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Wire & CABLE ASIA 线缆亚洲

May 2012
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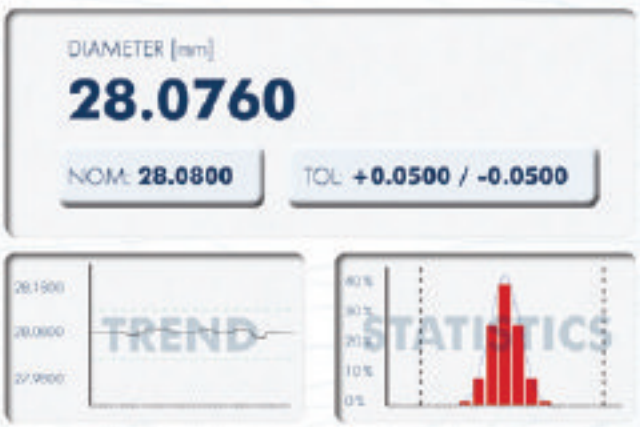
Dr. Torben Clausen, R&D at SIKORA AG



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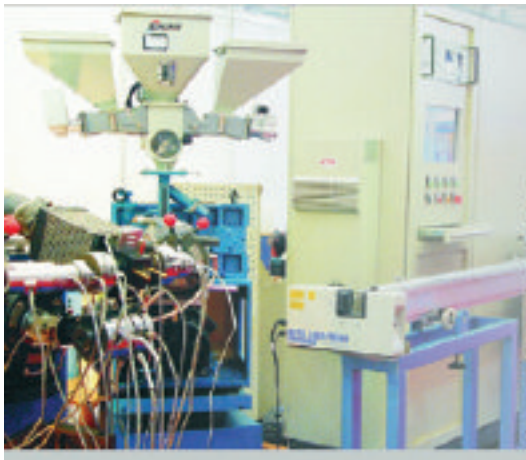

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Jean-Paul Sartre

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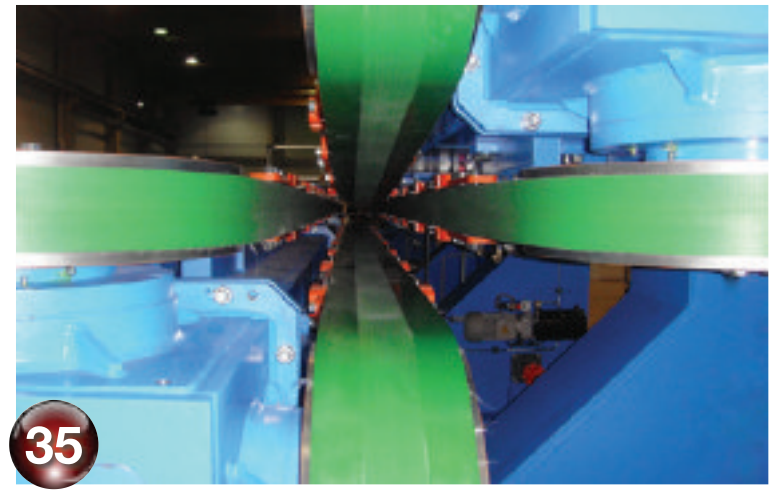

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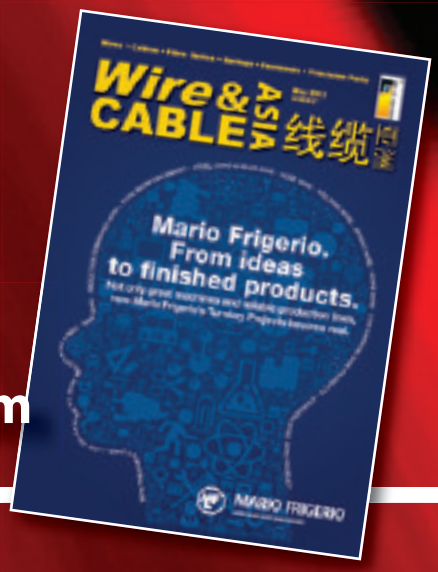

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Technical Articles

Next Issue

Features On

- Pay offs, take ups and winding
- Focus on Korea
- Special 21st Anniversary Issue

Getting Technical

Effect of Boron alloying on microstructural evolution and mechanical properties of high carbon wire by Emmanuel De Moor, Advanced Steel Processing and Products Research Centre, and Walther Van Raemdonck, NV Bekaert SA

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Features Editor – USA
(专栏编辑 – 美国):.....Dorothy Fabian
Editorial Assistant
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Design/Production (设计/制作): ..... Julie Tomlin
Production (制作):.....Lisa Benjamin

Translation (翻译经理): ..... Tony Zhou
Jianye Yang
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Europe (欧洲)
Advertising/Marketing & Editorial
(广告, 营销及编辑部)
46 Holly Walk, Leamington Spa
Warwickshire CV32 4HY, UK
Tel (电话): ..... +44 1926 334137
Fax (传真):..... +44 1926 314755
Email (电子邮址): ..... wca@intras.co.uk
Website (网站):..... www.read-wca.com

USA (美国)
Editorial (广告/营销)
Intras USA – Doug Zirkle
Danbury Corporate Center, 107 Mill Plain
Road, Danbury, CT 06811, USA
Tel (电话): ..... +1 203 794 0444
Email (电子邮址): ..... doug@intras.co.uk

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《亚洲线缆》一年出版六期，面向整个北亚、东南亚地区的电线、电缆和线材制品的生产商和用户发行。订阅一年：欧元140；英镑120；美元195。

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The attention turns to China

wire 2012 in Düsseldorf was a resounding success for many of the Asian companies I spoke to during the week.

One thing that shone through more than anything during the week was the optimism to be found within the industry, this no doubt backed up by the positive leads many customers collected.

There were many tales of new business being discussed, hopefully most of which will turn into positive orders, and some launches of new products from the likes of Dow and Borouge and Borealis, both of which will feature in later issues of *Wire & Cable ASIA*.

Some companies also chose the showcase exhibition to introduce new technology to the market, Queins among them who unveiled a new heavy-duty rigid stranding cage (page 35).

A definite increase in the number of exhibitors from both China and India also showed how boisterous the region is, and this can only be good with attention now turning to the 13th Guangzhou International Wire Exhibition in June.

A list of exhibitors for this show in Guangzhou, China, can be found on page 48. The interest in this exhibition has already reached record levels with an increase in floor space booked and more exhibitors than ever on display from 19th-21st June.

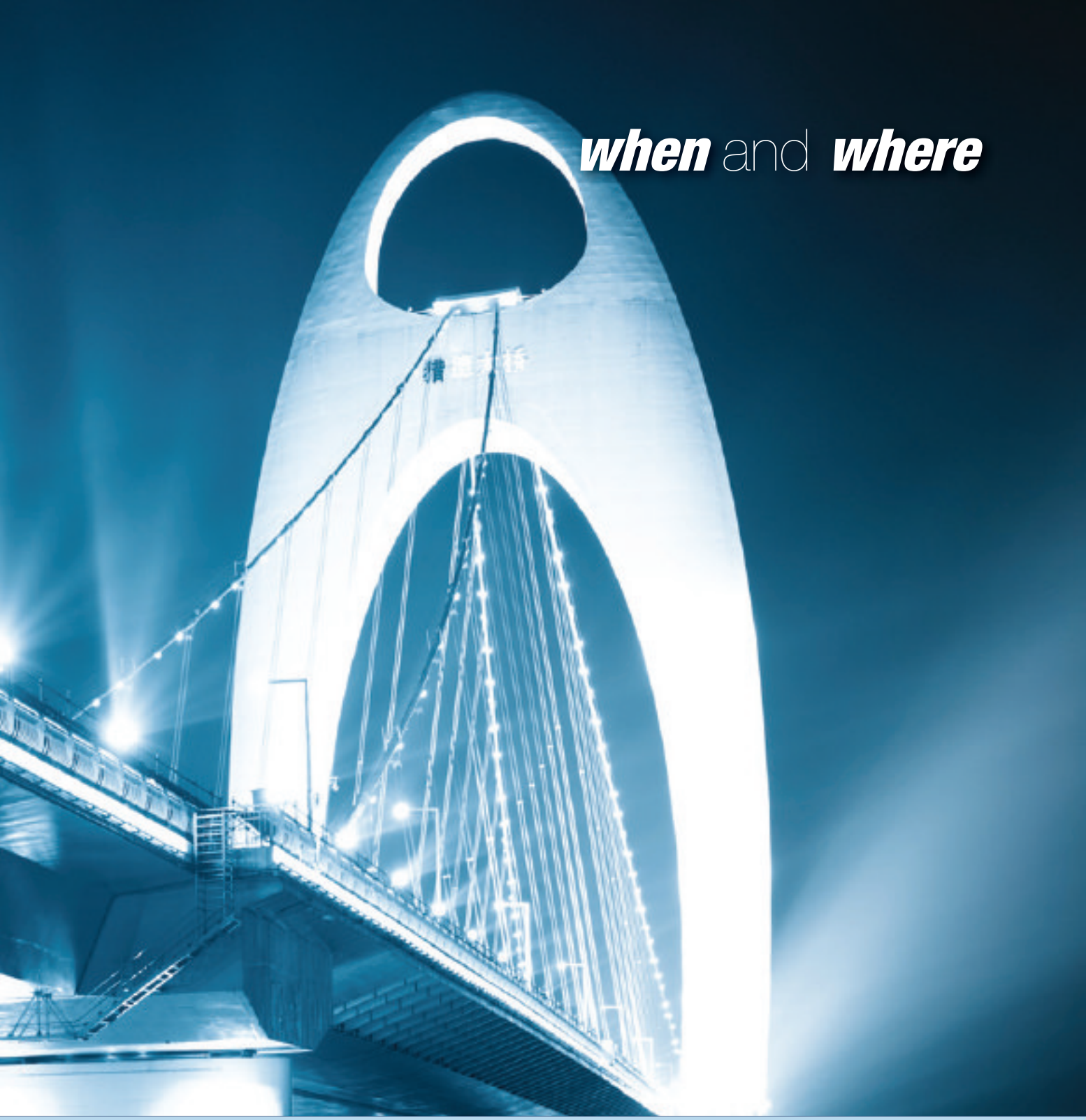
On a more personal note I would like to say thank you on behalf of all the staff of *Wire & Cable ASIA* for the warm reception and greetings we received from many of the companies we spoke to.

We look forward to meeting up with you again in October at Wire and Cable India.

David Bell

Editor

when and where



'Zhujiang River & modern building of financial district in Guangzhou, China' www.bigstockphoto Photographer – Yuanyuan Xie

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19-21: **Guangzhou Wire & Tube –** trade exhibition **–** Guangzhou, China
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Julang Exhibition Co Ltd
Fax: +86 203 862 0790
Email:
meiwen@julang.com.cn
Website: www.julang.com.cn

September 2012

25–28: **wire/Tube China –** trade exhibition **–** Shanghai, China
Organisers:
Messe Düsseldorf China Ltd
Fax: +86 216 169 8301
Email:
shanghai@mds.cn
Website: www.mdc.com.cn

October 2012

30–1 Nov: **wire and Cable India/Tube India –** trade exhibition **–** Mumbai, India
Organisers: Messe Düsseldorf India
Fax: +91 112 697 1746
Email: info@md-india.com
Website: www.md-india.com

November 2012

11-14 Nov: **IWCS –** Technical conference & trade exhibition **–** Providence, RI, USA
Organisers:
IWCS.Inc
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Email: phudak@iwcs.org
Website: www.iwcs.org

▲ *High-speed bunching machines from Jiangsu Fuchuan*

Faster technology

JIANGSU Fuchuan Electrical & Mechanical Co, Ltd was founded in 2001 and is a hi-tech enterprise designing, manufacturing, installing and adjusting electric wire and cable equipment.

The company is located in Huaqiao Economic and Technological Development Zone in Kunshan City of Jiangsu Province.

The wire and cable equipment launched by Fuchuan includes high-speed stranders, high-speed annealing and tinning machines for ultra fine wire, high speed extruders, high speed wire drawing machines, high speed cable laying machines and all kinds of maintenance equipment for wire and cable machinery.

All equipment achieves the international advanced level in the industry.

Currently, Fuchuan provides good quality production equipment to famous corporations at home and abroad such as Sumitomo Electric Group, Hitachi Group, Hewtech Electronics, Kurabe Industrial, Hayakawa wire, Zhenxiong Copper Group, Hanhe Cable Group, Jiangnan Group, Tianjin 609 Cable, Zhongli Sci-Tech Group, Wantai Group as well as Tebian Electric.

Jiangsu Fuchuan Electrical & Mechanical Co Ltd – China
Fax: +86 51 257 699 189
Email: yw1@fcjd88.com
Website: www.jsfcjd.com

Growth period

Subex Ltd, provider of business and support systems, has recorded strong growth and profitability for its product business (business optimisation or RMS). The company has recorded net consolidated revenue of Rs. 1328.69m ($26.05m) for the third quarter of FY12. The order intake for the continuing product business grew 15.5% at $23.1m, up from $20m in FY11 Q3. Net profit (before exceptional items) grew to Rs. 285.38m ($5.60m).

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$250m cable deal for UAE capital

▲ *Bustling Abu Dhabi, site of a $250m cable installation project. Photo courtesy: Naseer132, iStockphoto*

THE Abu Dhabi Transmission and Dispatch Company (Transco) has inked a deal with Prysmian Cables and Systems for a $250m cable installation project in the UAE capital.

The 230km, 400kV project will see extra high voltage power cables manufactured for the Bahia and Saadiyat grids, and will form a significant part of the infrastructure development within the city. The cables will replace existing overhead power lines and will run underground.

Although Prysmian will manufacture the cables, Abu Dhabi-based joint venture Borouge will be assisting the manufacturer on the project by providing insulation, semi-conductive and jacketing materials that will address the project's critical demands for reliable, consistent and long-term performance.

Borouge is the joint venture created by the Abu Dhabi National Oil Company and Borealis, an Austrian chemical and plastics provider and manufacturer.

As part of the Transco project, Borouge will provide Prysmian with Superclean insulation and Supersmooth semi-conductive compounds.

These highly advanced plastics are manufactured by Borealis and distributed throughout the UAE by Borouge.

The Superclean cable material is manufactured using advanced procedures so as to ensure that the cables are free from contamination and that cleanliness is maintained to the point of delivery.

The performance of these insulation materials is complemented when used in conjunction with Supersmooth semi-conductive compounds, which ensure better friction resistance to be pulled into ducts, lower shrinkage and excellent Environmental Stress Cracking Resistance in sea water.

The new power link is of critical importance to the capital's power transmission system as it connects the Bahia and Saadiyat grids with some of Abu Dhabi's most prestigious infrastructure and real estate developments. These include Yas Island, the home of the Formula 1 racing track, and Saadiyat Island's Abu Dhabi Cultural District, which hosts global museums like the Louvre and the Guggenheim.

Prysmian – Italy
Email: info@prysmian.com
Website: www.prysmian.com

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www.lamiera.net

Those coming from Ancona, Florence, and Milan can reach the North entrance directly from the BOLOGNA FIERA motorway toll; those coming from Padua can reach the Michelino entrance by leaving the ring road at exit 8. **Fiera Bologna Exhibition Centre, Michelino and North entrances, 9.00 - 12.00, Wednesday 9th to Saturday 12th May.**

To obtain a free pass for the event:

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▲ *Spool ribbon from Plasmait*

New website with PV ribbon tinning line

PLASMAIT, a supplier of plasma heat and surface treatment lines for wire, tube and strip production, has updated its company website.

Alongside the company overview and contact details visitors will be able to review short outlines of Plasmait's products and applications.

Newly presented on the website is the PV ribbon tinning line used for production of PV Ribbon. The line became the production process of choice for most producers of premium quality PV ribbon worldwide.

Also updated is the overview of PlasmaANNEALER, which has been subject to successful installations in copper and copper alloy annealing as well as increasingly in the stainless steel and nickel alloy applications.

Visitors who want to test plasma heat and surface treatment on their specific materials are welcome to book their trial online. Plasmait runs client trials on three different test lines where plasma heat and surface treatment is performed to various requirements and for many different materials.

The PlasmaPREPLATE process has so far received the most interest amongst clients.

The process is used for continuous surface preparation and annealing (if necessary) prior to coating, such as hot dip tinning, electroplating, polymer extrusion, taping or cladding.

Peter Ziger, Plasmait's R&D director, explained that the trial facilities have been utilised by many manufacturers who strive to improve the quality of their wire or tube products or want to make the production chemical-free and operator-friendly and, above all, to the producers who strive to reduce their ongoing production costs.

Plasma treatment will benefit most the applications with demanding surface needs or challenging annealing requirements. Such applications are usually found in sectors such as medical, precision mechanical, electronics, aerospace and energy sectors.

Since the introduction of high-speed plasma heat and surface treatment process in the wire industry in 2003 Plasmait has continuously improved the technology and widened the scope of application of plasma heat and surface treatment in the ferrous and non-ferrous sectors.

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Buy out is completed

BETA LaserMike, a leading global provider of precision measurement and control solutions, has completed the acquisition of the trade and assets of DCM Industries Inc, a privately held US company located in Hayward, California, and a leading provider of test and measurement solutions for wire and cable applications.

Since 1971, DCM Industries has been developing and producing high-quality test and measurement solutions such as highly sophisticated switching and automation systems for a broad range of wire and cable applications.

The newly acquired DCM product line will enable Beta LaserMike to provide customers with best-in-class test automation solutions. Products include testing solutions for LAN cable, coaxial and RF cable, telecom cable, marine cable, and aerospace cable.

According to Beta LaserMike president Ken Wright: "DCM's products and services are well respected throughout the wire and cable industry. The acquisition of the company's cable testing products not only complements and enhances our solutions portfolio, but it allows us to better serve our valued customers and compete in the growing measurement, testing, and controls market.

"In simple terms, wire and cable customers now have a single source provider for all their production measurement, testing, and control needs."

"Today is about making a strong company even stronger," said Perry Chattler, CEO of DCM Industries.

"With Beta LaserMike, DCM is joining one of the world's leading measurement and control solutions providers.

"Combining Beta LaserMike's commercial strengths and technical expertise with DCM's proven testing technology and experienced product team will help position Beta LaserMike for even greater success in the wire and cable industry."

Beta LaserMike – USA
Fax: +1 937 233 7284
Email: sales@betalasermike.com
Website: www.betalasermike.com

DCM Cable Testing Solutions – USA
Fax: +1 510 670 7212
Email: info@dcmindustries.com
Website: www.dcmindustries.com

Bureau in Cairo moves to Dubai and becomes sales and service office

In January Sikora established the Sikora Middle East office, based in Dubai, UAE. The office supports customers in service as well as sales questions.

In 2008 Sikora opened a service bureau in Cairo, Egypt, to serve customers in the Arabic region but due to the continued political tension in that region the headquarters has been moved to Dubai. Head of Sikora Middle East is Karim El Nahas, who has also made the move from Cairo.

The office in Dubai offers Sikora the opportunity to fulfil the increasing demands of Arabic customers with individual service and reliable customer support.

Customers receive service from 11 Sikora offices worldwide to assure a quick and reliable customer service.

They work together with more than 30 regional representatives worldwide.

Sikora AG – Germany
Fax: +49 421 489 0090
Email: sales@sikora.net
Website: www.sikora.net

New appointments for Beta LaserMike

BETA LaserMike has hired Julio Navarrete as field service engineer for Mexico. Carlos Junco is appointed sales engineer for this region.

"We are excited to have Julio join our team of professionals," said Ken Wright, president of Beta LaserMike. "His extensive knowledge and experience will bring exactly the background we were looking for to provide continued excellence and continuity to our valued customers in Mexico. The transition of Carlos into his new sales role will give us the added advantage of reaching more potential customers in this region with our solutions."

Mr Navarrete will provide field service technical support for Beta LaserMike's line of measurement and control products that serve a broad range of industrial gauging applications. He is a highly qualified engineer with over 12 years of technical support and field service experience in the high-tech marketplace with emphasis in systems integration, industrial controls, and troubleshooting challenging process applications.

Mr Junco will primarily focus on developing Beta LaserMike's measurement and controls business in all industrial markets. He will be responsible for the management of Beta LaserMike's agents and representatives in Mexico. Mr Junco will play a key role in delivering Beta LaserMike's complete portfolio of solutions to existing and potential customers in Mexico.

Prior to his new role, Mr Junco supported the company's customers in Mexico as field service engineer. He holds a bachelors degree in electronics engineering and has received training in a wide range of technical subjects including process control, software design, and industrial automation.

Beta LaserMike – USA
Fax: +1 937 233 7284
Email: sales@betalasermike.com
Website: www.betalasermike.com

▲ *Julio Navarrete*

▲ *Carlos Junco*

Looking to the future

KÄMPFER Würz Umformtechnik, a member of the Würz Group located at Central Hessen, sets standards not only in manufacturing technically demanding products but also in terms of environmental protection.

The philosophy of the founder and CEO Raimund Würz to reinvest earned capital purposefully, to permanently develop new manufacturing possibilities and to keep focus on the continuing education of the employees also contains dealing with the question of a careful handling of natural resources.

"Environmental protection is an investment in the future, which we are facing by conviction," said Würz. Quite early (1978), he dealt with alternative energy. In the middle of the 1980s Würz put the first of three wind energy plants (WEP) into operation in direct proximity to the company and was last year awarded by the local press as "wind craft pioneer in the region of Westerwald".

Today Würz produces most modern WEP up to 3.0 megawatt clean electricity. Together with the solar plant and a combined heat and power unit (CHPU), which is running on vegetable oil, much more energy than the company needs itself is generated. With the waste heat of the self constructed CHPU Würz heats all production halls.

"The efforts to create a future-orientated environmental management system are already bearing fruits today," said environmental management officer Rainer Pletka. Such a system, according to DIN EN ISO 14001, is meanwhile an elementary requirement for a lot of Würz group customers.

"Who manufactures parts with a precision of thousandths millimetres, whose high quality level sets standard for the environmental management as well as for the whole business," stressed purchasing manager of Kämpfer-Würz, Sascha Knöpp. In November of last year the Würz group was certified by TÜV Hessen in accordance to DIN EN ISO 14001:2009 (environmental management systems).

"The environmental management system contains all environmentally relevant activities based on the standard. The securing of conformity of law forms the basis, a regular inspection of the compliance of internal processes according to the valid legal requirements.

"All processes are built on that standard," explained Pletka. This includes the handling of working materials and hazardous substances, the field of waste disposal and waste management, as well as emergency readiness and averting of danger.

Kämpfer Würz – Germany
Fax: +49 277 595 4595
Email: info@kaempfer.de
Website: www.kaempfer.de

Retirement of executive secretary

The International Wire and Machinery Association has announced the retirement of executive secretary, Phillip Knight.

Mr Knight, who had been in the position for ten years, intended to retire in the summer but because of health concerns retired on 29th February 2012.

IWMA Chairman Colin Dawson, on behalf of the executive committee and all member companies, wished Phillip a long and happy retirement. The appointment of a new executive secretary will be announced in due course.

Any enquiries should be directed as usual to the IWMA offices on +44 1926 834680 or via email at info@iwma.org

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公司坐落于江苏省昆山市的花桥经济技术开发区。

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Subex强劲增长

Subex公司是全球领先的通信服务业务支持系统(BSS)供应商，其产品业务和盈利能力强劲增长(业务优化或RMS)。

公司2012财年第三季度可创造净营业收入达13.2869亿卢比(约合2,605万美元)的最好业绩。2011财年同期营业收入为12.6772亿卢比(约合2,486万美元)。与2011年第三季度的2,000万收入相比，公司今年业务订单同比增长15.5%，达到2,310万美元。净利润(扣除特殊项目前)与2011年第三季度的2.4041亿卢比(约合471万美元)相比，增至2.8538亿卢比 (约合560万美元)。

Subex Ltd – 印度
传真: +91 806 696 3333
电子邮件: info@subexworld.com
网址: www.subexworld.com

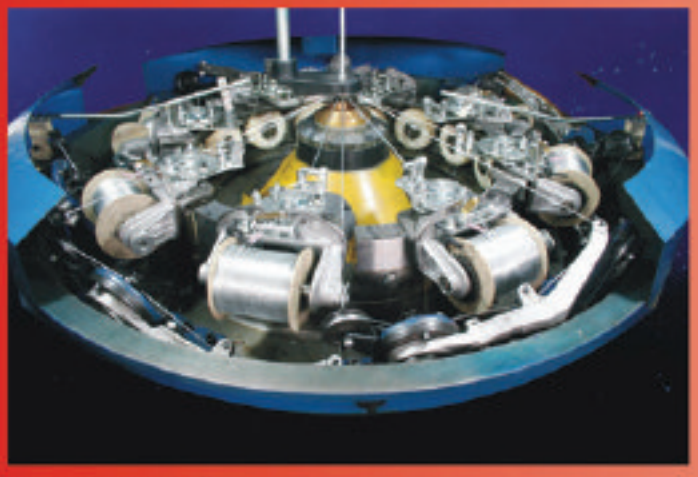
NYDG

NYDG

上海南洋电工器材有限公司主要从事于电线电缆机械的设计和制造，现主要产品为编织机，绕包机，印字机。其中，编织机按编织线径由小到大分为：轻型、标准型、重型。

GSB-1Q型

GSB-1Q型16锭高速编织机是目前我公司的最新产品.该机型适用于编织极细丝,应用行业包括微型电脑,移动通讯设施,航天航空及军事领域等.该机型的主要技术指标达到国内领先水平,接近国际先进水平,每分钟转速范围0－120米,无极调速;由交流伺服系统控制牵引.编织节距可在2～60mm范围内以精度0.1mm无级任意选择;可编织0.03～0.05mm的极细钢丝;恒张力收放线机构确保编织过程中的张力均衡;机器工作噪音≤75分贝。



GSB-Z系列

重型机方面，GSB-Z系列高速编织机主要适用于大直径、大长度线缆及管材的钢丝编织。GSB-1Z，2Z，WGSB-3,WGSB-3B型（16锭，24锭，32锭卧式，36锭卧式钢丝编织机）的最大编织丝直径可达0.4mm*12股（钢丝）。最大编织芯线直径φ100mm。

绕包机系列

本系列产品可分单头，双头或三头绕包，绕包分为卧式或立式，是生产通讯电缆、控制电缆、防火电缆等专用设备。绕包盘最大转速可达1500r.p.m，绕包节距0.5mm－30mm,绕包盘最大外径φ300mm。绕包带可分为片式和筒式两种。

上海南洋电工器材有限公司

地址: 上海南汇区鹿达路110号
电话: 0086-21-33896306
33896307 33896308
传真: 0086-21-33896305
http: www.shanghai-nanyang.com
E-mail: sales@shanghai-nanyang.sina.net

Beta LaserMike新的人事任命

Beta LaserMike聘请Julio Navarrete为墨西哥地区服务工程师。任命Carlos Junco为该地区的销售工程师。

Beta LaserMike总裁Ken Wright说："我们非常高兴Julio加入我们的专业团队，""他丰富的知识和经验正是我们所渴求的背景材料，为墨西哥的尊贵客户持续提供精益求精的技术与服务。Carlos转变为新的销售角色，将为我们的解决方案在该地区赢得更多的潜在客户。"

Navarrete先生为Beta LaserMike测量控制产品提供技术支持现场服务，为广泛的工业测量应用提供服务。

他是一位高素质的工程师，拥有超过12年的技术支持和现场服务的经验，主要在系统集成、工业控制和故障排除等挑战性的工程应用中。

Junco主要致力于开发Beta LaserMike在工业市场的测量与控制业务。他将负责管理Beta LaserMike在墨西哥的代理商和代表商。Junco将在为墨西哥现有和潜在客户提供完整系列的解决方案方面发挥关键的作用。

Julio Navarrete先生

Carlos Junco先生

出任该新角色之前，Junco担任公司在墨西哥的客户现场服务工程师。他拥有电子工程学士学位，并且受过广泛技术课程的培训，包括生产过程控制、软件设计和工业自动化等科目。

Beta LaserMike – 美国
电子邮件: sales@betalasermike.com
传真: +1 937 233 7284
网址: www.betalasermike.com

执行秘书退休

国际线材机械协会执行秘书Phillip Knight宣布退休。

Knight先生担任协会秘书长达10年之久，原计划在今年夏季退休，但由于身体健康原因，于2012年2月29日宣布退休。

在Knight先生的帮助下，IWMA国际会员稳步增长，但他任职期间会员数量增长超过了40%。他组织和参与了全球许多行业会议和展览，显著提高了IWMA的国际知名度。

IWMA主席Colin Dawson代表执行委员会和所有会员公司，祝Phillip先生退休之后生活愉快。

新的执行秘书将在适当时候宣布。

任何疑问欢迎致电IWMA办公室：+44 1926 834680或发送邮件至：info@iwma.org。

International Wire and Machinery Association – 英国
传真: +44 1926 314755
电子邮件: info@iwma.org
网址: www.iwma.org

照亮跑道

Nexans收到印度Tata Power战略电子分部(Tata Power SED)的订单合同，价值500万欧元，为其提供特定的中压(MV)和低压(LV)二级机场灯光电缆，用于印度空军“现代化机场基础设施(MAFI)”项目。

为期四年的合同，包括数千电缆供应，用来升级印度各地30家空军基地跑道和滑行道照明电力电路。

MAFI项目致力于现代化印度空军基地的基础设施，这些地方的跑道需要升级，已经不能满足新型军用飞机的应用需求。项目旨在运用最先进的设备和系统升级所有的IAF基地，应对各种类型的现代化军用飞机的需求。

Nexans负责为MAFI项目提供一级和二级电缆，包括根据FAA(美国联邦航空管理局)标准生产的5kV电缆，形成机场照明电路的主干部分。另外，符合H07RN-F 标准的600V二级电缆用于提供短的支线连接，将主要的电源网络和个别机场的灯光相连。

Nexans机场电缆设计用于承受极端温度从-25°到+70°C，因此，这些电缆非常适用于典型的跑道温度从0°C 到+40°C。另一项重要的技术考虑是出于电缆在非常潮湿的条件下能够保证整体的可靠性和较长的使用寿命。

MAFI电缆将在Nexans法国Lyon and Bohain工厂生产。

由于升级工作在30个基地进行的同时，要求高水准的运输规划以确保按时给每个站点交货，这将由Nexans 在印度新德里的当地工厂负责协调。

“赢得该合同的关键因素是Tata Power SED寻求与有经验的供应商合作，具备提供高水准的本地技术支持的能力，确保为机场照明选择正确的电缆”，Nexans机场照明电缆业务发展负责人 Olivier Pinto说道。

“另一个因素是，我们与Tata Group 建立了长期合作的关系，过去的合作项目，诸如为印度新德里、孟买和海得拉巴民用机场项目提供电缆，为我们赢得了优良的口碑。”

Nexans – 法国
电子邮件: info@nexans.com
网址: www.nexans.com

开罗服务部门迁移迪拜，成为销售和服务办事处

今年一月份Sikora成立了中东办事处，总部位于阿联酋的迪拜。该办事处提供客户支持和处理客户的售后问题。

2008年Sikora在埃及开罗设了服务部门， 服务于阿拉伯地区的客户，但由于该地区持续紧张的政治局势，公司决定将总部迁至迪拜。Sikora中东负责人Karim El Nahas也搬离开罗。

成立迪拜办事处，Sikora能够满足阿拉伯地区不断上涨的客户需求，为他们提供个性化的服务和可靠的客户支持。

Sikora公司在全球拥有11家办事处，30多个地区代表，为世界各地的客户提供快捷可靠的支持服务。

Sikora AG – 德国
传真: +49 421 48900 90
电子邮件: sales@sikora.net
网址: www.sikora.net

光伏带状镀锡生产线启用新网站

Plasmait是热等离子体和电线、管道、带材生产表面处理线的供应商，最近更新了其公司网站。

除了公司简介和联系信息以外，访问者还能够查阅Plasmait产品和应用的梗概。网站上新呈现了用于生产光伏带的光伏带状镀锡生产线。

该生产线成为全球诸多优质光伏带生产商的首选生产工艺。网站更新的内容还包括关于PlasmaANNEALER的简介，PlasmaANNEALER已成功安装在铜与铜合金的退火，并且越来越受到不锈钢和镍合金应用的欢迎。

访问者如果想测试他们特定材料的等离子体热处理和表面处理，欢迎网上预定。Plasmait三种不同的测试线供客户试验，等离子体热处理和表面处理满足不同的需求，适用于各种材料。

PlasmaPREPLATE迄今已受到很多客户的欢迎。该工艺在涂装前用于连续表面处理和退火(如有需要)，比如热浸镀锡、电镀、聚合物挤出、攻丝和包覆。

Plasmait公司研发总监Peter Ziger先生解释道，试验设备已大量投入运营，致力于提高电线、管件的质量，或者需要进行无化学成分、对操作人员无伤害的生产，对于制造商来说，起码能够降低其生产成本。

等离子体处理将有利于苛刻的表面处理和挑战性的退火需求。此类应用领域通常包括医疗、精密机械、电子、航空航天和能源部门。

自从2003年推出高速等离子体热处理和表面处理工艺以来，Plasmait不断改进其技术和扩大等离子体热处理和表面处理在有色金属和非有色金属行业的应用范围。

Plasmait GmbH – 奥地利
传真: +43 318 252 4754
电子邮件: info@plasmait.com
网址: www.plasmait.com

阿联酋首都购进2.5亿美元电缆

阿布扎比传输与输送公司(Transco)与Prysmian电缆与系统签署了价值2.5亿美元的合同，合同项目关于在阿联酋首都的电缆安装。230公里400千伏的项目将使用超高压电力电缆，用于巴伊亚洲和萨迪亚特的电网，届时形成在全市范围内基础设施发展的重要组成部分。电缆将取代现有的架空电缆线，并在地下运行。

虽然Prysmian负责生产电缆，不过在阿布扎比的合资企业Borouge在生产过程中也将提供协助，为其提供绝缘材料，半导体和护套材料，为项目的可靠、一致性和长期性能提供重要支持。Borouge是阿布扎比国家石油公司和奥地利化学品和塑料供应与制造商Borealis联手创建的合资企业。作为Transco项目的一部分，Borouge将为Prysmian提供超净绝缘和超光滑半导电化合物。这些高度先进的塑料产品由Borealis制造，Borouge将其分布在整个阿联酋。

超净电缆料采用先进的程序生产,以确保电缆不受污染，清洁保持到交货点。这些绝缘材料的性能结合了超光滑半导电化合物,从而确保更好的摩擦阻力,以便拉进管道，更低的收缩率和优良的海水中抗环境应力开裂。对于首都的电力传输系统来说,新的电源连接至关重要,因其将巴伊亚和萨迪亚特电网和诸多阿布扎比最富盛名的基础设施和房地产开发项目相连。这些项目包括Yas岛的一级方程式赛道和萨迪亚特岛的阿布扎比文化区,并承载了世界博物馆,比如卢浮宫和古根海姆博物馆。

Prysmian – 意大利
电子邮件: info@prysmian.com
网址: www.prysmian.com

展望未来

Kämpfer Würz Umformtechnik是Würz集团的成员之一，位于黑森州中部，不仅设立了制造技术和需求产品的标准，而且设置了环境保护的标准。

哲学创始人兼首席执行官Raimund Würz有目的地再投资赚取的资本，永久开发新的制造可能，并且关注员工的继续教育，也包括谨慎处理自然资源的问题。

“我们坚信未来环保将成为一项投资”，Würz先生说。早在1978年，他就从事替代能源。20世纪80年代中期，Würz率先投产了三家风力发电厂(WEP)，去年被当地媒体评为“韦氏特瓦地区风力行业的先驱”。今天Würz运用最先进的WEP生产高达3,0兆瓦的清洁电力。此外，公司的太阳能设备和热电联产动力装置(CHPU)，使用植物油运行，生产的能源远远超过了公司本身的需求。Würz还用自我构建的CHPU散发的余热给所有的生产车间加热。

“今天我们努力营造一个面向未来的环保管理体系是具有卓越成果的，”环境管理部长Rainer Pletka先生说。这样一个体系，根据DIN EN ISO 14001标准，也是Würz 集团很多客户的基本要求。

“他们生产千分之一毫米精度的零部件，其高质量的等级为环境管理以及整个行业设置标准，”Kämpfer-Würz采购经理Sascha Knöpp强调说。去年11月Würz集团根据环境管理体系DIN EN ISO 14001:2009标准，通过了黑森州TÜV的认证。“环境管理体系包含了基于该标准的所有与环境相关的活动。在符合法律规定的基础上，根据有效法律规定的要求，定期检查内部流程的合规性。”

“所有流程都按照标准建立，”Pletka解释说。这包括如何处理工作材料和有害物质，废物处置和废物管理，以及应急准备和避免危险。

Kämpfer Würz – 德国
传真: +49 277 595 4595
电子邮件: info@kaempfer.de
网址: www.kaempfer.de

India Insight

State's call for power to ease electric crisis

FACED with acute power shortage in the state, the Tamil Nadu chief minister, Ms J Jayalalithaa, has requested the Prime Minister, Mr Manmohan Singh's intervention for allocating 1,000MW of additional power to ease the crisis.

Ms Jayalalithaa said she had previously requested 1,000MW of additional power for the state for a period of one year, until the central power utilities, which supply power to Tamil Nadu, commenced production.

Of this, only 100MW was recently allotted, she said. "This inaction and non-responsiveness to our repeated requests during this unprecedented power crisis only shows callousness and indifference on the part of the centre," she said in her letter to Mr Singh.

She said major power projects to be executed by central PSUs such as BHEL, NLC and NTPC were 'inordinately delayed' and to offset a part of the deficit, the state government was trying to procure power from other states.

"However, non-availability of a transmission corridor has deprived Tamil Nadu of receiving the contracted power. To cite some examples, Tamil Nadu has contracted a capacity of 500MW from Gujarat. Of this, only 203MW could be transmitted. The 727MW of night power contracted from the Dadri power station (Uttar Pradesh) of NTPC was also curtailed."

The state contracted around 1,750MW of power for March this year, she said.

Lighting up the runway

▲ *Nexans will upgrade 30 Indian Air Force bases throughout the country*

NEXANS has been awarded a contract by Tata Power's Strategic Electronics Division (Tata Power SED), India, amounting to approximately €5m to supply specialised medium voltage (MV) primary and low voltage (LV) secondary airfield lighting cables for the Indian Air Force's 'Modernisation of the Airfield Infrastructure (MAFI)' project.

The four-year contract covers the supply of several thousands of cables to upgrade the runway and taxiway lighting power circuits for 30 Indian Air Force (IAF) bases throughout India.

The MAFI project is focused on modernising the infrastructure of IAF bases where the runways need to be upgraded and are not capable of handling the new array of military aircraft set to enter service. The project aims to upgrade all IAF bases with state-of-the-art equipment and systems to provide the capability to handle all types of modern military aircraft.

Nexans is supplying both primary and secondary cables for the MAFI project. This includes 5kV cables manufactured according to FAA (Federal Aviation Administration) standards that will be used to form the main backbone of the airfield lighting power series circuits. In addition, 600V secondary cables that meet the H07RN-F standard will be used to provide the short spur links that connect the main power network to the individual airfield lights.

The Nexans airfield cables are designed to withstand extreme temperatures from -25° to +70°C, so they are ideally suited for use in this application where the typical runway temperatures will range from 0°C to +40°C. A further vital technical consideration was the capability of the cables to ensure total reliability and a long service life in extremely humid conditions.

The MAFI cables will be manufactured in Nexans' Lyon and Bohain factories in France. Since the upgrading work at many of the 30 air bases is taking place simultaneously, a high level of logistical planning is required to ensure on-time delivery to each site, and this will be coordinated by Nexans' local facilities in Delhi, India.

"The key factor in winning this contract was that Tata Power SED was seeking an experienced supplier with the proven capability to provide a high level of locally-based technical support to ensure the correct choice of cables for this demanding airfield lighting application", said Olivier Pinto, in charge of business development for airfield lighting cables at Nexans.

"Another element in our favour is that we have developed a long-standing relationship with the Tata Group on previous projects combined with an excellent recent track-record in delivering cables for civil airport projects in India at Delhi, Mumbai and Hyderabad."

Nexans – France
Email: info@nexans.com
Website: www.nexans.com

Mahindra Solar commissions 5MW unit

MAHINDRA Solar has announced the commissioning of a 5-megawatt grid-connected solar power plant, using crystalline silicon modules, in Jodhpur, Rajasthan.

The plant has been established under the Jawaharlal Nehru National Solar Mission (JNNSM) policy and had the distinction of generating the highest output per MW of any solar plant in India, by using tracker technology that maximises energy from the sun.

The site is equipped to evacuate 55MW and the company intends to scale up production capacity to match the output capacity.

Mahindra Solar – India
Email: info@mahindra.com
Website: www.mahindra.com

AP Genco's first solar power plant

Andhra Pradesh Power Generation Corporation Ltd (AP Genco) has announced its first entry into solar power generation with the commissioning of a 1MW photovoltaic cell-based solar power plant at Priyadharsini Jurala Hydro-Electric Project.

The project was allocated to AP Genco under Phase 1 of the Jawaharlal Nehru National Solar Mission (JNNSM) by the Indian Renewable Energy Development Agency (IREDA), a public limited company under the control of the Ministry of New and Renewable Energy.

The project has been designed to provide annual energy output of 1.4 million units (MU). The power will be fed into the 11kV system of Central Power Distribution Company Ltd (CPDCL) at Gadwal, Mahaboobnagar District.

Andhra Pradesh Power Generation Corporation Ltd – India
Fax: +91 234 991 01
Email: contactus@apgenco.gov.in
Website: www.apgenco.gov.in

Power for Bangladesh

The Government of Bangladesh has initiated a programme to increase its country's electricity production. Wärtsilä has been awarded two contracts to supply power plant generating equipment to the programme. The total output of these two plants will be over 200MW, and they will produce electricity to be supplied to the national grid. Both plants are scheduled to be operational before the end of 2012.

PowerPac Mutiara Jamalpur Power Plant Ltd, an independent power producer (IPP), has ordered 12 20-cylinder Wärtsilä 32 generating sets with a total output of approximately 100MW. The new power plant will operate initially on heavy fuel oil (HFO), but the engines can be switched to gas operation when a supply of natural gas becomes available. The same owner – PowerPac-Mutiara Consortium – has also ordered six 18-cylinder Wärtsilä 46 engines in V-configuration and auxiliary equipment for its Khulna power plant project. The output of the Khulna power plant will be over 100MW.

"These are important orders...for the Bangladesh Power Development Board, which urgently needs this additional generating capacity. Our ability to supply the needed equipment within a very short time-frame was crucial to the award of these contracts.... Furthermore, a unique feature of our engine technology is that where required, they can be easily converted to run on gas as soon as a gas supply is available, and this too was a key factor in the award of these contracts," said Göran Richardsson, sales director, Wärtsilä Power Plants Asia.

Council starts work

Mr Anand Mahindra, vice-chairman and managing director of Mahindra & Mahindra, is to head the Solar Energy Industry Advisory Council recently established by the Ministry of New and Renewable Energy (MNRE).

Confirming this to Business Line, Mr A N Srivastava, director of MNRE, responsible for National Solar Mission Coordination and Issues concerning manufacturing, duties and taxation, said that the council is constituted from industry members. The list of members is said to include industrialists Mr Jamshed Godrej, Mr Baba Kalyani and Mr Deepak Puri of Moser Baer, Mr K Subramanya, CEO, Tata BP Solar, Mr HR Gupta, managing director of Indosolar, Mr Vineet Mittal of Welspun, Mr B P Rao, chairman and managing director, BHEL, and Mr BC Tripathi, GAIL chairman and managing director.

Mr Srivastava said that the thrust of the committee's mandate is 'manufacture', so that the Indian solar industry evolves with Indian-built equipment. The council's term ends on 31st March 2013.

The constitution of the council is viewed against the backdrop of a division in the Indian solar industry. Developers are demanding freedom for imports, while the wafer and panel manufacturers are asking for protection from dumping from across the shores. Most solar panels are imported as, due to a build up of inventory in the US and China, manufacturers there are selling cheap, and Indian manufacturers, such as Tata BP Solar and Indosolar, have been badly hit by imports.

Solar Energy Industry Advisory Council – India

Transmission line orders

Sterlite Grid, a wholly-owned subsidiary of Sterlite Technologies, has placed orders for 765kV transmission lines with KEC International and Simplex Infrastructure. KEC

said its order was for construction of 765kV and 400kV transmission lines in Maharashtra and Gujarat.

The project consists of a 765kV single circuit transmission line from Aurangabad to Dhule of 188.5km, 765kV single-circuit transmission line from Dhule to Vadodara, totalling 264km, and a 400kV double-circuit, 16km long transmission line in Dhule.

These lines are part of a Build-Own-Operate-Maintain (BOOM) project awarded by Power Finance Corporation to Sterlite Technologies for strengthening the transmission system in Madhya Pradesh, Maharashtra and Gujarat.

Sterlite Grid Ltd – India
Fax: +91 203 051 4000
Email: communications@sterlite.com
Website: www.sterlite.com

Cable manufacturer plans expansion

DIAMOND Power Infrastructure Ltd (DPIL), manufacturer of conductors and medium voltage cables, has drawn up an expansion plan which will be implemented over a 30-month period in three phases and has been approved by the board of directors.

The company is already executing a 6.3MW wind energy project, part of the expansion scheme, which is likely to be commissioned in March. DPIL plans to nearly treble its conductor manufacturing capacity from 50,500 tonnes a year to 150,500 tonnes.

Along with this project, it will also hike its rod manufacturing facility to 122,000 tonnes from the current 32,000 tonnes.

Three additional medium voltage cables lines, each with an installed capacity of 2,500km (total length 7,500km) will be installed to take capacity from 5,600km to 12,700km.

In August 2011, DPIL began to develop India's first plant to manufacture EHV cables of 200KV to 550KV, with an installed capacity of 2,000km. Previously, the demand for EHV cables was largely met through imports with 7,000km of EHV cable imported during 2010.

Diamond Power Infrastructure Ltd – India
Fax: +91 265 228 0528
Email: marketing@dicabs.com
Website: www.dicabs.com

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IPO in subsea cable sale

Reliance Communications (RCom) is looking to sell a 75 percent stake in its undersea cable unit through an Initial Public Offering (IPO). Industry sources say the debt-laden telecom operator is hoping to gain up to $1.5 billion through the sale, and that the undersea cable business may be listed in Singapore in the second half of 2012.

This is the second attempt by the company to sell the undersea cable business. In 2009, RCom had scouted for a buyer but found no takers.

The business essentially comprises the FLAG network, which RCom acquired for $207 million in 2003. The company's undersea cable network now totals 65,000km, connecting key markets in West Asia, Europe and the US.

An RCom spokesman in Mumbai declined to comment on any IPO plans, but said in a statement that the company "continually works on various options to unlock value from its unique combination of global telecom assets for the benefit of its shareholders".

Reliance Communications – India
Fax: +91 22 303 880 05
Email: info@rcom.co.in
Website: www.rcom.co.in

Indian solar is good

Cable manufacturer Lapp India is anticipating a significant increase in business from the emerging solar energy sector.

"Cables are a key component of solar panels and modules," stated Mr Srinivas P Kamisetty, managing director. "With huge Government thrust and subsidies for solar energy, this sector has huge business potential for us."

He continued: "With states such as Gujarat, Karnataka, Madhya Pradesh and Rajasthan moving forward to deploy solar power plants, there is lot of scope for us in the domestic market."

The company expects business of between €7-€8 million from solar power plant installations in India during 2012. In 2011 it hardly reached €1 million.

Currently, Lapp India imports cables from Korea for solar installations in India, and some other components come from Switzerland. The company is exploring the possibilities of manufacturing solar cables at its Bangalore facility.

"Cables for solar need to be protected from ultra-violet radiation; they also need to last longer. We are tweaking our manufacturing processes in Bangalore to be able to do this," says Mr Kamisetty.

Lapp India will invest close to €1 million in the project.

Lapp India – India
Email: info@lappindia.com
Website: www.lappindia.com

Race for AP transmission project

RURAL Electrification Corporation has received financial bids from seven infrastructure companies to lay a transmission line to connect power projects in Andhra Pradesh with the central grid. A decision is expected by mid-March.

The interested companies are PowerGrid Corporation, Larsen and Toubro, Sterlite Grid, IVRCL, NCC Infrastructure Holding, Ind Bharath Power Gencom and Megha engineering consortium and Elecnor and KEC Intl consortium.

The BOOM project involves erecting 100m tall 765kV DC towers to move power across the Godhavari river – a region prone to storms and cyclones. Lack of data on wind speed in the regions has been a major drawback for transmission companies bidding for the project. Moreover, the lines will travel through the disputed Telangana region, which can pose its own challenges.

"We need at least 50 years' data on wind speed in these regions to arrive at a cost, considering that the transmission towers have to be used for next 30 years or so. Moreover, fluctuating aluminium and steel prices may also spring up some surprise," said a spokesperson of Sterlite Group.

Rural Electrification Corporation – India
Email: info@recindia.nic.in
Website: www.recindian.nic.in

Mumbai to get more power

Reliance Infrastructure (RInfra) has commissioned a transmission link on the Maharashtra State Transmission Company's Boisar – Borivali transmission line, bringing power to Mumbai from the city outskirts. The link will help provide an additional 150MW power from the outskirts, as it will ease congestion on the city's transmission network, especially during summer, when demand peaks.

The Mumbai transmission network is facing congestion due to rising demand as well as lack of adequate transmission corridors to bring in additional power. The new 220kV loop-in-loop-out (LILO) line, constructed near Ghodbunder, was charged by the transmission utilities in mid-February.

Mr Lalit Jalan, CEO Reliance Infrastructure, said RInfra is the transmission and distribution licensee for Mumbai for the next 25 years. It has recently commissioned three new EHV (extra high voltage) substations to de-congest load on transmission and sub-transmission systems, and plans to add more substations to the existing six.

Reliance Infrastructure – India
Email: energy.helpdesk@relianceada.com
Website: www.rinfra.com

Happy landing for ME cables

Indian IT firm Sify Technologies has established an undersea cable landing station in Mumbai to accommodate the rapid growth in voice and rich media traffic from and to the Middle East and Africa.

"Sify is being increasingly recognised as a leading integrated ICT company and this cable landing station is an important milestone in our journey," said Raju Vegesna, CEO and managing director of Sify Technologies.

"With capacity to land additional submarine cable systems, this connectivity will open a larger market for our industry-leading managed enterprise and data centre services in the Middle Eastern market," he added.

Gulf Bridge International (GBI) will be the first company to land its sub-sea cable system at the Sify landing station, which is designed with a capacity of up to 10 terabits per second on certain sections.

Sify Technologies – India
Fax: +91 442 254 0771
Email: info@sifycorp.com
Website: www.sifycorp.com

Sterlite Grid seeks FIPB recognition

Sterlite Grid Ltd, a wholly owned subsidiary of Sterlite Technologies, is seeking Foreign Investment Promotion Board (FIPB) acceptance for investing into Indian companies involved in power transmission and generation projects. A proposal submitted to the FIPB by the company states that Sterlite Grid aims to be an investing company to undertake downstream investments.

While Sterlite Technologies is involved in manufacturing optic fibre cables and transmission equipment for telecom and power sector, Sterlite Grid is executing multi-million dollar power transmission system projects across India, via its fully owned subsidiary companies – EastNorth Interconnection, BhopalDhule Transmission and Jabalpur Transmission.

Sterlite has been awarded three projects for building power transmission systems (lines and substations) in India, on a Build-Own-Operate-Maintain basis.

Company officials said that the approach to FIPB is aimed at making Sterlite Grid the holding company for similar special purpose vehicles formed as, and when, the company is awarded projects from the Government in the future.

Sterlite Grid Ltd – India
Fax: +91 203 051 4000
Email: communications@sterlite.com
Website: www.sterlite.com

Low take-up rate of fibre-to-the-home within the European Union is seen as hampering growth in gross domestic product

Writing from the FTTH Conference 2012, held 14th-16th February in Munich, Ray Le Maistre of *Light Reading* reported the view of the "somewhat concerned" industry body FTTH Council Europe that many of the major Western European economies barely register as fibre access-enabled. ("Western Europe Still in FTTH Slow Lane," 15th February).

According to figures released by the council, at the end of 2011 there were only 4.5 million FTTH (including fibre-to-the-building but not fibre-to-the-cabinet) subscribers in the European Union, even though 25.8 million EU homes have been passed with fibre. From statistics gathered by the research house Idate for the council, this gives the 27 EU nations a take-up rate of just 17.5 per cent.

(Note: "Homes passed" is a somewhat ambiguous term that may not denote readily available fibre service.) There were 54.3 million FTTH/B (home/business) subscribers in Asia/Pacific and 9.7 million in North America.

Mr Le Maistre, who is *Light Reading*'s international managing editor, believes these results to be of great concern for western Europe. Not only do many studies show a positive correlation between true high-speed broadband and GDP growth. He wrote: "But emerging communications applications such as cloud services will struggle to truly take hold without a more robust fixed-access network that cloud services users can trust to deliver the required bandwidth."

Major European markets – Germany, Spain, and the United Kingdom among them – do not yet have even a one per cent FTTH penetration rate, and thus lag more fibre-advanced nations such as Lithuania (about 28 per cent), Norway (nearly 15 per cent), and Bulgaria (about 10 per cent penetration). Russia (which is not a member of the European Union) has 4.5 million subscribers and, with about 12 million homes passed, a take-up rate of about 38 per cent.

The World Radiocommunication Conference-2012 comes to a surprise decision on Iran

Writing from Paris in *Space News* (24th February), Peter B de Selding reported that international radio frequency and orbital slot regulators had agreed to allow Iran access to an orbital slot for its planned Zohreh-1 telecommunications satellite: this despite the fact that Iran missed repeated deadlines for putting the satellite into use.

The decision was taken by the World Radiocommunication Conference (WRC), the radio frequency conclave held 23rd January – 17th February in Geneva, Switzerland.

But the same WRC delegates who allowed Iran to return to the orbital slot also applauded an earlier decision by the International Telecommunication Union (ITU) that denied Iran access to the slot – at 34 degrees east longitude – because of the missed deadlines.

Mr de Selding noted that the WRC decision to readmit Zohreh-1 into the registry of permitted satellite systems, which several delegates were at a loss to explain, will "almost certainly complicate the life" of Eutelsat — the Paris-based satellite fleet operator which has spacecraft too close to the planned Zohreh-1 network to operate without interference.

He wrote: "The two sides will need to engage in extensive negotiations that may undermine the business plan of one or the other, or both, depending on when Zohreh-1 is launched."

According to *Space News,* Eutelsat is already struggling with Iran's Zohreh-2 satellite network at 26 degrees east, which is using a satellite owned by Arabsat of Saudi Arabia.

Unless Iran or Saudi Arabia backs off its current position, Eutelsat will have problems deploying a satellite it is building with the government of Qatar. Eutelsat and Qatar had thought the orbital slot was rightfully theirs under ITU rules.

One industry official was reported as saying that Eutelsat and Iran had likely reached at least a tentative compromise on sharing frequency rights around 34 degrees east.

This official said it was unclear whether the Zohreh-1 compromise might unblock the Zohreh-2 issue, which the ITU has been struggling to resolve for more than a year.

✆ This edition of the quadrennial WRC featured weeks of sporadically intense discussions of frequencies and orbital slots by 3,000 delegates from 153 nations, and concluded by setting stronger rules about registering satellite systems. WRC=12 also agreed to revive, at its next conference, the issue of whether International Mobile Telecommunications (IMT) should be given access to spectrum now reserved for satellite networks.

Mr de Selding wrote: "[This] is an issue that satellite operators had hoped was definitively settled at the last WRC meeting, when IMT proponents failed to win support for the broad use of C-band frequencies for satellite telecommunications."

Cubans, a voluble people, are seeing a welcome drop in the cost of conversing by mobile phone "In a country where the average state salary languishes at around $20 a month, and daytime mobile charges are 45 cents a minute (paid by both the caller and the receiver), customers have a strong incentive to keep their conversations brief. Cubans have resorted to seeing their phones as mere fashion accessories."

The article in the *Economist* online ("Talk is Cheap," 24th January) looked forward as well as backwards.

As of 1st February, Cubans who prefer to use their cellphones for the intended purpose could better afford to do so.

The cost of using the only network in Cuba (run by state-owned ETECSA) had fallen. For the first time, receiving calls from phones within Cuba is free. The price of a text message has been cut almost in half.

Under Fidel Castro, only foreigners and some senior officials could have their own cell phone lines. With his brother, Raúl Castro, now president, mobile use on the island has more than tripled.

According to official figures, 1.2 million Cubans, or about one in ten, have mobile phones. But the *Economist* noted that 10 per cent penetration is a fraction of the levels achieved elsewhere in Latin America.

To reach its target of 2.4 million subscribers by 2015, ETECSA says it intends to reduce its prices still further. Last year it cut the cost of a line subscription by 80 per cent.

How do hard-liners in the Castro government feel about the prospect of millions more Cubans having access to any kind of information technology? According to the *Economist* they can probably sleep soundly, on two counts. For one, although a 3G system for mobile Internet is in place across the island, Cuban cell phones are precluded from access; only roamers from foreign networks can get into it. And, according to one foreign executive with knowledge of that network, the government took its habitual precautions when it was installed. He said: "When the core switch for the network was purchased from Ericsson [ten years ago], the Cubans made absolutely sure they had every imaginable 'snooping' feature available."

As yet, no foreign telecoms are acting on their presumptive interest in the liberalising Cuban market. In January 2011, the cash-strapped Cuban government surprised observers by organising a buyout of its remaining foreign partner in the business, Telecom Italia, for $706 million.

A few months later, several senior ETECSA executives were among those arrested in President Castro's wide-ranging corruption investigations. While it is not clear whether the arrests had any connection with the sale, overseas interests may be awaiting developments.

Elsewhere in telecom . . .

- The Supreme Court of India on 2nd February ordered the cancellation of 122 telecommunications licenses that were issued by the Indian government to eight mobile phone companies in 2008. It was the court's view that the 2G mobile licenses had been granted in an "arbitrary and unconstitutional manner". They were brokered by a former telecommunications minister who stands accused of selling them at less than market value, thus costing the government up to $40 billion in lost revenue.

  Not long after the cancellation of their licenses two foreign telecommunication companies announced that they would close down their Indian operations. Abu Dhabi-based Etisalat, which paid $890 million for its joint-venture stake in an Indian mobile operation, said the Supreme Court ruling will prevent it from operating its business. Bahrain Telecommunication said it, too, is quitting India.

  The two companies gained entry into India's fast-growing mobile phone sector by purchasing licenses from their Indian partners. Anjana Pasricha of voanews.com observed (24th February): "The cancellations have led to uncertainty among foreign investors, but many analysts feel India's telecommunication sector still offers potential."

  Telecommunications officials in India said that the Supreme Court decision is likely to affect only about five per cent of the country's mobile phone users. New licenses are to be auctioned in June.

- Nokia Siemens Networks, the phone equipment joint venture between Finland's Nokia Oyj and Siemens AG, of Germany, is in talks with potential buyers of its non-core assets, CEO Rajeev Suri said in an interview at the Mobile World Congress (MWC), held 27th February-1st March in Barcelona, Spain.

  Nokia Siemens – which competes with Ericsson AB (Swedish) and Alcatel-Lucent (French), as well as with Chinese vendors including Huawei Technologies – expects more divestments in the wake of the fourth-quarter 2011 sales of three divisions: its microwave unit, its WiMax business, and a fixed-line operation.

  "We are already negotiating to sell some assets," Mr Suri told Marie Mawad, of Business Week, at the MWC. "We are taking other assets into maintenance mode, shifting investments out into other segments."

  The company's stated purpose is to scale back product lines to refocus on mobile broadband networks and services. Nokia Siemens's VoIP (voice over Internet protocol) unit, carrier ethernet, fixed narrowband, and business support systems are among the assets for which buyers are being sought, Mr Suri said.

- Also at the Mobile World Congress, South Korea's second-biggest mobile carrier, KT, enlisted a pair of powerful allies to help it overcome its image as a solely local player.

  AT&T of the United States and Vodafone of the United Kingdom joined up to run "the Connected House" – a showcase for KT technology including machine-to-machine (M2M) services.

  As reported by Kim Yoo-chul in the *Korea Times*, some observers read into this that KT's near-field communication (NFC) technology will be made available to AT&T and Vodafone.

  Shifting the emphasis to KT's purpose of broadening its general global appeal, spokesman Lee In-won said that his company aims "to earn $3.5 billion from overseas by 2015."

  The *Times*'s Mr Kim took note of the "technological edginess" of KT's Kibot2, an upgraded robot for educational purposes, and of its Spider Phone — an Android-powered hybrid that can turn into a laptop, tablet, or PSP-like handheld gaming device. Both were on display in Barcelona.

欧盟内的低光纤到户安装率先在看来正阻碍着其国内生产总值的增长

根据休闲阅读（Light Reading）记者Ray Le Maistre在2012年2月14日至16日在慕尼黑举办的光纤到户大会的报导，“得到部分关注”的欧洲光纤到户委员会表示大多西欧的主要经济体缺乏参加光纤到户计划的意愿。（“西欧仍然处于光纤到户的慢车道中”，2月15日）

根据委员会透露的图表，在欧盟境内，到2011年底为止，尽管已经有258万欧盟境内的家庭铺设有光纤，但是仅有450万光纤到户用户（包括光纤到楼用户，但不包括光纤入箱用户）。根据调研机构欧洲视听与电信研究所为委员会收集的数据来看，27个欧盟成员国的安装率仅有17.5%。（注释：“铺有光纤”是一个略显模糊的概念，但是此概念并不代表已有光纤服务。）在亚太与北美地区，分别大约有543万以及97万家庭/商业光纤到户用户。

作为休闲阅读国际管理版面的编辑，Le Maistre先生相信这一结果将会得到西欧国家的巨大关注。他写道：不仅许多研究表明高速宽带与GDP增长之间有着积极的联系，而且新兴的通信应用手段，例如云技术，在没有为了让云技术使用者放心使用而铺设的稳定固定连接网络的情况下，将会竞争成为主导技术。欧洲主要市场—德国，西班牙和英国—它们的光纤到户率甚至不到1%，并因此远落后与其它光纤先进国家，例如立陶宛（大约28%），挪威（大约15%）和比利时（大约10%）。俄罗斯（俄罗斯并非欧盟国家）境内有着450光纤到户用户和1200万铺有光纤用户，安装率约为38%。

世界2012年无线电大会作出了关于伊朗的意外决议

根据巴黎空间新闻（Space News）记者Peter B de Selding于2月24日的报导，国际无线电频率与空间轨道管理者已经决定允许伊朗为其Zohreh-1通信卫星接入特定轨道：这一决定忽略了伊朗已经多次错过了将卫星投入使用的最后期限这一事实。这一决定是由世界无线电大会（WRC）期间的无线电频率会议中作出的。这届无线电大会的举办时间为1月23日至2月17日，地点为瑞士日内瓦。

但是同样是这些同意伊朗使用轨道的世界无线电通信大会参会代表，在早些时候却鼓掌通过了国际电信联盟（ITU）拒绝伊朗使用东经34度轨道的决议，原因是伊朗错过了最后期限。

De Selding先生注意到，国际无线电大会将Zohreh-1重新纳入卫星系统的决议使得一些代表茫然不知所措，并且肯定将会使欧洲通信卫星公司的情况更加复杂。欧洲通信卫星公司本部位于巴黎，其宇宙飞行器与Zohreh-1的预定轨道十分接近，因此将不可避免受到干扰。他写道：“双方需要进行广泛的磋商以避免任何一方或者双方的商业利益受到损害，这些都取决于Zohreh-1的发射时间。”根据空间新闻报导，欧洲通信卫星公司已经与伊朗Zohreh-2卫星争夺位于东经26度的网络频道，后者正在使用的是沙特阿拉伯卫星通信组织所拥有的卫星。除非伊朗或者沙特阿拉伯放弃现有轨道位置，欧洲通信卫星组织将会在部署其与卡塔尔政府共同制造的卫星时遭遇问题。欧洲通信卫星组织与卡塔尔都认为根据国际通信联盟规定，这一轨道应归他们所有。

据一位业内相关人士所述，欧洲通信卫星公司和伊朗至少已经达成了一项在东经34度暂时分享频道的协议。这位业内人士表示关于Zohreh-1的协议是否会解决Zohreh-2的争议尚不明朗。国际通信联盟已经为解决Zohreh-2的争议努力了将近一年多了。古巴人，一个极善言谈的民族，正发现在移动电话通信费用上出现了让人欣喜的下降。“在一个平均月薪收入徘徊在20美元的国家而言，其日间移动通信话费为一分钟45美分（拨打与接听者双方都需支付），消费者都想将对话尽可能地精简缩短。古巴人更多时候把他们的手机仅仅看作是时尚的附件配饰罢了。”

《经济学人》在线杂志中的文章（“交流是便宜的”，1月24日）中对过去进行了回顾，同时也对未来作出了展望。从2月1日起，那些喜欢使用手机用于预期目的的古巴人能更好地负担这些。在古巴仅仅使用网络的成本已经下降了。（由国有古巴电信公司运营）第一次，在古巴境内接听电话是免费的。短信费用也已经调低了将近一半。在Fidel Castro领导时，只有外国人和一些高级官员有他们自己的移动电话线路。而现在的总统Raúl Castro，他的弟弟当政时，岛内移动电话用户已经是过去的三倍了。根据官方数据，1200万古巴人，差不多总人口十分之一的古巴人有手机。但是经济学人注意到，10%只是其它拉丁美洲地区数字的零头。为了实现其2015年240万用户的目标，古巴电信公司表示将会继续降低其收费价格。去年它减少了电话使用者80%的费用。

那些卡斯特罗政府中的强硬派是怎么看待数百万古巴人能够接触任意种类信息技术的未来展望的呢?根据经济学人分析，他们能够安心入眠，原因基于两点。第一点，尽管3G手机互联网系统已经在全岛辐射了，但是古巴人的手机却无法接入网络；只有国外网络的漫游者才能接入其中。而且，根据一位对这个网络十分了解的外国高管所说，政府在网络安装好后习惯性地对其报以戒心。他说道：“当从爱立信购买核心交换机时（10年前），古巴人确信这些设备有着所有可以想的到的’偷听’要素。”

电信业的其它新闻 . . . .

✆ 印度最高法院在2月2日吊销了122张2008年由印度政府授予八家移动电话公司的电信运营许可证。法院认为，2G移动许可证的授予已经演变成“草率而违宪的行为。”这些许可证的授予都是在一位前电信部官员的操作下进行的，而此人因涉嫌以低于市场价格出售许可证而被捕。这一行为造成政府因此少了400亿美元收入。在宣布吊销运营许可证不久，两家外国电信公司宣布他们将关闭其在印度的办事处。总部位于阿布扎比的阿联酋电信公司曾投资8亿9千万美元合资建立了其印度移动通信分公司。它们表示，最高法院的裁决将会妨碍其生意的运营。巴林电信公司也是如此表示，也正在退出印度。

这两家公司是通过购买其印度合伙人手中的许可证才得以涉足印度快速增长的移动电话业务。根据Voanews.com的Anjana Pasricha观察发现（2月24日）：“执照的吊销已经使外国投资者对未来的不确定性心存顾虑，但是许多分析员认为印度通信业仍旧存在很大潜力。”印度的电信部高管认为最高法院的决议有可能只会影响全国5%的手机用户。新许可证的拍卖将在6月举办。

✆ 同样是在移动通信大会上，韩国第二大移动运营商KT赢得了两个强有力的盟友以改变其仅仅是区域运营商的形象。美国电话电报公司和英国沃达丰公司将参与运营“数字家庭”的项目——一个KT科技公司机器对机器服务的标杆项目。正如Kim Yoo-chul在韩国时报中所报导的，一些观察者认为此举表明AT&T和沃达丰将得到KT公司的近场通讯（NFC）技术。重点转回KT公司，此次计划中其目的即为扩大全球影响力。发言人Lee In-won表示，公司目标“到2015年为止，从海外赢得35亿。”韩国时报的Kim先生注意到KT公司的Kibot2的“技术尖端性”。Kibot2是一台用于教育目的的升级版机器人。而且，它的微型电话—一台安卓系统驱动的混合体，既可以变为笔记本电脑，也可以变为平板电脑或者PSP式样的手提游戏机。两者都在巴塞罗那的展台中亮了相。

Photographer: Marty
Statue of Liberty Image from BigStockPhoto.com

Steel

Earthquake protection and aesthetics: the cables in the new San Francisco-Oakland Bay Bridge will serve a dual function

The Loma Prieta earthquake of 1989 – the first to occur along the San Andreas fault zone in California since 1906 – caused the collapse of part of the steel-truss span which runs for 2.2 miles between the city of Oakland and Yerba Buena Island in the middle of San Francisco Bay. That quake, with a magnitude of 6.9, caused strong shaking that lasted some 15 seconds and tested the ability of the 1930s-vintage San Francisco-Oakland Bay Bridge to withstand punishment on that scale.

Writing from San Francisco in the *International Herald Tribune*, Henry Fountain noted that, after the 1989 quake, engineers determined that the western span – a double suspension bridge between San Francisco and Yerba Buena – could be made seismically safe, but that the eastern (Oakland) span would have to go. Its replacement, a suspension bridge of unique design, is expected to be good for at least 150 years of hard quake-resistant service. After the projected opening in 2013, the existing eastern bridge – still in use – will be torn down.

The new structure will feature a 525-foot-tall tower made up of four steel shafts that should sway in a major earthquake, up to about five feet at the top. But the brunt of the force would be absorbed by connecting plates – 'shear links' – between the shafts. The concrete piers are designed to sway as well, limiting damage to areas with extra steel reinforcement. At points along the entire span are 60-foot sliding steel tubes – 'hinge pipe beams' – with sacrificial sections of weaker steel intended to help spare the rest of the structure as it moves in a quake. ("A Bridge Built to Sway When the Earth Shakes," 6th February). "At the seismic displacement that we anticipate [from a probable quake of magnitude 6.7 or larger before 2036], there will be damage," lead designer Marwan Nader, of the San Francisco-based engineering firm T Y Lin International, told the *Herald Tribune*. "But the damage is repairable and the bridge can be serviceable with no problems."

The bridge's cables will contribute importantly to that certainty. As explained by Mr Fountain, at intervals inside the elevated roadway's box girders are anchor blocks ('deadmen') cast into the structure. He wrote: "They are meant to be used decades from now, perhaps in the next century, when in their old age the concrete girders will start to sag. By running cables from deadman to deadman and tightening them, workers will be able to restore the girders to their original alignment."

A stiffer definition of 'Made in America' may be applied to steel plate for armouring military equipment

In 2009, with the US at war in Iraq and Afghanistan, the sourcing of steel for military armour was a sometime problem. To be sure of filling its needs, the Department of Defense set aside a 35-year-old rule requiring that all steel plate for use in armouring vehicles, tanks, and some other equipment be 100% made in America (ie both melted and finished in the United States). While speciality metals used by the military were and still are required to be domestically produced, the relaxed rule permitted steel plate that is merely processed in the US to meet the standard.

By 2012, after nine years, the US was out of Iraq; and its Afghanistan commitment is winding down toward a projected complete withdrawal by the end of 2014. Steel supply is no longer a worry, and a reappearance of the made-in-America requirement could be expected. But it seems the rule is to return in strengthened form – provided that legislators and the military can agree on what is meant by "produced."

As reported by Malia Spencer in the *Pittsburgh Business Times* (9th February), Sen Bob Casey of the steel-producing state of Pennsylvania has introduced legislation requiring that only steel melted and finished in the US may be supplied to the nation's military. Making no secret of his motivation, in a written statement Mr Casey said: "Ensuring the Defense Department returns to its policy of only buying US made steel will create jobs and act as a catalyst for growth of Pennsylvania's steel producers."

Senator Casey has also been vigorous in challenging China on currency manipulation. On 9th February his steel-armouring bill, the United States Steel and Security Act, was introduced in the Senate by Mr Casey and five colleagues stirred to a similar pitch of patriotic fervour.

Elsewhere in steel . . .

- Nucor Corp plans to expand production of speciality steel bar at its plants in Memphis, Tennessee; Darlington, South Carolina; and Norfolk, Nebraska. The Charlotte, South Carolina-based company – one of the leading steel producers in the US and the largest of its minimill operators – expects the $290 million expansion to boost its capacity for bar and wire rod products by one million tons. Engineering studies have been finalised, and completion set for 2014.

Telecom

Americans are interested in the cloud – but not enough to pay extra for cloud-based services

"Digital locker storage may have a large captive audience, but the tricky part for providers will be to persuade consumers to pay for the privilege."

Guy Daniels of TelecomTVOne was summing up a report from PriceWaterhouseCoopers that suggests there is a big market for cloud-based digital storage services; but that prospective customers are still in the "if it's online I want it for free" phase of the Internet's evolution. Nearly 70 per cent of respondents to a survey conducted during

November in the US said they would be less inclined to use these services if they entail a fee. ("Consumers Want Cloud Storage But Don't Want to Pay," 13th February).

Some 66 per cent of the respondents said they feel confident in their awareness and understanding of the concepts of "digital storage" while 61 per cent expressed similar confidence about "cloud storage." But the London-based professional services firm detected a discrepancy between perceived and actual knowledge. Those who currently engage in file sharing (47 per cent of the 502 people surveyed) would seem to be more secure in their grasp of its benefits than those who do not currently access file-sharing software.

Nearly 90 per cent of the survey respondents claimed to be 'somewhat' or 'very' interested in the concept of storing and accessing content from a digital library. But Mr Daniels noted that moving from interest into action led in a significant drop-off. Driven primarily by the 50-59 age group, just over half of the survey respondents expressed a willingness to actually use a digital storage library or locker in the future. And in 68 per cent of survey respondents any such willingness would be 'somewhat' to 'very much' affected by the prospect of a fee for access and maintenance.

Automotive

Honda, whose Accord was the top-selling Japanese car in the US from 1982 through 1996, seeks a return to former glory

By any measure Honda Motor Co had a difficult time of it last year, when a series of natural disasters in Asia caused sales to plunge and the company met with a less than enthusiastic American response to its revamped Civic. Writing from Detroit in the *New York Times*, Nick Bunkley reviewed Honda's current effort to repair its once-stellar fortunes in the US ("Honda Aims to Reclaim Its Luster," 8th February).

The initiative ranges from the spiritual – chief executive Takanobu Ito's New Year's Day attendance at a Japanese shrine – to the mercantile: notably the commercial shown during the Super Bowl in Indianapolis on 5th February. In it, comedian Jerry Seinfeld is desperate to get hold of the first Acura NSX (a $100,000-plus Honda concept car not coming to market for several years), while Matthew Broderick, of 'Ferris Bueller's Day Off' fame, enjoys a leisurely spin in the Honda 2012 CR-V crossover – a 'best pick' in the affordable-compact class for drivers with growing families.

The two-pronged approach saw Honda off to a better start this year. The company broke a string of eight consecutive monthly sales declines in the US with an 8.8 per cent increase in January; and company executives have set a goal of a 2 per cent sales increase in 2012, aided by the redesigned CR-V and several new models for the upscale Acura brand. At the Chicago Auto Show, in February, Honda signalled a major push for the Acura, whose sales last year suffered even more than the company's mainstream brand.

Honda executives have said they hope to sell 180,000 Acuras in the US this year, which would represent a 46 per cent jump from 2011.

Honda was hit harder than other auto makers by the earthquake and tsunami that devastated Japan in March 2011. Its factories in Japan, North America, and elsewhere were forced to stop or slow production for months because of parts shortages, and dealerships across the United States sold out of some popular models. The company was just beginning to recover when severe flooding in Thailand compounded the effects of the shortages.

The US economy

Signs are strong that companies are laying off fewer workers and that hiring is picking up

As the American winter retreated, the outlook for the economy was brightening along with the weather. Perhaps most important of all was yet another signal from a steadily improving job market. The Labour Department said on 16th February that weekly applications for unemployment benefits dropped 13,000 to a seasonally adjusted 348,000. It was the fourth drop in five weeks and the lowest number of claims since March 2008.

In January the economy added a net 243,000 jobs, the most in nine months. And the unemployment rate dropped for the fifth consecutive month, to 8.3 per cent. Over the previous three months the economy had added an average of 201,000 jobs a month.

Faster growth is spurring the additional hiring. The economy expanded at an annual rate of 2.8 per cent in the last quarter of 2011, a full percentage point higher than in the July-September quarter. In other encouraging mid-February economic news, a rise in building permits suggested that more buyers were feeling courageous, a welcome sign for the construction industry.

A survey by the Federal Reserve Bank of Philadelphia found continued expansion in factories in the mid-Atlantic states, with steady employment levels and increases in manufacturing activity, new orders, and shipments. Over all, the Philadelphia Fed's index of manufacturing conditions rose to 10.2 points, up from 7.3 in January.

Allaying the concerns of inflation-watchers, data on wholesale prices indicated that inflation remains largely in check.

- Demonstrating hair-trigger responsiveness to good news on the jobs front, on 16th February the Dow Jones industrial average pushed to within 100 points of 13,000. The index has not closed above 13,000 since May 19, 2008. General Motors – which posted a record $7.6 billion profit in 2011, two years after it was almost wiped out – was among the best-performing stocks of the day.

Dorothy Fabian – Features Editor

钢铁

防震和美学: 旧金山新建的奥克兰海湾大桥体现出了这一双重功能

1989年的洛马普列塔地震——1906年以来，在加利福尼亚州圣安德烈亚斯断层带发生的第一次地震——导致了旧金山湾中部地区，从奥克兰市至耶巴布埃纳岛间跨度为2.2英里的钢制梁架的部分坍塌。这次地震的震级为6.9级，引发的剧烈摇晃持续了15秒钟，也考验了建造于20世纪30年代的旧金山至奥克兰海湾大桥是否能承受这一程度的破坏力。

国际先驱论坛报（International Herald Tribune）驻旧金山记者Henry Fountain注意到，在1989年地震发生之后，工程师认定桥梁的西部——连接旧金山和耶巴布埃纳岛的双悬索桥——抗震安全系数较高，但是桥梁的东部（奥克兰）则必须淘汰。一所设计独特的双悬索桥将代替它，在接下来至少150年的时间里发挥其优越的抗震性能。新桥预计将在2013年开通，届时目前仍在使用的东部桥梁将被拆毁。

新建筑结构的特色在于其桥塔——高525英尺并由四座钢柱组成——可在大地震中随震动摇晃，其最大幅度可达5英尺。其中产生的冲击力将被钢柱间的连接板所吸收，即“剪力连接”。桥梁的混凝土墩基也被设计成可摇晃结构，从而限制了地震对于其他钢筋部分的破坏。 沿整座桥梁的数点上装有60英尺长的滑动钢管——‘铰链管梁’——在地震的移动过程中，以较为薄弱的钢制部分为代价保护剩余的结构。（“建造一座能在地震时摇晃的桥”，2月6日）。

“在我们所预期的地震位移程度中（截止到2036年前可能会发生的6.7级或6.7级以上的地震），会产生一定的损坏，”位于旧金山的工程公司T Y Lin International的首席设计师Marwan Nader对国际先驱论坛报这样说道：“但是这一损坏是可以修补，并且修补后桥梁可以继续使用，没有任何问题。”

桥梁所用的缆索至关重要。Fountain先生解释道，高速公路间隔使用的箱型梁为铸成该结构的地锚（‘支撑物’）。他写道：“在接下来的数十年中都将使用它们，也许一直使用到下个世纪，当这些支撑物开始老化后，混凝土梁将开始出现凹陷。通过在支撑物间安装缆索并将其拉紧，施工人员可以将这些横梁复原到最初的直线上。”

金门大桥的竞争对手

根据其设计理念，新建大桥将满足柔性结构的构想，使其能将可能的损坏限制在特定部分上；因此，正如Nader先生所说的：“当地震发生时……大桥可以随其一起震动。”

这一目标与另一可能的方案形成了强烈的对比：将大桥结构建造得足够大、足够坚固以防止大桥位移。Frieder Seible是加利福尼亚大学雅各布工程学院的院长，他对许多桥梁设计因素都进行过测试，在他看来，这一大规模的刚性建筑“看上去一点也不美观并且其造价将非常、非常高昂。”

这一美学因素也随着旧金山湾区选民——东湾居民的呼吁而凸显出来。他们最为失望的地方在于其地区的大桥总被人与其宏伟兼地标建筑的近邻进行比较——横跨旧金山湾的金门大桥。对于奥克兰来说，进行挑战的机会已经来临。这个机会已被紧紧抓住了。

- 沿着其前任路径建造起来的大桥将会成为世界上最大的自锚式悬索桥。大桥的结构是不对称的——其一边的跨度要比另一边大。传统悬索桥是将平行缆索悬挂于塔架之上和固定在岩石或混凝土两端，与传统桥梁有所不同，这座2,047英尺长的悬索桥只有一座塔架和一根缆索，缆索固定在其自身的道路层面上，并由东至西来回缠绕一周。对于更为典型的悬索桥来说，道路层面是最后安装的——由主缆索上的悬吊缆索悬吊起来。自锚式悬索桥的设计则牵涉到了一个“先有鸡还是先有蛋”的问题，即只有先安装了道路层面才能将缆索锚压制进去，但同时没有缆索，道路层面也不能自行悬吊起来。这种情况下就必须建造临时装置。

  这个“临时支架”实质上就是一座用于支撑道路层面的桥梁，它将发挥这一作用直至缆索就位为止——该临时支架已于去年12月动工，预计将耗时6个月完工。当然，该临时支架也具备了一定的抗震性能，这就增加了该工程的花费（估计超过60亿美元）和工期。

- 由于缺少了第二座塔架的承重量，只建设单个塔架成为了最大的挑战。解决方法是将这座塔架分成四座柱体并用剪力连接方式捆绑在一起。材料使用了比其他等级更容易变形的特种钢材，它们被沿着塔架小心安放，用以与整个结构的动力作用的“基调”相适应。那位体贴的建筑师Nader先生注意到，东湾的居民们希望有一个他们自己的“标志性桥梁。”

  先驱论坛报记者Fountain先生这样写道：“他们得到了。”

用于军事防卫装备的钢板将贴上更为严格的“美国制造”标签

2009年，由于美国在伊拉克和阿富汗战场需要，用于制造军事防卫的钢材来源一度成为了一个问题。为了确保满足战场需求，美国国防部撤销了一项拥有35年历史的法令，该法令规定用于防御型车辆、坦克以及其他装备的钢板必须100%由美国制造（即在美国本土进行钢板的熔化和制造）。但是用于军事防御的特种金属仍需在美国本土生产，这项略为宽松的法令允许钢板仅在美国进行加工以达到所需标准。

2012年，在宣战9年之后美国终于从伊拉克撤军；同时其对阿富汗的承诺也将以到2014年年底从阿富汗全面撤军而告终。钢铁的供应不再会是一个难题，而到时完全“美国制造”的要求的恢复也指日可待了。但是，该法令可能将会以一个更为严格的形式重新出台——如果立法者和军方能就“制造”的定义达成共识。

据匹兹堡商业时报的记者Malia Spencer的报道（2月9日）称，宾夕法尼亚州以钢铁生产为主业，其州议员Bob Casey已建议立法，要求只有在美国本土进行熔化和制造的钢铁才可用于美国军事装备。为进一步表明他的意见，Casey先生在一份书面声明中写道：“如果能确保美国国防部能重新立法规定只购买美国制造的钢铁，就能创造更多的就业机会并能促进宾夕法尼亚州钢铁生产商的业务增长。”

Casey议员也就汇率操纵问题不断向中国提出质疑。2月9日，Casey先生在议会上提出了钢铁保护法案，即美国钢铁和保护法案，其五位同仁也满怀爱国热情地提出相同意见。；

电信

美国人对于云服务很感兴趣——但是却不乐意为云端服务支出额外费用

“数字存储器有着相当数量的受众，但是供应商所要深思熟虑的是如何才能让用户为其所享用的服务掏钱。”

TelecomTVOne的Guy Daniels在总结一份普华永道会计事务所的报告时指出，云端数字存储服务拥有很大的市场；但是潜在

美国展望

客户却依然停留在互联网发展阶段“在线等于免费”的概念上。在美国11月份的一项调查中，近70%的受访者表示如果此类服务需要收费，他们就不太想再使用这类服务了。（“消费者需要云端存储服务但不想为此掏钱，”2月13日）。

有66%的受访者表示在他们的概念中对于“数字存储”充满信任；同时有61%的受访者也表达了类似对于“云存储”的信任。但是，一家位于伦敦的专业服务公司却指出了感知知情与实际知情间的差异。在从服务获得益处的同时，那些经常使用文件共享的用户（502位受访者中的47%）似乎比不常登录文件共享软件的用户获得更多安全感。近90%的受访者承认他们对于在数字图书馆中存储和获取资料“有点”或“很有”兴趣。但是Daniels先生指出，从“单纯的感兴趣”到付诸于行动，该比例有很大程度的下滑。在主要为50至59岁年龄段的受访者中，大概只有约一半的受访者表述将来会实际使用数字存储图书馆或存储器。同时，对于68%的受访者来说，是否愿意使用此项服务“可能”或“大部分”取决于登录并持续使用该项服务是否需要收费。

能源

那些向房屋业主提供低价太阳能板的公司对于美国受创的太阳能产业有所帮助

“在美国发展太阳能的唯一途径不是由政府要求人们在屋顶上安装太阳能板，而是通过实例让民众明白其经济实惠之处。”

Greentech资金顾问公司（Greentech Capital Advisors）是一家位于纽约并仅向替代能源公司提供资金的投资银行，其合伙人Heather Smith说她可以预见到在接下来的18个月中美国太阳能市场的合并。商业周刊记者Ari Levy的报道称，Smith女士表示赢家将会是那些为业主提供运输、安装、维修和资金一条龙服务的公司。尽管此类综合性服务是一项未来产业，但加利福尼亚州的一群创业者已然开始参与竞争。根据彭博新能源财经（Bloomberg New Energy Finance）的数据显示，2011年太阳能电池的售价已跌至88美分每瓦特，降低了51%。诸如SunRun、SolarCity和Sungevity等公司以低廉的价格收购太阳能板，同时以低价或无需支付预付款的形式将其出租给房屋业主。在突然的衰退导致太阳能板制造的倒退之后，这些公司的成功有助于使太阳能产业复苏。（“美国太阳能产业大放光芒，”2月9日）。

Levy先生注意到太阳能产业的住宅市场依旧处于初期阶段，在美国仅有不到0.1%的家庭安装有太阳能板。根据彭博的统计，到2020年为止，安装太阳能板的比例可达到2.4%。通过与诸如美国银行和美国合众银行这样贷款方的合作，以及利用政府对可再生能源的联邦税收抵免，太阳能板的安装方可降低他们的营业成本。一家典型的安装公司的营业所需资金为30,000美元至40,000美元之间。

汽车

本田旗下的雅阁 (Accord) 汽车曾是1982年至1996年间美国最为畅销的日系汽车，而现在本田正在寻找途径以重拾其往日的辉煌

从各方面来看，本田汽车公司去年度过了一段非常艰辛的时光：一连串发生在亚洲的自然灾害使得其销量下降，同时其修改后的思域（Civic）汽车在美国也反响平平。根据纽约时报从底特律发回的报道，Nick Bunkley指出了本田目前为重获其曾在美国的辉煌而做出的努力（“本田计划重拾曾经的辉煌，”2月8日）。本田的计划分为精神和商品两个层面——从行政长官Takanobu Ito新年至神社参拜到2月5日印第安纳波利斯超级碗上的醒目广告。在广告中，喜剧演员Jerry Seinfeld不顾一切地想要拥有第一代讴歌（Acura）NSX汽车（售价超过10万美元的本田概念车，并且已经数年未在市场上销售了），而同时曾出演“翘课天才”（Ferris Bueller’s Day Off）的Matthew Broderick正在驾驶着本田2012年思威（CR-V）跨界车兜风——这款车型在价格适中、适合家庭成员增长中的驾车者中获得了“最高评价”。

双管齐下的方法表现了本田今年的良好开端。该公司打破了在美国连续8个月的销售业绩下滑，在1月份获得了8.8%的增长；同时公司高管计划在2012年将销售量提升2%，重新设计的思威汽车以及数个讴歌高档品牌的新款车型将辅助实现这一销售目标。在2月份的芝加哥车展上，本田主推其讴歌品牌，该品牌去年的销售量甚至比该公司其他主流品牌都遭受到了更大的打击。本田的高管人员称，今年他们计划在美国销售18万辆讴歌汽车，销售量比2011年增长46%。相较于其他汽车制造商，2011年3月发生在日本的大地震和海啸给本田造成了更大的损失。由于零件短缺，本田位于日本、北美和其他地方的工厂不得不暂停或减缓生产达数月之久，与此同时，美国所有代理商库存的热销车型也都脱销。当公司正准备重整旗鼓时，发生在泰国的洪水无疑又加重了零件的短缺问题。

- 本田的高管称，到今年春天为止，公司的经销商们就可以恢复到正常的库存水平，这也是时隔一年之后，本田第一次恢复到了能与其竞争对手相抗衡的水平。据报道称，自去年12月到今年1月为止，其库存量已增长了38%。与此同时，Bunkley先生也注意到，分析师们并不认为本田的回归之路可以一帆风顺，去年该公司的美国市场份额仅为9%，是自2005年以来的最低水平。（2010年其市场份额为10.6%。）他援引了一份穆迪投资者服务报告（2月6日），提醒本田其面临的“巨大挑战”，以及即使在其经销商库存已满的情况下，本田又可重新获得多少的市场份额。

美国经济

有清晰的数据表明，公司正在减少裁员同时提高了招聘率

随着美国冬季的退去，其经济全景也如季节一般呈现出回暖态势。最重要的一个原因可能是另一个来自于就业市场的上升形势。美国劳动部2月16日的声明中指出，失业津贴的周申请量已降低了1.3万件，达到了季节性调整的34.8万件。这是5个星期中的第4次下降，也达到了2008年3月份以来的最低水平。一月期间，经济领域新增了净24.3万个就业岗位，创9个月以来的最高纪录。同时，失业率也连续第5个月下降，达到了8.3%。在之前的三个月间，经济领域平均每月新增20.1万个就业岗位。

更快的增长带来更多的招聘机会。2011年第四季度，美国的经济年增长率达到了2.8%，高于6月至9月季度的增长率。二月中旬另一些振奋人心的经济新闻中称，建筑许可证的颁发量的增加预示着有更多的买家充满胆量，是建筑业重获人气的信号。费城联邦储备银行的一项调查显示，位于大西洋中部国家的工厂正在持续扩大其经营，他们拥有稳定的就业水准、生产业务的增加、新的订单和货物装运。总的来看，费城联邦储备银行的生产情况指数从1月的7.3分上升至10.2分。使通货膨胀观察员感到欣慰的是，批发价格的数据显示通货膨胀率仍大部分在可控范围之内。

- 2月16日道琼斯工业平均指数上升至13,000的100点以内，这清楚地表明了就业前景的一片光明。自2008年3月19日以来，该指数从未接近过13,000以上。通用汽车——其在2011年的收益额为76亿美元，这距其上次的疲软期不过两年而已。通用汽车也是当日股票指数中表现最好的公司之一。

专栏编辑：Dorothy Fabian

▲ *Part of a vertical strander from Queins*

New heavy-duty rigid stranding cage is unveiled at wire 2012

QUEINS Machines showed customers a newly manufactured heavy-duty rigid stranding cage for top or side loading, for round or pre-twisted sector conductors as well as trapezoidal wires at wire 2012.

Also on display was a section of a high-speed skip strander for 1+6 bobbins 630mm, various cradles for planetary stranders, as well as a high speed steel taping head for two pads 600mm ø.

Queins' main products are all kinds of high-speed stranding machines, machines for CTC conductors, pay-offs, take-ups, taping heads, disc and belt-type caterpillars.

The second-hand department also offers a full choice of machines and equipment.

Queins Machines GmbH – Germany
Fax: +49 247 230 14
Email: info@queins.com
Website: www.queins.com

Specialists for wire drawing dies

AJEX & Turner specialises in the manufacture of the wire drawing dies made in synthetic diamond (PCD), natural diamond and tungsten carbide, tooling for the cable industry and diamond products for the polishing of the dies.

The company's wire dies are suitable for the manufacture of copper, stainless steel, medium, and high carbon steel, brass, bronze, nickel, tungsten and aluminium products.

The company provides PCD and natural diamond dies in sizes ranging from 10 micron to 38mm, and tungsten carbide dies in sizes from 0.1mm to 150mm.

▲ *Dies from Ajex & Turner*

These dies are mounted in powder metallurgy for support on all sides, allowing the dies to be used in hot wire drawing. This process also allows the die to withstand the drawing forces encountered, thereby reducing die breakage and improving die life.

Ajex & Turner also manufactures in-house die repairing and reconditioning machines in different models for TC dies as well as PCD/ND dies, including the ultrasonic machines UPM-555 and SAU-250. Other tooling, such as diamond needle files, diamond angular pins, die checking pins, diamond paste, ceramic pulleys and tools, are also available.

Ajex & Turner Wire Dies Co – India
Fax: +91 112 745 2640
Email: sales@ajexturner.com
Website: www.ajexturner.com

Electrostatic powder coating machine from Rolf Schlicht

THE electrostatic powder coating machine model RSC of Hamburg, Germany-based Rolf Schlicht GmbH was designed for an even, finely dosable and absolutely dust free powdering of cables, wires, hoses and profiles with powders like talc, stearate, lac powder, swellable powder, etc.

By the electrostatic charging of the powder a strong adhesive and even layer on the surface is reached. The electrostatic also makes sure that no powder falls from the product outside of the dusting chamber. Depending on extrusion speed and product diameter, one to four powder guns of 100kV each are used.

In the machine there is a fluidised powder hopper out of which the powder is sucked by pneumatic venturi pumps and blown to the guns.

For an optimal adjustment of the powder quantity the operator can adjust the power of the electrostatic charging from 0-100kV, the powder quantity and the speed of the dust cloud. Depending on the product the powder gun can be equipped with different powder nozzles.

In the machine there is a fully automatic and maintenance-free filter system that is cleaned off by a special process. Thanks to this filter system a strong and constant vacuum is generated in the machine, guaranteeing no escape of the powder.

If there is not enough space in the line to place the machine Schlicht can deliver a free-standing dusting chamber which is connected to the machine by hoses.

▲ *Extremely fine powdering from Schlicht machines*

For an extremely fine powdering of slowly running products Schlicht offers a fine dosing device to make sure that only a minimal amount of powder is transported to the guns.

Rolf Schlicht GmbH – Germany
Fax: +49 406 799 4211
Email: info@schlicht-gmbh.de
Website: www.schlicht-gmbh.de

facebook and twitter

You can now keep right up to date with all the latest in the wire and cable industry, simply by signing up to be our friend on Facebook. We update the site weekly, giving you the latest news of all the happenings in the industry, from the serious company buy-outs and mergers to the more light-hearted features.

Or if it's a brief snippet of news you're after, follow us on Twitter. Get short, bullet-pointed news throughout the week from the leading source of information in the wire and cable industry. Alternatively, follow editor David Bell at @wire_editor for regular updates from across the industry.

Length 6000 – accurate measurement of produced cable lengths

WITH the help of the Length 6000, cable manufacturers can measure the cable length during production and ensure that only the accurate length is supplied or further processed.

The Length 6000 is a reliable non-contact online length measuring device for cables, tubes and pipes. The device tracks the micro structure of the product surface, detects the movement by image comparison and precisely measures the length of the product.

▲ *The Length 6000 measures precisely the length of produced cables*

The technology of the Length 6000 is based on an optical measuring principle. The surface structure on the bottom surface of the passing product is defined by two neighbouring CCD-image sensors. The length is measured and speed is calculated from the correlation of both images.

The technology of the Length 6000 is equally reliable for round and sector shaped products and for products with reflective and rough surfaces. The system recognises whether the product is moving forward or backward and calculates the length precisely from zero line speed.

Sikora AG – Germany **Fax**: +49 421 489 0090
Email: sales@sikora.net **Website**: www.sikora.net

▲ *Burster – the solution for wire resistance measurement in the laboratory*

Wire resistance measurement

TO ideally monitor the production of single wires for high-tension cables, quality control must be performed directly in the stranding machine.

Burster allows line resistances to be measured to an accuracy of 0.1% inside the production of a cable length. The machine operator is able to adjust the compacting head in accordance with the measurement results, optimising the cable's cross-section.

The optimal quality control for production of singular wires and power cables is done with a test directly in the stranding machine. The components Resistomat® 2304, the clamping device 2382A and a lifting table make a measurement of a sample length possible during production, however only with a temporary stop of the stranding machine.

The production process is supervised and therefore fulfils the requirements of ISO 9002 due to the integration of the measurement system in the stranding machine. The single measurement values can be registered on a PC or by direct print-out on a printer.

The ISO 9002 – verification level production – is advanced, of course, in relation to the ISO 9003 – verification level end product – where the testing is effected on meter probes after the production of the batch (with Resistomat® 2304 and clamping device 2382L).

Before a measurement can be done, the twisting machine must stop and the lifting platform carrying the measurement basin rises to make contact with the specimen. The exact high position is reached by limit switches. The contact to the cable happens with spring mounted potential taps at a distance of 1,000mm. During the whole measurement the cable is inside a temperature-controlled water bath. A circulation pump ensures an even distribution of temperature in the water bath and re-circulates the water flowing out through the bulkheads.

The water bath is heated and maintained by a thermostat at a set temperature as close as possible to that of the test object.

Burster's series 1240 of calibration resistors are designed for calibrating and testing the resistance meter. As the temperature of the conducting cable directly influences the measurement result, the temperature of the water bath measured and displayed by the Resistomat® 2304 must also be checked. A calibrated thermometer with DKD Certificate can be used for this purpose.

Of course, one prerequisite must be fulfilled for measurements to proceed correctly: the drawing winch as well as the cable guides and winding units following it must not be electrically linked with the remaining machine components on the side of the compacting head, or the resistance of the electrical link must be high enough to render it insignificant as a shunt to the cable section which is to be measured.

Burster GmbH & Co KG – Germany
Fax: +49 722 464 588
Email: info@burster.com
Website: www.burster.com

▲ *A first in India - brought to you by Supermac*

First of its kind in India

SUPERMAC has successfully commissioned its new dual cross head DCH160/190 at Universal Cables, Satna. The cross head is the first of its kind in India.

Supermac has always been the pioneer in inventing and introducing new products in India.

During the last three years, these include: Take-up 4,500mm with the capacity of 40 tons; high speed insulation line with a speed of 800mpm for building wire and control cables; extruders up to 175mm screw diameter; CCV line for MV cables up to 66kV and extruders for special purpose cables and rubber HCV lines.

The dual cross head 160/190 is suitable for sheathing application for cables up to 220kV.

With a global clientele base, Supermac continues to exhibit its products at exhibitions in Russia, Brazil, Egypt, Bangladesh and Germany.

Extrusion expertise has always been the strength at Supermac, which is always keen on ventures which are challenging. The company has extended its capacity by adding a new facility for manufacturing up to 120 extruders each year, the largest in India.

Supermac Industries (India) Ltd – India
Fax: +91 112 579 8674
Email: office@supermacindia.com
Website: www.supermacindia.com

One step ahead in cable taping

WTM's range of concentric taping lines, with horizontal or vertical lay-out, is able to satisfy any request for tape application in the production of special wires and cables, even providing in-line thermal treatment by heating and sintering ovens.

Thanks to the extreme accuracy of its technology, WTM proposes taping lines working with rotation speeds up to 3,000rpm, maintaining the precision of a few hundredths of a millimetre in the tape deposition. WTM machines are able to satisfy a very wide range of tape tension control.

The machines can be equipped with fully electronic taping heads with multiple motorisations, suitable to control the tape tension from 30 Newton down to 100 grams. A special electronic system allows direct control of the tape tension in each working condition, even with the most critical taping materials.

Spinning heads for yarns are also available with the same precision and capability. A vision system, with a feedback signal provided by a camera, can be installed in all cases where a continuous monitoring and adjustment of the tape position is required during the taping process.

The complete range of machines that WTM produces includes a newly developed high speed single-twisting machine, suitable for small and medium size flexible cables, for reels from DIN.630 up to DIN.1000, and concentric back-twist feeders with considerably higher performances in respect to all traditional pay offs.

WTM also manufactures sintering lines, rewinding lines with in-line quality control processes, take-ups, pay offs, capstans, caterpillars, dancers and accumulators, in-line tapers and binders, longitudinal tapers, metre-counters and other special equipment for the wire industry.

WTM Srl – Italy
Fax: +39 049 870 5599
Email: info@wtmachinery.com
Website: www.wtmachinery.com

Niehoff stranding in high tech mode

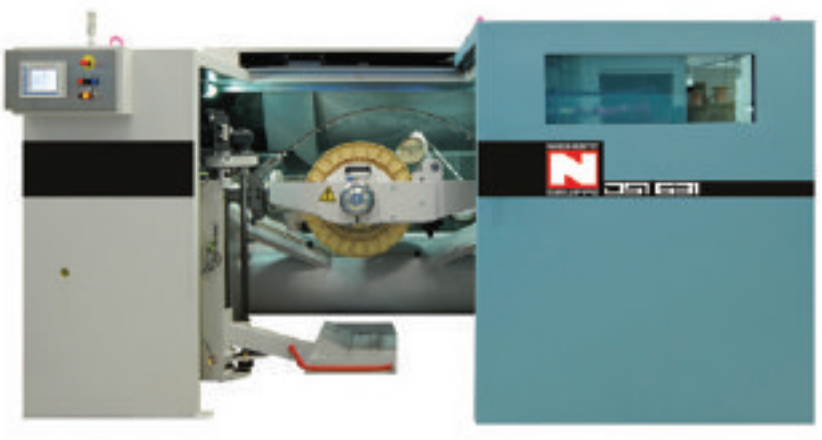
WITH Niehoff's high-speed rotating machines and numerous other production equipment, application-specific lines can be configured to manufacture all types of data and special cables, including LAN cables in all categories – current, under development and future – with the utmost precision.

In order to remain competitive, cable manufacturers need quality production equipment that saves energy and reduces raw materials and consumables consumption. The data and special cable stranding technology developed by Maschinenfabrik Niehoff meets these requirements.

Niehoff has been building bunching and stranding machines for the last 50 years. During this period, these machines have undergone continuous development resulting in the D series double twist bunching machines.

The successful concept of the D series bunchers is used as a basic platform for the DSI type double twist stranding machines.

The double twist stranding machines DSI 631 and DSI 1001 are built for a maximum strand diameter of 8mm and 15mm, respectively. Energy efficient drives, wind tunnel optimised bow profile, single-bow design and the use of other energy-saving components result in considerable operational energy savings. Compared to conventional stranding systems energy savings of 20% to 30% can be achieved under the same operating conditions.



▲ *DSI 631 double twist stranding machine*

The machines built in left and right-hand versions can be combined with additional ancillary equipment like tangential pay offs, double twist back twist pay offs, longitudinal tape pay offs, pre-twisters and diverse spooling units to create stranding lines for specific applications. For advanced data cable applications a double twist back twist pay off capable of generating back twist ratios from 0%-100%, or even higher if required, is available.

Optionally the double twist back twist pay offs can be used to enable a triple twist stranding process. In this configuration the stranding speed and therefore the production capacity can be increased considerably and – as a consequence – production costs can be reduced further.

Depending on line configurations, up to three foils can be applied in-line on the cable under controlled film tension (multi-taping). Because of the modular concept, these lines can be adapted to increasingly changing cable designs and specifications.

A DSI 631 stranding machine is capable of pairing insulated conductors into UTP and FTP cables Category 5e and 6 with a bow speed of 4,200-4,800tpm. In case of the triple twist process, line speeds up to 6,000tpm can be reached.

S/FTP cables Category 6 to 8e can be paired with a bow speed of 3,200 to 3,500tpm (with film). Further processing on a double twist stranding machine type DSI 1001 or a double twist bunching machine type D 1001 can be achieved with a bow speed of 2,500 to 3,000t/min (Cat. 5e and 6) or 2,000 to 2,500t/min (Cat. 6-7).

Maschinenfabrik Niehoff GmbH & Co KG – Germany
Fax: +49 912 297 7155
Email: info@niehoff.de
Website: www.niehoff.de

▲ *The MG700 from Schlatter*

MG700 for mesh fences

SCHLATTER introduces the MG700 industrial mesh welding system for the competitive production of all types of standard mesh fences, including safety and security fences, dual-wire fences, privacy fences and mobile building site fences.

The MG700 fence wire welding systems from Schlatter are suitable for the competitive production of dimensionally accurate meshes in small to large batch sizes. The wires can be straightened and cut in the system or fed directly from the coil.

The Schlatter Group is a plant manufacturer, providing resistance welding systems for specific industrial solutions as well as weaving and finishing machines for paper machine clothing, wire cloth and mesh.

Schlatter Industries AG – Switzerland
Fax: +41 44 732 45 50
Email: info@schlattergroup.com
Website: www.schlattergroup.com

Extending the Jacketmaster range

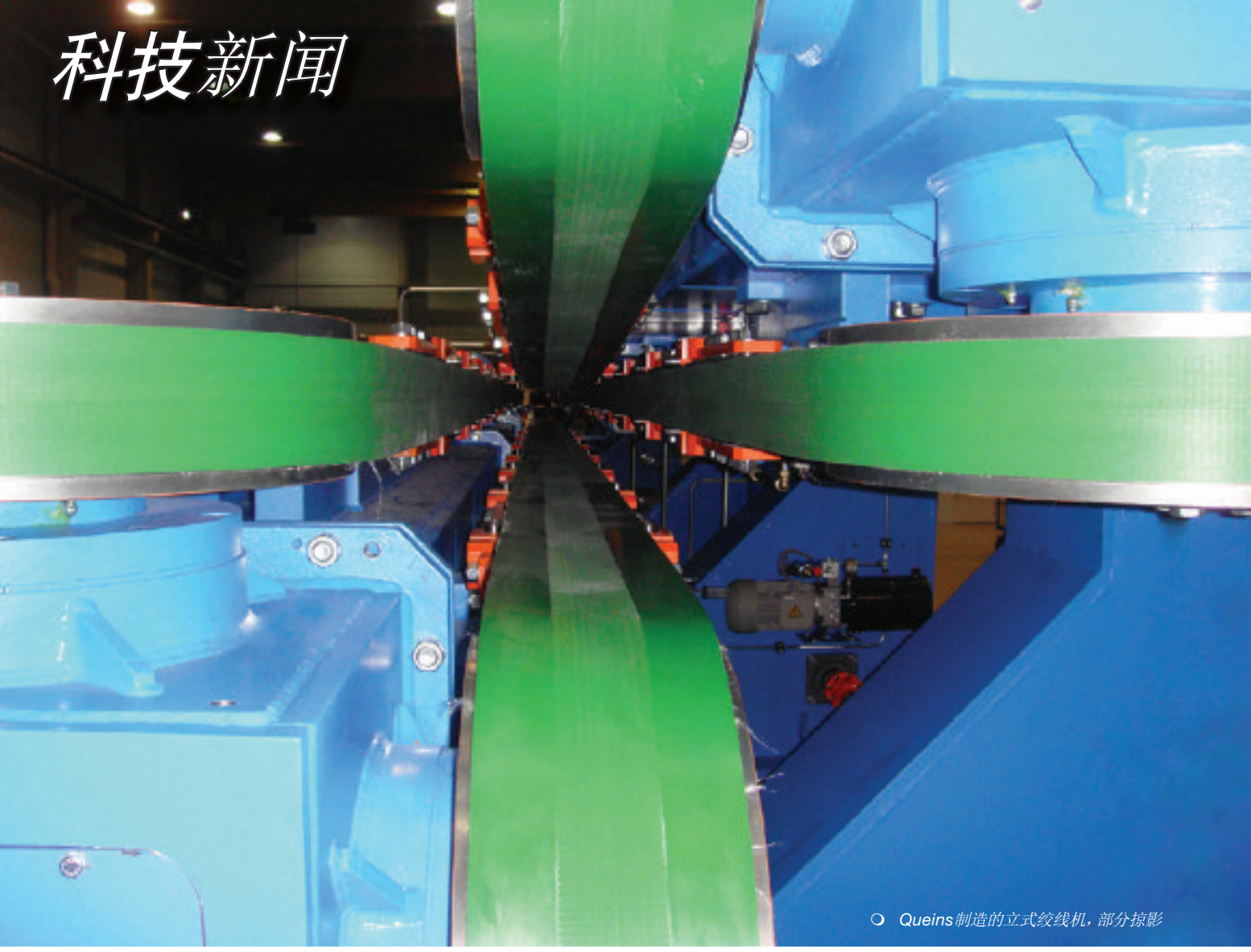
Zumbach Electronic has extended its well-proven Jacketmaster system for sector insulations and sector cable jackets with the new oscillating DVW 2 measurement device.

Straight and pre-spiralled sectors, solid and stranded, aluminium and copper can be measured and controlled. Width, height and insulation thickness as well as diameter, ovality and jacket thickness can be measured and calculated at accuracies within a few 1/100mm.

Two highly precise DVW 2 measurement devices dynamically capture the relevant dimensions at high rates, before and after the extrusion. With an optional third measuring head at the cold end of the line, the hot-cold shrinkage can automatically be compensated.

The Jacketmaster processor works with a sophisticated software. It displays the all-important data in numerical and graphical form, monitors tolerances and controls the process for optimised thickness and material consumption. It also calculates statistics and has all necessary outputs for interfacing with external networks.

Zumbach Electronic AG – Switzerland
Fax: +41 323 560 430 **Email**: sales@zumbach.ch
Website: www.zumbach.com



Queins制造的立式绞线机，部分掠影

新式重型刚性绞笼

2012年线材展上，Queins向客户呈现了最新生产的重型刚性绞笼，用于圆形、预扭绞扇形导线和梯形丝的顶部或侧面装载。

同时，展出了部分高速跳跃式绞线机，适用于1+6线轴630毫米，行星式绞线机的各种支架，以及2衬垫600毫米直径的高速钢攻丝头。

Queins主要产品包括各种高速绞线机、CTC导线机、放线机、收线机、攻丝头，以及盘式和带式履带机。

二手部门还提供品种齐全的机器和设备供选择。

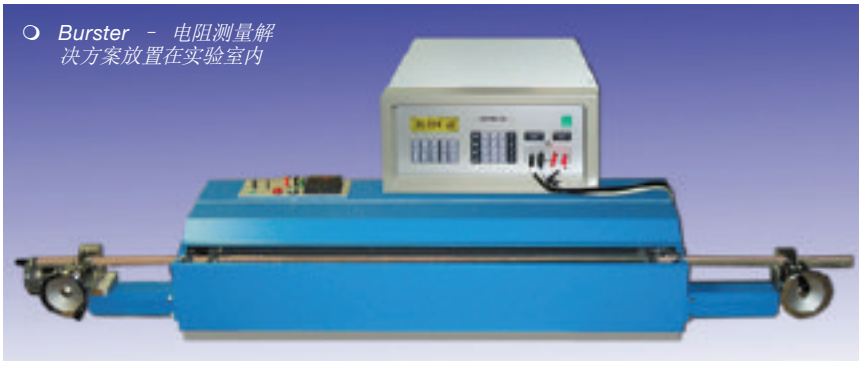
Queins Machines GmbH – 德国
传真: +49 247 230 14
电子邮件: info@queins.com
网址: www.queins.com

电缆包带业又向前迈进了一步

WTM同轴包带生产线具有水平和垂直两类布线方式，其生产范围可满足生产各类特殊线材和电缆的包带要求，并可通过加热炉和烧结炉在生产线上进行热处理。由于其技术可达到极限准确度，WTM的包带生产线上转速达到了每分钟3,000转，同时还在包带熔敷方面保持了误差在数个百分之一毫米内的精度。WTM的机器也可满足在包带张力控制方面颇为广泛的要求范围。机器装备有多机械化的电子包带头，适用于控制范围从30牛顿至100克的包带张力。特殊的电子系统可在任何工作状况下直接控制包带张力，甚至是最主要的包带材料。纱线的纺织头具有同样的精度和性能。可视化系统可安装于各个生产步骤中，通过摄像机的反馈信号，对该包带加工程序所要求的包带位置进行持续的监控和调整。WTM的机器制造范围包括最新研发的高速单线绕线机，适用于中小型的柔性电缆，其绕线轮适用范围为DIN.630至DIN.1000，同时与传统的收线装置相比，该绕线机的同轴反向绕线馈电系统拥有更为优越的性能。WTM还制造可在生产线上进行质量控制的烧结生产线和重绕线装置生产线，以及张紧装置、收线装置、绞盘、履带式机械、张力调节辊和储能器、生产线包带器和捆扎器、纵向包带器、米数计量器等其他线材生产的特殊装置。

WTM Srl – 意大利
传真: +39 049 870 5599
电子邮件: info@wtmachinery.com
网址: www.wtmachinery.com

电力电缆电阻测量



Burster – 电阻测量解决方案放置在实验室内

如果需要理想监测高压电缆的单线生产，在绞线机上就要直接进行质量控制。

Burster测量电缆长度内部的电阻精度达到0.1%。机器操作人员能够根据测量结果调整压缩头，从而优化电缆的截面。

生产单股电线或电力电缆的最佳质量控制直接在绞线机上进行测试。组件Resistomat® 2304、夹紧装置2382A和升降台能够在生产过程中实现样品长度的测量，但也需短暂停止绞线机。机器指南的选项，根据测量结果调整压缩机，以优化电缆直径。

由于绞线机与测量系统相结合，整个生产过程都在监督之中，因此符合ISO 9002标准的要求。单次测量值可记录在电脑里，或直接在打印机上打印出来。

ISO 9002生产级别验证是先进的，与之关联的ISO 9003高端产品级别验证，在批量生产之后(应用Resistomat® 2304和夹紧装置2382L)。

在进行测量之前，捻线机必须停止，升降台携同测量盆上升到与试样接触。限位开关让其到达很高的位置。在距离1,000毫米处弹簧安装在隐藏的龙头上，开始接触电缆。整个测量过程中，电缆置于温度控制的水浴内。循环泵保证水浴内的温度均匀分布，并重新循环水，流经舱壁。水浴加热，恒温器让其保持设定的温度，尽可能与测试对象温度接近。

因此，你能获得一段短暂的温度持平的时间和快速精确的测量值。水温测定利用精确的Pt 100传感器。该水温对于温度补偿来说是必要的，Resistomat®在20 °C下计算值。

Burster系列1240校准电阻器设计用于校准和测试电阻表。每个电阻都提供制造商测试证书。根据要求，电阻可交付DKD校准证书。此证书符合国际标准，显示的物理单位与国际 SI体系保持一致。

由于导电电缆的温度直径影响测量结果，测量的水浴温度和Resistomat® 2304所显示的温度也必须进行检查。拥有DKD证书的校准温度计正适合此用途。不需要特殊终端来确定通过导电电缆的测量电流线路。通过一端压缩头和另一端的拉伸绞盘，电流直接经由电缆。带有测量盆的升降台安装在两台机器部件之间。

当然，一个先决条件是必须履行正确的测量方法：拉伸绞盘和导缆装置，以及紧随其后的缠绕装置必须不得进行电气连接，压缩头上的其余机器零部件，以及电气连接的电阻都必须足够高，以至于对要测量的电缆截面来说作为分流而显得微不足道。换句话说，此电阻应该比压缩头和拉伸绞盘之间的电阻大1,000倍。

Burster GmbH & Co KG – 德国
传真: +49 722 464 588
电子邮件: info@burster.com
网址: www.burster.com

印度的先驱

Supermac在萨特纳Universal Cables成功投产其新型双十字头DCH160/190。该十字头在印度业界属首创。在印度，Supermac是行业内公认的新产品发明和推介的先驱。

在过去的三年里，推出的新产品包括：4,500毫米收线机，生产能力达40吨，最高开放3,000；高速绝缘生产线，制造电线和控制电缆的速度达800mpm；挤出机的螺杆直径达175毫米；MV电缆使用的CCV生产线高达66kV；用于特殊电缆的挤出机和橡胶HCV生产线等。双十字头160/190适合于最高220kV 的电缆护套。

Supermac在全球拥有广泛的客户基础，将继续在俄罗斯、巴西、孟加拉国和德国等各大展览上展示公司的产品。挤出专长一直是Supermac的实力所在，Supermac也热衷于挑战性的大胆尝试。公司通过添加新的生产设施，扩大了其生产能力，年产120台挤出机，居印度同行之首。

Supermac Industries (India) Ltd – 印度
传真: +91 112 579 8674
电子邮件: office@supermacindia.com
网址: www.supermacindia.com

静电粉末喷涂机

德国汉堡Rolf Schlicht GmbH 生产的RSC型静电粉末喷涂机设计用于电线电缆、管和型材的精确剂量和无尘化喷粉，使用的粉末如滑石粉、硬脂酸、乳糖粉和膨胀粉等。因为粉末的静电荷，有较强的吸附力，甚至连表层都能达到。静电还确保没有粉末从喷粉室外的产品落下。根据挤出速度和产品直径，可使用一到四个100kV的喷枪。机器上有一个流化床粉漏斗，其中粉由气动文丘里管式泵吸进去后吹到喷枪里。

对于粉量的优化调整，你可以调整粉末的静电荷范围0-100kV，以及粉量和尘埃云的速度。根据产品，喷枪可配备不同的喷嘴。机器上还有一个全自动免维护过滤系统，经特殊工艺清洗过。因为该过滤系统，一个强大恒久的真空吸尘器在机器上生成，保证没有粉末漏出。

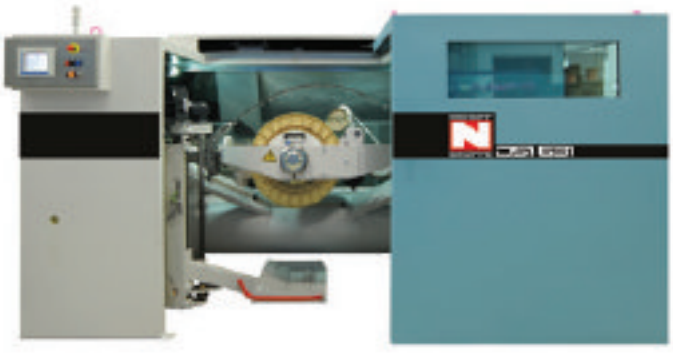
如果没有足够的空间来放置机器，Schlicht可以提供一个独立的喷粉室，通过软管与机器相连。对于缓慢运行产品的超细喷粉，Schlicht提供精准的配量装置，以保证只有少量的粉末被运送到喷枪。

Rolf Schlicht GmbH – 德国
传真: +49 406 799 4211
电子邮件: info@schlicht-gmbh.de
网址: www.schlicht-gmbh.de

*Schlicht*设备的超精细粉末

处于高科技模式状态下

在Niehoff高速旋转电机和大量其它产品设备应用程序的条件下，特定线路能够以最大的精度进行配置并制造所有类型的数据和特种电缆，其中包括所有种类的LAN电缆—现有的，正在发展的以及未来的电缆。



DSI631双旋合股机

为了保持具有竞争力，电缆生产商需要高质量的，能够节省能源以及减少原材料和耗材消耗的产品生产设备。由Niehoff制造厂发展的合股技术中所具有的数据和特殊电缆能够满足这些要求。

在最近的五十年中，Niehoff一直在制造聚束合股的机器。在这段时期，这些机器已经经历了持续的发展，并出现了D系列双旋聚束机。

这个新系列聚束机以其几个新特点而著称，其中包括一个单拱门设计和一个无接触机器数据转换器，相对于传统的双拱门结构而言，这些都大大减少了能源消耗，噪音排放和维护费用。

D系列合股机的成功概念已经成为DSI类型双旋合股机的基本设计模板。DSI设备能够以高精度制造所有类型和种类的数据电缆和特殊电缆，比如传感器电缆，信号线，总线电缆，仪器电缆和LAN电缆。

双旋合股机DSI631和DSI1001是分别用来对直径最大分别为8mm和15mm的电缆进行合股的机器。节省能源的驱动器，风道优化的拱门设计，单拱门设计和其它节能组件的使用使得节省了大量运行时所需要的能源。相对于传统的合股机而言，在相同的条件下，这两个机器能够节省20%至30%的能源。

有着分别为左右撇子设计的两种版本的这款机器能与附加设备相连接，例如切线放线装置，双旋尾旋放线装置，纵向绞线放线装置，预绞扭器和多种收线工具，这样能够为特定的应用设备建立合股线。

对于先进的数据电缆应用设备而言，一个双旋背双放线，能够达到从0%-100%旋绕比例的装置如有需要能够安装其中。

在可选的时候，这个双旋背双放线装置能够在一个三旋绕合股过程中得到使用。在这个配置中，合股速率和因此所产生的生产能力能够得到极大的提高并且因此生产成本能够得到进一步降低。

依托电缆配置，最多三个箔材能够在薄膜张力控制（多缠绕）下在电缆中得到管线内应用。

因为模块化设计概念，有三个电缆能够进行调整来适应设计以及特点变化日益多样的电缆中。设备电缆的灵活性使得一条生产线能够制造其它几种电缆以防一条生产线不能完全应用数据和特殊电缆。而且，模块化设计的概念使得一个完全崭新的制造过程得以实现以及修改。最后但非最不重要的一点，新产品的生产能够轻易地得到测试。

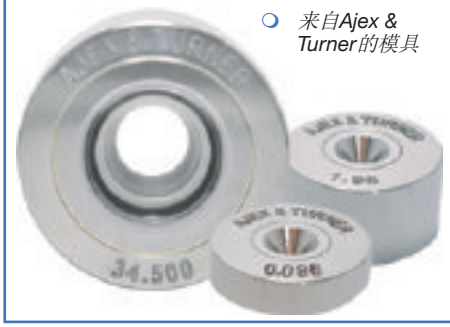
一台DSI631合股机能够将绝缘导体搭配嵌入拱门速度为4200-4800tpm的5e和6号UTP和FTP电缆中。在三旋操作中，生产线的速度能够达到6000tpm。

种类6至8e的S/FTP电缆的拱门速度能够达到3200至3500tpm（伴有胶卷）。在双旋合股机DSI 1001或者双旋聚束机D 1001上拱门速度能够进一步加工达到2500至3000t/min（种类5e和6）或者2000至2500t/min（种类6-7）

Maschinenfabrik Niehoff GmbH & Co KG – 德国
传真: +49 912 297 7155
电子邮件: info@niehoff.de
网址: www.niehoff.de

拉丝模专家

Ajex & Turner专业从事拉丝模生产，模具使用合成金刚石(PCD)、天然金刚石和硬质合金制成，生产的工具应用于电缆行业，金刚石制品用于模具抛光。公司的拉丝模适合于制造铜，不锈钢，中、高碳钢，青铜，黄铜，镍，钨和铝制品。公司提供的合成金刚石与天然金刚石模具的尺寸范围从10微米到38毫米，硬质合金模具尺寸从0.1毫米到150毫米。在粉末冶金应用领域，这些模具处处提供支持，因此模具能够用于热线材拉伸。该工艺使得模具能够承受遇到的拉力，从而降低模具破损率和提高模具寿命。



来自Ajex & Turner的模具

Ajex & Turner也制造模具内部维修和翻新机，各种型号的机器适用于TC模和PCD/ND模具，包括超声波机UPM-555和SAU-250。公司生产的刀具包括金刚石针锉，金刚石角针，模具检测针，钻石膏，陶瓷滑轮和各种工具等。

Ajex & Turner Wire Dies Co – 印度
传真: +91 112 745 2640
电子邮件: sales@ajexturner.com
网址: www.ajexturner.com

Length 6000精确测量电缆长度

Length 6000能够帮助电缆制造商在生产过程中测量电缆的长度，并确保长度的精确性和再处理。

Length 6000精确地测量生产的电缆长度

Length 6000是适用于电缆、管与管道的可靠非接触式在线长度测量设备。

该设备跟踪产品表面的微结构，通过图像比较来检测运动状态，精确测量产品的长度。

Length 6000技术基于光学测量原理。合格产品底部表面上的表层结构通过两个相邻的CCD图像传感器呈现轮廓。根据两个图像的相关性来测量长度和计算速度。

Length 6000技术同样适用于圆形和扇形产品，以及表面反射和粗糙的产品。

系统能够识别产品是向前还是向后移动，并精确地计算起始为零线速度的长度。

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13th Guangzhou International Metal & Metallurgy Exhibition 2012

'Zhujiang River & modern building of financial district in Guangzhou, China' www.bigstockphoto Photographer – Yuanyuan Xie

Guangzhou opens its doors to the 13th International Metal & Metallurgy Exhibition 2012 PRC

MORE than 160 companies move their attention from Europe to the 13th International Metal and Metallurgy Exhibition next month.

The China Import and Export Fair Pazhou Complex, Guangzhou – the largest exhibition centre in Asia – will be a hive of activity as the companies show their wares to an expectant audience of visitors. Since the exhibition has been running there have been more than half a million visitors to the show, attracted by exhibitors from more than 30 different countries.

This year's exhibition – using more floor space than ever before – is expected to beat the attendance figures set last year.

The exhibition, from 19th-21st June, covers metal ore and the copper industry; casting, die casting, foundries, heat treatment and industrial furnaces; plate metal, bar, wire, steel rope, metal processing and setting equipment; stainless steel; fasteners, springs and equipment; and the sheet metal industry. On the following pages is a complete listing of exhibitors taking part, correct at time of going to press. For more information please visit the official website.

The site also includes comprehensive information for show visitors and useful travel information.

Dates: 19th-21st June 2012
Website:
www.julang.com.cn
Location:
China Import and Export Fair Pazhou Complex, Guangzhou, China
Organisers:
Guangzhou Julang Exhibition Design Co Ltd

Photo courtesey of Guangzhou Julang Exhibition Design Co Ltd

Alphabetical list of Exhibitors

(Exhibitors list correct at time of going to press)

Company	Stand No
Aode	1857
Beijin NCS Analytical Instruments Co Ltd	2338
Canatex Industrial Co Ltd	TBA
Chieftain Metals Co Ltd	1803
Chongqing Jiangdong Machinery Co Ltd	1619
Chongqing Sinost Company Limited	1631
Chun Yu (Dongguang) Metal Products	2508
Cieffe Industries Furnace (Shanghai) Co Ltd	1637
De Hua Materials Testing Co Ltd	1801
DG Kunlong Hardware Products Co Ltd	1506
Dong Guan JinDing Machinery Co Ltd	1238
Dongguan City Wanjiang Guangyuan Inverter Electronic Equipment Factory	1533
Dongguan Dongzheng Machinery Co Ltd	1258
Dongguan Jin.Chi Metal Machinery Manufacturing Co Ltd	TBA
Dongguan Jingye Spring Machinery	1223
Dongguan Kaichuang Precision Machinery Co Ltd	1809
Dongguan Lihua Machinery Equipment Co Ltd	1680
DongGuan Max CNC Machinery Co Ltd	1301
Dongguan Modern Metal Precision Die Casting Co Ltd	1612
Dongguan Shengguang Automatic Machinery Plant	1316
Dongguan Shizai Machine Manufacture Co Ltd	1101
Dongguan SongWei Metal Products Co Ltd	TBA
Dongguan Tianqi Machanical Electrical Equipment Co Ltd	1338
Dongguan Xin Ding Machine Co Ltd	1213
Dongguan Youhui Machinery Co Ltd/Lijia (Dongguan) Spring Equipment Co Ltd	1133
Dongguan Yuerong Electrical Equipment Co Ltd	1330
Dongguan Zhengxin Mechanical & Electrical Equipment Co Ltd	1130
Dongguang Likexing Spring Machinery Co Ltd	1218
Dongguang Xusheng Metal and Plastic Co Ltd	1132
Dongtai Chenyang Special Steel Co Ltd	1606
Ekort FS Preolsion Diamond Tools Co Ltd	1603
Elida Packaging Machinery Co Ltd	2127
Foshan BaoHui Stainless Steel Co Ltd	2158
Foshan City Nanhai Sumwin Stainless Steel Co Ltd	2308
Foshan City, Guangdong Province Yuhai Screw Machinery	TBA
Foshan GangLei Stainless Steel Co Ltd	2118
Foshan Jinhaida Stainless Steel Co Ltd (Foshan Jinhaiwang Stainless Steel Co Ltd)	TBA
Foshan Nanhai Xulong Spring Factory	1023
Foshan Ocean Stainless Steel Co Ltd	2338
Foshan Sanshui Futewei Stainless Steel Co Ltd	2089
Foshan Sanshui Xiongjin Machinery Co Ltd	2088
Foshan Shunde ChuangQi Machine Co Ltd	2157
Foshan Zhonglian Automatic Control Co Ltd	1893
Gopoint Testing Equipment Co Ltd	1138
Guang Jin Spring Machine Co Ltd	1228
Guangdong Disaier Machine Casting Co Ltd	1628
Guangdong Foshan Jinxin Stainless Steel Co Ltd	2226
Guangdong Hanjiang Steel Plate Co Ltd	2119
Guangzhou Kzmellong Hardware Co Ltd	2689
Guangzhou LeeChan Mechanical Equipment Co Ltd	1632
Guangzhou Lnnor Machinery Co Ltd	TBA
Guangzhou Mysun Mechanical & Electrical Co Ltd	1553
Guangzhou Ritia Pipe-Fittings Group Co Ltd China	TBA
Guilin Wintime Testing Machine Co Ltd	1108
Hangzhou Nanfeng Casting Co Ltd	1823
Hangzhou Tonglu Sanli Industrial Furnace Factory	1112
Hebei Penghui Pipe Fittings Co Ltd	TBA

13th Guangzhou International Metal & Metallurgy Exhibition 2012

Editorial index

Front cover courtesy of MFL Mario Frigerio SpA.
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46 Holly Walk • Leamington Spa • Warwickshire CV32 4HY • UK
Tel: +44 1926 334137 • **Fax**: +44 1926 314755 • **Email**: wca@intras.co.uk • **Website**: www.read-wca.com

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ITO-SIN (DEYANG) WIRE AND CABLE EQUIPMENT CO., LTD

Copper Aluminum rod breakdown machine, LHD-450

Application: the breakdown machine is used to draw copper wire or aluminum alloy wire. it consists of a host drawing machine, pay-off stand, continuous annealer, accumulator, dual-spooler take-up unit.

YQL-150 continuous Lead Extruder

This series of Lead Extruder is used to continuous coat lead layer for marine cable or rubber cable.

Copper rod continuous casting and rolling line, Aluminum rod continuous casting and rolling line

Copper CCR line is used to produce 8mm of copper rod from scrap copper and cathcode copper. it consists of a refrection furnace, five-wheel casting machine, front haul-off unit, straightener, continuous rolling machine and down coiler take-up unit. Users can choose different furnace system according to different raw material and output capacity.

Add: #757 Guijiang Street, Bajiao Industrial Estate, Deyang, Sichuan, China
Tel:+86-838-2601062 2823721 Fax:+86-20-2601065
http://www.ito-sin.cn E-mail:xsl@ito-sin.cn, info@ito-sin.cn

Shanghai Office: Room 2201, Jiangnan Ship Building,#600 Luban Road, Luwan Dist, Shanghai
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Zip code:116033
TEL: +86-411-66881719
Http://www.td-dl.com.cn
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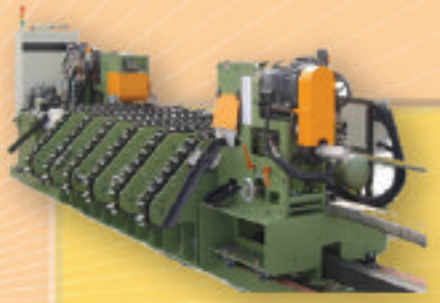
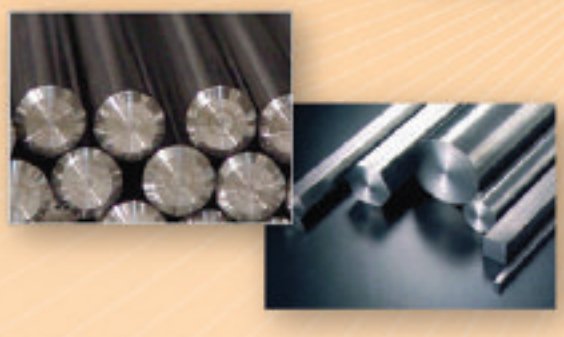
Combined Drawing Machine



Chamfering Machine

Cold Draw Bar Equipment (Ferrous and Non Ferrous)



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Email: tw.sc@msa.hinet.net
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