Wire Alarm” which will signal when long lengths of bare wire are detected.

Clinton will also exhibit and demonstrate the STCAL automatic spark tester calibration system. The STCAL system will calibrate high frequency AC, mains frequency AC, and DC spark testers to all major specifications.

Calibration is automatically performed and documented on all of Clinton’s new B-series spark testers and selected A-series models.

Manual or assisted calibration can be performed on older Clinton units as well as equipment manufactured by others.

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

**Davis-Standard
Booth 1023**



▲ Demonstrations will be staged at the Davis-Standard booth

Davis-Standard will demonstrate a running wire and cable take-up along with capstan and extruder technology.

The 2,200mm take-up being shown is part of Davis-Standard’s line of traversing and collapsible take-ups and pay-offs.

These designs offer a smaller overall footprint and enhanced operator

ergonomics. Davis-Standard will also feature a caterpillar capstan and HPE extruder.

The take-ups and pay-offs integrate simplified engineering and cost efficiency. Machine sizes range from 1,250mm to 5,000mm (48" to 195") with the greatest concentration within the 1,800mm to 2,500mm (70" to 98") size range.

Each is available with a North American standard controls platform, which includes a Yaskawa A-1000 AC drive and Allen-Bradley/Rockwell components encompassing servo drive, PLC (programmable logic controller) and HMI (human machine interface).

For international projects, machines are equipped with a Siemens AC drive, PLC and HMI with a Mitsubishi servo drive. Technology is available as "stand-alone" (running in torque control) with a dancer or with an accumulator.

Also being shown is a caterpillar capstan and an HPE extruder.

The capstan being shown features multiple independently loaded pressure tracks.

Davis-Standard supplies multi-pass, linear and belt wrap capstans for the full range of wire and cable applications.

The HPE offers a compact design and is one of the industry's most widely used extruders. It is known for a fast delivery and rugged design that is energy efficient and

easy to maintain. Advantages for wire and cable application include increased torque capacity for high viscosity resins and custom options.

In addition, Davis-Standard will be discussing its new cut and feed machine. Designed for efficiency, this unit facilitates timely transfers from one take-up to the other, while minimising operator involvement.

This expedites the take-up reel change process during insulation and enables wire and cable manufacturers to boost outputs.

The ability to address market demand in terms of performance and cost efficiency is just one aspect of Davis-Standard's Global Advantage™ in wire and cable. Another is the company's experience in supplying extruders and associated wire and cable equipment for more than 70 years.

Applications include aerial cable, building wire, coaxial and composite cable, video pair cable, tray cable, CATV, THHM and THWN wire, among others.

Davis-Standard LLC – USA

Website: www.davis-standard.com

DEM SpA
Booth 1457

DEM SpA will present its newest solutions for wire cold rolling that make a difference

when compared to traditional production processes.

The list of technologies supplied by DEM includes:

- Flat wire rolling lines
- Profile wire rolling lines
- High-speed lines for reinforcing wire
- Cassettes for rolling and compacting
- Micro rolling cassettes used in drawing lines
- Auxiliary equipment: turks heads, rolling stands, payoffs, take-ups, wire cut-offs, bars collecting systems, profile measurement units and ancillaries



▲ New solutions on show from DEM

Through its partner company Eurodraw Wire Equipment, manufacturing equipment, process lines and complete plants for the steel wire industry are part of the DEM Group of products.

The company designs and builds a wide range of cabling and stranding machines for the production of steel wire ropes, PC wire and PC strand lines, and auxiliary equipment.

DEM SpA – Italy

Website: www.demgroup.com

Enkotec Booth 231



▲ High performance machinery for nail production

At the Enkotec stand, staff will be able to present the company's program of high-performance machinery for nail production and to introduce visitors to its extensive service concept, including service agreements for optimum production.

Apart from its high-speed rotary nail manufacturing machines, Enkotec's product program includes highly efficient thread rolling machines, paper, wire and plastic collators, and cleaning, conveying and packaging equipment, supplied as stand-alone units or in in-line systems.

The nail manufacturing machinery features a large number of advantages, such as high capacity, low production costs, high uniform nail quality, easy maintenance, high process stability, automated manufacturing, clean and low-noise production, all ensuring a cost-effective production process and a competitive end result.

Enkotec has exclusive rights to sell and service Bausmann's wire coil and plastic strip collators and Vibron's nail cleaning systems worldwide.

These strategic cooperation agreements enable the company to supply total in-line nail manufacturing systems from wire to finished nails in a box, giving the market the possibility to make 'one-stop shopping' when it comes to nail manufacturing.

Enkotec offers an extensive, worldwide after-sales program, including quick supplies of spare parts and technical support at all levels. Booth staff will be available to discuss with customers how the company can offer help with maintaining production efficiency and product quality on existing machines.

Many customers already benefit from service agreements, including continuous support and consultancy assistance.

Enkotec A/S – Denmark
Website: www.enkotec.com

**Gauder Group
Booth 1011**

For 25 years, Gauder Group Inc, the North American branch of the Gauder Group, has built knowledge, experience and ability to serve the wire and cable industry.

Pourtier and Setic, the French members of the group, are experienced in designing and manufacturing rotating machines for ferrous and non-ferrous cable, offering a wide range of twisting/stranding solutions to cable makers. In the USA, the product range is marketed under "Pourtier & Setic of America".



▲ A high-speed tangential taping head from Pourtier

Pourtier: The line of equipment includes rigid and planetary stranders, single twist cablers and drum twisters for producing all types of power cable (low, medium, high and extra high voltage underground, overhead conductors and submarine/umbilical), as well as signal/instrumentation and large communication cable.

Pourtier recently extended its range with tubular stranders, skip stranders and bow cablers.

On the booth will be a high-speed tangential taping head.

Setic: Double twist bunchers/cablers for low and medium voltage power cable and the automotive industry, as well as a complete range of machines for the production of all types of data and special cables with enhanced performances.

The company's offer is strengthened to include small single twist cablers and large double twist cablers/stranders.

On the booth will be a large double twist strander/cabler (a Setic TC1250), as well

as an all-in-one vertical and flexible triple twist patented twinner (a Setic VTT560F).

On top of this, Gauder sa, the Belgium-based member of the group, provides resale (or second-hand) equipment from all over the world.

Gauder can set up ready-to-manufacture solutions for the production of wires, conductors, cables, ropes or steel products from its 1,000-plus stock of second-hand machines.

The company is not only a supplier of used machines but also a key player in reconditioning – with specific know-how in lead extruders refurbishing, as well as complete plant reselling. The company also markets new Mapré extrusion lines.

For cable producers looking for an alternative between new machines made in Europe (with higher cost) and second-hand machines, the Gauder Group created Daloo.

This is the “medium-cost” member of the group, and the logical extension of the group’s global offer. Its complete stranding lines and accessories for the production of power and communication cables are designed and made in China following the group’s methods and strict quality criteria.

With long experience in North America, the Gauder Group Inc represents the C2S – Services & Bows division of the Gauder Group, acting as an overall

efficiency booster to restore wire and cable production lines’ productivity and product quality.

C2S is being assigned spare parts and high technology bows (including the exclusive and patented “GreenBow2” enabling energy savings), upgrades and maintenance projects as well as transfer and restart operations of complete lines, for all brands. The team of 55+ technicians includes ex-Lesmo and ex-Cortinovis engineers.

Gauder Group – Belgium
Website: www.gaudergroup.com

Gimax Group Srl Booth 241



▲ A range of machinery is on offer from Gimax

Interwire continues to be an important venue for Gimax – this year it continues to highlight its range of wire drawing equipment, with specific emphasis on the various special applications that have been handled over the past two years.

From copper-based brazing wires, aluminum welding alloys, cobalt flux cored wire to titanium fine wire and stainless steel...these are some of the special applications that Gimax drawing

equipment has handled over the past two years.

The machinery used has been both the TRS wet drawbenches (spray type, not immersed) as well as the TRD dry drawbenches (with both vertically and horizontally mounted capstans).

All these drawbenches are non-slip with individual motors for each capstan, dancer arms to finely tune the speed of each capstan, liquid-cooled capstan and die boxes, rotating standard or pressure dies, and both wire diameter and individual die wear control in real time, as well as a host of other options, from skin pass blocks to double decks to different types of take-up (single block driven coilers, reel take-up, static drum or stem coilers, etc).

The high productivity of these lines does not depend solely on the line speed (which can even be in excess of 6,000 feet/minute or 30 meters/second) but also on the reduced maintenance costs, ease when threading wire through machines, accessibility to all components, etc.

The design of the units is such that a Gimax drawbench will adapt easily to both ferrous and non-ferrous wires.

Machinery for the ferrous and non-ferrous wire industry includes descaling, pickling, dry drawing and wet drawing benches, chemical coppering tanks, and shaving and peeling lines for wire processing machinery; and respooling, coiling and

rewinding, drum packing, and packaging machinery for wire handling machinery.

Gimax Group Srl – Italy

Website: www.gimaxgroup.com

Häfner & Krullmann Booth 570



▲ Häfner's KCS spools have proven themselves on the market for many years

One of Europe's largest manufacturers of plastic spool drums, Häfner & Krullmann will be displaying its new utility spools at Interwire, allowing users to store, transport and save space at the same time.

These new spools fit exactly onto a Euro pallet and save space and money. They are made of high quality materials, which use resources sparingly.

Häfner is well known in the USA as producer of spools and reels for bare wires and welding wires and for automatic winding.

Häfner & Krullmann – Germany

Website: www.hafner-spools.com

iiM AG Booth 1065



▲ Next generation of cable measurement from iiM

iiM AG offers a complete range of sample preparation equipment and standard-conform offline cable measurement devices for geometric measurements of cable cross-sections.

The trade fair highlight for iiM AG is the next generation of VCPX5 cable measuring devices.

The version VCPX5-16, which has been in series production since the start of 2016, is more than just a facelift and offers some noteworthy technological further developments.

For instance, improved optical systems, especially for medium and large measuring fields (M,L) lead to higher resolutions and reduced measurement uncertainties.

The new, compactly integrated light/light control system provides 'intelligent' light, which offers an optimum, homogeneous light source.

The VCPX5-16 can now be supplied on request as an XL version with a measuring

field of up to 200 x 200mm. Besides the further development of the VCPX5, the software VCPEasy 2.0 was created as the continuation of its easy and secure operating concept.

This is not a functional reduction of the measuring and evaluation software FMC-3, but rather a simplification by focusing on the core tasks of production-related measuring.

In addition, the operation is better coordinated to the use of the touchscreen on the VCPX5. Higher-level CAQ systems (Aesa CIQ, ProCable 3, Advaris) can also be connected via VCPEasy.

In addition to the cable measuring device VCPX5-16 including the software VCPEasy 2.0, the sample cutters ORC 65 and ORC 80 will be presented at the trade fair.

iiM AG – Germany

Website: www.cable-measurement.com

Inosym Booth 1503

Inosym has been supplying reels to the wire and cable industry for 17 years and to over 65 countries.

Specializing in steel and plastic reels that are manufactured to European and US standards.

Inosym can offer reels to meet the varying needs of modern manufacturing plants.

Inosym is committed to providing customers with high quality reels and bobbins at competitive prices.

The company's reels were developed to provide cable and wire manufacturers with a product that was realistically priced and of high quality.

Product examples include:

- ABS plastic reels from 250mm to 1,000mm for insulating, group twinners, stranding, bunching and jacketing.
- MF (metal flange) pressed metal process reels come in sizes from 100 to 1,250mm and are made from high-quality steel plate and tube. Applications include universal take-up and payoff reels, bunching, stranding, insulating and jacketing.
- SM (semi machined) double-wall high-speed reels come in sizes from 315 to 1,250mm and are made of high-quality steel plate and tube. Applications include drawing, bunching, stranding and insulating.
- FM (fully machined) steel high-speed reels in sizes ranging from 100 to 1,000mm and are manufactured from high-quality steel plate and tube. Applications include high-speed single-wire drawing, high-speed multi-wire drawing, bunching and enamelled wire coating.
- SD (steel drum reels) are large steel process and shipping drums available in sizes ranging from 800 to 4,500mm. SD steel drum reel options include flat-sided flanges, corrugated flanges and break-down reels. Applications include

drum twisting, stranding, insulating and jacketing.

- With more than 40,000m² of production space, Inosym can provide customers with rapid delivery of both large and small reel orders.

Inosym Ltd – New Zealand

Website: www.inosym.com

IWCS Booth 226

IWCS is a non-profit corporation that provides an international forum for the exchange of information among suppliers, manufacturers and users of technological developments in wires, cables and interconnects for voice, data and video signal transmission.

Through a conference venue, IWCS is responsible for assembling a program covering materials, processes, products and applications.

IWCS Inc - USA

Website: www.iwcs.org

Keir Manufacturing Booth 802

Keir Manufacturing Inc is a US-based manufacturer of high-purity 99.8 per cent alumina ceramic guides, the Frontiersman™ 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 is claimed to last longer than other brands due to the rugged ceramic insert lining the wire path. This equates to over a 25 per cent reduction in compressed air usage and an operating life of years versus months.

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 percent less energy (AMPS) is used along with a decrease in wire scrapped.

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

Lämneå Bruk AB Booth 850



▲ Lämneå – specialist in the design and manufacture of machines for the industry

Lämneå Bruk AB specializes in the design and manufacture of machines for the wire industry and in order to meet every need it builds customized machines to individual requirements.

The company supplies a wide range of high quality machines with the latest designs and technology.

Its journey in the wire drawing industry started more than 100 years ago, giving a large amount of experience which is incorporated in the design of its machines and equipment.

This experience has also taught the company how important service and support is in the business.

In order to meet every need, Lämneå

supplies pay-off systems, mechanical cleaning equipment, drawing machines and take-up units for stainless, solid welding and low/high carbon wire industries. For tubular wire or flux core wire it supplies strip rewind lines, strip payoffs, and forming – filling – closing machines.

Lämneå Bruk AB – Sweden
Website: www.lamnea.se

Madem Reels Booth 122



▲ *Wooden reels from Madem*

Madem Reels will begin manufacturing wooden reels in the USA this year, and exhibiting at a number of shows throughout 2017, including:

Interwire in May; wire Bangkok in September; and wire South America, IWCS and Wire & Cable India, all in October.

Madem Reels – Brazil
Website: www.madem.com

Mathiasen Machinery Booth 1100

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.

Consignments, warehousing, appraisals and liquidation services are also offered. MMI has buyers seeking all types of good quality used wire and cable machinery. The booth will display photos of a wide variety of second hand machinery.

Customers are encouraged to bring their surplus machinery lists and photos for evaluation.

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

Maschinenfabrik Niehoff GmbH & Co KG Booth 841

Maschinenfabrik Niehoff, a manufacturer of machinery engineered for the wire and cable industry, and its subsidiary Niehoff Endex North America Inc, will be exhibiting production equipment of the latest generation.

The equipment on the stand covering 2,400ft² (more than 220m²) represents more than 60 years' experience and is designed

to support wire and cable manufacturers in improving production efficiency and reducing energy consumption and manufacturing costs.

Another strength of the Niehoff Group is its comprehensive service range, which includes the reliable supply of original Niehoff wear and spare parts, remote diagnostic capabilities, machinery inspection, refurbishment and maintenance measures as well as machine maintenance and operator training courses.

The Niehoff Group, with nearly 800 employees worldwide, is composed of its headquarters, five manufacturing subsidiaries (in Brazil, the USA, the Czech Republic, India and China) and sales and service centers in Japan, Singapore and Russia.

Niehoff Endex North America Inc (NENA), a wholly owned subsidiary of the Niehoff Group with manufacturing and engineering capabilities, is responsible for the sales, supply and service of the entire Niehoff product range in the USA, Canada and Mexico.

NENA also specializes in the engineering and supply of customized North American electrical controls which meet UL and CSA approvals and consist of all North American made brands and components for the full range of Niehoff equipment.

NENA was founded in 1999 by the grouping of Niehoff of America Inc and

Endex, formerly Bekaert Engineering of North America.

Maschinenfabrik Niehoff
GmbH & Co KG – Germany
Website: www.niehoff.de

Proton Products International Booth 1530



▲ Accuracy and reliability from Proton Products

Proton Products International has launched its new, smart, compact IntelisENS SL/SLR Mini Series sensors. These laser doppler speed sensors provide accurate, reliable, non-contact speed and length measurement of moving cable and wire products.

The compact IntelisENS SL/SLR Mini Series has a small footprint and provides a direct replacement for conventional encoders. The installation is simple, and the sensors' compact size also permits speed and length measurements from parts of the process that were previously unobtainable.

The IntelisENS SL/SLR Mini Series sensors are solid-state devices with no moving parts, for maintenance-free operation. Their non-contact measurement technique

provides accuracy better than 0.05 per cent, typically 0.02 per cent with CE-MID certified versions available.

The sensors come standard with intelligent, easy-to-integrate capabilities that feature a broad range of embedded process interfaces. These include Ethernet, RS-232 and WiFi communications as standard, with optional Profibus, Profinet, DeviceNet and Industrial Protocol IP that can be substituted for the Ethernet communications interface.

The InteliSENS SL and SLR Mini Series sensors are suitable for numerous applications involving the measurement and control of speed and length to help deliver a multitude of benefits across the industries they serve.

Proton Products International – UK
Website: www.protonproducts.com

PWM Ltd
Booth 1358

PWM will exhibit its new CP180 portable cold welder and two of its best-selling cold welding machines at Interwire. The products will be presented by Joe Snee Associates Inc.

PWM's new CP180 is a small air/hydraulic cold welder contained in a handy carry pack. The 400mm x 400mm x 400mm unit weighs just 16kg and can be easily moved to the work area when required. The powerful, user-friendly machine produces



▲ The new CP180 portable cold welder from PWM

strong, high-quality welds and enables even an untrained operator to join non-ferrous wire, strip and profile up to 1.8mm (0.071") without effort.

The electro/pneumatic EP500 rod welder is low energy, safe and easy to operate.

It offers manufacturers an economical method of welding copper rod 5mm to 12.5mm (0.197" to 12.5") and aluminum rod 5mm to 15mm (0.197" to 0.59"), without heat, flux or fillers.

The smaller heavy-duty M101 is a versatile, low maintenance manual machine that can be used on a workbench or supplied with a trolley, enabling the operator to wheel it directly to the work area. The M101 produces strong reliable welds on copper

wire 1mm to 3.6mm (0.039" to 0.141") and aluminum 1mm to 5mm (0.039" to 0.197").

PWM will also be exhibiting its hand-held cold welders, and two larger manual models that can be used on a workbench or with a trolley. Video demonstrations of all PWM's products can be viewed on the company's website.

PWM's comprehensive range includes manual and powered cold welding machines for wire sizes 0.1mm (0.0039") to 30mm (1.181"). Machines and dies, standard or custom made to suit round or profile wire and rod, are precision engineered in the company's own workshops, ensuring total quality control and accountability.

New PWM cold welders and dies are available only from PWM or its authorized distributors.

PWM Ltd – UK

Website: www.pwmltd.co.uk

QED Wire Lines Booth 853

QED supplies all new process lines with remote monitoring and control of the equipment's key functions.

The networked control panels are now further enhanced with software and hardware for communicating directly with a local area network. QED's Siemens-based PLC controls incorporate WinCC

Sm@rtServer software and a wireless modem for seamless LAN integration. The package includes a pre-configured laptop computer that is ready for remote access and data logging.

Networked: All of QED's touchscreens (HMIs) are networked for instant control and monitoring of all the equipment from any point on the line. A simple CAT5 cable connection provides the same information to your network.

Remote troubleshooting: The remote access capability permits troubleshooting from anywhere in the world. Additionally its software has status screens indicating all inputs and outputs to simplify maintenance and operations.

Data logging: All temperatures and pressures are graphed for easy visualization of the process trends. Alarms are logged along with the time and date of the incident.

This valuable data is critical for product quality assurance and standards compliance such as ISO 9001.

Siemens PLCs: QED has selected Siemens for its PLC and HMI requirements.

Mobile devices: An LT network with Sm@rt Client app provides communication to mobile devices for real-time monitoring of the equipment and for alarm notifications.

QED Wire Lines – Canada

Website: www.qedwire.com

Queins & Stolberger Booth 1305



▲ *Just one of the machines on display from Queins/
Stolberger*

A new direct taper made and delivered by Queins/Stolberger has successfully gone into production at a customer's plant. The specially designed tape brake for extremely sensitive application, with fully automatic adjustment and tension control, includes completely ceramic bearings which allow even a taping with highly sensitive fleece.

The company will deliver further machines to long-time overseas customers in the second and third quarters of 2017. Among them are belt capstans with special chains for extremely sensitive conductors and take-up and pay-off for 50t reel weight in a special bridge-type design.

Queins Machines GmbH – Germany
Website: www.queins.com

Stolberger KMB-Maschinenfabrik GmbH –
Germany
Website: www.stolberger.com

Rad-Con Booth 1051



Rad-Con International Inc designs and manufactures Bell-type furnaces for spheroidize annealing of wire rod for the production of cold heading quality wires (CHQ).

Many of the largest fastener manufacturers are using Rad-Con equipment, taking advantage of patented technology for surface quality control using 100 per cent hydrogen protective atmosphere.

Rad-Con is head quartered in the USA with manufacturing locations in North America and Asia, to serve the world's cold-forming companies.

The company specializes in one type of furnace Bell-type, one type of process annealing, and has very specific knowledge in spheroidizing while producing a clean surface that is free of decarburization.

Rad-Con International Inc – USA
Website: www.rad-con.com

Rautomead Booth 232

Continuous casting technology specialist Rautomead Limited's graphite furnace technology is particularly suited for production of high purity, high quality oxygen-free copper wire rods and copper alloy wire rods (copper silver, copper magnesium, copper tin), 3,000-30,000 TPA.

This technology produces high quality CuOF 8mm diameter wire rod. This material benefits manufacturers of enameled wire, LAN cables and fine wires. The upward casting equipment may be used to manufacture rods of all diameters between 8mm and 30mm diameter and is suitable feedstock for wire drawing and continuous rotary extrusion processes.

End use applications include: superfine wire, automotive wires, contact wire and trolley wires for high speed trains, data communication cables, CTC and transformer strips as well as enameled wires.

Rautomead managing director Brian Frame will also be presenting a paper at the technical symposium which runs alongside the Interwire exhibition.

This paper will highlight Rautomead's recent R&D activities with respect to developing a casting capability for new high performance alloys, particularly focused on automotive signal cabling, lightweighting and improved alloy

tolerancing. This has resulted in new product offerings from Rautomead specifically designed for these applications.

Rautomead Ltd – UK

Website: www.rautomead.com

Roblon A/S Booth 859



Roblon is a supplier of high performance fiber solutions for optical fiber cables (OFC) and a manufacturer of cable machinery for OFC. Offering a wide range of E-glass, flexible strength members, binder yarn, ripcords and water-swellable yarns, Roblon can supply most of the products used in OFC designs. However, by using its special technologies and know-how, it is also able to supply materials for many different custom-made cable designs.

Recently, Roblon introduced a new family of water-swellable yarns, including very fine yarns for fully dry cable designs by using new innovative chemistries. Roblon Binder Yarn ULS is made of high grade polyester and is used for high-speed binding of SZ-stranded optical fibers and tapes. With a shrinkage level less than 0.6 per cent, Roblon Binder Yarn ULS is suitable

for micro- and mini cables with weight optimised wall thickness of tubes.

Roblon yarn servers and concentric binders are well-known and installed globally. Recently, the company introduced the low tension concentric binder suitable for micro- and mini cables.

Roblon A/S – Denmark
Website: www.roblon.com

**RosendahlNextrom
Booth 951**



▲ *Rosendahl RH-W metal tape forming and welding line for HV power cables*

The RosendahlNextrom team from the Hickory, North Carolina, office will be on site to show visitors solutions in ribbon and loose tube production for fiber optic cables.

In particular, the high-performance loose tube line has been equipped with a special RX5 crosshead, which makes for low maintenance and easy operation.

Its accuracy and high centricity help to achieve utmost reproducibility.

The HV power cable line RH-W is a tandem metal sheathing and jacketing line that covers product diameters from 40 to 200mm.

Over the past year the company has also placed particular focus on the manufacturing of silicone insulation and the processing of high-temperature materials as well as fluoropolymers.

Their material properties have inspired the development teams to reach even more ambitious goals.

In North America, Rosendahl and Nextrom work closely with their representatives F Camarena Inc and J J Lowe Associates Inc. For fibre optic cable solutions, partner Finoptics Inc has been in the cable and wire business for many years.

RosendahlNextrom – Austria
Website: www.rosendahlnextrom.com

**Shenyang Jinggong Enterprise
Booth 501**

Shenyang Jinggong Enterprise, a waterblocking tape manufacturer in China, has exported its tapes all over the world since 2004.

Jinggong G Tapes are often the first choice of customers.

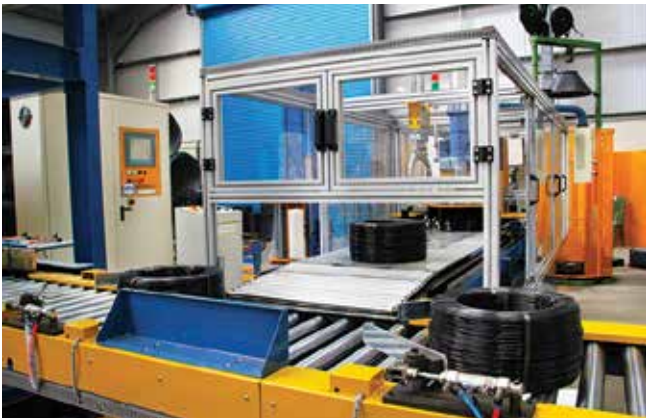
The company produces:

- semi-conductive waterblocking tape
- non-conductive waterblocking tape

- semi-conductive tape
- waterblocking yarn
- bedding barrier and woven tape

Shenyang Jinggong Enterprise – China
 Website: www.jinggong-tapes.com

Simpacks Booth 317



▲ The new coiler from Simpacks

Simpacks' newly redesigned dual head automatic coiler can coil 18 AWG up to 8 AWG solid or strand building wire, as well as coiling flat wire and cable. The coiler is capable of producing four to six 100m-long coils per minute. Change time is less than two seconds.

The new automatic coiler, strap and coil holders are available for all steel wire packaging on 22 to 34kg coils, including two/four straps as an option.

A new automatic coiler and strap is available for all hose/armor cable packaging solutions, including two/four straps on coil.

Simpacks – USA

Website: www.simpacks.com

Supermac Booth 223

Manufacturing machinery since 1974, Supermac has been updating the technology on a regular basis.

The company is ISO certified and its products have been approved for the CE Mark, enabling it to export to the European market.

Supermac has previously exported machinery to Dubai, Abu Dhabi, Sharjah, Ras Al Khaimah, Oman, Nigeria, Uganda, Kenya, Bangladesh, Sri Lanka, Saudi Arabia, Doha, Qatar, Egypt, Lebanon and Jordan, and is now looking to cater for demand from the American continent.

Supermac manufactures extruders up to 175mm, cross heads for cable diameter to 200mm, payoff and take-up to 4,500mm and CCV lines for low voltage/medium voltage to 132kVA.

It has recently developed high-speed dual take-ups for 1,000mm bobbin, incorporating it into a high-speed insulating line up to 1,000m/min.

Supermac Industries (India) Ltd – India

Website: www.supermacindia.com

Tensor Machinery Booth 659

Tensor Machinery has announced two new appointments that reflect a growing customer base and continued success for the company.

Ken Luterbach has been promoted to sales director and Carlo Pucci has been hired as a machine designer.

“Ken Luterbach did an outstanding job in his previous capacity as sales manager and has earned the promotion to the position of sales director,” said Robert Kepes, president. “Likewise, we are also very happy to welcome Carlo Pucci to our research and development machine design technical team.”

Mr Kepes said the past year was a good one for Tensor and that he looks forward to this year with great anticipation.

“We recently increased our workforce by 20 percent and completed an upgrade and renovation to our head office,” he said. “This positions us well for what we expect to be a great year for the company as we gear up for increased volumes in 2017.”

He added that innovation and quality enhances life for everyone, and that Tensor Machinery plays a part by providing an advanced approach to designing and building equipment.

“We will continue to work closely with our suppliers and sub-contractors,” he said, “and together we will enhance the reputation for quality that Tensor has been known for over the years.”

Tensor Machinery – Canada
Website: www.tensorfiber.com

Traxit International Booth 450

Traxit International provides a complete range of products and solutions to suit all needs and applications.

Founded 1881 in Schwelm, Germany, Traxit has grown into a large player in the wire-drawing business.

Its products are distributed by proprietary companies, agents and representatives in over 150 countries in order to provide clients with the perfect technical solution and the necessary know-how.

With its committed team of experts and over 200 different formulations, it can help you to find the ideal lubricant for any task required.

Traxit claims it is a forward-thinking, dynamic and eco-conscious company that uses its vast experience to look ahead and remain at the cutting edge of wire-drawing technology.

Traxit International GmbH – Germany
Website: www.traxit.com

Troester GmbH Booth 1165



▲ New developments from Troester will be on display at Interwire

In 1892, the German engineer Paul Troester started building machines which could process unvulcanized rubber and gutta-percha. 125 years later, Troester is now well known as an extrusion partner and a supplier of machines and lines for the cable manufacturing industry.

At Interwire, the company will present a variety of information and new developments in the field of CCV lines and VCV lines for XLPE and rubber cables, one-step silane lines for LV and MV cable applications, as well as high-speed insulation lines and sheathing lines.

Technical solutions for CV tube components, heavy duty cable jacketing and submarine cable equipment will also be introduced. Troester will also be representing its subsidiary, X-Compound, which supplies compounding plants for cable compounds such as PVC, HFFR, XLPE, semi-conductive material and special applications.

Troester GmbH & Co KG – Germany
Website: www.troester.de

Wire & Plastic Machinery Booth 1131



▲ Just one of the many machines available from Wire & Plastic Machinery

Wire & Plastic Machinery Corporation is a reseller of high quality second-hand wire, cable and optical fiber manufacturing equipment for wire drawing, stranding, bunching, cabling, braiding, extrusion and other cable making needs.

Machines are offered as individual components to complete lines and can be delivered immediately from eight US locations or completely reconditioned by an in-house engineering team. Wire & Plastic Machinery has a comprehensive range of over 30,000 machines in stock for all aspects of non-ferrous wire and cable production. At Interwire, the company will be showcasing pictures, video and an interactive presentation of its inventory offering within an 1,800ft² area. It will also be presenting a virtual reality tour through its warehouses.

Beverages and snacks will be available within the expansive area, and an enclosed meeting room will be available for detailed private project discussions. Booth visitors will have access to web-enabled stations for a live product search with detailed specifications and pictures.

Experienced personnel will be available to assist in selecting the most suitable equipment for the application and process.

Wire & Plastic Machinery – USA

Website: www.wireandplastic.com

**WTM Srl
Booth 871**

Interwire has, over the years, been a successful exhibition for WTM. The company has seen the attitude of visitors change from simple curiosity to customers that consider the company to be a sure and reliable partner who can help in solving problems in the taping and the single twist technologies.

WTM has widely improved its expertise, making available on the market products able to satisfy innovative, advanced and sophisticated productions, of both taping lines for any kind of special cable, and single twisting lines for the highest CAT LAN-cables and the most precise and flexible cables for robotic applications.

The particularly sensible and reactive systems used to control in real time the tension on the different situations allow WTM's lines to be widely used from the most worldwide qualified producer of special cables. The company cooperates with its customers to tailor its machines to their specific requests and, at the same time, to propose improvements for systematic enhancement of performance in quality and in quantity of output.

These characteristics are extended thanks to the capacity of WTM to integrate its machines with existing equipment, giving the customer full control through a unique interface.

WTM Srl – Italy

Website: www.wtmachinery.com

**Zhuzhou UKO Precision Carbide
Co Ltd
Booth 511-10**

Zhuzhou UKO Precision Carbide Co Ltd is a manufacturer of tungsten carbide rollers and dies for the wire and cable industry. The main products are tungsten carbide cold rolls, roller holders, TC descaling and straightening rollers, TC wire drawing dies, PCD dies, coating dies, gripper dies, cutters and punchers.

The company uses advanced equipment, such as a deoxidisation furnace controlled by computer, high temperature molybdenum carbide furnace, automatic-press sintering furnace, slow-feeding NC wire-cut machine, precision EDM shaping machine, CNC machining center and quality test equipment. The company is ISO9001-2008 registered. The company exports tungsten carbide products to more than 20 countries in North America, South America, Europe and Southeast Asia.

Zhuzhou UKO Precision Carbide Co Ltd – China

Website: www.ukowiretools.com

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The collage features three main magazine covers: **euro wire** (blue cover with a globe), **Wire & Cable ASIA** (red cover with Chinese characters), and **wiredIn USA** (grey cover with a red ribbon). Below the covers are two world maps. The left map is titled "SEE US AT ..." and lists events: STAINLESS STEEL WORLD (Maastricht, The Netherlands), WIRE EXPO (Nashville, TN, USA), INTERWIRE (Atlanta, GA, USA), WIRE DÜSSELDORF METAV CABWIRE (Düsseldorf, Germany), and AMI CABLES (Cologne, Germany). The right map is titled "SEE US AT ..." and lists: STAINLESS STEEL WORLD (Maastricht, The Netherlands), WIRE EXPO (Nashville, TN, USA), INTERWIRE (Atlanta, GA, USA), WIRE DÜSSELDORF METAV CABWIRE (Düsseldorf, Germany), and AMI CABLES (Cologne, Germany). A red ribbon graphic is overlaid on the bottom right, with a laptop displaying the wiredIn USA website.