



# wcn

Spring 2017 : Issue 56

**Wire & Cable News**

*Newsletter of the International Wire & Machinery Association*



**Interwire 2017  
and  
wire Russia 2017**

# **Show previews**

**PLUS:**

- Member news
- CabWire Industry Forum
- Association news
- Technical article

## Association news

CabWire 2017 update .....	2
Chairman's welcome .....	3
Corporate members .....	14
Dinner dance success .....	3
Iran Wire 2017 in the diary .....	3
IWMA 2017 events .....	25
IWMA Educational Trust .....	27
New board members .....	2
Technical sub-committee report on 2016 .....	27
Industry lunch .....	3
Wire & Cable India report .....	17
wire China report .....	16

## Member news

Adrian May award win .....	24
Ajex & Turner .....	17
Alloy Wire International .....	5
BASEC (British Approvals Service for Cables) UK .....	26
Cimtec Ltd .....	4
CRU wire and cable conference .....	26
Eder Engineering GmbH .....	18
GEO Reinigungstechnik .....	21
Goodwin Machinery .....	18
Guidetti SRL .....	20
Gurfil .....	24
Maillefer .....	16
Margaret O'Malley retires .....	18
Maschinenfabrik Niehoff GmbH & Co KG .....	19
Metalube Ltd .....	5
New members .....	25
Paul Brown obituary .....	4
Plasmait GmbH .....	20
QED Wire Lines Inc .....	19
Queins Machines GmbH .....	4
RichardsApex Inc .....	20
Rosendahl Nextrom GmbH .....	21
Scott Miller joins Ambrell .....	24
Sikora AG .....	26
WCISA scholarships .....	24
Wire industry events .....	5
Zumbach Electronic AG .....	19

## Interwire show preview

Welcome .....	6
List of exhibiting IWMA member companies .....	9
Condat Lubricants .....	7
Gauder SA .....	9
InnoVites BV .....	7
Kieselstein International .....	6
Maillefer .....	8
Maschinenfabrik Niehoff GmbH & Co KG .....	8
MGS Manufacturing Inc .....	9
NDC Technologies Ltd .....	8
Pressure Welding Machines (PWM) Ltd .....	7
Troester GmbH & Co KG .....	6
Wire & Plastic Corp .....	8

## wire Russia show preview

Welcome .....	10
List of exhibiting IWMA member companies .....	13
Gauder SA .....	11
Maillefer .....	12
Maschinenfabrik Niehoff GmbH & Co KG .....	12
Roblon AS .....	12
Troester GmbH & Co KG .....	13

## Technical

Bekaert Technology Center .....	22
<i>New generation heat resistant colour coatings</i>	

All text and illustrations in WCN are copyright protected. Copying contents by any means is forbidden without the publisher's written consent. The publisher, agents, printers and contributors are not responsible for the accuracy of claims printed or implied in the editorial or advertisements published in this, previous or subsequent editions. The publication in this newsletter of brand names, trade names and trade marks and similar does not imply that these may be used elsewhere. WCN reserves the right to edit, reword and sub-edit all editorial submissions in accordance with editorial policy. All matters relating to this disclaimer are governed by English law.

IWMA Ltd, Wellington House, Starley Way, Birmingham International Park, Solihull, B37 7HB, UK  
Tel: +44 121 781 7367 Fax: +44 121 781 7404  
Email: [info@iwma.org](mailto:info@iwma.org)



# CabWire 2017



**P**LANS for the eighth biennial CabWire 2017 Industry Forum are well underway.

The forum, on 7 November 2017 at the CCD East, Messe Düsseldorf, Germany, will run alongside the International Tube Association conference 2017.

As in previous years, delegates will hear presentations from leading industry professionals, including industry forecasts and explanations of new techniques and processes. In 2015, delegates from the USA, Canada, India, Turkey and all over Europe met in Düsseldorf to network with fellow professionals.

Speakers from Prysmian, BrandRex

and Southampton University High Voltage Laboratories have already been confirmed. Discussions are underway with BASEC about a presentation on CPR and a look at future developments in the global cable industry from the CRU Group. More speakers will be announced in the coming months.

As well as presentations, there will be seminars on the fundamentals of polymer extrusion, cable and conductor design, wire drawing and induction heating.

The forum will include a table-top exhibition, sponsorship opportunities, an evening event and a plant tour.



For more information about  
**CabWire 2017 Industry Forum**  
visit [www.cabwire.com](http://www.cabwire.com)  
or email [info@cabwire.com](mailto:info@cabwire.com)

## New board members



**T**HREE new members have joined the IWMA executive management committee following a vote at this year's annual general meeting in February.

Kamal Babu, (above left) managing director of Mikrotek Machines Limited in India and Paul Xu, (above

right) general manager of Shanghai HOSN Machinery Technology Co Ltd bring invaluable experience of the India and China markets.

Managing director of Leoni Temco Ltd UK, Brian Cutts, (above centre) becomes the new LEONI representative on the committee.



# Iran Wire 2017 added to diary

**M**ESSE Düsseldorf GmbH is to organise the participation of international exhibitors at Iran Wire in Teheran, the only exhibition in Iran covering wire, cable, tube, profiles and related industries. Iran Wire, in December, offers IWMA members the opportunity to explore new markets and investment opportunities and learn about the latest trends in the Iranian market.

The four-day trade fair, organised by the Iranian Aria Group conference and exhibition development company in Teheran, is expected to attract around 200 exhibitors in the wires, cables, tubes, pipes and profiles sectors.

"The IWMA is happy to support industry partner Messe Düsseldorf at Iran Wire," said IWMA chairman Amanda Shehab. "It will enable the IWMA and our members to forge new friendships and alliances for the future."

## Industry lunch

**I**N February the IWMA entertained guests at its industry lunch, at the Mere Golf Resort and Spa in Knutsford UK, which followed the annual general meeting and attracted over 180 members and their guests.

Popular UK television presenter, actor and comedian Ted Robbins entertained guests with his reminiscences about some of the funniest incidents in his life and career

"It was a brilliant afternoon," said IWMA executive manager Andy Lewis. "Ted is a great comedian and over the years has also been the warm-up guy for some of the biggest shows on TV, so he knows how to work an audience. He went down a storm."

The lunch is always well attended. It's a great opportunity to network and a perfect opportunity to entertain customers. Ted did us proud."



## Dinner dance success

**T**HE IWMA's annual dinner dance in November was again a highlight of the association's social year. The event, at the Royal Garden Hotel, London, attracted over 100 guests who enjoyed a drinks reception and four-course dinner before dancing the night away to the music of regular favourite band The Choice.

The event remains one of the most popular in the IWMA's calendar, with many guests taking the opportunity to make it a weekend break to enjoy the sights and do a little early Christmas shopping in the capital.



## 2016: a year of change and growth

*2016 was a busy year: one the association can consider a great success, with strong growth and new members helping to make us more dynamic both operationally and financially.*

**T**HE IWMA was involved in three major exhibitions in 2016: wire Düsseldorf, wire China, and Wire & Cable India, all of which were great successes that showed the group going from strength to strength, gaining new members with each event.

The German show, wire Düsseldorf, was a more special occasion than most, celebrating its 30th anniversary. In those three decades the event has grown from occupying a mere 2,400 sq m of floor space to today's huge event, which covers 60,000 sq m and attracts around 1,300 exhibitors and over 70,000 visitors!

It was also the year in which the IWMA continued to enhance its exhibition presence and welcomed many members and their guests to its stand, who enjoyed the excellent facilities it offers.

The two shows further afield, wire China and Wire & Cable India, presented their own challenges, not least because they run virtually back-to-back. A new association "satellite" touring stand, based on the main stand design, thus made its first successful appearance and was warmly received.

During Wire & Cable India, the IWMA did something a little different and hosted an evening networking event: *A Taste of Mumbai*, which took guests out of the halls to see some of the culture of this vibrant nation. The event was a resounding success, I'm pleased to report.

Looking forward to the rest of 2017, the IWMA will be supporting its members at Interwire in May, wire Russia in June, wire Southeast Asia in September, wire South America in October, and Iran Wire in December, so 2017 is certain to be even busier! The CabWire 2017 Industry Forum will also take place in November in Düsseldorf, so look out for announcements.

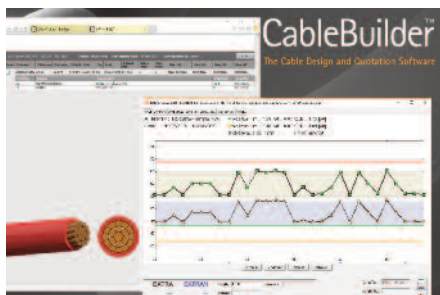
In 2016 the association changed its legal status from an unincorporated trade association to a company limited by guarantee, a move prompted simply by changing circumstances. When the IWMA was formed 40 years ago, an unincorporated trade association was the best model for what it wanted to achieve. Today that structure no longer fits our goals and responsibilities.

The new status gives the association a stronger, more stable platform from which to operate and grow for the benefit of all its members. Members and the day-to-day running of the association aren't affected by the change.

As I close, a big thank to IWMA staff for their hard work this year, especially for dealing with the additional tasks created by the change of status. And of course, I'd like to thank my colleagues on the executive management committee for its support and advice throughout the year.

*A. S. Shehab*

## Member News



## Saving material and improving throughput

**C**IMTEQ and ACM Analytical Systems have achieved full integration between *CableBuilder*, the company's cable design system, and *KSM*, the cable test and analysis program.

The two companies recently announced a fully-automated integration of design test parameters from *CableBuilder* to a *KSM* test system, but the new development provides design engineers with instant feedback on historical product performance. This enables rapid design improvements reflecting manufacturing practicalities to be made.

The integration provides statistical process control (SPC) charts, Cp and Cpk and many more parameters and trends. It can even offer an estimate of the raw material costs if the necessary design improvements aren't made. Cimteq CEO Ali Shehab said, "The possibilities of production improvements and the speed they can be implemented make this a truly exciting development."

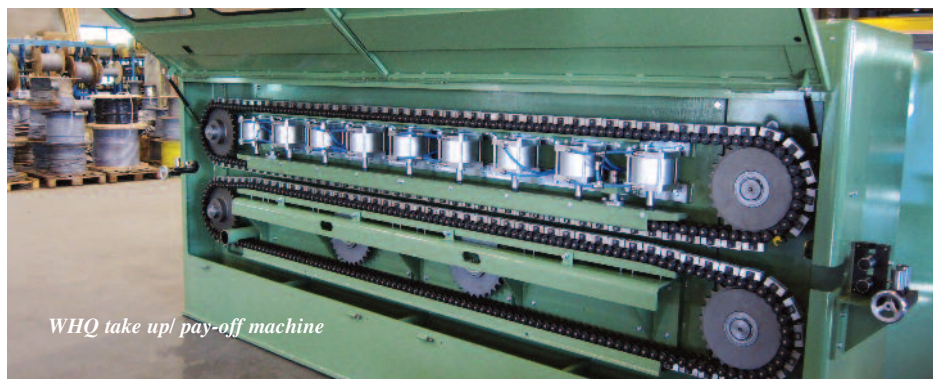
"Making improvement changes to a set of designs that use particular equipment takes only few minutes using *CableBuilder*'s mass update capability."

"These shop floor improvements can be reflected immediately in the cost quoted to customers, as well as making the data available to ERP."

[www.cimteq.com/www.acmab.com](http://www.cimteq.com/www.acmab.com)

## Editorial deadline

Don't miss your chance to promote your company. Send us your news stories for the next issue of WCN by 23 June 2017



WHQ take up/ pay-off machine

## Queins' direct-taper machine improves client efficiency

**A** NEWLY-installed QUEINS Machine type QDT direct-taper machine is now improving efficiency for a major customer. The device's specially-designed tape brake offers extremely sensitive operation and with fully automatic adjustment and tension controls and ceramic bearings, allows tapering even with delicate fleece materials.

QUEINS is also currently enjoying buoyant orders for its PQC-type belt capstans. The machines are extremely robust and feature highly energy-efficient drive systems and can offer highly-controlled torque and the ability to connect to production planning systems.

In related news, the company will deliver new WHQ take-up and pay-off machines and AK-type belt capstans to longtime overseas customers in the second and third quarters of 2017.

Among them are capstans with special chains for extremely sensitive conductors, while at the other end of the scale products include take-up and pay-off machines for 50tonne reels in a special bridge design.

Meanwhile, QUEINS' new portal-type take-up and pay-off stands are undergoing final tests at the company's Monschau plant.

Winding drives with fully automatic, 40,000Nm coupling systems and space-saving telescopic tube systems made of hardened



QDT direct taper machine



AK belt capstan

construction steel are only two advantages of these high-spec machines, which are very easy to handle and fully compliant with all safety regulations.

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

## Founder of Wire and Tube News dies

**P**AUL Browne, founder of Wire and Tube News, died on the 7 December 2016 after a long fight with cancer.

He created Wire and Tube News Ltd, as an online platform to give companies free editorial, enabling them to extend their

coverage and attract potential customers to their websites.

Paul's daughter Elle Browne took over the business in 2016 when Paul retired.

Paul was not only a dedicated family man, but also did a lot of charity work. He and his wife Gillat Browne worked tirelessly with the poor, including paying for five local homeless people to stay in a shelter, at Christmas – to get a bed, medical care, food and a supply of blankets to help them survive the winter.

His family thanks all those who supported Paul during his time in the wire and tube industry.

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





# Investment brings orders to Alloy Wire

**S**IGNIFICANT investment in a custom-built production line shows wire manufacturer Alloy Wire International that size really does matter.

The company, which employs 28 people at two UK factories, has spent more than £150,000 on new machinery to give customers access to wider, thinner or larger (up to 100sq mm) cross-section profiles in more than 60 different alloys.

The decision follows a major customer research exercise and is already proving successful with more than £125,000 of new orders for the expanded range.

"We talk to clients all the time, to find out what would make their lives easier," explained Angus Hogarth, the company's sales director.

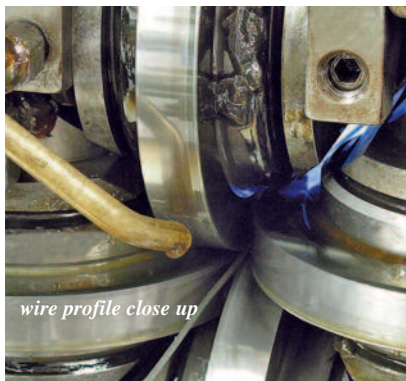
"One of the main recent requests was being able to buy flat and shaped profiles in more sizes – especially in bigger profiles. We commissioned a custom machine to produce extra sizes and are already seeing significant orders we wouldn't otherwise have had.

"Customers also like that they can order smaller quantities – from 10 metres – and that delivery anywhere in the world takes only four weeks."

AWI makes round, flat and shaped profiles and electrical resistance wires in a range of materials that is growing all the time. The company currently has more than 60 types, from 12 standard stainless steel grades to Hastelloy alloy flat or shaped profiles; Phynox+ and MP35N cobalt alloys for very corrosive conditions, and high-temperature alloys such as the Inconel® range, Incoloy® or Nimonic® alloys.

The company prides itself on high-quality products and services and recently secured an AS9100 accreditation for aerospace and defence work.

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



## Metalube's new recruits

**M**ETALUBE has promoted Wayne Thornhill (*below centre*) to product manager, and engaged Dexin Luo (*below left*) as development chemist and Jon Dutton (*below right*) as technical sales manager.

Wayne, who has been with the company for three years, will manage the Metaform range of products supported by Jon, who joins Metalube from Houghton. Dexin, a chemistry graduate from Manch-

ester University, will divide her time between the UK and Metalube China, helping to develop technical excellence. The appointments are part of the company's continued expansion.

Metalube manufactures a range of non-ferrous drawing oils and maintenance lubricants, as well as corrosion protection and forming oils, and has offices in China, India, Brazil and UAE.

[www.metalube.co.uk](http://www.metalube.co.uk)



## Industry events

### 2017

#### Interwire

9-11 May  
Georgia World Congress Center,  
Atlanta, Georgia, USA  
Website: [www.interwire17.com](http://www.interwire17.com)



#### wire Russia

5-8 June 2017  
Expocenter, Moscow, Russia  
Tel: +49 211 4560 7725  
Email: [AhrensG@messe-duesseldorf.de](mailto:AhrensG@messe-duesseldorf.de)  
Website: [www.wire-russia.com](http://www.wire-russia.com)



#### wire Southeast Asia

19-21 September  
BITEC, Bangkok, Thailand  
Tel: +65 6332 9642  
Email: [beatrice@mda.com.sg](mailto:beatrice@mda.com.sg)  
Website: [www.wire-southeastasia.com](http://www.wire-southeastasia.com)



#### wire South America

3-5 October  
São Paulo Expo, Brazil  
Tel: +49 211 4560 478  
Email: [BagciC@messe-duesseldorf.de](mailto:BagciC@messe-duesseldorf.de)  
Website: [www.wire-south-america.com](http://www.wire-south-america.com)



#### CabWire Industry Forum

7 November  
Congress Center East,  
Düsseldorf, Germany  
Tel: +44 121 781 7367  
Email: [info@cabwire.com](mailto:info@cabwire.com)  
Website: [www.cabwire.com](http://www.cabwire.com)



#### Iran Wire

5-8 December  
Tehran Intl Exhibition Complex, Iran  
Tel: +49 211 4560 7793  
Email: [RyfischD@messe-duesseldorf.de](mailto:RyfischD@messe-duesseldorf.de)  
Website: [www.iranwire.ir](http://www.iranwire.ir)



### 2018

#### wire Düsseldorf

16-20 April  
Messe Düsseldorf GmbH  
Düsseldorf, Germany  
Tel: +49 211 4560 478  
Email: [BagciC@messe-duesseldorf.de](mailto:BagciC@messe-duesseldorf.de)  
Website: [www.wire.de](http://www.wire.de)



#### wire China

26-29 September  
SNIEC Shanghai, China  
Tel: +49 211 4560 7793  
Email: [RyfischD@messe-duesseldorf.de](mailto:RyfischD@messe-duesseldorf.de)  
Website: [www.wirechina.net](http://www.wirechina.net)



#### wire India

27-29 November  
Bombay Convention Centre,  
Mumbai, India  
Tel: +49 211 4560 579  
Email: [muellersm@messe-duesseldorf.de](mailto:muellersm@messe-duesseldorf.de)  
Website: [www.wire-india.com](http://www.wire-india.com)





# Welcome to Interwire

**T**HE largest and longest-running biennial wire and cable marketplace in the Americas, Interwire, returns this spring as Interwire 2017 at its familiar Atlanta home, the Georgia World Congress Center. When industry professionals look for new wire and cable technology, supplies, and equipment they choose Interwire, the benchmark for wire business in the Americas since it began in 1981.

The almost four million sq ft of exhibition space of the third-largest exhibition centre in America will be packed from May 8-11 by the latest wire manufacture and handling machinery and state of the art control software from leading world manufacturers.

Along with these goes a lively programme of speakers, expert events and panel sessions that will be visited by delegates from more than 50 countries.

These include a short course on the fundamentals of wire manufacture, a plant tour of Southwire, the huge wire plant in Carrollton, Georgia, sessions on *Industry 4.0* (the extraction and use of available data), papers on recycling waste wire and cable, the growth of safety culture in manufacturing, uses of new casting and drawing technologies and methods, automotive wiring and even on the ways wire and cable manufacturers might use 3D printing technology.

Running concurrently with Interwire 2017 will be the Global Ferrous Rod and Wire Symposium, a conference within a conference covering technical issues and developments concerning rod and wire processes in the ferrous sector of the industry.

## Troester at Interwire

**G**ERMAN extrusion and machine manufacturer Troester of Hanover will take new developments to Interwire, including CCV lines and VCV lines for XLPE and rubber cables; one-step silane lines for LV and MV cables and 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 represent its subsidiary, X-Compound, which supplies compounding plants for cable compounds such as PVC, HFFR, XLPE, semi-conductive material and special applications. Staff attending Interwire will include cable machinery division sales manager



Thomas Lerch, Jack Howanski from Troester USA, and Dr Ing Karsten Kretschmer, head of technical sales at X-Compound GmbH of Switzerland.

**Troester GmbH & Co KG, Germany**  
Stand: 1165  
[www.troester.de](http://www.troester.de)

## Wire shaving technology

**G**ERMAN producer of wire drawing and wire shaving machines, Kieselstein, will share a stand with its US agent Wire Machine Systems at Interwire. The company will demonstrate its expertise in wire shaving and hot-drawing and show its complete portfolio of wire-drawing equipment.

Kieselstein is a world-leader in shaving technology and specialises in shaving new materials, such as titanium and titanium alloys, magnesium wire and memory alloys. Customers are welcome to take samples of their materials to the company's testing centre, to see for themselves the high surface quality achieved.

The company also has extensive knowledge and experience in the hot-drawing of wire, including the hot-drawing of grade five titanium – covering pre-treatment of the wire, optimum cross-section reduction and drawing speed, and the correct temperature setting.

**Kieselstein International GmbH, Germany**  
Stand: 1251  
[www.kieselstein.com](http://www.kieselstein.com)



## Condat focuses on aluminium wire-drawing lubricants

**L**UBRICANT specialist Condat will exhibit at Interwire 2017, focusing on its aluminium wire-drawing lubricants range.

Aluminium is increasing its strength within the wire industry due to its cost efficiency relative to copper, good conductivity, light weight and electromechanical properties, especially in high-voltage power cables, magnet wires and automotive wiring.

Condat's VICAFIL TFA oils range offers low residues and extended operating life for wire

drawing from rod breakdown to final wire. Additives minimise thermal oxidation and maintain longer lubricant performance, while an increase in bath life also reduces maintenance costs. Low-viscosity VICAFIL TFA 1167 and VICAFIL TFA 1460 reduce lubricant consumption while offering extended operating life.

Condat's new VICAFIL TAL soluble lubricants can be used to help draw both aluminium and copper wire with the same water-based lubricant. They also offer a cleaner working environment.

Condat vanishing stranding lubricants will leave very low residues while minimising flammability and reducing VOCs during wire stranding and compacting. The products are compatible with subsequent plastic insulation processes.

**Condat Lubricants, France**  
**Stand: 1549**

[www.condat-lubricants.com](http://www.condat-lubricants.com)

## New portable cold welders

**P**RESSURE Welding Machines of Ashford, UK will exhibit its new CP180 portable cold welder and two of its best-selling cold welding machines courtesy of Joe Snee Associates, the company's exclusive distributor in north America.

The CP180 (*pictured*) is an air/hydraulic cold welder in a handy 40cm carry assembly weighing only 16kg. The machine produces strong, high-quality welds and enables even an untrained operator to join non-ferrous wire, strip and profile up to 1.80mm (.071").

The low-energy electro-pneumatic EP500 rod welder is safe and easy to operate and offers manufacturers an economical way to weld copper rod of 5mm-12.50mm (.197"-.492") and aluminium rod 5mm-15mm (.197"-.590"), without heat, flux or fillers.

The smaller, heavy-duty M101 is a versatile machine usable on a workbench or trolley that can strongly weld copper wire of 1mm-3.60mm (.039"-.141") and aluminium 1mm to 5mm (.039"-.197"). The machine can also weld strip for armouring lines.

PWM will also be exhibiting its hand-held cold welders and two larger workbench or trolley models. Video demonstrations can be viewed on the company's website (*see below*).

PWM's comprehensive range includes manual and powered cold welding machines for wire sizes 0.10mm (.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.

**Pressure Welding Machines, UK**  
**Stand: 1358**  
[www.pwmltd.com](http://www.pwmltd.com)

## InnoVites' new cloud-based software

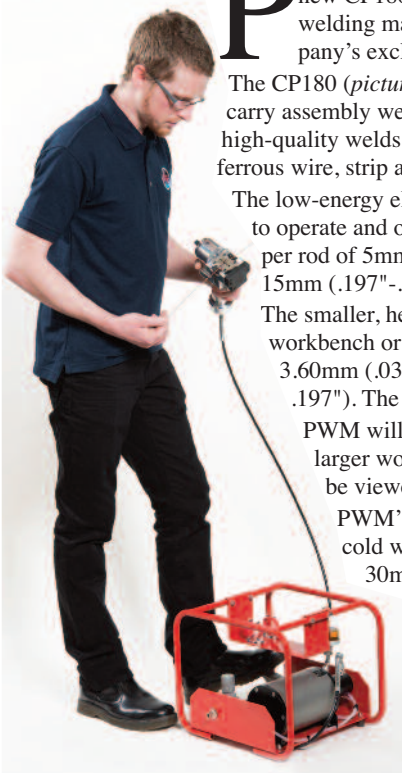
**N**ETHERLANDS-based software specialist InnoVites will be showing its new cloud-based *CableERP* wire and cable software system at Interwire, based on innovative Microsoft Dynamics 365 apps that seamlessly integrate cloud-based processes.

InnoVites *CableERP* brings industry-specific software that can be rapidly updated as improvements are made.

Among many other desirable attributes, the software allows precise control of production lines according to customer specification, put-ups and packaging details, length-based planning allows competitive and reliable delivery dates and cable-specific logic can help to minimise material and capacity losses.

■ InnoVites will participate in the WAI *Industry 4.0* panel discussion at Interwire 2017. The team will share insights on how IT can help to deliver some of the promises claimed by *Industry 4.0*.

**InnoVites, Netherlands**  
**Stand: 1606**  
[www.innovites.com](http://www.innovites.com)





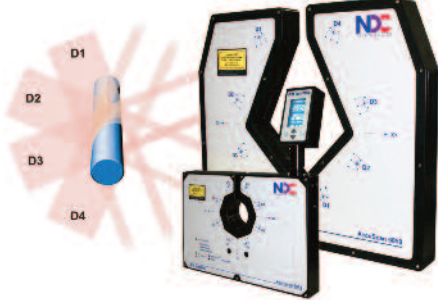
## NDC to exhibit gauging and control system

**P**RECISION measurement and process control expert NDC Technologies of California will be exhibiting its complete Beta LaserMike gauging and control system for cable extrusion lines at Interwire 2017.

"By implementing highly-accurate gauging along the critical points in the cable extrusion process, manufacturers can significantly improve quality, increase productivity and realise savings," says Jay Luis, the company's global marketing communications manager.

Attendees visiting the booth will be able to see a complete measurement and control system for cable extrusion lines, with Beta LaserMike gauges in place from the extruder to the puller station.

Featured products include the AccuScan 6000 Series four-axis



diameter and ovality gauge (pictured).

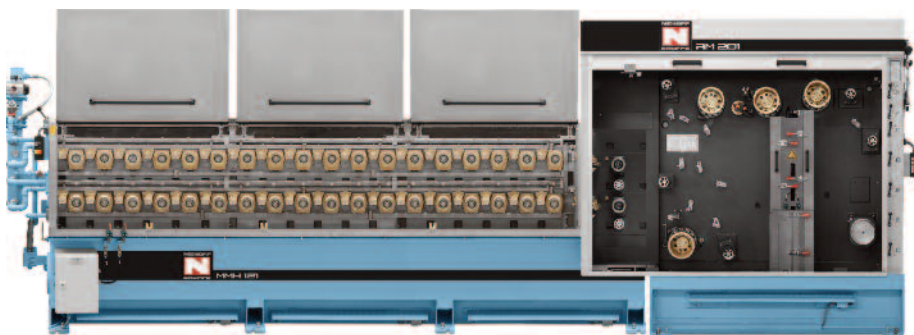
Visitors can also see the latest Beta LaserMike InControl process visualisation and control system.

Also on display will be the innovative LayScan measurement system (for measuring the lay length of twisted pairs in data communication cables), and the latest version of the DCM ES-2G LAN/Data cable testing system.

The new BenchMike – the industry's leading off-line sample inspection system – will also be on view, as will several other innovative products.

**NDC Technologies, USA**  
Stand: 1031  
[www.ndc.com](http://www.ndc.com)

## Niehoff machines on show



**N**IEHOFF and its subsidiary Niehoff Endex North America (NENA) will be showing machines for drawing, bunching and braiding at Interwire 2017.

Among exhibits will be an MMH 121 and RM 201 multiwire drawing line (pictured above), a D 801 double-twist bunching machine with an ARH 800 pay-off and a BMV 16 braiding machine.

The company's after-sales and spare parts services will also be showcased.

The MMH 121 can draw 24 wires with a finished diameter range of 0.16 mm (AWG 34) to 0.51 mm (AWG 24). The RM201 inline annealer can operate at up to 40 m/sed (7,874 fpm). As the machines are modular, they can be specified for wires of copper, aluminium, their alloys or other non-ferrous metals and adapted to customer requirements.

The D 801 type double-twist machine bunches plated and bare wires or twists insulated wires,

producing strands with 0.25-16.0 sq mm cross section and an infinitely variable lay length of 15-160 mm (0.6in-6.3in). Insulated wire can be stranded up to an outside diameter of 7.5 mm (0.3"). The maximum line speed is up to 5,000 tpm (300 m/min). The machine is combined with an ARH 800 type pay-off with separate drive.

The 16-carrier lever arm rotary braiding machine BMV 16 can process bare or plated copper wire, aluminium wire and stainless steel wire up to 0.3 mm (40-28½ AWG) as well as artificial yarn and fibres. This machine features an infinitely adjustable electronic control of line speed and braiding pitch as well as an automatic central lubrication system. The machines can be combined with different kinds of taping devices.

**Maschinenfabrik Niehoff GmbH, Germany**  
Stand: 841  
[www.niehoff.de](http://www.niehoff.de)

## Maillefer expertise on display

**M**AILLEFER'S market-leading offerings in wire and cable technology, turnkey companies and consultancy specialisms will again be on full view at Interwire 2017. Maillefer is the only technology supplier in the field with roots in cable manufacturing and this, combined with the widest applica-

tion coverage and over 4,000 deliveries, has created unique expertise which is now on offer worldwide.

**Maillefer, Finland**  
Stand: 531  
[www.maillefer.net](http://www.maillefer.net)

## Big machinery stock at Interwire

**W**IRE & Plastic Machinery, the largest reseller of secondhand wire, cable, and optical fibre manufacturing equipment for wire drawing, stranding, bunching, cabling, braiding and extrusion, is heading to Atlanta. Machines are offered as individual components to complete lines, delivered immediately from eight US locations.

The company has a wide range of over 30,000 machines in stock for all aspects of non-ferrous wire and cable production.

**Wire & Plastic Machinery Corp, USA**  
Stand: 1131  
[www.wireandplastic.com](http://www.wireandplastic.com)





# MGS Dual-take up spool



**I**NTERNATIONAL manufacturing company MGS Group will introduce a “next generation” automatic dual take-up spool at Interwire 2017. The FAT820 SFL series offers a new, customer-led approach to take-up design, the result being smaller, faster machines at lower cost than comparable devices.

The new design has a significantly smaller footprint, saving factory floor space and also improving cycle times, since smaller shuttle distances between take-up spindles mean faster operation.

MGS will exhibit the FAT820 SFL Series alongside REELBOT, the first fully-operational robot for palletising/de-palletising production reels, which was introduced at the last Interwire exhibition. Both machines will be fully demonstrated.

**MGS Manufacturing, USA**  
**Stand: 1240**  
[www.themgsgroup.com](http://www.themgsgroup.com)

## Gauder at Interwire

**G**AUDER Group Inc – the North American arm of the Belgian Gauder Group – has been serving the wire and cable industry for 25 years. In Europe group members POURTIER and SETIC are marketed separately, while in America the brand is known as *Pourtier and Setic of America* and specialises in elements of both companies, including rotating machines for ferrous and non-ferrous cable and a wide range of twisting and stranding machines.

The booth will feature a high-speed tangential tapping head (the POURTIER TTA801-2, right).



SETIC makes double-twist bunchers and cablers for low and medium voltage power cables and the automotive industry, as well as a complete range of machines for the production of data and special cables with enhanced performance. SETIC also produces small single-twist cablers and large double-twist cablers and stranders (above).



POURTIER produces rigid and planetary stranders, single twist cablers and drum twisters for all capacities of power cable, as well as signal, instrumentation and large communication cables and tubular stranders, skip stranders and bow cablers.

**Gauder Group SA, Belgium**  
**Stand: 1011**  
[www.gauderonline.com](http://www.gauderonline.com)

## IWMA members exhibiting

Advaris GmbH	Germany
AFH-Antriebstechnik GmbH	Germany
August Strecker GmbH & Co KG	Germany
Balloffet Die Corp	USA
Bechem Lubrication Technology LLC	Germany
Bekaert	Belgium
Beta LaserMike - An NDC Technologies Brand	USA
BWE Ltd	UK
Calmec Precision Ltd	Canada
Cecco Bartell Products - Bartell Machinery Systems	Canada
Cemanco LC	USA
Chemetall	UK
Cimteq Ltd	UK
Commission Brokers Inc	USA
Condat Ltd	France
Esteves Group	USA
Eurobend	Greece
Eurowire Magazine - Intrax Ltd	UK
Fisk Alloy Inc	Belgium
FMS USA Inc	USA
Fort Wayne Wire Die Inc	USA
Gauder	Belgium
Gem Gravure Co Inc	USA
H. Folke Sandelin AB	UK
Häfner & Krullmann GmbH	Germany
Huestis Industrial	USA
ICE Wire Line Equipment Inc	Canada
InnoVites BV	Netherlands
Kieselstein	Germany
Leggett & Platt Wire Group	USA
Leoni Wire Inc	Germany
Maillefer	Finland
Mathiasen Machinery Inc	USA
MGS Manufacturing Inc	USA
Microdia	USA
Nano-Diamond America Inc	USA
NiehoffEndex North America Inc	USA
Oden Technologies Inc	UK
OMA USA Inc	USA
Pourtier & Setic of America	USA
Pressure Welding Machines	UK
Q8Oils	UK
QED Wire Lines Inc	Canada
Queins Machines GmbH	Germany
Radyne Corp	USA
Rautomead Ltd	UK
Reber Systematic GmbH	Germany
RichardsApex Inc	USA
Roblon A/S	Denmark
Rosendahl Nextrom GmbH	Germany
SACO AEI Polymers	UK
Sanxin Wire Die Inc	USA
Sarkuysan SA	Turkey
Shanghai HOSN Machinery Technology Co Ltd	China
Sikora International Group	Germany
Supremac Industries Ltd	India
Traxit North America LLC	USA
Troester GmbH & Co	Germany
Vinston US Corp	USA
Weber & Scher Mfg Co Inc	USA
Windak Inc	USA
Wire & Cable Technology International	USA
Wire & Plastic Machinery Corp	USA
Wire Lab Company	USA
Zumbach Electronics Corp	Switzerland





Russia  
5-8 June 2017  
Preview

# Meetings in Moscow

**M**ANY European wire and cable industry manufacturers will be heading to Moscow in June for the seventh wire Russia, the international trade fair at the Krasnaya Presnya Expocentre fairgrounds (June 5-8).

The exhibition will be a major draw for manufacturers looking for an exclusive platform for their innovative and complex technology.

The event will also be an essential event for trade, industry experts and decision-makers – as well as a way of making good contacts and solid business opportunities in the increasingly important Russian market.

Though international trade and the Russian market for the industry has been affected by a tense political situation, weakness of Russia's currency and the decline in oil prices, there are still new opportunities – especially for companies trading not just in equipment but also in expertise.

With many projects coming up in the near future, Russia and its neighbours have a substantial need for investment in state-of-the-art machinery, manufacturing and processing equipment, as well as in high-tech materials.

The import volume of the wire and cable industry is expected to rise substantially in the next decade, due to the general need for modernisation of the entire Russian machinery sector.

Around 1.4 million items of Russian equipment are more than two decades old – way behind the standards of technology, quality and connectedness seen in most machinery being produced in Europe and the US today.

Leading Russian market experts agree that modernisation cannot substantially take place without outside expertise.

Participation of US and European companies at *wire* Russia is a chance to take part in Russia's most successful business to business platform for the wire and cable industry.

The event has stood for years as the best in the nation's industry at which to make high-quality business contacts. It is where national and international decision-makers meet – and is especially interesting for international small and medium-sized companies. Unlike many other trade fairs in the Russian capital, *wire* Russia is a true trade fair for decision-makers. In 2015 around 91 per cent of visitors came from top and middle management, and 88 per cent were professional, high-calibre visitors.

For exhibitors, this means valuable business contacts to maintain and a chance to establish or build market share in Russia and among its neighbours. Companies also benefit from the high awareness level of the event, since the Metallurgy-Litmash and Tube Russia fairs (on metal working and metal processing) are held at the same time.

Over 70 per cent of *wire* Russia exhibitors and 98 per cent of visitors to the 2015 show would recommend *wire* Russia 2017 to other companies and colleagues – a reflection of the importance and reputation of this exhibition.

As in previous years the fair is organised with the International Wire & Machinery Association, VNIKP (All-Russian Scientific Research and Development Cable Institute), and is supported by the International Wire and Cable Exhibitors Association, the Italian Wire Machinery Manufacturers Association, the Wire and Cable Industry Suppliers Association and the Shanghai Electric Cable Research Institute.





*CS2 staff in the process of transferring a complete plant*

# Gauder Group on show

**W**ORLDWIDE specialists in machines for the cable industry, Gauder Group will be present in force at *wire Russia* through

French subsidiaries POURTIER and SETIC, Chinese subsidiary DALOO, service company C2S and Bow Technology and Gauder, one of the industry's largest resale operators. Belgian parent GAUDER controls the largest stock of second-hand wire and cable machinery in Europe and is the leader in complete plant resales.

The company will happily set up production-ready lines for the manufacture of wires, conductors, cables, ropes or steel products. POURTIER'S range at *wire Russia* includes heavy-duty stranders, cablers and armouring lines for ferrous and non-ferrous cables, a complete range of stranding/paper-lapping/cabling and armouring machines for submarine and umbilical cables, and a high-efficiency, multi-wire concentric stranding line for low and medium power cable production.

SETIC provides high-speed double twist bunchers/stranders for the automotive industry, as well as complete solutions to produce high quality LAN, special and control cables.

The company recently developed a new concept for non-ferrous cables: tandem mica tapping/bunching and special high-speed lines

for battery cable, and new high-speed lines for special and instrumentation cables. DALOO is the group member offering medium price solutions without compromising on quality – a sales point between the latest European-developed machinery and the second-hand equipment market.

Daloo's rigid stranders, drum twisters, tapping lines, rewinding lines, pay-offs and take-ups, as well as pulling caterpillars for the production of power and communication cables, are designed and made in China to Gauder Group methods and quality criteria.

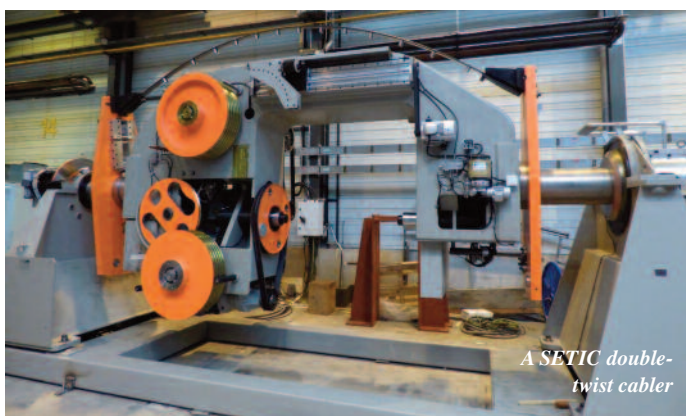
The C2S SERVICES & BOWS division of the Gauder Group acts as an overall efficiency booster, restoring wire and cable production line productivity and product quality – whatever the brand.

C2S uses high-quality spares and high tech bows (including the energy-efficient, patented GreenBow2), to upgrade and maintenance lines, as well as transferring and restarting complete lines through a team of almost 60 technicians.

**Gauder Group SA, Belgium**  
**Stand: A10**  
[www.gauderonline.com](http://www.gauderonline.com)



*POURTIER bow-cabling machine*



*A SETIC double-twist cabler*



*GAUDER refurbishing a lead extrusion machine*





5-8 June 2017  
Preview

## Consult with Maillefer

**V**ISIT Maillefer at wire Russia to see a selection of new and existing products and services from a world leader in turnkey factory delivery.

The Maillefer Factory System is included — a true turnkey design and delivery service which takes a site and turns it into a working production facility. Maillefer is the only supplier in the global market offering such a service.

Maillefer Consultation is a new service built around wire and cable production, allowing the company's experts to use their experience to offer solutions to production problems and improvements to existing practices.

The company will also demonstrate an antioxidant and peroxide dosing solution, Smart Dosing, which shows excellent extrusion process stability and strong peroxide and antioxidant homogeneity in insulation material.

Maillefer recently started a special production line dedicated to aviation cabling, Aviation Line TEL 25XF; while OEL 40///Explore is the company's fibre-optic secondary coating line, capable of running at up to 1,000m/sec. The Maillefer Plus Value Package is a new way to match increased demand with no pre-investment in production lines.

And the new Round Value Package Premium guarantees utmost roundness in high voltage cable production.



**Maillefer, Finland**  
Stand: B31  
[www.maillefer.net](http://www.maillefer.net)

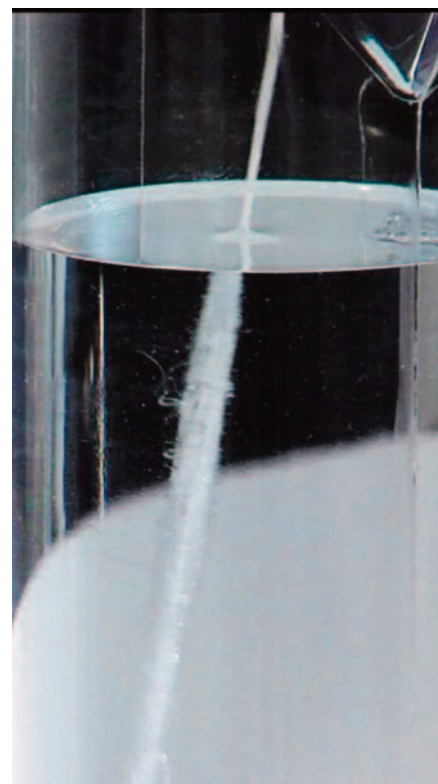
## Roblon water-swelling yarns

**D**ANISH manufacturer Roblon is a major supplier not only of high performance fibres for optical fibre cables (OFC), but also of the machinery to manufacture such cables.

Offering a wide range of E-glass, flexible strength members, binder yarn, ripcords and water-swellaable yarns, Roblon can supply most of the products used in OFC designs and, with expertise gained from years of research and development, can supply materials for many types of custom cables.

The company recently introduced a new family of water-expandable yarns - including very fine yarns for fully-dry cable designs - by using innovative chemistries. Roblon Binder Yarn ULS is made of high-grade polyester for the high-speed binding of SZ-stranded optical fibres and tapes. With a shrinkage level less than 0.6%, the yarn is highly suitable for micro and mini cables.

Roblon is known worldwide for its yarn-serving and concentric binding machinery, and recently the range was extended with new, low-tension concentric binder suitable for micro- and mini cables.



**Roblon A/S, Denmark**  
Stand: A13  
[www.roblon.com](http://www.roblon.com)



## Latest wire spooling technology from Niehoff

**N**IEHOFF'S energy-efficient double spooler (type SV402D, pictured above) will be the focus of its stand at wire Russia, shared with local subsidiary Niehoff of Russia.

The spooler, designed to work in line with extrusion lines, is part of the Niehoff Package System, an efficient, safe and economical handling system for automotive wiring production.

The spooler is intended for use with copper alloy wires of 0.13 sq mm cross section, and copper wires with cross sections from 0.22-6.0sq mm, at up to 1,800m per minute. Spools can be changed at full line speed and the patented conical wire-laying system offers

secure and tangle-free take-up whether a spool is almost full or almost empty — meaning NPS offers the highest-efficiency wire pay-out to following processes.

Niehoff has had a Russian presence for 30 years, since the company first began to develop partnerships with Russian cable manufacturers. Niehoff of Russia's Moscow HQ was established in 2005 and covers the whole of the Russian Federation and former CIS countries.

**Maschinenfabrik Niehoff GmbH, Germany**  
Stand: D32  
[www.niehoff.de](http://www.niehoff.de)



# Troester's extrusion system technology

**E**XTRUSION systems company Troester will have expert staff from Germany, Switzerland and Russia on hand at wire Russia.

The company will be demonstrating its extrusion products (*below left*) for rubber CV and CCV-Lines up to 35 kV, XLPE CCV and VCV Lines for power cables up to 500 kV, sheathing lines for medium and high voltage cables and insulation lines for low and medium voltage cables

Troester group member X-Compound will be on the stand to present its new kneader technology (*below right*) for the continuous compounding of halogen-free flame-retardant, low-smoke zero-halogen cables, PVC, XLPE, semiconductive materials and EPR/EPDM.

X-Compound specialises in planning and building systems for the compounding of plastics in processes including conveying, melting, dispersing, mixing and degassing.

Specialists from Troester and X-Compound look forward to meeting you at booth and will be happy to discuss specific requirements.

**Troester GmbH & Co KG, Germany**  
Stand: D31  
[www.troester.de](http://www.troester.de)



## IWMA members exhibiting at wire Russia

ACIMAF	Italy	Kieselstein International GmbH	Germany
August Strecker GmbH & Co KG	Germany	Maillefer	Finland
Aymak Makine Mühendislik Hizmetleri San ve Tic	Turkey	Medek & Schörner GmbH	Austria
Bongard Trading GmbH & Co. KG	Germany	Nanjing Zhongchao New Materials Corp	China
BWE Limited	UK	Niehoff Maschinenfabrik GmbH & Co KG	Germany
Calmec Precision Ltd	Canada	Ningbo Kaite Machinery Co Ltd	China
Carl Bechem GmbH	Germany	PS Costruzioni Meccaniche Srl	Italy
Cecco Bartell - Bartell Machinery Systems	Canada	Queins Machines GmbH	Germany
Comsuc Technology Development Ltd	China	Reber Systematic GmbH	Germany
Condat Ltd	France	RK Umformtechnik GmbH & Co KG	Germany
EJP Maschinen GmbH	Germany	Roblon A/S	Denmark
Esteves Group	Spain	Rosendahl Nextrom GmbH	Austria
Eurobend SA	Greece	Shanghai HOSN Machinery Technology Co	China
FIB Belgium s.a.	Belgium	Sikora AG	Germany
Gauder Group	Belgium	Sket Verseilmaschinenbau GmbH	Germany
H. Folke Sandelin AB	Sweden	Traxit International GmbH	Germany
Intras Limited	UK	Troester GmbH & Co KG	Germany
Jiangsu Handing Machinery Co Ltd	China	Zumbach Electronic AG	Switzerland



# IWMA corporate members

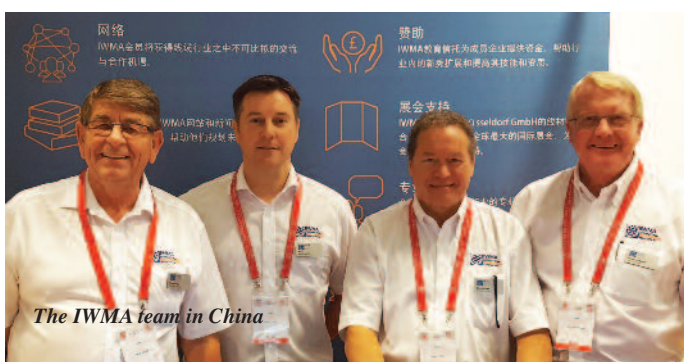
A Karpat Ltd	Canada	Eder Engineering GmbH	Austria
ACIMAF	Italy	EJP Maschinen GmbH	Germany
ACOTEQ GmbH	Germany	EOX Masterbatches SL	Spain
Advaris GmbH	Germany	Er-Bakir Elektrolitik Bakir Mamulleri AS	Turkey
AFH-Antriebstechnik GmbH	Germany	Esteves Group	Spain
Ajex & Turner Wire Dies Co	India	Euroalpha Srl	Italy
Aleados del Cobre S.A.	Spain	Eurobend SA	Greece
Alloy Wire International	UK	FH Machinery	USA
Ambrell Ltd	UK	FIB Belgium s.a.	Belgium
Anglia Metal Ltd	UK	Fisk Alloy Conductors BVBA	Belgium
Arab Co for Cable Polymers Ltd	Saudi Arabia	FMS Force Measuring Systems AG	Switzerland
Asia Sim Co	Iran	Fort Wayne Wire Die Inc	USA
Associated Engineers & Industrials Ltd	India	Foxton Dies Ltd	UK
Assomac Machines Ltd	India	Frontier Composites & Castings Inc	Canada
AstroPlast, Kunststofftechnik GmbH & Co KG	Germany	FS Cables	UK
August Strecker GmbH & Co KG	Germany	FUCHS Lubricants (UK) Plc	UK
Australasian Wire Industry Association	Australia	G & A Engineering Ltd	UK
Automated Wire Bending Ltd	UK	G Church - Consultant	UK
Aymak Makine Mühendislik Hizmetleri San ve Tic	Turkey	Gauder Group	Belgium
Badger Wire	Australia	Geca-Tapes bv	France
Balloffet SA	France	Gem Gravure Co Inc	USA
Bar Products & Services Ltd	UK	GEO Reinigungstechnik GmbH	Germany
BASEC (British Approvals Service for Cables)	UK	Goodwin Machinery Ltd	UK
Bongard Trading GmbH & Co. KG	Germany	Guidetti srl	Italy
Bridon International Ltd	UK	Gurfil Sanayi ve Elektronik Cih. Paz. AS	Turkey
British Diamond Wire Die Co Ltd	UK	Gwo-lian Machinery Industry Co	Taiwan
BWE Ltd	UK	H. Folke Sandelin AB	UK
Cable Tapes UK Ltd	UK	Häfner & Krullmann GmbH	Germany
Calmec Precision Ltd	Canada	Hans Schmidt & Co GmbH	Germany
Can-Eng Furnaces Ltd	Canada	HB Cables & Components Ltd	UK
Cape Gate (PTY) Ltd	UK	Heinze & Streng GmbH	Germany
Carl Bechem GmbH	Germany	Holton Crest Ltd	UK
Ceeco Bartell - Bartell Machinery Systems	Canada	Huestis Industrial	USA
Cemanco LC	USA	Huntstar Trading Ltd	UK
Central Wire Industries UK Ltd	UK	ICE Wire Line Equipment Inc	Canada
CeramTec GmbH	Germany	Inductotherm HWT (Radyne)	UK
Chaplin Bros (Birmingham) Ltd	UK	Induflex NV	Belgium
Chemetall Ltd	UK	InnoVites B.V.	Netherlands
China Southern (Group) HK Ltd	Hong Kong	Institute of Spring Technology Ltd	UK
Cimteq Ltd	UK	Integer Research Ltd	UK
Commission Brokers Inc	USA	Interlink Import-Export Ltd	UK
Comsuc Technology Development Ltd	China	International Trade Shows Link Ltd	UK
Condat Ltd	France	Intras Ltd	UK
Consultex Sp. z.o.o.	Poland	Itaya Europe limited	UK
Control and Power Engineering Ltd	UK	JG Tec Ltd	UK
Copperweld Bimetallics UK Ltd	UK	Jiangsu Handing Machinery Co.,Ltd	China
CRU Events	UK	Jiaxing Eternal Electronic Co Ltd	China
CSM Metalurji Imalat Sanayi Ve Muhendislik Ltd sti	Turkey	Jina Special Steel Works Pvt Ltd	India
Daewon Cable Co Ltd	South Korea	Joachim Uhing GmbH & Co. KG	Germany
Danross Engineering	UK	Kelani Cables PLC	Sri Lanka
Data M Sheet Metal Solutions GmbH	Germany	Kieselstein International GmbH	Germany
De Montfort University	UK	Koner SpA	Italy
DLB Draht und Litzen GmbH	Germany	LA.M.PLAST SAS	Italy
Dongguan XinMei Precision Mold Co. Ltd	China	Leggett & Platt Wire Group	USA
Drahtwerk Waidhaus GmbH	Germany	LEONI Draht GmbH & Co KG	Germany
DRT Impianti S.R.L.	Italy	Leoni Temco Ltd	UK
DSE Test Solutions A/S	Denmark	Lewis Wire Ltd	UK
E Braude (London) Ltd	UK	Locton Ltd	UK



Lune Prozesstechnik GmbH	Germany	Sarkuysan Elektrolitik Bakir San ve Tic	Turkey
Madem SA Ind E Com de Madeiras	Brazil	Scott Precision Wire Ltd	UK
Maillefer	Finland	Shandong Binao Wire & Cable Co Ltd	China
Manentimacchine Srl	Italy	Shanghai Geili Precision Dies Co Ltd	China
Marldon Group Ltd	UK	Shanghai HOSN Machinery Technology Co	China
Mathiasen Machinery Inc	USA	Shanghai Kechen Wire & Cable Machinery Co Ltd	China
Medek & Schörner GmbH	Austria	Shanghai Singcheer Technology Co Ltd	China
Meisenbach GmbH	Germany	Siebe Engineering GmbH & Co KG	Germany
Menam Stainless Wire Public Co Ltd	Thailand	Sikora AG	Germany
Metalube Ltd	UK	Simplex Rapid s.r.l.	Italy
MGS Manufacturing Inc - c/o Northampton Machinery	UK	Singhania International Ltd	India
Microdia SA	Switzerland	Sket Verseilmaschinenbau GmbH	Germany
Mikrotek Machines Ltd	India	Smeets S.A. - Loypos	Belgium
Mittal Steel Kent Wire Ltd	UK	Sneham International	India
Nanjing Zhongchao New Materials Corporation	China	South African Wire Association	South Africa
Nano-Diamond America Inc	USA	Spring Tooling Ltd	UK
NDC Technologies (Beta LaserMike Products)	USA	Stanaway Wire Ltd	UK
NeoFil Ltd	UK	Stonepark Consultancy Ltd	UK
Nexans Deutschland GmbH	Germany	Stride Supplies Ltd	UK
Niehoff Maschinenfabrik GmbH & Co KG	Germany	Supermac Industries India Ltd	India
Ningbo Kaite Machinery Co Ltd	China	SWR Ltd	UK
Nota-Zaklad Mechaniki Precyzyjne	Poland	T Fukase & Company Ltd	Japan
NV Bekaert SA	Belgium	TM Associates	UK
OMA Srl	Italy	Techna International Ltd	UK
OB Mallas	Bolivia	Techno Commerce Ltd	UK
Oden Technologies Ltd	UK	Technokabel SA	Poland
OMA (UK) Ltd	UK	The Worshipful Co of Tin Plate	
Ormiston Wire Ltd	UK	Workers Alias Wire Workers	UK
P F Consulting	UK	Thompson & Hudson Wire Machinery	UK
P W Hall Ltd	UK	Tianjin Goldsun Wire Rope Ltd	China
Paramount Conductors Ltd	India	Tianjin Huayuan Times Metal Products Co Ltd	USA
Pentre Group Ltd	UK	Traxit International GmbH	Germany
Performance Springs Ltd	UK	Troester GmbH & Co KG	Germany
Permanoid Ltd	UK	U Gear Automatic Machinery Ltd	Taiwan
Plasmait GmbH	Austria	University of Southampton	UK
Pneuform Machines Ltd	UK	Untel Kablo A.S.	Turkey
Premier Cables (Pty) Ltd	Pakistan	Vietnam Electric Cable Corp (CADIVI)	Vietnam
Pressure Welding Machines Ltd	UK	Vinston US Corp	USA
Proton Products International Ltd	UK	Warbrick International Ltd	UK
Prysmian Group	UK	WCISA c/o Wire Lab Company	USA
PS Costruzioni Meccaniche Srl	Italy	Weber & Scher Mfg Co Inc	USA
Q8Oils	UK	Webster & Horsfall Ltd	UK
QED Wire Lines Inc	Canada	White & Street International Ltd	UK
Qingfeng Electrical Technology (Hong Kong) Co Ltd	Hong Kong	Whitelegg Machines Ltd	UK
Queins Machines GmbH	Germany	Windak Group	USA
Qunye Electrical Co Ltd	China	Wintwire Ltd	UK
Rautomead Ltd	UK	Wire & Cable Technology International	USA
Reber Systematic GmbH	Germany	Wire & Plastic Machinery Corp	USA
Reellex Packaging Solutions Inc	USA	Wire Association International Inc	USA
RichardsApex Europe Ltd	USA	Wire Koerner GmbH	Germany
Ridgway Machines Ltd	UK	Wire Lab Company	USA
RK Umformtechnik GmbH & Co KG	Germany	Wolco Sp. Z o.o.	Poland
Roblon A/S	Denmark	WTI Fasteners Ltd	UK
Rosendahl Nextrom GmbH	Austria	XL Technologies UK Ltd	UK
S K Wiring Products Ltd	UK	YTC America Inc	USA
SACO AEI Compounds Ltd	UK	Zeller + Gmelin GmbH & Co KG	Germany
Sant Engineering Industries	India	Zephyr - One Ltd	UK
Sanxin Wire Die Inc	USA	Zumbach Electronic AG	Switzerland
		Zyklomat Erich Fetzter GmbH & Co KG	Germany



# wire China 2016 show report



**T**HE IWMA enjoyed great success at this year's wire China – the 7th All China International Wire & Cable Industry Trade Fair.

The association's new "satellite" touring stand, based on the full stand developed for wire Düsseldorf, made its first appearance and was a big hit.

"Reaction from members was very good," says IWMA executive manager Andy Lewis. "They could arrange meetings, use the business facilities or just have a break and enjoy the refreshments."

"The design incorporated information in Chinese and the excellent local staff on the stand were bilingual, which was enormously useful."

Around 40 IWMA member companies exhibited at wire China and dozens of individual members attended the exhibition. Many also attended the IWMA networking evening at the nearby Kerry Hotel, where guests enjoyed a meal and the chance to meet colleagues.

Around 42,000 visitors attended wire China at the New International Exhibition Centre in

Shanghai, an event jointly organised by Messe Düsseldorf and its Chinese subsidiary and the Shanghai Electric Cable Research Institute. The event has grown significantly over the last 10 years and today covers over 43,000 sq m of exhibition space over nine halls, with 1,645 exhibitors and eight national and regional pavilions.

"The IWMA is proud to work with its industry partner, Messe, Düsseldorf to ensure the success of wire China, which is now the region's leading trade fair in both scale and influence," said IWMA chairman Amanda Shehab.

## Maillefer presentation in China



**T**HE UL and IWCS China 2017 Cable & Connectivity Symposium in Shanghai in April is the region's leading forum for the exchange of information on technical innovations and solutions in the industry, and Maillefer was one of the companies offering to give presentations.

"IWCS is an important venue for the cable and connectivity industry and we are proud to join the symposium" said Maillefer research and development director, Dr Mikko Lahti, whose paper is titled *Exploring the Limits of Buffering Process for Both Standard and*

*Micro Tubes*. Dr Lahti was available during the entire conference to discuss his work.

"Our solutions offer a wide variety of innovations," he said. "For example the compression technology with tension feedback keeps precise control of excess fibre length; and on our Fibre Optic Secondary Coating Line OEL 40///Explore (pictured left) we have even tripled production speeds compared to conventional secondary coating lines."

Maillefer provides manufacturing solutions for every stage of the fibre optic cable process. The portfolio includes tight buffering, secondary coating, SZ stranding and jacketing lines available for production ranging from long haul cables to FTTx with low fibre counts and short lengths.

[www.maillefer.net](http://www.maillefer.net)



# Wire & Cable India 2016 show report



*Friedrich-Georg Kehrer, Messe global portfolio director for metals, Amanda Shehab, IWMA chairman and Thomas Schlitt, general manager of Messe Düsseldorf India*



**I**N October 2016 the IWMA attended its third major exhibition of the year, Wire & Cable India at the Bombay Exhibition Centre in Mumbai.

The event is the Indian sub-continent's leading trade fair for the wire and cable industry. The IWMA stand supported the 40-plus member companies exhibiting, as well as individual members who attended.

"It was great to see so many members at this important trade fair," said IWMA executive manager, Andy Lewis.

"As with wire China, members appreciated being able to use the IWMA stand as a base for meeting clients or to take a break.

"The stand was very busy throughout the show – and over the course of both the Chinese and Indian shows we had a record number of membership enquiries."

Organisers say that over the three days the event attracted over 12,300 trade visitors, a 28% increase over previous events.

Guests also relaxed at an IWMA social evening, *A Taste of Mumbai*, at the ITC Maratha hotel. The colourful and vibrant event (pictured below) was the idea of IWMA vice-chairman Martin Van Der Zwan. "We were delighted to be involved in the night," said Martin, managing director of Cable Tapes, UK. "I regularly attend exhibitions and know just how hectic they can be. You are rarely able to sample the local atmosphere.

"*A Taste of Mumbai* was the perfect antidote to a long, hard day at the exhibition. Guests were entertained by traditional dancers and musicians – and some even had the chance to have a go themselves!"



## Success for Ajax

**W**IRE & Cable India 2016 was a positive experience for Ajax and Turner. The company's new VNT Nano dies were a major draw for visitors, being relatively low cost but higher in output, with a metal-saving feature that helped to win several orders.

"Having many potential customers under one roof was an very pleasant experience," said a spokesman.

The presence of experts from the company's partners, Fuchs-UK Lubricants



and E-Xhead-Switzerland increased the number of visitors to the stand with queries about lubricants and extrusion head details.

Potential customers were also able to witness a live demonstration of the company's upgraded wire polishing and regrounding machine (TCD-10, pictured), a cost-effective time-saver.

VNT Nano dies remain the company's most popular product and the fair was a chance for engineers to learn more detailed customer requirement.

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



# Eder celebrates 70 years

## Margaret says farewell to IST

**I**N January, Margaret O'Malley retired after a career of over 35 years with the Institute of Spring Technology (IST).

Margaret joined what was then SRAMA in September 1978 as a research metallurgist, and was involved in many research projects. Later she was responsible for all membership services, especially the technical helpline for IST/UKSMA members – a trusted source of information and advice.

She has also represented IST on several national and international committees.



[www.ist.org.uk](http://www.ist.org.uk)



**T**HIS year, EDER-Austria celebrates 70 years as a pioneer and technology leader in the international wire and cable industry.

Founded in 1947, the company produces equipment for the production and reconditioning of ultra-hard precision dies, as well as providing technical assistance.

All Eder machines are supplied ready for operation – and are easy to operate thanks to a high degree of automation.

The increasing use of multi-wire drawing machines with lots of costly ND/PCD dies in operation can sometime mean traditional die reconditioning workshops can't keep up with demand. To combat this problem, Eder designed unique ultrasonic (USP-TWIN) and wire-type (HGM-21) machines, offering two workstations capable of being handled by one only operator. The result is effectively to double the output of perfectly refurbished dies.

Eder exports products to over 80 countries and this year, to mark its 70th anniversary, will be a member of economic missions to Korea, Malaysia and Vietnam, and will attend forthcoming wire exhibitions in Russia, South-East Asia and Iran.

[www.eder-eng.com](http://www.eder-eng.com)



*Dr Kurt Eder is interviewed*

## Goodwin launches rod breakdown machine

**G**OODWIN Machinery has introduced a rod breakdown machine, based on the industry-standard Winget Syncro F-13. The CWF-13 non-ferrous rod breakdown unit, produced in collaboration with Cable & Wire Technical Services, is the first made at the Goodwin factory in Bolton (northern England). The unit is now running at a factory in Europe.

This innovatively-designed machine can draw down from 8.0mm copper or 9.5mm diameter aluminium with features including compact dimensions, a line speed of up to 30.6 metres per second; case-hardened and ground helical gears offering significant noise reduction and a low-noise oil pump for the main gearbox, which fits on the rear of the machine to ease access and maintenance.

The unit's 300hp constant-torque, direct-coupled motor eliminates the need for a stand-alone gearbox, back-shaft, hypoid or spiral bevel gears. The machine can come with an optional lubrication system for either copper or aluminium and an optional pay-in stand.

Design, manufacture and assembly were completed in the UK, with parts manufactured by both Goodwin and Cable & Wire Technical Services suppliers. Final assembly and testing took place in Bolton.

Goodwin engineers can incorporate the new machine in an existing line, or the company can supply a complete new line with associated annealers and spoolers, interface wiring and controls.

Goodwin and Wire Technical Services have been serving the wire and cable industry for over half a century, and have built an extensive client list and troubleshooting team.

The company also holds an extensive parts stock and has a highly admired service department, which operates worldwide.

[www.goodwinmachinery.co.uk](http://www.goodwinmachinery.co.uk)





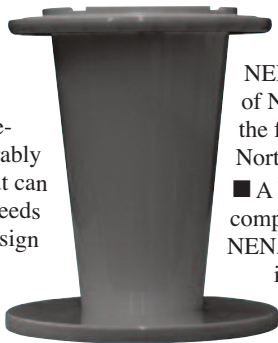
# Improved spool design for NPS

**A** NEW spool design raises the profitability of the Niehoff Package System (NPS). The collapsible multi-way spool (NPS 400/400 PP) offers the same production safety and application potential of all original NPS spools, but at a more attractive price.

The new spool is compatible with all three million ABS NPS spools in circulation. The innovation is the latest in the 25 years of the NPS – the result of new spool material and design modifications.

As a result the new design has a reduced wall thickness and considerably lower cost than its predecessor, but can be reliably applied at operating speeds of up to 1,800 m/min. The new design can be equipped with an RFID transponder that will identify it as part of the system, or compatible. The transponder simplifies spool labelling since it is carried by the transponder, and paper labels aren't required. Spool standard colour is grey, though special colours are optionally available.

The new design is the result of continuous NPS development to refine details and reduce user costs. This year Niehoff is bringing



more new NPS PP spool types and sizes to the market.

Niehoff has specialised in developing and making auto, data and special cable types for over 60 years.

Niehoff Endex North America Inc (NENA), founded in 1999, is a wholly-owned subsidiary of the Niehoff Group and is responsible for sales, supply and service of the entire Niehoff range in the USA, Canada & Mexico.

NENA was founded by the merger of Niehoff of America and Endex, the former Bekaert Engineering of North America.

■ A RECORD 65 people from 30 companies attended the two-day NENA biennial open-house event at its New Jersey headquarters.

Highlight of the event was the north American unveiling of a new generation of Niehoff multi-wire drawing lines (type MMH 112 and RM 202). Hidden behind a 20ftx90ft curtain during a factory tour on the second day, guests were impressed when the barrier was removed to reveal a fully-working line running at over 2,400 m per minute.

The serious business of the second day of the open-house had been preceded by a first-day, German-style "Barn Fest" which offered traditional music and the chance for guests to meet personnel from NIEHOFF in Schwabach, Germany and other colleagues.

[www.niehoff.de](http://www.niehoff.de)



## Remote monitoring and control

**C**ANADIAN company QED Wire Lines has further enhanced its remote line monitoring and control systems by incorporating Siemens-based hardware and software that permits full communication with a user's local network.

All QED process lines are already equipped with local remote monitoring and control of key functions, but the new controls, which incorporate Siemens' WinCC Sm@rtServer software and a wireless modem, offer seamless LAN integration and true monitoring from anywhere in the world in real time. Software status screens indicate all line inputs and outputs, immediately flagging problem areas.

The package includes a pre-configured laptop computer, but real time line monitoring and alarms can even be seen on a mobile smart app anywhere with a phone signal.

The system allows remote process monitoring, data-logging and troubleshooting and fully-networked control panels.

The system logs all temperatures and pressures graphically for easy visualisation of process trends. Alarms are logged with the time and date of the incident – valuable data for product quality assurance and ISO9001 standards compliance.

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



# Zumbach marks 60th anniversary year

**E**XPERT Swiss measurement and control equipment specialist Zumbach marks its 60th anniversary in May. A pioneer of online measurement, Zumbach manufactures a large range of non-contact, online measuring and control instruments.

The company's technology is in use around the world by thousands of clients in several industrial sectors, testing diameter, thickness, eccentricity and other physical dimensions, as well as electrical parameters such as expansion, capacitance and dielectric strength.

The company began in Biel, near Bern, Switzerland, at the time the centre of the world watch industry. Young electrical engineer Bruno Zumbach, still in his twenties, started the electronics company to turn his ideas into products.

Electronics were still in their infancy and Zumbach developed products using newly-developed devices that rapidly became the best in their field. The company scored a



national first by automating the butter-making process at a company in Gossau near the Lichtenstein border using non-contact drive systems.

The next advance was the manufacture of finely-adjustable drives using circuitry previously known only on high-power drives - a development so successful many thousands of the systems remain in use worldwide.

In the 1970s the company widened its field to produce an eccentricity tester for electrical cables: the device became the company's first major success in in-line measuring equipment.

Optical diameter measuring devices became Zumbach's most successful products, with several developments and refinements from the late Seventies onwards that made the company a world leader.

In 1994 Bruno Zumbach handed management of the group to his son Rainer, and in the succeeding years Zumbach has expanded into other countries, opened subsidiaries in major centres and developed links with agents in many other regions to offer closer contact and service arrangements. The company continues to innovate and has moved into new industrial areas, such as plastics, profiles and steel.

As the world moves towards the so-called *Industry 4.0*, Zumbach has stepped up developments in data collection and presentation, offering machine-to-machine and machine-to-human communication.

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

# Plasmait in demand

## New lubricant for harder alloys

**R**ICHARDSAPEX, has launched RA-500, an emulsifiable lubricant engineered for harder alloys including copper-plated aluminium and steel, aluminium and nickel-plated copper. RA-500 is built on a technology platform, similar to RA-400; the robust emulsifier package provides outstanding particle size control and a dispersion reserve that ensures consistent, clean-running performance with superior cooling efficiency.

RichardsApex CEO, Drew Richards, said: "RA-500 builds on the success our customers have had with RA-400. Its friction-modifying capability makes it suitable for harder-draw materials."

RA-500 offers a distinctive friction modifier and anti-wear package for the lubricity needed for hard alloys in contact with non-reactive surfaces such as zirconia ceramic, PCD and diamond.

Philadelphia-based RichardsApex, a leading supplier of non-ferrous wire drawing products for over 100 years, has commercial centres in the US, Australasia, and the UK.



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



**A**USTRIA'S Plasmait GmbH is enjoying increasing demand for its high-output stainless steel plasma heat treatment lines and is soon to deliver a HPA30 plasma annealer (above) to a renowned stainless steel wire producer in south east Asia.

The 30kW machine will replace the client's traditional tube furnace in the production of flat ferritic and austenitic steels up to 30mm. The HPA30 can output 100kg an hour and will allow the client to halve its energy costs per kilogram, while allowing considerable savings in peak power consumption. The much lower power requirement of the machine means lower capacity – and thus cheaper – cable can be used for installation.

A typical plasma annealer installation for stainless steel applications can substitute around 10 traditional lines on a conventional strand furnace. In this installation the compact new single line will have the same output as the client's old multi-line furnace but will occupy only a third of the shop floor space. The single line will also mean reduced material manipulation costs - fewer take-up, pay-off and transport arrangements.

As well as offering lower cost, plasma annealing allows more accurate heat input and recrystallization uniformity, which is reflected in a more homogenous grain size. The HPA30 also features an extended tempering zone, which allows for extended dwell time or the slow cooling necessary with certain ferritic grades of stainless steel.

The new annealer combines the advantages of high-speed bright annealing and a superior scratch-free finish. Processed steel does not touch the plasma chamber when at a high temperature, reducing the risk of scratches. In a conventional strand furnace, tubes remain in contact with furnace guides during the highest temperature stages, when they are at greatest risk of surface damage.

A unique feature of plasma annealing is that heating occurs in a low-pressure, inert atmosphere, so a vacuum and accurate material guides are necessary. The advantage of a vacuum system is that the hydrogen or forming gas used to purge the system is normally introduced at low pressure, which reduces overall consumption.

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

## Low-energy ways to improve your profits

**I**TALY'S GUIDETTI SRL, based in Renazzo near Bologna, has been devising and developing recycling machinery since the 1980s. The company's products offer low-energy ways for users to improve profitability and recover raw materials. Guidetti's innovative machines are developed for compact dimensions and weight and promote easy installation and maintenance. The company's turnkey solutions can be

customised for clients by Guidetti's engineers, and the company is happy to demonstrate machines and materials handling in its 1,500 sq m test lab.

Guidetti has developed a range of machines for the recovery of almost 100% pure copper and aluminium from scrap cables, while another group of machines can recover PVC scraps from an extruder.

Guidetti's new compact Sincro Mill granulator (pictured) allows the simultaneous processing of rigid and thin copper cables without pre-sorting, reducing to virtually zero the loss of metals in the tailings.

"We have shown many times that investment in our machines can produce significant profits from what would otherwise be considered scrap," said a company spokesman.



[www.iwma.org](http://www.iwma.org)

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





# Complex wire cleaning, treatments and finishes made easy

**A**CHIEVING a clean finished wire, with contamination and metallic particles partly or completely removed from the wire surface, at line speeds between 10-2,000 m/min, is a complex process. Various systems are available, from mechanical brushes or textile wipes to liquid methods with high pressure and even ultrasonic assistance.

Since the choice of an appropriate cleaning method is determined by several factors, comprehensive analysis of all the relevant parameters is the approach taken by GEO-Reinigungstechnik.

For two decades, GEO has explicitly dealt with the cleaning of continuous profiles of wires, ribbons, strands and cables, and today offers a complete range of ultrasonic, high-pressure jet, steam and mechanical wire cleaning systems both for single and multi-wire applications.

Machines and processes are tested in near-production conditions at GEO's test laboratory, meaning the company can build solutions for all kinds of client requests.

Often the appropriate cleaning method is difficult to determine at first inspection, but specifying the expected result and analysing the wire's surface texture should always come at the start of the search for the most appropriate method.

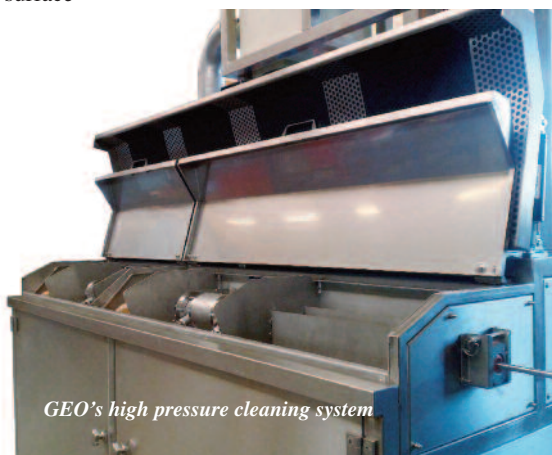
Technical papers suggest the deformation of a metal surface changes the metal structure considerably. Surface deformation is greatly increased, compared to a smooth "ideal" surface, by cracks, overlaps and other surface defects, which are filled with a mixture of residual drawing lubricating material, metal particles and oxides. Cleaning usually seeks to remove this contamination, the cleaning method or methods being applied in a particular way, using their individual strengths to achieve the desired result.

With mechanical cleaning, contamination is removed by mechanical friction applied by brushes, textiles and microfibres. Though brushes or textiles can be very effective, the surface of the wire being far from ideal – due to fine cracks and defects – such methods quickly reach their limits.

Chemical cleaning means, in most cases, exposing the surface to a cleaning fluid. The performance of such methods is considerably improved by raising the speed of the liquid by increasing the pressure, or by using ultrasonic frequencies to excite the surface, or steam relaxation. Cleaning with liquids, supported by ultrasonic, high pressure liquids or steam, can substantially meet the challenging task

of removing dirt even from the smallest surface defects.

Ultimately the effectiveness of the cleaning process depends on how precisely the cleaning

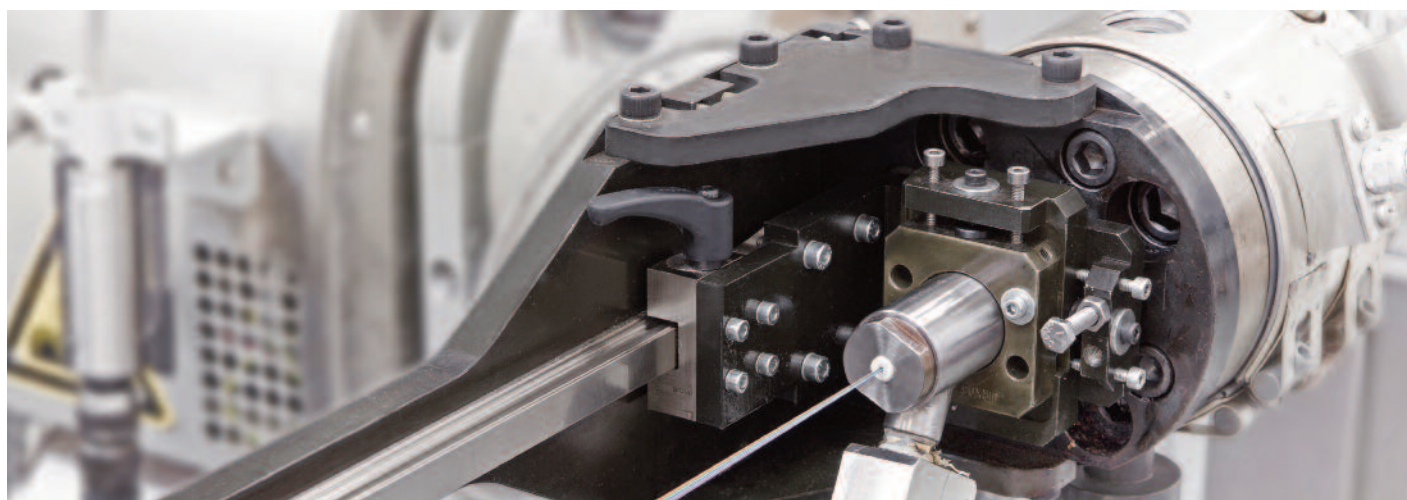


*GEO's high pressure cleaning system*

power can be applied to the contamination for a given period.

But having achieved a perfectly contaminant-free wire, GEO goes further by also produces machines that can coat drawn and finished welding wires to maintain their pristine nature.

[www.geo-reinigungstechnik.de](http://www.geo-reinigungstechnik.de)



## Improved RX5 for Loose Tube Production

**R**OSENDAHL Nextrom has developed improvements to its RX 5 crosshead to make it ideal for fibre-optic cable applications. The unit's high degree of reproducibility and consistency is achieved with linear guiding optimised for secondary coating lines, which works for both dry and gel-filled applications.

The unit has a fine-tune centring unit and a gel unit for bubble-free filling of the loose cable. The specially customised needle

supports the required precision during extrusion.

The loose tube trend shows that small-sized products – requiring thinner wall thicknesses – are more in demand.

With a wall thickness of 0.15mm-0.3mm, the RX 5 crosshead meets targets with great precision, keeping its shape and properties even at line speeds of up to 1000m/min.

Rosendahl Nextrom has also developed tools such as a heating zone and special

crosshead fixing, which supports product centricity and fixes the crosshead precisely in position.

The crosshead unit is easy to handle and has proven reliability.

The company is happy to demonstrate the crosshead at its Pischelsdorf, Austria, headquarters, where the loose tube line can be observed during production.

Visitors can also take their own materials and recipes for tests on the laboratory line.

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



# Heat resistant colour coatings for new-generation spring wires

**I**N recent years Bekaert has developed a new range of zinc and aluminium-coated steel wires intended for critical spring applications. This paper highlights the test performance and properties of these wires. It also expands on the development of a cost-competitive dedicated polymer coating with the potential to make spring post-coating redundant, thanks to its resistance to stress-relieving temperatures and corrosion resistance, flexibility and colour stability. Bekaert's new-generation coated spring wire is designed for high-end, dimensionally critical springs and covers two basic types:

■ Bezinal® XC<sup>[1,3-4]</sup> not only has superior corrosion resistance and cathodic protection, compared to current products, but also has superior process abilities and dimensional stability. Additional advantages are reduced flaking – which boosts spring-making machine output by causing fewer interruptions – and lower spring rejection rates, allowing even higher production speeds.

The factors responsible for this behaviour are the coating's reduced thickness and improved chemical composition.

■ A second type, Bezinal® XP<sup>[2-4]</sup> was developed for cases where corrosion is the main cause of premature failure. This product has the same coating composition but a higher coating weight, which allows springs produced from it to be used in humid and alkaline environments – notably in automotive and industrial applications.

■ Salt spray testing is done in accordance with ASTM B117 on wires (of diameters 1.2mm-5mm) and springs (diameters 10xD and pitch 1xD). Humidity chamber tests are performed to ISO6270-2 standards, again on wires and springs of similar dimensions to those given above. Figure 1 clearly shows superior salt spray performance (the number of hours until 5% dark brown rust) is observed both on wires and springs.

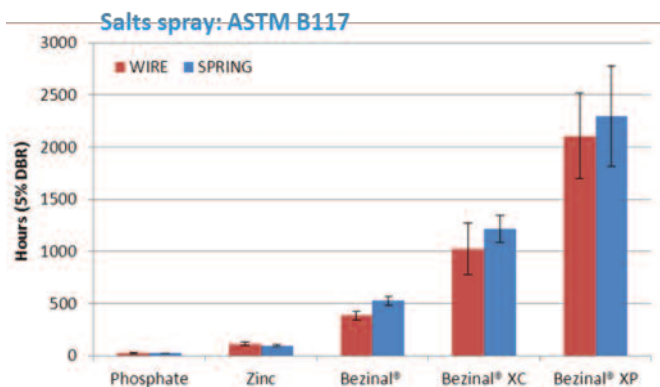


Figure 1: Salt spray test (ASTM B117) on wires and springs

The diagrams illustrate the performance of the respective generations of Bezinal® products (Bezinal®, Bezinal® XC and Bezinal® XP) compared to bright (i.e. phosphated) and zinc coated wires and springs in typical salt spray and humidity test conditions.

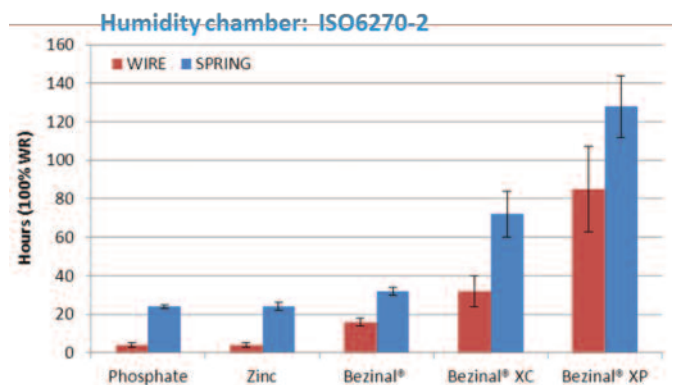


Figure 2: Humidity chamber test (ISO6270-2) on wires and springs

Figure 2 reveals the same ranking, but this time for humidity testing (the number of hours until 100% white rust).

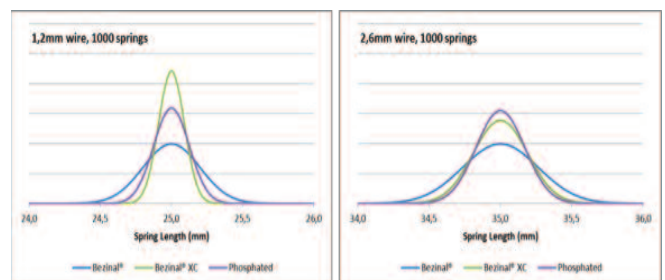


Figure 3 : Coilability test - average standard deviation of the spring length

Figure 3 shows the average standard deviation of the spring length per 1000 examples and reveals dimensional consistencies between springs made of Bezinal® XC and phosphated wire.



## Hybrid polymer coating

For critical corrosion applications, where the aesthetic properties of the springs are crucial, or white rust formation must be avoided, or both, springs are typically post-coated or made from stainless steel wire. Both methods tend to be expensive for the customer. In some cases stainless steel is the only material that offers a desired solution and its use is therefore essential – but over-engineered.

For this and similar reasons Bekaert is developing a cost-competitive hybrid polymer coating [5] for the Bezinal® wire family that can make spring post-coating redundant.

The coating is applied to moving Bezinal® wires by wet epoxy spray, which is then immediately cured. In this way a protective coating typically under  $8\mu\text{m}$  thick, and with very high centricity, is formed on the Bezinal® wire surface.

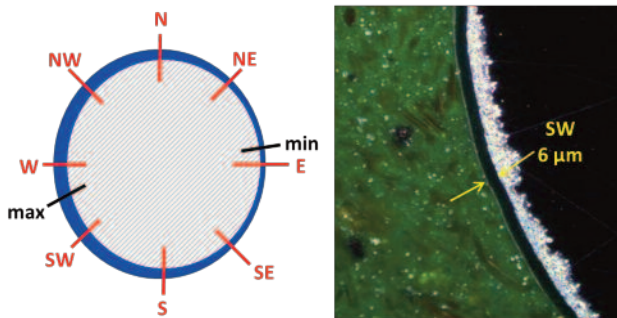


Fig 4 : Centricity of the hybrid polymer coating

Coating centricity is determined by optical microscopy on a cross-section of a coated wire, as shown in Figure 4. Coating thickness is measured in eight places (W, NW, N, NE, E, SE, S and SW) along the outer perimeter of the coated wire and centricity is defined as the ratio of maximum to minimum thickness. This is typically higher than 70% for hybrid polymer-coated Bezinal® wires.

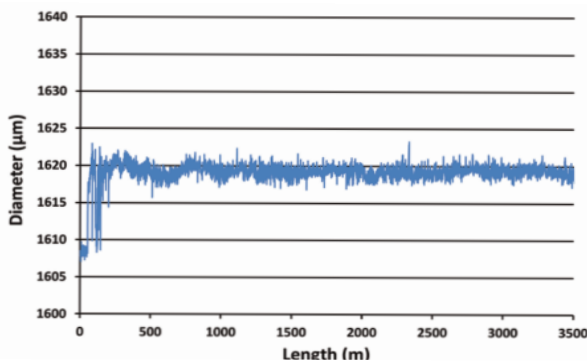


Fig 5 : Process robustness (diameter variation)

The process robustness on the pilot installation can be seen in Figure 5, where coated wire diameter variation is shown over almost 3.5Km of wire. The diameter was determined alongside the spraying and curing process by laser shadow measurement, and as the graph suggests, showed little variation. The uncoated diameter of the Bezinal® wire in Figure 5 was 1.608mm, the coated diameter an average 1.619mm, so the coating thickness is around  $5.5\mu\text{m}$ .

Another advantage of hybrid polymer coating is the ability to colour the coating by simply adding pigment to the system, offering everything from black through a wide range of colours to transparent.



Fig 6 : Coloured hybrid polymer coated spring wire

Figure 6 shows examples.

In one test, springs with a diameter of 10xD and pitch of 3xD were made from a 1.6mm diameter black hybrid polymer coated Bezinal®

wire. After coiling, the springs were subjected to severe stress relieving conditions: 30 minutes at 250°C. The hybrid polymer coating survived both the coiling process and the heat, as can be seen in this post-test photograph (figure 7). Feedback from field test customers has been positive and very promising. The coiling process using the coated wire also yielded springs with consistent dimensions.



Fig 7 : pre-coated black springs

## Corrosion results – white rust protection

From Figure 2 it is clear that wires and springs made from Bezinal®, Bezinal® XC and Bezinal® XP are completely covered with white rust after 20-120 hours exposure in a humidity chamber.

But the hybrid polymer coated wires and springs show *no* white rust degradation after 1.5 years (more than 14,000 hours) under the same conditions. Conditions within the standard humidity chamber (35°C and 100% relative humidity) are not sufficiently severe for the coated wires and springs to be affected. A more aggressive, accelerated test was therefore used to induce white rust formation – namely the salt spray test (ASTM B117) typically used to analyses dark brown rust corrosion on zinc coated or Bezinal® coated carbon steel wires.

The result of the salt spray test on coated Bezinal® wires and springs can be seen in Figure 8. The reference Bezinal® wire lasted only eight hours – in other words, it was completely covered with white rust in that time. Stress-relieved coated springs provided protection against 100% white rust formation for between 700 and 1,000 hours. The test results confirmed that the new hybrid polymer coating for Bezinal® spring wire offers very promising white rust corrosion resistance and heat resistance properties. This coating has the potential to replace the

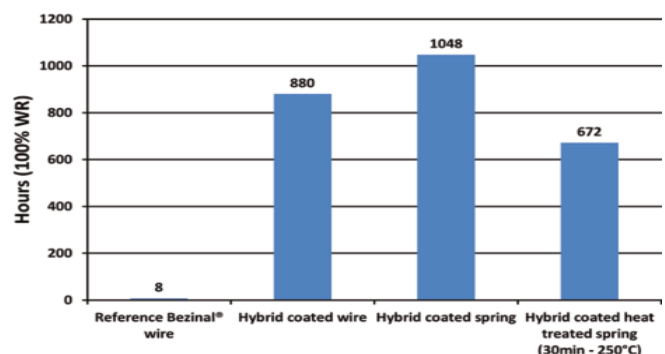


Fig 8: Salt spray test (ASTM B117) on black hybrid coated wires and springs

post-coating of springs used in many corrosion-critical applications. The product is still in development and further exploration to broaden the diameter range and application field continues – but the initial results and market feedback have been very encouraging.

## References

- Verhoeve F., "Bezinal® XC coated wire for high-end, critical springs." Commercial brochure, [www.bekaert.com](http://www.bekaert.com)
- Verhoeve F., "Bezinal® XP coated wire for reliable, superior corrosion -resistant springs". Commercial brochure, [www.bekaert.com](http://www.bekaert.com)
- De Craemer S. "Next Generation of Pre-Coated Spring Wires". Wire Forming Technology International. Winter 2015, 55
- Verhoeve F., "Bezinal® XC and Bezinal® XP coated wire. Improved coilability and corrosion resistance for critical spring applications". IST Conference, Leamington Spa, UK; 9 10 September 2015
- Persoon P. et al, patent pending



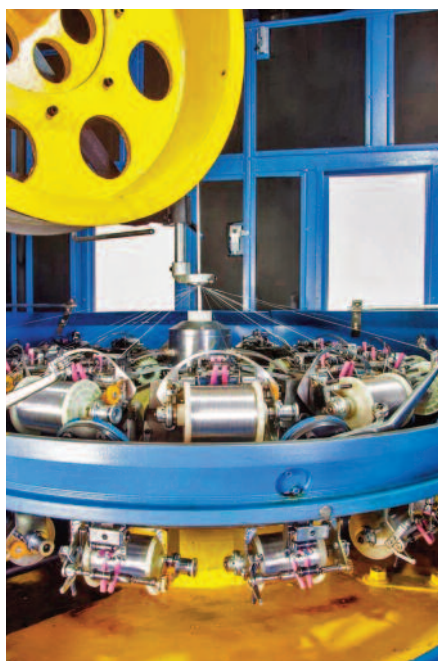
## Gurfil sees strong growth

**G**URFIL reports a very successful 2016, with a production increase of 20%. This came, the company says, in response to growing demand for flame retardant cables as manufacturers update their equipment to increase capacity and meet fire safety standards. The company has signed several new contracts for a full range of products and services; from raw materials and machinery to after-sales service and spare parts from its own warehouse with professional service team. Gurfil began as a supplier of raw materials for cable manufacturers in 1981. Today the company has vastly expanded its product range to three main groups, covering foil, film, tape, machinery and wire products, to offer its customers greater flexibility.

Gurfil is a leader in braiding and mica taping machines and is proud of its strong relationship customers, developed over 35-year relationships in several cases.

The company's focus on innovation and new developments in wider markets provides improved products and services to existing customers and continues to attract new ones.

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



[www.iwma.org](http://www.iwma.org)

## Mentoring award for Adrian

**A**DRIAN May, managing director of IWMA member company Performance Springs Ltd has received an award from the Welsh Government's Business Wales organisation. In a prestigious awards dinner at Cardiff's City Hall on January 26, 2017, Adrian was named *Mentor of the Year 2017* – for “mentoring excellence and an outstanding contribution to the mentoring service”.

Business Wales said the award recognised someone who has made an outstanding contribution to the mentoring service at Business Wales.

Adrian, a businessman experienced in various sectors, was recruited as a Business Wales mentor early in the programme and maintained his support of its work since. He has supported several mentees, some only for a few meetings and some for almost four years. Adrian has given presentations at several national events, including working alongside his long-term mentee and successful Dragon's Den candidate, Layla Bennett.

Together, says Business Wales, they have offered insights for others that have proved the value of recruiting different kinds of business people as mentors.

Shirley Walsh, CEO of Performance Springs



commented, “We are thrilled Adrian has received this award.

He's a very experienced leader and is always happy to share his skills and knowledge with members of our company.

“He is completely focused on encouraging and developing his staff and ensuring that customers of Performance Springs Ltd are happy with our services.”

Performance Springs is one of the UK's leading designer and manufacturer of high-quality custom precision spring products.

[www.performancesprings.co.uk](http://www.performancesprings.co.uk)

## Scott Miller joins Ambrell

**A**MBRELL Corporation has appointed Scott Miller (*pictured*) as pan-European sales manager responsible for central and eastern Europe and the south of England, based at Ambrell's Cheltenham UK facility.

Scott has over 25 years' engineering experience and extensive skills in customer service.

Previously a global sales manager for steel mill capital equipment, Scott was also a board advisor with clients from the Oil Country Tubular Goods (OCTG), automotive, and international steel industries.

“We're excited to have Scott on the team,” said Tony Mazzullo, president and CEO of Ambrell.

“His engineering background, knowledge of

key market segments will be a huge asset to the company.”

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



## WCISA scholarships awards

**T**HE Wire and Cable Industry Suppliers Association (WCISA) had a record number of scholarship applications in 2016.

Three types of scholarships for education expenses are available – high school graduate scholarship, employee and intern scholarship and special scholarship.

The competition last year was so strong that the WCISA has awarded a total of \$10,500 across multiple annual scholarships, as well as a special scholarship for a programme organised by the IWCS.

High school scholarships went to Amanda Accorsi, Brooke Arruda, Jessica Connor, Lauren Klei, Brooke Norman, Brenna Foster Richards and Kimberly Thomson, Joshua Worstell, won the employee and intern scholarship at Die Quip Corp and the special scholarship contribution of \$3000 went to IWCS Wire & Cable Industry Student Scholarship Fund winners at the Rensselaer Polytechnic Institute – Patrick Aselin, Zev Beigel, Andrew Ehlers and Steven Lee

[www.wcisaonline.org](http://www.wcisaonline.org)



# BASEC asks if you are CPR ready?

**T**HE British Approvals Service for Cables (BASEC) used its appearance at this year's Middle East Electricity Exhibition (MEEE) to advise cable manufacturers and distributors exporting construction cable into the EU about the imminent deadline for the Construction Products Regulation (CPR) for cables.

BASEC is the international leader in test and certification services for energy, data and signal cables and ancillary products.

The CPR regulation requires Middle East-based cable manufacturers supplying any type of cable intended for permanent installation in a building in Europe meet the new cable testing, certification and CE marking requirements by 1 July this year.

The regulations cover power distribution, final circuit wiring, control and instrumentation and data communications cables.

Compliance with CPR means products can be freely traded and used in the EU. Cables only need to be assessed once, to a harmonised European standard (EN 50575).

Cable wholesalers and distributors supplying into the EU have a responsibility to ensure their suppliers meet the regulations, and if necessary must undertake the CE marking requirements themselves.

BASEC is a UK government-approved body for cable testing and certification to the CPR – indeed is one of the first in Europe.

Since CPR for cables was introduced in 2016, BASEC has seen increased demand from Middle East-based cable manufacturers keen to meet the new regulations.

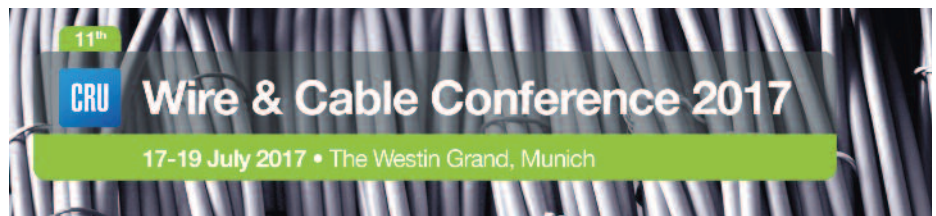
“Our message is don't leave it too late,” warned Dr Jeremy Hodge, BASEC's chief executive.

“The regulation becomes mandatory in a few months and while lower-class requirements can be handled quickly, higher classes are more complicated to test and more time will be needed to perform assessments. Cable that doesn't comply in time may need to be taken off the market.”

Manufacturers should also be aware that CPR is a regulatory system and will need to be implemented separately from any voluntary cable product approvals or testing.

About four million tons of low-voltage cable worth 12 billion Euros is used in Europe each year.

[www.basec.org.uk](http://www.basec.org.uk)



## CRU wire and cable conference for Munich

**T**HIS year's CRU Group Wire and Cable conference will be held in Munich, recognising the Bavarian capital's importance in the industry.

The event will include special highlight sessions focusing on the future of renewable energy, connected living, automotive electronics and subsea wire and cable usage.

The sessions will explore next-generation applications of wire and cable and the impact it will have on producers, traders and distributors worldwide.

CRU provides analysis on the optical fibre and cable industry, offering insights into industry trends. CRU Events creates industry-leading commercial and technical events around the world.

Munich is the German centre of technology, IT, communication and the motor industry.

“We are really excited about the conference this year. It is such an exciting time for the

wire and cable industry,” said Nicola Coslett, CEO of CRU Events.

As in previous years, the event will open with shared sessions then split into streams that focus more closely on energy cable and communications cable issues.

“This way we bring together the entire supply chain from across global wire and cable industry,” Nicola suggested.

“Opening sessions will explore the key regional markets and economic factors affecting the wire and cable trade.”

The event will have over 30 presentations over two days, as well as a site visit to the Niehoff plant.

A number of analytical papers on copper, aluminium, optical fibre, coatings and other inputs markets will be heard, as well as a showcase of the latest technical innovations for the sector.

[www.events.crugroup.com](http://www.events.crugroup.com)

## Sikora launches HF spark tester

**S**IKORA'S new, highly-accurate Spark 6030HF (pictured) high-voltage spark tester makes it easier to comply with European safety and testing standards.

The Spark 6030 HF features a replaceable calibration module that houses all the device's testing functions; exchanging this module each year for a new, fully factory-calibrated and tested module returns the device to original specification – thus complying with EU guidelines – without the significant downtime required to return the device to Sikora for recalibration.

Meanwhile a three-step self-test and calibration system, only available as an option on the Spark 6030HF, tests for voltage, short-circuit current, sensitivity, capacitive load and corona level on demand, and ensures device safety and accuracy in day to day use. Each test is documented and saved in a log file that can be inspected at any time. The Spark 6030HF

even features a mobile app for the monitoring and analysis of measurement results.

For the sensitivity test, 20 discharges are simulated in 20 seconds, all of which must be detected by the device. For the short-circuit current test, a defined value must not be exceeded, to guarantee the safety of the user.

The calibration module continuously measures the accuracy of the testing voltage to an accuracy of +/- 5%.

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





## Forthcoming member events

A key benefit of membership of the IWMA is the calendar of informative events and social occasions to give you an opportunity to network and entertain customers.

### Golf Day

**14 June 2017**  
**Fairhaven Golf Club**  
**Lytham St Anne's, UK**  
**Tel + 44 121 781 7367**  
**Email: [info@iwma.org](mailto:info@iwma.org)**  
**Website: [www.iwma.org](http://www.iwma.org)**

### Dinner Dance

**24 November 2017**  
**Royal Garden Hotel**  
**London, UK**  
**Tel + 44 121 781 7367**  
**Email: [info@iwma.org](mailto:info@iwma.org)**  
**Website: [www.iwma.org](http://www.iwma.org)**

### AGM & Industry Lunch

**7 February 2018**  
**The Mere Golf Resort & Spa**  
**Knutsford, UK**  
**Tel + 44 121 781 7367**  
**Email: [info@iwma.org](mailto:info@iwma.org)**  
**Website: [www.iwma.org](http://www.iwma.org)**

## The IWMA is pleased to welcome these new members



Automated Wire Bending Ltd is a high-quality subcontractor for low and high volume wire-formed products in 1.4mm to 12mm diameter wire in mild, stainless, galvanised and spring steels and many other ferrous and non-ferrous materials, as well as welding, coating and packaging requirements.

[www.awbl.co.uk](http://www.awbl.co.uk)



### Excel Craft

Formerly known as Redaelli (India) PVT Ltd, Excel Craft is a pioneer in wire and cable-making machine manufacture. The company offers a wide range of proven products and technological innovation in the design of mechanical and electrical features, all to the latest global standards.

[www.excelcraft.in](http://www.excelcraft.in)

### AFH-Antriebstechnik GmbH



AFH is one of the leading manufacturers of endless woven haul-off belts for the international wire and cable industry. The company, focused on quality, commitment and continuous improvement, prides itself on treating every customer individually according to specific requirements.

[www.belting-association.de](http://www.belting-association.de)



Ambrell Corporation is a US-based, global leader in the induction heating market. With operations in the UK, France and the Netherlands, the company is renowned for its application and engineering experience, product quality and outstanding service.

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



Australia's largest producer of aluminium and aluminium alloy wire for the Australia, New Zealand market, Badger specialises in custom non ferrous wire manufacturers and custom production runs; from small custom lots to large volume bobbin production runs.

[www.badgerwire.com.au](http://www.badgerwire.com.au)



Based in Berlin, Germany, DLB produces bare and tin-plated wires, strands and ropes from copper and copper-based alloys in class 2, class 5 and class 6, for the automotive, wind, solar, subsea, data and telecom sectors, as well as special cables and other applications.

[www.dlb-gmbh.de](http://www.dlb-gmbh.de)



A leading producer of equipment for the bar and tube finishing industries, EJP has customers in every industrialised country. With its HQ in Germany, subsidiaries in South Korea, China and Italy, as well as sales and service representatives worldwide, EJP can satisfy customer requirements.

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



Founded in 1992, the company offers more than 600 products including high and low carbon zinc coated wire, phosphating wire, zinc aluminium, alloy coating wire, galvanised stranded wire, PVC vinyl coated wire steel wire mesh, steel wire rope, injection moulding, hot-dip coating section, steel tube and fence pile.

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



Ningbo Kaite Machinery is a largest professional manufacturer of steel wire rope stranders and closers in China, supplying both domestic and global markets. The company also works closely with many overseas steel wire rope manufacturers including in Europe, America and Asia.

[www.kaite-machine.com](http://www.kaite-machine.com)



A leading designer and manufacturer of made-to-order, high quality precision spring products, Performance Springs is committed to growth and investment in both its workforce and the manufacture of wire and sheet metal related products.

[www.performancesprings.co.uk](http://www.performancesprings.co.uk)



Shandong Binao specialises in certified, high-specification copper/aluminium wire and cable widely used in mining, locomotive, marine, power, chemical, construction and oil industries. The company offers the most advanced cable production and test equipment at home and abroad.

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



### Jiaxing Eternal Electronic Co Ltd

A member of Asia Sunshine Industrial Group, Jiaxing is a leading manufacturer of foil, film, and tape products used for cable shielding, insulation and bonding, flexible air duct wrapping, electronic EMC and EMI shielding, as well as thermal protection and waterproof construction.

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



# Latest technical developments from the IWMA

**T**HE IWMA Educational Trust promotes the learning of new skills and the acquisition of experience for the talent of the future.

Whether a member company is considering recruiting an apprentice or supporting one to attend day-release classes or acquire higher specialist qualifications, the trust might be able to offer financial help.

## The Walter Niehoff Scholarship

The scholarship provides funding to train individuals supported by member companies. Applications can be made through the IWMA website at any time.

## John C Hogg Travel Awards

The IWMA gives young people new to the industry the chance to attend major industry events, like wire Düsseldorf and CabWire, by contributing towards travel costs. Successful applicants get to learn about the latest innovations and meet influential industry people.

## University Links

The IWMA is working with such universities as Southampton and De Montfort, to find ways of working together – for example on research papers or training placements.

"We are here to help our members secure their future by training the next generation of wire industry professionals," says Peter Large, the IWMA's technical committee chairman. "We want to hear from members about their training plans and wherever possible, the IWMA will be there to support them."

Visit the IWMA website:  
[iwma.org/education](http://iwma.org/education)

*Forging stronger partnerships, expanding benefits for members and securing a major industry forum...*

*Technical sub-committee chairman Peter Large reports on the committee's achievements in 2016*



**I**T WAS a Düsseldorf year in 2016 – and once again we had a great show, with our stand attracting many exhibitors and visitors – including 10 industry newcomers from several countries who could attend courtesy of IWMA Educational Trust John Hogg travel awards.

The technical committee even arranged for the young people to tour the show to see the full process of making a finished product from raw materials.

We were grateful to Geoff Church and exhibitors who took the time to explain and demonstrate their technology – especially in the middle of the busy show.

Following the tour, the group returned to the IWMA stand for a presentation by IWMA chairman Amanda Shehab with Daniel Ryfisch, deputy global portfolio director for metals and flow technologies of Messe Düsseldorf GmbH.

During the year we made excellent progress developing a members' area on the website – one of the features of which is access to the information in all the excellent technical papers presented at IWMA conferences over the years.

The technical committee is currently working on a portfolio of training fundamentals, which should be available to members by the end of this year.

We are also developing our links with key universities involved in research and development in the wire and cable industry to encourage new talent into the industry.

With this in mind, I visited Southampton University's excellent high-voltage research facility in December.

It was a pleasure to see the laboratories and to hear how the university is working closely with industry to help the development of new products.

The technical committee's main event of the year is the CabWire 2017 Industry Forum, which focuses on the global cable industry. We will return to Düsseldorf for this and invite you to join us on Tuesday, 7 November at the Congress Centre East.

We already have some first-class papers coming up at Cabwire, including one from Prysmian on its new high voltage insulation system. A fuller programme will be published shortly.

CabWire is also an excellent networking event, followed by a dinner and Rhine cruise.

The International Tube Association will be holding its conference at the same time and sharing many of the arrangements, so I would like to say thanks for the ITA's excellent cooperation.

The IWMA Educational Trust will be offering travel awards to this forum, particularly aimed at universities.





## Member benefits

### Networking

Unrivalled opportunities for networking and collaboration.

•

### Sponsorship

Access funding to help industry newcomers extend their skills and qualifications

•

### News

WCN has the latest industry and member news

•

### Exhibition Support

The IWMA attends the biggest international exhibitions - and offers attending members great support

•

### Education

Benefit from the IWMA's excellent partnerships with key wire and cable industry bodies and universities

•

### Expertise

Access business expertise and advice, as well as wire and cable industry knowledge

•

### Experience

Extensive library of technical papers is available to members and is an excellent point of reference

•

### Our offices, your offices

Make use of the IWMA's modern meeting rooms, boardroom and hot desk facilities near Birmingham airport, UK

## Become a member of the IWMA

*Membership is open to companies and individuals involved in the manufacture and distribution of all kinds of wires and cables.*

We, the undersigned, wish to apply for membership of the above association and agree to pay the annual fee of US\$280, €245 (EU non-VAT exempt/non-Eurozone), €204.17 (EU VAT exempt), £150 (+VAT for UK companies).

Company

Address

Postcode

Country

Telephone

Fax

Email

Website

Title

First name

Last name

Job title

TVA/VAT no

What does your company make or supply?

How did you hear about the IWMA?

☐ Exhibition/conference/event

☐ Recommended by member

☐ IWMA website

☐ Trade press

☐ WCN newsletter

☐ Other

What, for you, will be the key member benefit?

☐ Networking

☐ Sponsorship

☐ News

☐ Exhibition support

☐ Education

☐ Expertise

Signature

Date

Apply online at [www.iwma.org/join](http://www.iwma.org/join)

Return your completed form to:

IWMA Ltd, Wellington House, Starley Way, Solihull, B37 7HB, UK

Tel: +44 121 781 7367 • Fax: +44 121 781 7404

Email: [info@iwma.org](mailto:info@iwma.org)

Industry partner to the major wire and cable exhibitions

