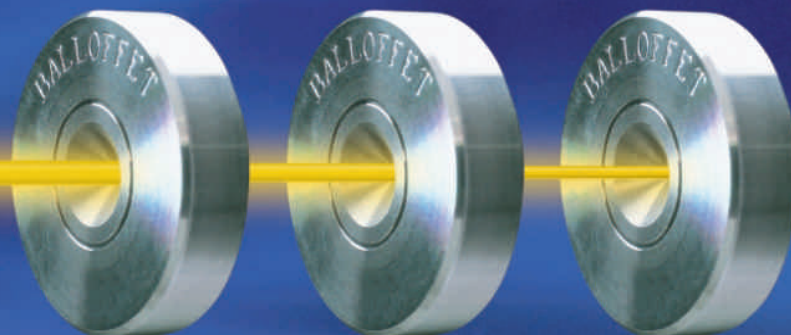


# Wire & CABLE ASIA 线缆世界

March 2007

Wires • Cables • Fibre Optics • Springs • Fasteners • Precision Parts



## MAXIMIZE YOUR RETURN ON INVESTMENT, OPT FOR QUALITY AND ENJOY GREAT SERVICE

Optimize your production time and reduce your maintenance and overheads.

Balloffet's quality ensures accurate compliant surface finishes, diameters and technical characteristics, for all your wire drawing requirements. Revolutionary manufacturing keeps Balloffet and their customers on technology's leading edge.

### PRODUCTION

DIES : a complete range of natural and synthetic diamond dies

EXTRUSION DIES AND GUIDES

SPECIAL TOOLING WITH DIAMOND INSERTS

REPOLISHING EQUIPMENT AND MACHINES

### SERVICES

REPOLISHING

TECHNICIAN TRAINING

(at our training and demonstration centre or at the customer's facilities).

DIE EXAMINATIONS AND TECHNICAL STUDIES.



Extrusion tools



Repolishing / Machines



Special tooling



## BALLOFFET

Helping you master die longevity

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



#### BALLOFFET FRANCE

Tel. : +33 4 74 40 19 00

Fax : +33 4 74 35 79 01

[balloffet@balloffetdie.com](mailto:balloffet@balloffetdie.com)

#### BALLOFFET DIE Corp. U.S.A.

Tel. : +1 915 592 5252

Fax : +1 915 592 8585

[balloffetdie@sbcglobal.net](mailto:balloffetdie@sbcglobal.net)

#### B.D.W.D. U.K.

Tel. : +44 1202 745 104

Fax : +44 1202 746 125

[guide\\_die@bdwd.freeserve.co.uk](mailto:guide_die@bdwd.freeserve.co.uk)

#### BALLOFFET GmbH Germany

Tel. : +49 4532 20280

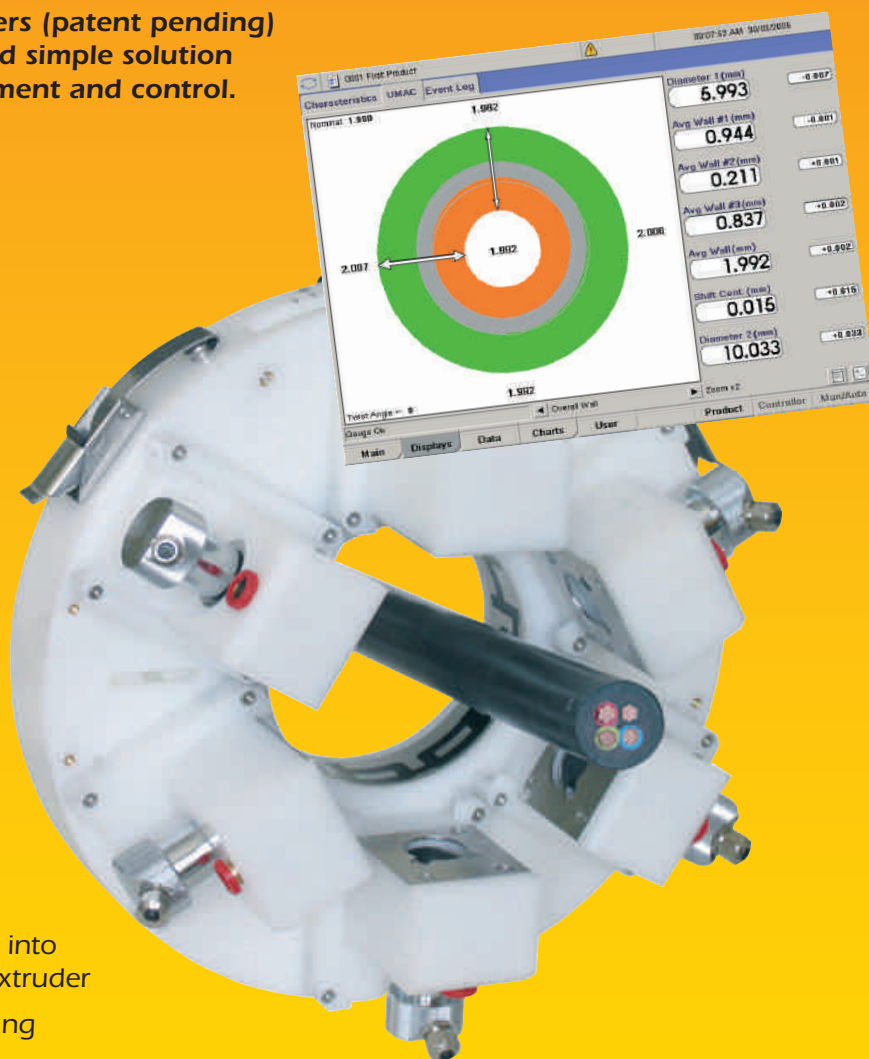
Fax : +49 4532 202811

# Wall Thickness Measurement of Cable Jackets, Insulations etc., with Unique Scanners

These brand new UMAC® Z scanners (patent pending) from Zumbach provide a smart and simple solution for in-line wall thickness measurement and control.

## Many Advantages

- Latched top for quick removal and ease of "stringing-up" cable
- Quick symmetrical positioning of all transducers
- Large measuring range with the same scanner
- No readjustments, no tools, no change of transducers
- Fully non-contact, non-critical centering
- 100% made of non-corrosive materials for maintenance-free long-life operation under water



## Numerous Benefits

- Extremely compact, for installation into cooling trough, directly after the extruder
- Automatic control and easy centering
- Material savings
- Return on investment within a few months
- Outside diameter from 5 up to 100 mm (0.2 up to 4 in.)
- Cutting edge digital technology (DSP)
- Automatic calibration
- Multi-layer measurement (up to 8 layers)
- Gravimetric interface

By means of additional components, such as USYS WALLMASTER processor and display units, GRAVI 8000 gravimetric weighing systems, ODAC® laser diameter scanners, KW fault detectors etc., an UMAC® WALLMASTER system can be extended for highest possible productivity and product quality.

► Contact Zumbach Electronics today for detailed information!

## Worldwide Zumbach Customer Service and Sales Offices in:

**Switzerland (H.Q.):** Tel. +41 (0)32 356 04 00, E-mail: sales@zumbach.ch

**Argentina:** Tel. +54 (0)11 4701 0774, E-mail: ventas@zumar.com.ar

**Belgium:** Tel. +32 (0)2 478 16 88, E-mail: zumlux@skynet.be

**Brazil:** Tel. +55 (0)19 3849 5008, E-mail: vendas@zumbach.com.br

**China:** Tel. +86 (0)21 542 60 443, E-mail: office@zumbach.com.cn

**France:** Tel. +33 (0)1 64 24 46 31, E-mail: ventes@zumbach.com.fr

**Germany:** Tel. +49 (0)2238 8099-0, E-mail: verkauf@zumbach.de

**India:** Tel. +91 20 2432 9129, E-mail: joseph@zumbachindia.com

**Italy:** Tel. +39 0332 870 102, E-mail: zumit@zumbach.it

**Spain:** Tel. +34 93 666 93 61, E-mail: gestion@zumbach.es

**Taiwan:** Tel. +886 2 2630 5530, E-mail: zumfareast@giga.net.tw

**UK:** Tel. +44 (0)870 774 3301, E-mail: sales@zumbach.co.uk

**USA:** Tel. +1 914 241 7080, E-mail: sales@zumbach.com

Visit us at:



Cleveland, USA  
May 7-10, 2007  
Booth # 2013



New Delhi, India  
April 18-20, 2007  
Booth # B5



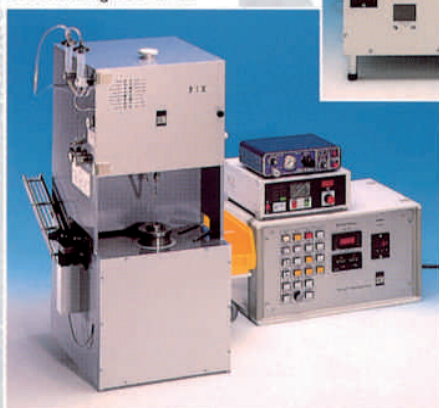
SCOB Worldwide – Die Working  
for the Innovative Die Shop

SCOB

SCOB-Weltweit

Ziehsteinbearbeitung für die innovative Praxis

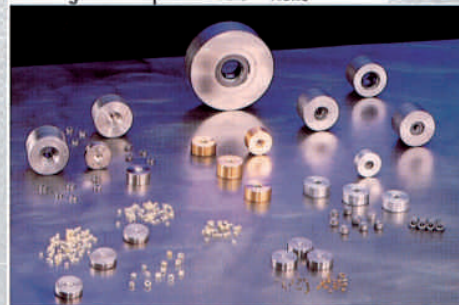
Tungsten Carbide  
Die Working Machines



Ultrasonic Die Working Machines



Drawing Dies – Special Tools – Rolls



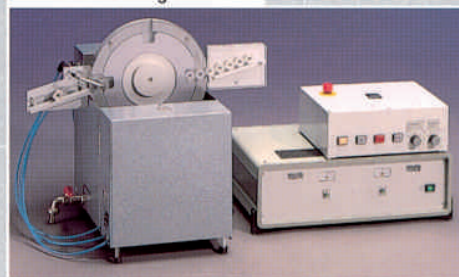
Quality  
Control



Wire Type Die Polishing Machines



Ultrasonic Cleaning Units



SCOB

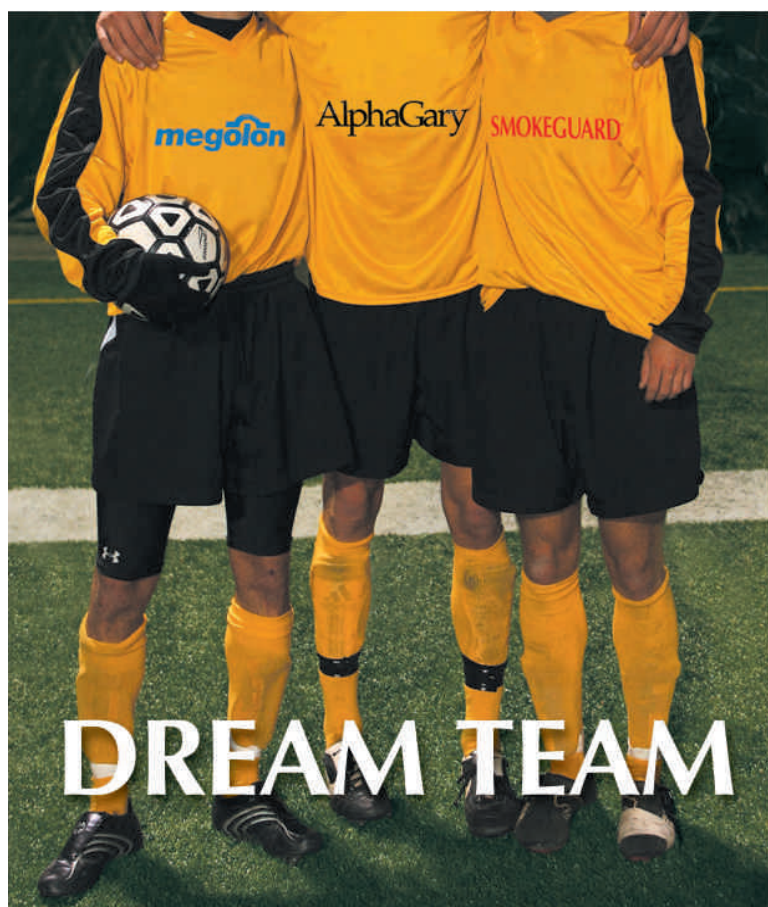
**Paul Schaaf GmbH & Co.**

Ziehsteine und die komplette Ziehsteinbearbeitung  
D-35754 Mittenaar 1 - Bicken  
Telefon (0 27 72) 6 20 16 · Telefax (0 27 72) 6 20 19



# Editorial Index

Agir Technologies Group.....	66, 73	Fenn Technologies.....	51, 60	Samp SpA.....	57, 60
AIM Inc.....	10, 21	FisherTech.....	43, 44	SAS Engineering & Planning Srl.....	58
Ajex & Turner Wire Dies Co.....	64, 72	Fismet Industriale Srl.....	43	Schaaf GmbH & Co.....	69
Allied Wire & Cable.....	16, 22	GER SA.....	35, 46	Shanghai East Diamond Co Ltd.....	65, 73
Anomet Products Inc.....	35	Hâmex.....	40, 48	Sicme Italia Impianti.....	50, 60
Balloffet.....	66, 71	Huestis Industrial.....	39, 46	Singapore Polymer Corporation.....	6, 19
Carlo Banfi SpA.....	48	William Hughes Ltd.....	14, 22	SMS Demag.....	17, 20, 22
Bel Stewart.....	24	Kanoo Plastics Company.....	15, 22	SMS Group.....	8, 21
Borealis AG.....	21	Kay Pee Dies & Tools.....	63, 71	South African Wire Association.....	21
Borouge Pte Ltd.....	12, 17, 21, 22, 24	Kemet International Ltd.....	62, 70	Sterling Die Inc.....	65, 71
Boxy SpA.....	16	Costr Mecc Koradi.....	48	Techint Technologies.....	6, 18
Business and Industrial Trade Fairs Ltd.....	65, 72	Laser Design Inc.....	41, 44	Tecno Impianti Srl.....	54, 59
Chyi Mee Precision Industry Co Ltd.....	66, 72	M+E Machine + Engineering SpA.....	51, 61	Teijin.....	15, 20
Conoptica.....	63, 71	Maschinenfabrik Niehoff GmbH & Co KG.....	53, 58	Temsa-Diamond.....	67, 72
Continuus-Properzi SpA.....	49, 59	Mikrotek Machines Ltd.....	68, 73	Ugitech.....	14, 17, 20, 22
CTR Carbide Dies Ltd.....	62, 70	Nexans.....	6, 11, 18, 21, 24	Videx Machine Engineering.....	37, 48
Daikin America Inc.....	16, 24	Nextrom SA.....	14	Wanda Galvanized.....	40, 48
Decalub.....	41	Nota Zakład Mechaniki Precyzyjnej.....	63, 72	Wayne Machine & Die Company.....	40, 46
Delisi Srl.....	55, 61	OML Srl.....	54, 60	WCMA.....	20
Die Quip Corp.....	68, 73	OSG Tap & Die Inc.....	64, 73	Welding Wire Machineries Srl.....	53, 61
DSM Desotech Inc.....	10, 20	Pan Chemicals.....	55, 61	Willi Bremer GmbH.....	39, 44
Dynamex Corporation.....	12, 24	Pleuger GmbH.....	39, 44	Wire and Cable India 2006.....	10, 19
Eder Engineering GmbH.....	68	PS Costruzioni Meccaniche Srl.....	43	Witels-Albert.....	50, 59
Extrudex.....	37, 46	RG Attachments.....	12, 24	Zumbach Electronic AG.....	43



**THE RIGHT PLAYERS:** Two star players - MEGOLON and SMOKEGUARD — are now on the same team! As our customer, you will benefit greatly from our diverse and proven portfolio of cable compound materials.

**THE RIGHT STRATEGY:** Our game plan is focused on three key initiatives: 1) fulfilling our customers' needs, 2) providing leading-edge technology, 3) planning for the future. We are involved, experienced, and established. You can count on us.

**A SPIRIT OF TEAMWORK:** At AlphaGary, we are committed to the success of your wire & cable initiatives. We share your goals. We hold ourselves accountable to you, our customer. When you win, we win.

Contact us today for more information:  
info@alphagary.com or visit [www.alphagary.com](http://www.alphagary.com)

**MEGOLON™**  
halogen-free compounds

**SMOKEGUARD™**  
low smoke, flame retardant speciality PVC compounds

**GARAFLEX™**  
thermoplastic elastomers  
(PVC, TPV, olefin, rubber, nylon)

**AlphaGary**  
Market Leadership in Specialty Compounds

AlphaGary Corporation  
170 Pioneer Drive  
Leominster MA 01453 USA  
+1 (978) 537-8071

AlphaGary Ltd.  
Belar Way, Melton Mowbray  
Leicestershire LE13 0DG UK  
+44 (0) 1664 502222



# EUROLLS GROUP

WIRE MACHINERY DIVISION



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



[www.teammeccanica.it](http://www.teammeccanica.it)



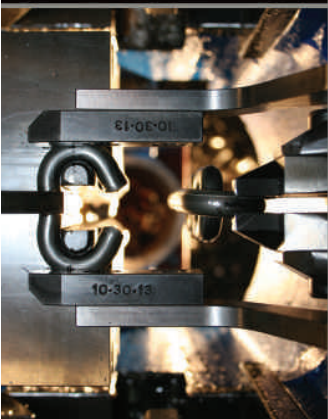
[www.teurema.com](http://www.teurema.com)



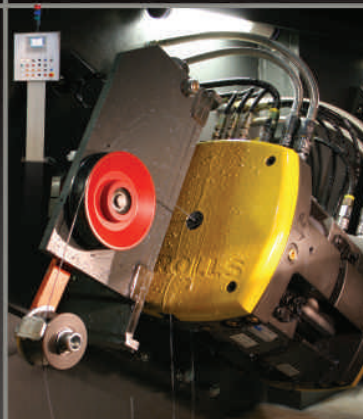
[www.vitari.com](http://www.vitari.com)



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



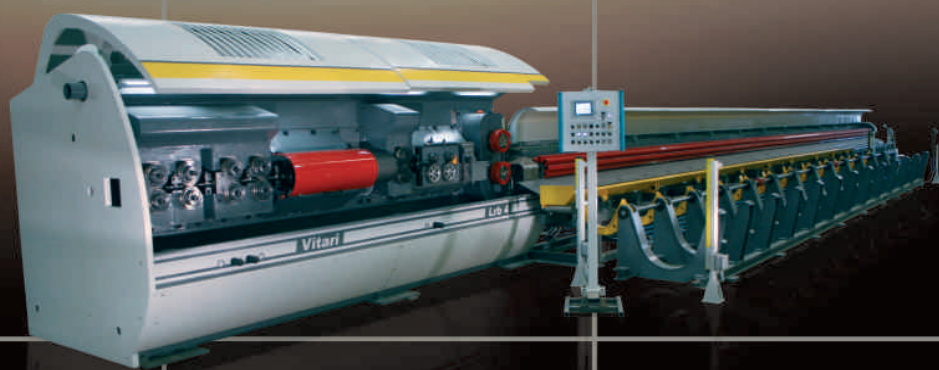
MACHINE MANUFACTURING  
division



EQUIPMENT AND  
COMPONENTS  
division



AFTER-SALES  
ASSISTANCE  
division



WE WILL ATTEND THE WIRE RUSSIA 2007 - INTERWIRE USA CLEVELAND - WIRE & CABLE EXPO 2007 NEW DELHI

Via Malignani, 14 33040 Attimis, Udine - Italy - Tel. +39 0432 796511 - [www.eurolls.com](http://www.eurolls.com)

# Contents in this issue

**Editor (编辑):**..... David Bell

**Features Editor – USA**

(专栏编辑 – 美国):..... Dorothy Fabian

**Editorial Assistant**

(助理文字编辑):..... Christian Bradley

**Design/Production (设计/制作):**..... Julie Tomlin

**Production (制作):**..... Lisa Benjamin

**Translation (翻译经理):**..... Tony Zhou

Jianye Yang

**Sales Manager (广告销售经理):**..... Paul Browne

**Advertising/Marketing:**..... Giuliana Benedetto

(广告/营销):..... *Italian speaking sales*

Hendrike Griffin

*German speaking sales*

Linda Li

*中文区域营销*

Jeroo Vandrevalla

*Indian sales*

**Advertisement Coordinator**

(广告联络人):..... Liz Hughes

**Accounts Manager (财务经理):**..... Richard Babbedge

**Subscriptions (订阅)**..... Liz Hughes

**Publisher (发行人):**..... Caroline Sullens

**Founder (创办人):**..... John C Hogg

**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):..... intras@intras.co.uk

Website (网站):..... www.read-wca.com

**USA (美国)**

**Editorial (编辑)**

Intras Ltd – Dorothy Fabian

272 First Avenue, Apt 12G

New York, NY 10009, USA

Tel (电话):..... +1 212 614 9266

Fax (传真):..... +1 212 614 9266

Email (电子邮址):..... dfabian@rcn.com

**India (印度)**

Jintras Ltd – Jeroo Vandrevalla

Subarna (Ground Floor), P21/N, Block A

New Alipore, Kolkata 700 053, India

Tel (电话):..... +91 33 2407 07 01

Fax (传真):..... +91 33 2407 07 00

Email (电子邮址):..... jeroov@vsnl.com

Website (网站):..... www.jintras.com

This publication and its full contents of layout, text, images, and graphics is copyright protected. No part of this publication may be reproduced in any form or by any means, electronic or mechanical including photocopying, recording or any other storage or retrieval system without the publisher's written permission. The publisher, owners, agents, printers, editors and contributors cannot be held responsible for and hereby exclude all liability whatsoever for errors, omissions or the accuracy and claims printed or inferred in the editorial or advertisements published in this, previous or subsequent editions or for any damages, costs or losses caused thereby. Wire & Cable ASIA reserves the right to edit, reword and subedit all editorial submissions in accordance with editorial policy. Wire & Cable ASIA expressed graphically or by text is a registered name and style trademark of Intras Ltd, UK. All matters relating to this Disclaimer are governed by the laws of England.

《亚洲线缆》杂志所有图文受版权保护。未经书面授权不得全部或部分以任何方式转载。出版商、编写者、代理商、印刷商及投稿者对在本期、以前、以及将来刊登的稿件或广告的准确性和提出的索赔不承担任何责任。英国 Intras Ltd 公司拥有《亚洲线缆》(Wire & Cable ASIA) 图像和文字注册商标。

Wire & Cable ASIA is published six times a year. It is circulated throughout North and South-East Asia to registered readers in wire, cable and wire component producer and consumer industries. An annual subscription is available from Intras Ltd at Euros 125, £85, US\$155 or Rupees 7,090.

《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125；英镑85；美元155；卢比7,090。

© Intras Ltd ISSN 0218-3277



6/18

2	Editorial Index
2	通讯目录
6	Industry News
18	行业新闻
25	Telecom News
27	通信新闻
28	From the Americas
32	来自美国的消息
35	Technology News
44	技术与产品
80	Advertisers Index
80	广告索引



40/46



39/46

**US copies only:** Wire & Cable ASIA (ISSN No. 0218-3277) is published bi-monthly by INTRAS Ltd and distributed in the US by DSW, 75 Aberdeen Road, Emigsville, PA 17318-0437. Periodicals postage paid at Emigsville, PA.

**Postmaster:** send address changes to Wire & Cable ASIA, PO Box 437, Emigsville PA 17318-0437.







▲ Dong Energy's Horns Rev 2 offshore wind farm (picture courtesy of Elsam A/S)

## Power to the windfarm – courtesy of Nexans

French company Nexans has signed a contract with Denmark's utility Energinet.dk to deliver and install the power export cable for Dong Energy's Horns Rev 2 offshore wind farm on the west coast of Denmark.

This turnkey contract, worth around €30 million, includes the supply of 42km of AC XLPE 170 kV 3-core power cable including a fibre-optic element, transport, laying and termination. When the cable is installed, in autumn 2008, it will become the world's longest XLPE submarine cable at this voltage.

The Horns Rev 2 project will provide a total wind farm capacity of over 215MW and cover an area of some 35km<sup>2</sup>.

The project is situated around 23km north west of Horns Rev 1.

In 2002 that was the world's largest offshore wind farm, with a capacity of 160MW. Nexans also delivered and installed the power export cables.

"We are particularly proud and happy that the Danish utility Energinet.dk has selected Nexans to be the turnkey contractor for the Horns Rev 2 project," said executive vice president Europe Area, Yvon Raak.

"Following the success of the Horns Rev 1 project in 2002, this new contract proves that a new major utility has complete confidence in Nexans' capabilities."

The 170kV XLPE cable for Horns Rev 2 will be manufactured by Nexans' specialist submarine power cable factory in Halden, Norway.

The wind farm will be commissioned in May 2009.

### Nexans – France

**Fax:** +33 15669 8484

**Email:** info@nexans.com

**Website:** www.nexans.com

## New marketing manager for SPC

Singapore Polymer Corporation (SPC) has appointed Esther Han as marketing manager in the Asia-Pacific region for thermoplastic elastomer (TPE) compounds, including the full range of TPEs developed locally and in the US by Teknor Apex.

Esther entered the plastics industry in 1990, joining Phillips Petroleum (now Chevron Phillips), before moving in the mid-1990s to Akzo Nobel prior to its merger with Monsanto to form Flexsys, a manufacturer of rubber chemicals.

In 1997 she became technical manager of the Synthetic Rubber Group, of Bayer, South East Asia. She holds an MSc in polymer technology from the University of Loughborough in England.



▲ Esther Han

**Singapore Polymer Corporation – Singapore**  
**Email:** ginfo@spcpl.com.sg

**Fax:** +65 6265 1821  
**Website:** www.spcpl.com.sg

## Techint to the rescue!

Techint Technologies has begun repairs on the No. 1 pickling line after a fire at the Magnitogorsk Iron and Steel (MMK) plant in Russia. The line was seriously damaged in the blaze in November last year, but Techint stepped in to minimise the plant's production losses.

The main features of this Techint Technologies new high-performance effluent-free pickling line is a very high capacity (up to 2,200,000 tons per annum of steel strip), very high process speed (300m/min), and challenging maximum strip width (1,850mm) as well as a new acid regeneration plant.

### Techint Technologies – Italy

**Fax:** +39 010 605 4926

**Email:** tech-italimpianti@techint.it

**Website:**

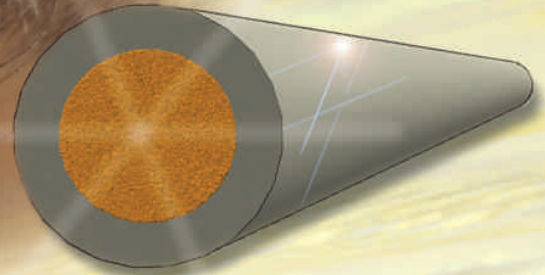
www.techint-technologies.com



# KEEP AN **EYE** ON YOUR CABLE SURFACE

DETECT

- **SMALL PUNCTUAL IMPERFECTIONS**
- **BAMBOO RINGS**



LUMP 2035 T



LUMP 2010 T

## LUMP 2000 T

3-Axis Lump/Neck-down detection  
for product diameters of  
– 0.25 to 10 mm  
– 0.50 to 35 mm

### QUALITY CONTROL

for Wires, Optical Fibers, Telephone Wires,  
Coaxial Cables, Automotive Cables and  
Building Wires

- fault analysis for type, size, length and location
- no cable guiding

 [WWW.SIKORA.COM](http://WWW.SIKORA.COM)

See us at  
Wire & Cable Expo  
Delhi Pragati Maidens, India  
Booth 7A2  
18 – 21 April 2007

**SIKORA AG** • Bremen • GERMANY • [sales@sikora.net](mailto:sales@sikora.net)  
**SIKORA ASIA** • Fuzhou • CHINA • [sales@sikora-asia.com](mailto:sales@sikora-asia.com)  
**SIKORA INDIA** • New Delhi • INDIA • [sikoraindia@gmail.com](mailto:sikoraindia@gmail.com)  
**SIKORA ITALIA** • Vicenza • ITALY • [sales@sikora-italia.com](mailto:sales@sikora-italia.com)  
**SIKORA PACIFIC** • Seoul • KOREA • [sikora@chol.com](mailto:sikora@chol.com)  
**SIKORA RUSSIA** • Moscow • RUSSIA • [sales@sikora-russia.com](mailto:sales@sikora-russia.com)  
**SIKORA UKRAINE** • Vinnitsa • UKRAINE • [sales@vinnica.ua](mailto:sales@vinnica.ua)  
**SIKORA INT CORP** • Peachtree City • USA • [sales@sikora-usa.com](mailto:sales@sikora-usa.com)

**SIKORA**  
Technology To Perfection



- Single Crystal Diamond Die
- Polycrystalline Diamond Die
- Tungsten Carbide Die
- Shaped Wire Drawing Die
- Extrusion Tip and Die
- Enamelling Die
- Stranding and Compacting Die
- Shaving, Guiding and Split Die
- Pressure Die and Spray Nozzle
- Die Recutting Services
- Die Reconditioning Equipment



**SHANGHAI EAST DIAMOND CO., LTD., CHINA**  
 Tel: +86 21 64753165  
 Fax: +86 21 64753167  
 E-mail: sales@eastdiamond.com  
**EAST DIAMOND INC., CANADA**  
 Tel: +1 416 5487130  
 Fax: +1 416 5487131  
 E-mail: davidshen@eastdiamond.com  
**www.eastdiamond.com**

## Order books booming at €3.2billion for the SMS Group

Order books have been booming at the SMS Group in Düsseldorf, Germany, in the past year – to the tune of €3.2 billion.

This increase is mostly due to vigorous global performance in the steel industry, where investment is booming.

Yet the order makers served by the SMS Group, such as the hardening and forging industry, the non-ferrous metal producing industry and the plastics processing industry, have also developed well.

And it was the first time in years that the orders from Germany, at some 13% of the overall order intake, indicated a modest recovery on the domestic market.

The most important sales regions for SMS remain China, Russia and India. But other countries embarking on industrialisation or an extensive modernisation phase, also contributed to the increased order volume.

As for the future, the company's investment is clear to see. In Germany, trainees make up for 8% of the workforce, much higher than the national average.

Close co-operation with schools and universities, the SMS student support scheme, special introduction programmes for young engineers and the newly-formed SMS Akademie all provide growing evidence of the high value the company places on training and further education.

**SMS Group – Germany**  
 Email: info@sms-group.com

**Fax: +49 211 881 774127**  
**Website: www.sms-group.com**

## Calendar of Events 2007

### March

27: **Dubai Cable Symposium**  
 – conference – World Trade Centre, Dubai, UAE

**Organisers:** IWMA  
**Email:** info@iwma.org  
**Website:** www.iwma.org

### May

7-10: **Interwire 2007** – trade exhibition – Cleveland, Ohio, USA

**Organisers:** Wire Association Int Inc  
**Website:** www.wirenet.org

28-31: **wire Russia** – trade exhibition – Moscow, Russia

**Organisers:** Messe Düsseldorf GmbH  
**Email:** info@messe-duesseldorf.de  
**Website:** www.messe-duesseldorf.de

### June

10-12: **World Wire and Cable Conference (incorporating the KMI Fibreoptics Conference)** – conference – Paris, France

**Organisers:** CRU Events  
**Email:** cruevents@crugroup.com  
**Website:** www.cruevents.com

21-24: **8<sup>th</sup> China International Metal & Metallurgy Exhibition** –

Guangzhou, PR China

**Organisers:** Julang Exhibition Co Ltd  
**Email:** meiwen@julang.com.cn  
**Website:** www.julang.com.cn

### October

2-4: **Metaltech 2007** – trade exhibition – Sao Paulo, Brazil

**Organisers:** Grupo Cipa  
**Website:** www.metaltech.tmp.br

16-18: **wire Southeast Asia 2007** – trade exhibition – Bangkok, Thailand

**Organisers:** Messe Düsseldorf Asia  
**Email:** mdafairs@singnet.com.sg  
**Website:** www.wire-southeastasia.com

17: **Non-ferrous Bangkok Seminar** – technical seminar – Bangkok, Thailand

**Organisers:** IWMA, ITA  
**Email:** info@iwma.org  
**Website:** www.iwma.org

### November

5-7: **Wire '07 Bologna** – conference – Bologna, Italy

**Organisers:** ACIMAF, CET, IWMA & WAI  
**Email:** info@iwma.org  
**Website:** www.iwma.org

## ZHANGLI MACHINE FITTINGS CO., LTD

**Bearing tower pulley & idler pulley for wire & cable**



**\* Chrome oxide ceramic coated tower pulley for fine-extension machine**



**\* Mid-extension tungsten carbide coated tower pulley & steel ring**



**\* Precision ceramic idler pulley**

**Tel: +86-769-87094491/87094492**  
**Fax: +86-769-87094490**  
**www.dgzhangli.com.cn**  
**E-mail: zlf@changan.net**  
**Add: 中国广东省东莞市长安镇沙头管理区**



# SINGLE SOURCE FOR CABLE EXTRUSION SYSTEMS.



**Supermac** offers state of the art manufacturing for all your Wire & Cable needs.

Backed by a team of highly motivated & qualified engineers. **Supermac** is a world renowned player exporting to some major countries.

- CCV LINE FOR LV/MV POWER CABLES
- TRIPLE EXTRUSION LINE FOR (SIOPLAS) XLPE CABLE
- INSULATING & SHEATHING LINE FOR POWER CABLES
- INSULATION LINE FOR CONTROL CABLES
- TANDEMISED TELEPHONE WIRE INSULATION LINE
- SHEATHING & JACKETING LINE FOR PIJF TELEPHONE CABLES



## SUPERMAC INDUSTRIES (INDIA) LIMITED

An ISO-9001 Company

**Office :** A-29, Naraina Industrial Area,  
Phase-I, New Delhi-110 028, INDIA

**Works :** Plot No. 2, Sector-6,  
IMT Manesar, Guragon, Haryana, INDIA

**Phones :** Office : 011- 25896041, 42  
Works : 0124-2291417, 0124-5527652

**Fax :** Office : 011-25798674  
Works : 0124-2291417, 0124-2291517

**e-mail :** supermac@satyam.net.in  
website : www.supermacindia.com

**Marketing Office :** 301, 'SARGAM' Plot No. 4, Sector - 1, Charkop, Kandivli (W), Mumbai - 400 067  
**Phone :** 022-28696552, 28681525 **Fax :** 022-28691834 **E-mail :** cajetan.dsouza@gmail.com

Plastic spools & bobbins  
**MANUFACTURER**



**CHANGZHOU CHANGHUA**  
Photoelectricity Plastic Co., Ltd.

► Add: NO. 16, Xinye Rd, Changzhou, Jiangsu, China 213012  
► Tel: 86-519-3266882 Fax: 86-519-3258380

**WEB: [www.chgd.cn](http://www.chgd.cn)**  
**email: [ch@chgh.cn](mailto:ch@chgh.cn)**

**SUPERMAC**  
SINCE 1975

**World Class Cable  
Extrusion Technology**



**SUPERMAC INDUSTRIES (INDIA) LTD.**

**Office :**  
A-29, Naraina Industrial Area, Phase-1,  
New Delhi-110028, INDIA  
Telefax : +91-11-25896041, 25896042  
E-mail : [supermac@satyam.net.in](mailto:supermac@satyam.net.in)

**Works :**  
Plot No. 2, Sector-6, I.M.T. Manesar,  
Gurgaon-122001 Phone : +91-124-2291417



▲ Dr Chander Chawla



▲ Jeff Zink



▲ Dr Anthony Toussaint

## New year, new faces at DSM Desotech . . .

DSM Desotech Inc – one of the world leaders in the development of high-performance UV-curable materials – has launched a new business initiative which will focus on the innovation of speciality UV materials for new and emerging markets throughout Europe and North America.

As part of this, the company will dedicate both research and development and production resources to its new innovation initiative at its facilities in both North America and the Netherlands.

Dr Anthony Toussaint becomes Market Platform Manager for Desotech Formulated Products; Dr Chander Chawla is now one of the Project Managers for new business development, along with Jeff Zink.

Additional support for the initiative will be provided in Europe by Joke

Smedinga (DSM Desotech Account Manager, Fibre Optic Materials), and Jim Reese (DSM Desotech Sales Director Americas, Fibre Optic Materials).

### DSM Desotech Inc – USA

**Fax:** +1 847 468 7785

**Email:** [info.desotech@dsm.com](mailto:info.desotech@dsm.com)

**Website:** [www.dsm.com](http://www.dsm.com)

### . . . and at AIM

Zoe Borys has been appointed as the new director of marketing for AIM Inc, USA. She has more than 14 years' experience in marketing and sales, most recently with Panavision Incorporated.

### AIM Inc – USA

**Fax:** +1 630 458 0730

**Email:** [zoe@aimmachines.com](mailto:zoe@aimmachines.com)

**Website:** [www.aimmachines.com](http://www.aimmachines.com)

## Curtain comes down on Wire & Cable India 2006

The curtain came down on Wire & Cable India on 18th October 2006 – the flagship international exhibition for the Indian Wire & Cable Industry, organised by the Confederation of Indian Industry (CII) in Mumbai.

The event was supported by the Steel Wire Manufacturers Association of India (SWMAI) and the Telecom Cable Manufacturers Association (TCMA).

The event had an overwhelming attendance on all three days, with more than 120 exhibitors from India and 65 companies from 20 different countries, all showcasing the latest technologies, equipment and products.

The exhibitors unveiled some of the most modern wire manufacturing and finishing machinery, spring manufacturing machinery, cable and stranding machines, process technology tools, process technology materials, lubricants, measuring and controlling technology, process monitoring systems, quality assurance and measuring systems, drive and control technology, 'finished product' testing systems, wires, cables, wire rods, bright, bars, sheet metal and speciality wires.

### Wire and Cable India 2006 – India

**Email:** [darryl.dasilva@ciionline.org](mailto:darryl.dasilva@ciionline.org)

**Fax:** +91 22 2493 9463

**Website:** [www.ciionline.org](http://www.ciionline.org)





## Flying high in Korea

Nexans has been awarded a €5.91 million contract by the Incheon International Airport Corporation (IIAC) to supply LANmark fibre optic and copper network cabling solutions, together with its LANSense Intelligent Infrastructure Management (IIM) system, for the Phase II expansion project of South Korea's largest airport.

Kukdong, a Nexans company in Korea, will provide the complete cabling systems for the project.

The full range of copper and fibre optic cables will be supplied in co-operation with Nexans' worldwide LAN cable operations, including Belgium, Korea, US and UK.

Nexans will supply some 860km of CAT6 copper cable, 351km of single mode fibre optic cable (ranging from 12 up to 144 cores) for the airport infrastructure, and 86km of single mode fibre optic cable for the new airport buildings, as well as 450 sets of racks.

The LANSense IIM system, comprising 22,100 fibre optic nodes and 22,000



▲ Incheon – Asia's most technologically advanced airport

CAT6 nodes will provide an internet and standards-based approach to the airport's network security control, together with advanced asset management features.

The standard fibre optic network will comprise 8,700 nodes and the standard CAT6 network will comprise 1,250 nodes.

Incheon International Airport is considered Asia's most technologically advanced airport, with state-of-the-art security facilities and medical equipment.

The Nexans cabling systems will provide the additional data communications infrastructure required to support the Phase II expansion project that will add a new runway and a further 165,300m<sup>2</sup> of terminal space, enabling passenger numbers to increase to 44 million a year.

Nexans will deliver the cabling systems by the end of 2007.

**Nexans – France**  
**Fax:** +33 15669 8484  
**Email:** info@nexans.com  
**Website:** www.nexans.com

## Machines and facilities for forming and processing of wire



- Project planning
- Supply
- Installation
- Training
- Service

### e.g. 3-stand rolling mill WST175

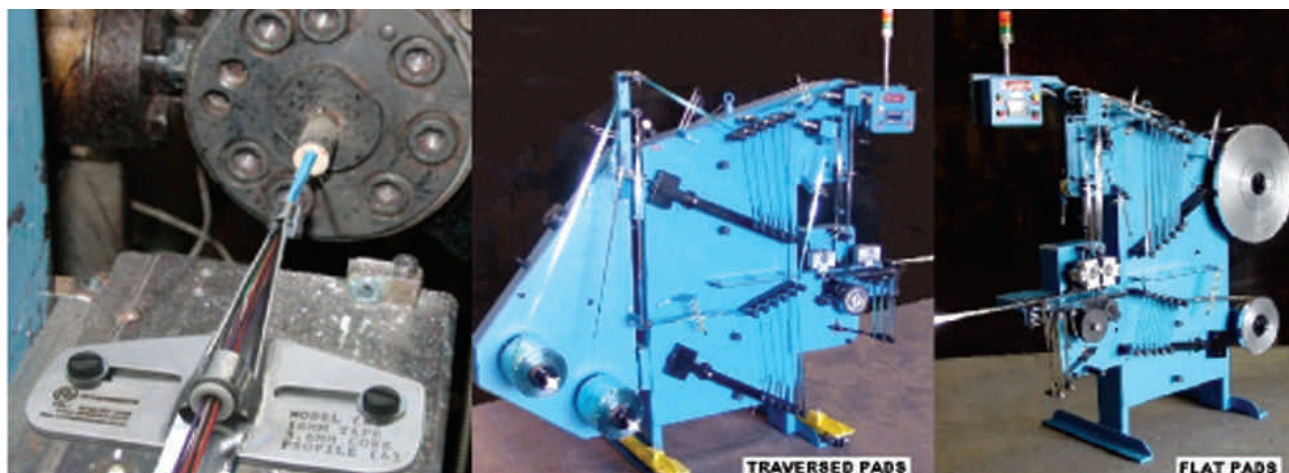
- Specialized in rectangular shapes
- Unique tool set for all wire sizes
- Computer controlled roll positioning



- Unwinding
- Profile drawing
- Cleaning
- Profile rolling
- Spooling
- Bar cutting



[www.karl-fuhr.com](http://www.karl-fuhr.com)



▲ The mounted RG Model (A) Tapeformer and Dynamex's Auto-Splicing Tape Pay-off machine, right

## Teaming up across the Atlantic!

America's Dynamex Corporation and the UK's RG Attachments have joined forces to share trade leads and promote each other's services. Dynamex, based in California, USA, is a leading supplier of cable manufacturing equipment, and specialises in tape pay-offs.

With more than 30 years' experience in the wire and cable industry, their innovation and skill is clearly identified by their patented universal auto-splicing tape pay-off system.

## Galvanized Steel Wire & Strands for ACSR ASTM and IEC Standard



### Anbao (Qinhuangdao) Wire & Mesh Co., Ltd.

Add: No.243, Xigang Road, Qinhuangdao, P.R.China, 066000  
Tel: +86-335-3893600 Fax: +86-335-3870760  
email: anbao@anbao.net Website: www.anbao.com

RG Attachments Ltd, based in Leicester, UK, manufactures tapeformers, which are used for wrapping tapes around cable cores.

The RG tapeformer folds the tape around the cable core before it enters the final jacketing stage. Tapeformers are used with various tape materials including Mylar, metalised foils, water-blocking and paper. Tapeformers can be used for a range of tape widths from 5mm-210mm and are made to individual customer specifications.

The tape pay-off and tapeformer are applicable to all cable extrusion lines with longitudinally applied tape. The tape pay-off system offered by Dynamex gives the user an uninterrupted run of tape with the ability to switch pads automatically without disruption to production.

The tape is then fed through the RG tapeformer which folds it around the cable core, with a variety of folding profiles available.

**RG Attachments Ltd – UK**

Email: info@rga.co.uk

Fax: +44 116 261 2403

Website: www.rga.co.uk

**Dynamex Corporation – USA** Fax: +1 310 329 0159

Email: sales@dynamexcorp.com

Website: www.dynamexcorp.com

## New offices in Australia and New Zealand

Borouge – one of the leading providers of innovative plastics solutions in the Middle East and Asia-Pacific – has opened full sales and service offices in Melbourne, Australia, and Auckland, New Zealand.

With Borouge's state-of-the-art production facility and its parent company, ADNOC both based in the United Arab Emirates, the timing of Borouge's growth is appropriate, as the UAE is entering into a free trade agreement with Australia that will incorporate all Gulf Cooperation Council countries.

The UAE and Australia began negotiations on the free trade agreement a year ago, and Australia could become the UAE's third free trade partner after the United States and Singapore.

**Borouge Pte Ltd – United Arab Emirates**

Fax: +971 2 6312 999

Email: info@borouge.com • Website: www.borouge.com



**Stake your claim  
to success at**



***Your first choice to reach  
key decision makers  
from across the region***

**[www.wire-southeastasia.com](http://www.wire-southeastasia.com)**

**16-18 Oct 2007**  
**Bangkok, Thailand**

Messe Düsseldorf Asia Pte Ltd  
9 Temasek Boulevard  
#23-03 Suntec Tower Two  
Singapore 038989  
Tel : (65) 6332 9620  
Fax : (65) 6337 4633  
[wire@mda.com.sg](mailto:wire@mda.com.sg)

Incorporating :



Sponsored by :



IWMA - International Wire & Machinery Association



IWCEA - International Wire & Cable Exhibitors Association

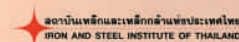
- Austrian Wire and Cable Machinery Manufacturers Association (VÖDKM-AWCMA)
- International Wire and Cable Exhibitors Association - France (IWCEA-France)
- German Wire and Cable Machine Manufacturers Association (VDKM)



Italian Wire Machinery Manufacturers Association (ACIMAF)

Supported by :

Industry Partner Associations



World's No. 1  
Wire and Cable  
Trade Fair

Organized by :





## A reliable manufacturer specialized in wire and cable machinery

Fuchuan Electromechanical Science and Technology Co., Ltd is a leading wire & cable machinery manufacturer in China. We specialize in designing, developing and manufacturing wire & cable machinery. We provide equipments with high quality and competitive price for wire and cable industry in global market.



We offer a wide range wire & cable machinery as follow:

Double twist bunching machine  
Single twist bunching machine  
Extruder for wire & cable  
Automatic coiler take-up  
Barrel take-up  
Dual barrel pay off

出口总代理: 福开旺国际贸易有限公司  
Export Agent: Forcw International Trade Co., Ltd  
Website: [www.forcwire.com](http://www.forcwire.com)  
E-mail: [info@forcwire.com](mailto:info@forcwire.com)  
Tel: 86-21-69799298  
Fax: 86-21-69799249  
MP: 86-13916303319

## Largest stockist of specialist wire in the UK

William Hughes continues to expand its stocks of specialist wire and can now offer the widest range of spooled and cut-to-length wire in the UK.

From its factory in Dorset, William Hughes supplies a vast range of wires in diameters ranging from 0.1mm-9mm in spring steel and 11mm in mild steel.

The firm – which stocks wire for use in electrical engineering, manufacturing and aerospace industries – is also one of the few remaining suppliers of specialist piano and music wire.

The company is also an appointed distributor for a number of wire suppliers, including US-based Little Falls Alloys, Beryllium Copper and the Swedish manufacturer, Haldex.

They are also the distributor for the GARBA 177PH from Haldex, a stainless steel spring wire which has been developed for applications where extra strength and performance are required.



▲ A selection of William Hughes' specialist wire

Other well known brands include Oteva, Nimonic and Ni-Span wires.

### William Hughes Ltd – UK

Fax: +44 1963 363640

Email: [sales@wmhughes.co.uk](mailto:sales@wmhughes.co.uk)

Website: [www.wmhughes.co.uk](http://www.wmhughes.co.uk)

## Diamond Die Laser Drilling Systems

since 1987

Made in Germany



Let us drill die samples for you!

Fully Automatic Die Feeding System 120 / 240 pcs  
Diode Pumped Solid State Laser 1064 / 355 nm  
0,005 mm smallest drilling hole size  
10 micron finishing size possible  
Ultra smooth diamond surface for less finishing  
Full drawing profile with 6 different angle sections  
Highest precision and reliability  
Up to 1000 dies per day

### LEYER & KIWUS

ULTRASCHALL+LASERTECHNIK GMBH

Offstr. 55, Aachen 52070, Germany

Germany: Tel +49-241-513201 Fax+49-241-513202  
Korea: Tel +82-2-2646-0655 Fax+82-2-2646-0652  
Taiwan: Tel +886-2-29770268 Fax+886-2-29756299  
[info@leyer-kiwus.de](mailto:info@leyer-kiwus.de) [www.leyer-kiwus.de](http://www.leyer-kiwus.de)

## Ugitech's major projects

Ugitech has announced two major investments that will become operational in mid-2007. Work is already underway in France to install a first ESR (Electro Slag Remelting) furnace on its main production site in Ugine. Thanks to this process, Ugipur stainless steels will meet the highest demand from high technology markets like medical, aeronautics, automobile and other processes that require very clean pumps. In America, a service centre with a workshop for cold transformation of stainless steel bars and a hub will be put into operation in Batavia, Illinois. This will serve the American market with high quality products including Ugima®, renowned for its machinability.

### Ugitech – France

Fax: +33 1 41 25 59 88

Email: [info@ugitech.com](mailto:info@ugitech.com) • Website: [www.ugitech.com](http://www.ugitech.com)

## Nextrom completes Dätwyler purchase

Nextrom has completed the purchase of Dätwyler Fibre Optics SA. With its 15 highly skilled employees and with state-of the-art technology, the fibre plant in Boudry, Switzerland, produces the highest quality telecom fibres and speciality fibres.

Additionally, the company develops innovative processes for glass pre-form production and optical fibres. With this acquisition.

### Nextrom SA – Switzerland

Fax: +41 21 804 8401

Email: [info@nextrom.com](mailto:info@nextrom.com) • Website: [www.nextrom.com](http://www.nextrom.com)





## Minister of Industry and Commerce opens plastic factory

Hassan Abdulla Fakhro, Bahrain's Minister of Industry and Commerce, has officially opened Kanoo Plastic Company's new factory in Riffa.

The company is a joint venture investment between Yusuf Bin Ahmed Kanoo and Compco Australia Pty Ltd.

It was established to manufacture a range of plastic raw material compounds for regional and international markets.

The company's main speciality is the production of high quality XLPE compounds for the cable and pipe markets, additives, white and coloured masterbatches for the plastics and polymer industry and various other plastic materials using the unique Compco technology.

The plastic compounds and masterbatches are used in a diverse range of applications including wire and cable, polymer production, domestic and commercial hot water pipes, industrial hoses, white goods, flexible and rigid packaging, plastic furniture, air conditioning units and automotive components.

Production at the site began in December 2006 with an initial capacity expected of around 14,000 tons per annum.

### Kanoo Plastics Company – Bahrain

**Fax:** +971 4393 3636

**Email:** info@kanoogroup.com

**Website:** www.kanoogroup.com

## Sunshine on the way for Teijin

Teijin Ltd and Teijin Twaron BV are expanding again – the fourth capacity growth in six years at both plants in Emmen and Delfzijl, Holland.

This new expansion, called 'Nikko' (sunshine in Japanese), will again increase production capacity by approximately 15% for the high performance fibre Twaron®.

The expansion will increase monomer and polymer capacity at Delfzijl and Emmen, and will become available from the end of 2008.

These last years have shown a market growth of approximately 10% for para-aramid fibres, mainly in automotive, ballistic and optical fibre cable applications.

The newly developed product Sulfron®, a rubber compound ingredient derived from Twaron®, also has enormous potential and is seen as a confirmation for further growth of Teijin Twaron's high performance fibres.

**Teijin – Japan • Website:** www.teijin.co.jp



**LESMO MACHINERY AMERICA, INC**  
329 Rayette Rd. #14 Concord, ON L4K2G1  
Tel: (905) 761-6165 Fax: (905) 761-6168  
e-mail: [sales@lesmoamerica.com](mailto:sales@lesmoamerica.com)  
[www.lesmo-america.com](http://www.lesmo-america.com)

### O.M.LESMO spa

#### EURODRAW ENERGY

Via d. Officine 7, 20050 LESMO (MI) – ITALY  
Tel. +39-039-62840.1 Fax.: +39-039-6981148  
email: [omlesmo@omlesmo.com](mailto:omlesmo@omlesmo.com)  
[www.omlesmo.com](http://www.omlesmo.com)

### LESMO Machinery Germany GmbH

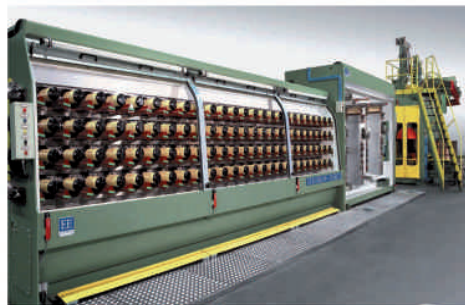
D-73760 Ostfildern, Zeppelinstrasse, 44/2  
Tel: (0711) 45 97 579 Fax: (0711) 4597 581  
e-mail: [lesmo.germany@t-online.de](mailto:lesmo.germany@t-online.de)  
[www.lesmo-ermany.com](http://www.lesmo-ermany.com)

**EURODRAW**  
ENERGY SPA



### Non-Ferrous Wire Drawing Machinery Rod Breakdown Lines Single & Twin Wire Drawing Intermediate & Multiwire

Double Twist Stranders  
Single Twist Stranders  
Tubular Stranders  
Rigid Cage Stranders  
Drum Twisters  
Planetary Stranders  
Bow Stranders  
Single & Group Twinners  
Pay-Offs -Take-Ups  
Taping- Binding Heads



• Wire Straighteners -  
Single + Multi Plane  
Models • Rotating Dies  
• Tungsten Roller  
Straighteners  
• Feeder Units -  
• Traversing Units -

A trusted name in  
**WIRE & CABLE MACHINERY**  
Of International Standards

**RMT** **RANASUR MACHTECH**  
technologies pvt. Ltd.



**Machinery for :**

- Power Cables
- Building Wires
- Control & Instrumentation Cables
- PU/F & OF Cables
- Data Cables - CAT 5/6/7
- AAC / ACSR / AAAC
- Other specific requirements

**RANASUR MACHTECH**  
technologies pvt. Ltd.

101, Rajashree Tower, Near Pratap Cinema,  
Kolbad, Thane - 400 601, Maharashtra, India.

Tel. : (91-22) 2547 3150 / 4585 / 4699

Telefax : (91-22) 2547 2151

Email : rmtpl@vsnl.net & ransurmachtech@gmail.com

## Improving lubrication and cleaning

The new GPS/PDH wire re-coating system greatly improves the present state of both wire lubrication and in-line wire cleaning. The system enables high-speed 'frictionless' drawing, benefiting from the wire dry re-coating in intermediate drafts with completely water-soluble sodium lubricants.

Full film coatings are achieved in a wide variety of selections from ultra thin (plating wire) through to a strongly adherent hard coat (spring wire, cold heading wire, etc). This allows substantial cost savings in drawing applications including spring wire, high-tensile rope wire, bead wire, PC strand wire, stainless steel wire, galvanised H/C or L/C wire, AL-clad wire, plating wire, CO<sub>2</sub> welding wire, coiled nail wire and cold heading wire. The GPS/ PDH system powerful multi-action capabilities permit in-line wire cleaning in the following:

**Dry application:** The unit is installed in the last drafts operating with a specific, completely water-soluble lubrication. This forms a consistent pressure pad all around the wire which is continuously renewed in closed circuit and creates a microfilm residual which can be easily cleaned by simple washing. In this application the GPS/PDH unit simultaneously performs surface cleaning and polishing effect in a single run.

**Wet application:** The GPS/PDH unit is installed in the last draft, operating with a paste in a continuous in and out motion, in closed circuit pressure lubrication, self generated by the unit itself. A light draft performs cleaning, polishing and provides a reflective wire appearance in a single run.

**Decalub - France** Email: info@decalub.com  
Fax: +33 1 60 20 20 21 Website: www.decalub.com

## 2006 success for Boxy

It has been an important and successful year for Boxy, of Remedello, Italy.

From its plants in Brescia, Italy, and Slovakia, Boxy produces reels for copper cables, welding wire and metal cores for tyres.

With a turnover in 2005 of €7.9 million – up €1.6 million from 2004 – a further leap to €11.5 million is expected for 2006.

The company also has two chief executives with the addition of Stefano Sorlini, joining Mario Ferrari in the boardroom.

With 40 employees and the technical office in Remedello, a staff of 90 in Slovakia and a sales office and after-sale service at their subsidiary Mossberg Reel for the US market, Boxy has also started improvements at its Brescia headquarters, renovating machines and further developing the automation side of the business.

This €1 million investment is aimed at the core business of reel production and increasing production of lifting units, tilting units and accessories.

Since 1969, Boxy has firmly established themselves on the international market. The production cycle is regulated from procedures CAD-CAM which control the parameters of process and quality.

The main models produced are:

**BTE:** machined and electronically balanced for speeds up to 50m/s for wire and multi-wire

**NA:** with double wall flanges, machined and electronically balanced for speeds up to 50m/sec

**BST:** in pressed steel, for strands and cables

**BMP and BAL:** in large dimension for cables and ropes

**BFP:** with reinforced double wall flanges, machined and balanced for steel wire drawing and annealing

Among the main models presented by Boxy, the take-apart reel 'Koiler' has a high demand in the market. The mechanism of this model allows the lower flange of the reel to be unfastened and the drum to be closed automatically, hooking and lifting with the right accessories, without having to unscrew or unfasten except for the safety device.

### Boxy SpA - Italy

Fax: +39 030 957 244

Email: boxy@boxy.com

Website: www.boxy.com

## Doubles capacity

Daikin have doubled their capacity after the successful start-up of their ETFE expansion in Decatur, Alabama.

The expansion demonstrates the company's commitment as the largest US manufacturer of Ethylene – Tetrafluoroethylene copolymer (ETFE).

### Daikin America Inc - USA

Fax: +1 845 365 9598

Email: customer.service@daikin-america.com  
Website: www.daikin-america.com

## Allied's new site

A faster and more convenient service is being offered for customers in the Midwestern and Western states after the opening of a stocking facility for Allied Wire and Cable in Elkhorn, Wisconsin, USA.

The extra stocking room frees up space for more products at the international headquarters in Pennsylvania and other Allied offices.

All locations, including Wisconsin, have added 1283, 1284 Extra Flexible MTW/ TEW (Bare Copper) to their inventory. The Flex MTW, which is used for a wide variety of applications, meets UL requirements and will be stocked in large reels. "At Allied, we believe the customer comes first and we always strive to make that evident. The stocking facility and new product line help us offer the best possible service to every customer," said Hans Nelson, manager of the Wisconsin branch.

### Allied Wire & Cable - USA

Fax: +1 800 615 WIRE (9473)

Email: info@awcwire.com • Website: www.awcwire.com





## First two-stand aluminium cold rolling mill for China

CSWA Cold Rolling Co Ltd (Southwest Aluminium), China, which belongs to the Chinalco Group, has placed an order with SMS Demag, Germany, for the supply of a two-stand cold rolling mill for aluminium and aluminium alloys.

The ceremony for the signing of the contract took place in the Great Hall of the People in Beijing, underlining the significance of this new plant for China.

The two-stand cold rolling mill constitutes the core of an investment package by means of which CSWA intends to increase its cold rolling capacity to more than half a million tons per year.

The new mill will produce tin-can strip, panelling and litho material for the printing industry. The cold strip can be rolled up to a width of 1,800mm and a maximum final thickness of 0.15mm.

The new rolling mill is equipped with ultra-modern actuators and technological control systems.

Both standards are designed with the CVC6 plus® technology. Such a multi-stand mill is particularly sophisticated in terms of technology because of the temperature sensitivity of the rolling oil used for the cold rolling of aluminium.

The mill stands, as well as all core components, are manufactured in SMS Demag's workshop in Germany. Commissioning is scheduled for the spring of 2009.

**SMS Demag – Germany**  
**Fax:** +49 211 881 4386  
**Email:** info@sms-group.com  
**Website:** www.sms-group.com

## New chief executive

Borouge, the provider of innovative plastics solutions in the Middle East, Asia Pacific and Africa has appointed Harald Hammer as Chief Executive Officer of Borouge Pte Ltd, its Singapore-headquartered marketing company.

**Borouge Pte Ltd – Singapore**  
**Fax:** +65 6377 1233  
**Email:** info@borouge.com  
**Website:** www.borouge.com

## New wire drawing plant

Ugitech is to build a new wire drawing plant in Brumby, eastern Germany, near the border with the Czech Republic.

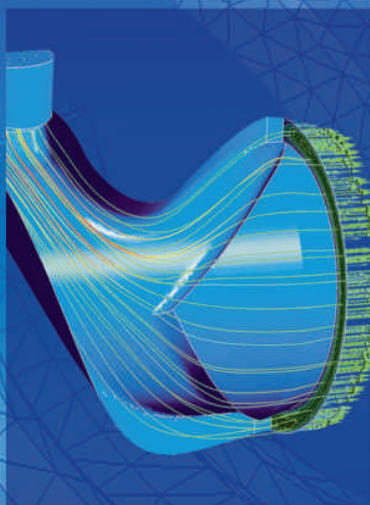
This new unit will produce 5,000 tons of technical products and commodities (wires for welding and springs, as well as bright wires).

The plant will strengthen Ugitech's position in the stainless steel and alloy wire market, and will reinforce the activities of the French and German units already operating in Bourg-en-Bresse, Brionne, Imphy and Reichshof.

With a surface area of 5,000m<sup>2</sup>, the Brumby wire drawing unit will house approximately 10 main production machines (drawing machines and annealing furnaces) and will employ around 70 people.

**Ugitech – France**  
**Fax:** +33 1 41 25 59 88  
**Email:** info@ugitech.com  
**Website:** www.ugitech.com

# Innovations for the Cable Industry



*TROESTER GmbH & Co. KG has been developing innovative machines and lines for the rubber and plastics processing industry since 1892. If you wish to know what innovations we can provide, then send us an e-mail to [Innovations@troester.de](mailto:Innovations@troester.de)*

The cable industry is striving to constantly improve its products and manufacturing processes. Our engineers develop innovative production lines together with our customers to meet these requirements.

The TROESTER development team uses state-of-the-art computer-aided methods which enable quick individual designing of the line components. Material flows, compound temperatures and line speeds are adjusted to the customer's requirements. Additionally, our customers can use the extensive test equipment in our well equipped TROESTER technology center to conduct experiments and directly implement knowledge gained in development.

**TROESTER turns innovative ideas into reality.**

**Interwire**  
05. - 10.05.2007  
Cleveland, Ohio / USA  
Booth No. 2835

**TROESTER**

EXCELLENCE IN EXTRUSION.

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



▲ Dong Energy的Horns Rev 2海上风电场

## 给风电场的能量 – 来自Nexans的贡献

法国公司Nexans与丹麦utility Energinet.dk签署了一份合同，为Dong Energy的Horns Rev 2海上风电场项目提供和安装电力输出电缆，该风电场位于丹麦的西海岸。

这项交钥匙工程价值约3,000万欧元，包括提供42公里AC XLPE 170千伏3芯电力电缆以及纤维光学元素、运输、铺设和终端。当电缆在2008年秋季被安装后，它将成为这种电压的世界上最长的XLPE海底电缆。

Horns Rev 2项目将提供215兆瓦以上的风电场能力，涵盖的区域面积达35平方公里。项目位于Horns Rev 1西北大约23公里，在2003年，Horns Rev 1是世界上最大的海上风电场，其能力达到160兆瓦，Nexans还为其提供和安装了电力输出电缆。

“令我们尤为感到自豪和高兴的是，丹麦utility Energinet.dk选择Nexans为Horns Rev 2项目的交钥匙工程承包商，”欧洲区域执行副总裁Yvon Raak说道。在2002年成功完成Horns Rev 1项目后，这项新合同证明人们在新建主要的设施时对Nexans能力的完全信任。”

Horns Rev 2项目的170千伏XLPE电缆将由Nexans在挪威Haldan的专业海底电力电缆工厂生产，该风电场将于2009年5月试运行。

**Nexans – 法国**  
传真: +33 15669 8484  
电子邮箱: info@nexans.com  
网站: www.nexans.com

## Techint出手解救!

在俄罗斯的Magnitogorsk Iron and Steel (MMK) 工厂发生火灾后，Techint Technologies开始修理1号酸洗装置。

该装置在2006年11月的火灾中严重受损，但Techint给予了帮助，以便快速地完成修理，尽量减少生产损失。

这套Techint Technologies新型高性能无排放酸洗装置的主要特点是：它具有很高的生产能力（高达2,200,000吨钢带/年），很高的处理速度（300米/分钟）、最大的钢带宽度（1,850毫米）以及新型酸再生装置11,000吨/时。

**Techint Technologies – 意大利**  
传真: +39 010 605 4926  
电子邮箱: tech-italimpianti@techint.it  
网站: www.techint-technologies.com



## Shanghai ShenChen Wire & Cable Equipment CO., Ltd. 上海申辰线缆设备有限公司

Shanghai Shenchen Wire & Cable Equipment Co., Ltd. Has been specialized in the manufacture of cold welding Machines for nearly 20 years. All the Imperial cold welding Machines made by the Company can be used interchangeably with domestic and foreign homogeneous products. The Company, excellent in product quality, has passed the authentication of ISO9001:2000 quality management system and established its own enterprise product criterion Q/YQJT1-2004 that has been approved by related government authorities.

上海申辰线缆设备有限公司是一家有近20年生产冷焊机产品的专业公司，本公司生产的全英制冷焊机系列产品能与国内外同类产品互换使用，并通过了ISO9001:2000质量管理体系认证，获得了权威部门认可批准的Q/YQJT1-2004企业标准，产品精良优异。

Lap-top type - I cold welding machine series



Desk-top type - I cold welding machine



Lap-top type - II cold welding machine series



Desk-top type - II cold welding machine series



Shift type - II cold welding machine series



Desk-top type - III cold welding machine series



上海申辰线缆设备有限公司 电话:021-65199437 传真:021-65199430 E-mail:schsc8@yahoo.com.cn 网址:Http://www.sch.chinacable.com.cn

出口总代理:上海华瑞龙进出口有限公司 电话:021-65706143 传真:021-65186593 联系人:董正华 手机:13901744450 E-mail:huaruilong\_2003@yahoo.com.cn  
GENERAL EXPORT AGENT: SHANGHAI HUARUILONG IMPORT AND EXPORT CO., LTD. TEL:021-65706143 FAX:021-65186593  
CONTACT PERSON: MR.DONG ZHENG HUA MOBILE NO:13901744450 E-mail:huaruilong\_2003@yahoo.com.cn





## 2006印度线缆会展落幕

2006印度线缆会展于2006年10月18日落幕 - 这是印度线缆工业的一次国际性会展，位于孟买的印度工业大会(CII)组织了这次会展。

这次会展得到了印度钢铁线材制造者协会(SWMAI)以及通讯电缆制造者协会(TCMA)的支持。

整个三天的会展出席人数之多正是势不可挡，120多家印度参展商、20多个国家的65家公司参加了会展，他们都展示出最新的技术、设备和产品。

参展商们还展示了一些最先进的线材制造和精加工设备、弹簧生产设备、电缆和扭绞设备、工艺技术工具、工艺技术材料、润滑剂、测量和控制技术、工艺监测系统、质量保证和测量系统、驱动和控制技术、‘最终产品’测试系统、线材、电缆、线棒、光面线、棒材、板材和特殊线材。

### Wire and Cable India 2006 - 印度

传真: +91 22 2493 9463

电子邮箱:

darryl.dasilva@ciionline.org

网站: www.ciionline.org

## SPC的新市场经理

Singapore Polymer Corporation (SPC) 已任命 Esther Han 为亚太区域市场经理，负责热塑弹性体(TPE)化合物，包括由 Teknor Apex 在本地和美国开发的所有范围的TPE。

Esther 于1990年加入塑料工业，就业于 Phillips Petroleum (现在为 Chevron Phillips)，然后在1990年代中期加入 Akzo Nobel，当时 Akzo Nobel 还没有与 Monsanto 合并为 Flexsys，这是一家橡胶化合物制造商。

1997年，她成为 Bayer 东南亚合成橡胶集团 (Synthetic Rubber Group of Bayer South East Asia) 的技术经理。

她毕业于英国 University of Loughborough 大学，拥有聚合物技术理科硕士学位。



▲ Esther Han, 市场经理，热塑弹性体，就职于 Singapore Polymer Corporation

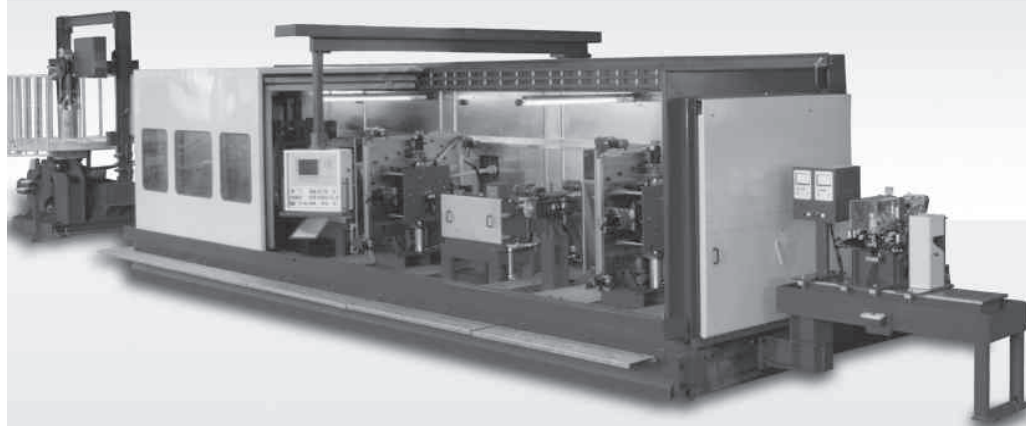
Singapore Polymer Corporation - 新加坡

电子邮箱: ginfo@spcpl.com.sg

传真: +65 6265 1821

网站: www.spcpl.com.sg

## 线材成形和加工设备



- 專案設計
- 供應
- 安裝試車
- 培訓
- 售後服務

三站式滾軋機 WST175  
矩型成型  
多種線徑 單一模具  
電腦控制滾輪定位



- 送線
- 伸抽成型
- 線材清潔
- 滾軋成型
- 成品回捲
- 棒狀裁切



www.karl-fuhr.com

## 新年, 新面孔...

DSM Desotech Inc - 一家领军世界的开发高性能抗紫外材料的公司 - 已宣布推出一项新业务, 主要集中在特殊抗紫外材料的革新上, 用于欧洲和北美的新生市场。

作为其中的一部分, 公司将其革新业务在北美和荷兰的各个活动环节提供研究和开发以及生产资源。

Anthony Toussaint博士将成为Desotech配方产品 (Desotech Formulated Products) 的市场平台经理; Chander Chawla博士现在是其中的一位项目经理, 负责新业务开发; 还有Jeff Zink。在欧洲, 由Joke



▲ Chander Chawla博士



▲ Jeff Zink



▲ Anthony Toussaint博士

Smedinga (DSM Desotech客户经理, 纤维光学材料) 以及Jim Reese (DSM Desotech美洲销售总监, 纤维光学材料) 为该业务提供附加支持。

**DSM Desotech Inc - 美国**  
传真: +1 847 468 7785  
电子邮箱: info.desotech@dsm.com  
网站: www.dsm.com

## 八个人获奖

4月21日, 在美国康涅狄格州举行的线缆制造商联盟 (WCMA) 颁奖宴会上, 将有八个人获得著名的Charles D Scott杰出职业奖。

这项大奖于1985年为纪念Charles Scott而建立, 他是Northeast Wire的创始人和总裁, 是公司拥有者和线缆工业倡导者, 因为他的贡献和领导地位而闻名, 并受到同行人士的敬重。

WCMA建立于2004年, 是美国线缆俱乐部的继承组织, 也是在北美拥有制造基地的导体、绝缘线材、电缆、纤维光学电缆和连通产品制造商、以及工业供应商和服务提供者中的一个公司成员组织。

今年的获奖者是: Dennis Baughman, Nexans的Berk-Tek公司的供应链经理、Robert Canny, Belden的操作副总裁和特殊项目总裁、Kevin Cassidy, Amphenol Spectra Strip的生产和采购经理、Dennis Chalk, Rockbestos-Surprenant Cable Corp的Exane Products公司副总裁和总经理、Joe Dellagalla, Belden的Mohawk division公司前操作和工程副总裁、David DiMartino, IWG

High Performance Conductors 销售总监、Tom Guida, Underwriters Laboratories高级工程师、Robert Meserve, New England Wire Technologies副总裁。

**WCMA - 美国**  
传真: +1 860 873 3281  
电子邮箱: mrcdm@snet.net  
网站: www.wcmainc.org

## 中国首套两段式铝冷轧装置

CSWA Cold Rolling Co Ltd (Southwest Aluminium), China属于Chinalco Group, 它已经向德国的SMS Demag公司下了一个订单, 提供一套两段式冷轧装置, 生产铝和铝合金。

合同签字仪式在北京的人民大会堂举行, 这意味着这套新装置对中国的重要性。

两段式冷轧装置构成了投资包的核心, CSWA旨在通过它来增强其冷轧能力, 达到50万吨/年以上。

新建冷轧厂将生产锡罐带、镀板和印刷工业的平版材料。冷轧带能被轧

成1,800毫米宽, 最终的最大厚度为0.15毫米。

新建冷轧厂配备特别现代化的执行器和技术控制系统, 两种标准都设计配备了CVC6 plus®技术。从技术角度讲, 这样一种多机架冷轧厂尤其复杂, 因为用于铝冷轧的冷轧油的温度敏感性。

冷轧台以及核心元件由SMS Demag在德国的工厂生产。

计划在2009年春天试运行。

**SMS Demag - 德国**  
传真: +49 211 881 4386  
电子邮箱: info@sms-group.com  
网站: www.sms-group.com

## Teijin前程一片光明

Teijin Ltd和Teijin Twaron BV再次扩建 - 这是两家工厂六年来的第四次能力提升, 它们位于荷兰的Emmen和Delfzijl。

此次新的扩建被称为 'Nikko' (日语为阳光), 它将再次提升大约15%的生产能力, 生产高性能纤维Twaron®。

这次扩建还将提升Delfzijl和Emmen的单体和聚合物生产能力, 它们将从2008年年底开始逐渐面市。

最近几年来, 市场对对位-芳族聚酰胺需求已经显示出大约10%的提升, 主要体现在汽车、发射技术和光学纤维电缆应用中。

新开发的产品Sulfron®是一种源于Twaron®的橡胶化学成分, 它还具有巨大的潜力, 被认为将对Teijin的Twaron高性能纤维的进一步发展做出贡献。

**Teijin - 日本**  
网站: www.teijin.co.jp

## 新建线材拉伸装置

Ugitech将在德国东部的Brumby新建一套线材拉伸装置, 该地方靠近捷克共和国边境。这套新建装置将处理大约5000吨技术产品和商品 (焊接线材和弹簧以及光面线)。

装置将加强Ugitech在不锈钢和合金钢丝市场中地位, 并加强其已经在Bourgen-Bresse、Brionne、Imphy和Reichshof经营的法国和德国单元的活动。

Brumby线材拉伸装置的占地面积达5000平方米, 拥有大约10台生产主机 (拉伸机和退火炉), 并雇佣大约70名员工。该单元计划在2008年第一季度开车。

**Ugitech - 法国**  
电子邮箱: info@ugitech.com • 网站: www.ugitech.com





## 新任市场总监

Zoe Borys 已被任命为美国 Aim Inc公司新的市场总监,这是领军钢丝和设备工业的一家公司。Zoe刚从Panavision Incorporated的市场总监离任,在销售和市场方面拥有14年的工作经验。

**Aim Inc – 美国**  
传真: +1 630 458 0730  
电子邮箱: zoe@aimmachines.com  
网站: www.aimmachines.com

## 毫不迟疑地在宪章上签名

Borouge和Borealis是创新、创价值塑料解决方案的提供者,他们在阿联酋迪拜的海湾石化和化学协会(GPCA)开幕式中签署了责任关怀(Responsible Care®)全球宪章。



▲ 签字仪式照片: 左起Adel Khalifa Al Buainain, Borouge项目副总裁、John Taylor, Borealis执行长、Rashed Saud Al Shamsi, Borouge采购高级副总裁、Harri Bucht, Abu Dhabi Polymers Ltd (Borouge)执行长、Hubert Puchner, Borouge Marketing Company执行长

这次联合行动证明了一个正在进行中的承诺,即进一步加强他们在健康、安全和环境(HSE)管理方面的领导地位,推进产品管理和可持续发展。

这是首次由两家领军性公司在中东和欧洲成为合作伙伴,推进他们各自业务领域中的责任关怀,并分享最佳管理方法。

Borouge还是海湾地区承诺宪章的首家公司。

责任关怀全球宪章是由化学协会国际理事会(ICCA)于2006年1月在阿联酋迪拜发起的。

**Borouge – 阿拉伯联合酋长国**  
传真: +971 260 7999  
电子邮箱: info@borouge.com  
网站: www.borouge.com

**Borealis AG – 奥地利**  
传真: +43 2240 0333  
电子邮箱: info@borealisgroup.com  
网站: www.borealisgroup.com

## 订单业绩蒸蒸日上

过去一年里,位于德国杜塞尔多夫的SMS Group的订单业绩蒸蒸日上 - 达到32亿欧元!

这种增长主要是由于全球钢铁工业的强劲业绩,投资蒸蒸日上。尽管SMS Group的订单主要是由于诸如硬化和锻造工业、有色金属生产工业、塑料加工业等工业的良好发展,但在这些年来,这是第一次来自德国的订单达到全部订单的13%,这表明国内工业的温和复苏。

SMS最重要的销售区域仍然是中国、俄罗斯和印度。但其它步入工业化的国家或者处于广泛现代化阶段的国家也为日益增加的订单做出了贡献。

公司在未来的投资依然清晰可见,在德国的实习生占据了整个劳动力的8%,比国家的平均水平高得多。与学校和大学的密切合作, SMS学生支持计划、对年轻工程师的特别介绍活动,以及新成立的SMS Akademie都提供了充分的证

明,即公司在培训和未来教育的投入所产生的高价值。

**SMS Group – 德国**  
传真: +49 211 881 774127  
电子邮箱: info@sms-group.com  
网站: www.sms-group.com

## 将南非公司与全世界联系在一起

南非线材协会(SAWA)将南非线材工业与全世界产品制造商联系在一起。这个组织为需要联系南非线材产品生产商的全球制造公司提供协助。SAWA还便利公司和组织与南非的许多线材和机械供应商讨论可能的合资合作。南非线材工业的公司为制造商提供越来越多的线材产品、设备、化学品、易耗品和服务。成员公司还能生产特种线材产品和提供定制的工程解决方案。

**South African Wire Association – 南非**  
传真: +27 11453 9653  
电子邮箱: dries@sawa.co.za  
网站: www.sawa.co.za

## 在韩国翱翔

Nexans已经获得Incheon国际机场公司(IIAC)的一个价值591万欧元的合同,为韩国最大机场II期扩建工程提供LANmark纤维光学和铜网络电缆解决方案,及其LANsense智能基础设施管理(IIM)系统。

Kukdong是Nexans在韩国的一家公司,将为项目提供完整的电缆系统。由Nexans通过其全世界的LAN电缆力量来完成铜和纤维光学电缆的整个范围,包括比利时、韩国、美国 and 英国。

Nexans将为机场的基础设施提供860公里CAT6铜电缆、351公里单模式纤维光学电缆(范围包括12到114根缆芯),为新建的机场建筑物提供86公里单模式纤维光学电缆、以及450套缆架。

LANsense IIM系统由22,100纤维光学节点和22,000 CAT6节点组成,它们将为机场网络安全控制提供一个以因特网和标准为基础的途径,以及先进的资产管理特性。

标准纤维光学网络将由8,700节点组成,标准CAT6网络由1,250节点组成。



▲ Incheon – 亚洲技术最先进的机场

Incheon国际机场被认为是亚洲在技术上最先进的机场,具有一流的保安设施和医疗设备。Nexans电缆系统将提供所要求的附加数据通讯基础设施,以便支持II期扩建工程,它将新建一根跑道和一个165,300平方米的终端空间,保证年度乘客数量增加到4400万。

Nexans将在2007年年底提供电缆系统。

**Nexans – 法国**  
电子邮箱: info@nexans.com

传真: +33 15669 8484  
网站: www.nexans.com

## 在澳大利亚和新西兰建立新的办事处

Borouge是中东和亚太地区革新塑料解决方案领军性提供者，在澳大利亚的墨尔本和新西兰的奥克兰建立新的销售和服务办事处。

Borouge一流的生产设施及其母公司ADNOC都基于阿联酋，对Borouge来说，这是其增长的好时机，因为阿联酋与澳大利亚签订了自由贸易协议，该贸易包括所有海湾合作理事会国家。

阿联酋和澳大利亚于1年前开始自由贸易协议谈判，紧接着美国和新加坡，澳大利亚将成为阿联酋的第三大贸易伙伴。

**Borouge Pte Ltd – 阿联酋**  
传真: +971 2 6312 999  
电子邮箱: info@borouge.com  
网站: www.borouge.com

## 工商部部长为塑料厂开工剪彩

巴林工商部部长Hassan Abdulla Fakhro为Kanoo Plastic Company正式开工剪彩，这家新建工厂位于Riffa。

公司是一家合资企业，由Yusuf Bin Ahmed Kanoo和Compco Australia Pty Ltd联合投资组建，为区域和国际市场生产各种塑料复合物。

公司采用独特的Compco技术，主要生产用于电缆和管道市场的高质量XLPE复合物，为塑料和聚合物工业以及其它塑料材料生产助剂、白色和有色母料。

塑料复合物和母料具有广泛的应用，包括线缆、聚合物生产、家用和商用热水管道、工业软管、白色商品、挠性和刚性包装、塑料家具、空调单元和汽车元件。

## Tagmet的庆祝

在一次正式的庆祝上，俄罗斯Taganrog Metallurgical Works (Tagmet)公司庆祝其首套5段式大方坯连铸机首次连铸，这套装置由德国SMS Demag AG提供。

连铸机位于Taganrog (靠近Rostov)，生产大方坯的圆柱尺寸达150-400毫米，完全超越了以往使用模铸锭装置。

这将形成更低的生产成本和更高的圆形坯质量。装置的年产量将近950,000吨。

机头配备一个抛物线模，带有搅拌机和共振振荡器，这是SMS Demag开发的，并拥有专利，它还能用于方形模，尺寸为150毫米 x 150毫米到340毫米x 340毫米。

供应范围进一步包括火炬切割和样品切割机以及采样机。

**SMS Demag – 德国**  
电子邮箱: info@sms-group.com  
传真: +49 211 881 4386  
网站: www.sms-group.com

现场于2006年12月开始生产，初始生产能力大约为每年14000吨。

**Kanoo Plastics Company – 巴林**  
传真: +971 4393 3636  
电子邮箱: info@kanoogroup.com  
网站: www.kanoogroup.com

## Allied的新设施

在美国威斯康星州Elkhorn的Allied Wire and Cable开设一个现货设施后，其中西部以及西部各州的客户就能获得更快和更方便的服务。

超级现货储存库能释放更多的空间来储存来自宾夕法尼亚州国际总部以及其它Allied办事处的更多的产品

所有位置，包括威斯康星州，已经在他们的库存中添加了1283、1284 Extra

Flexible MTW/TEW (裸铜)。Flex MTW被用于各种应用中，能满足UL要求，并有大量的现货。

“Allied Wire and Cable每个人对于新发展感到兴奋，”威斯康星州分公司经理Hans Nelson说道。

“在Allied，我们相信客户第一，而且，我们力争做到这一点，现货设施和新产品装置帮助我们为客户提供最好的服务。”

**Allied Wire & Cable – 美国**  
传真: 800 615 WIRE (9473)  
电子邮箱: info@awcwire.com  
网站: www.awcwire.com

## Ugitech投资两个主要项目

Ugitech已宣布了两个主要项目，它们将于2007年年中开始运行。

在法国的工作已经展开，将首个ESR (电渣重熔) 炉安装在其位于Ugine的主要的生产现场

拥有这项工艺后，Ugipur不锈钢将能满足高端技术市场的最高需求，例如医疗、航空、汽车和其它要求泵非常清洁的工艺。

在美国伊利诺斯州巴特维亚市，一个服务中心和一个服务网络将投入运营，它配备了不锈钢棒冷变换车间。

它将服务于美国市场，提供高质量产品，包括Ugima®，以其优异的机械加工性能等级而闻名于世。

**Ugitech – 法国**  
传真: +33 1 41 25 59 88  
电子邮箱: info@ugitech.com  
网站: www.ugitech.com

## 英国最大的专业线材现货商

William Hughes继续扩大其专业线材的现货，现在，它在英国能提供范围最广的线轴线材和定长线材。

William Hughes能从它在Dorset的工厂供应各种线材，直径从0.1毫米到更大的9毫米弹簧钢以及11毫米的低碳钢。

公司的线材现货用于电气工程、制造和航空工业，公司也是现在为数不多的专业钢琴和乐器钢丝的供应商之一。

公司还是许多线材供应商的一个指定经销商，包括以美国为基地的Little Falls Alloys、Beryllium Copper以及瑞典的制造商Haldex。

他们还是Haldex的GARBA 177PH的经销商，只是一种不锈钢弹簧丝，开发用于要求具有超强强度和性能の場合。

其它著名的品牌包括Oteva、Nimonic和Ni-Span wires。

**William Hughes Ltd – 英国**  
电子邮箱: sales@wmhughes.co.uk  
传真: +44 1963 363640  
网站: www.wmhughes.co.uk





NYDG

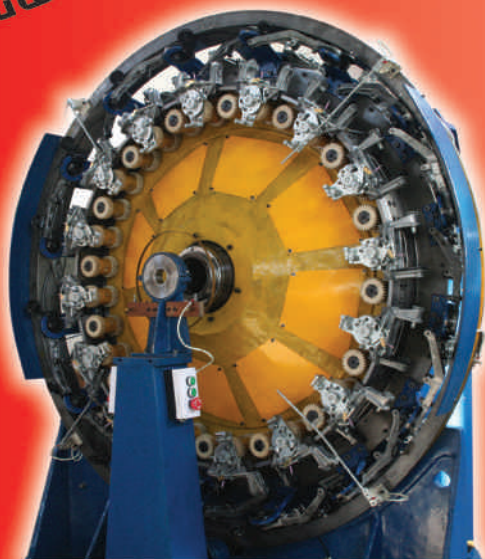
# NYDG

NEW

## 卧式高速编织机系列

### HORIZONTAL BRAIDING MACHINE SERIES

The 36-Carrier Horizontal High Speed Braider is designed to apply braiding the cables or wires with big diameter and long length.



#### Specification

Braiding thread dia.

$\Phi 0.15 \sim 0.4 \text{mm}$

Braiding outer dia.

$\Phi 90 \text{mm (max)}$

Braiding pitch

27~270mm

Number of bobbins

36

Braiding direction

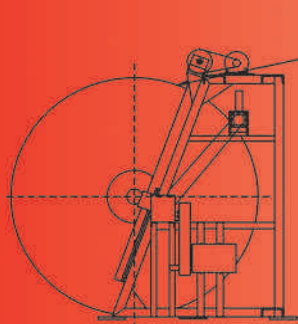
horizontal

Bobbin speed

30r.pm (max).

Main motor

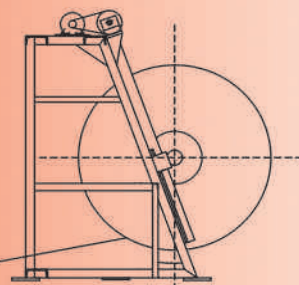
7500W



Take-up (optional)



Vertical Braider (steel wire)



Pay-off (optional)



TAPING MACHINE  
绕包机



REWINDING MACHINE  
并丝机



GSB-1A GSB-2 BRAIDING MACHINE  
立式高速编织机

上海南洋电工器材有限公司  
Shanghai Nanyang Electrical Equipment Co., Ltd

Add: No. 1750 Hunan Road, Pudong, Shanghai, China Postcode: 201204

Fax: (021) 50429025

Tel: 0086-21-50429026/50429027

<http://www.shanghai-nanyang.com>

E-mail: [sales@shanghai-nanyang.sina.net](mailto:sales@shanghai-nanyang.sina.net)

## 合作关系交易确定

Nexans是领军世界电缆工业的公司，与Bel Stewart签署了一项合作伙伴协议，它是一家高质量电子元件的全球生产商，以便为现设设备开发Cat7 插孔。

这种合作伙伴关系是为了响应日益增长的对GG45解决方案的需求，并使两家公司能提供一个综合的产品范围。

Nexans和Bel Stewart已经用GG45界面为铜缆（GG45 IEC60603-7-7）生产元件，而且他们的研究和开发小组已经合力开发一种8通道PCB安装式连接器，特别设计用于现设设备制造商。在综合两家公司的实力后，这种合作伙伴关系能保证向市场做出快速的相应，同时还为他们各自的产品范围提供兼容性。

Nexans 电缆解决方案的产品市场总监Martin Rossbach说道：“人们对高频RJ45型兼容连接器的兴趣越来越大，这是开发新的10吉比特双扭线电缆的主要原因。8通道Cat7 PCB插孔将能满足这种需要，它拥有市场上最高的性能”。

Bel Stewart 的产品经理Derek Imschweiler补充道：“在高度竞争的电缆市场，互

相之间的可操作性是一个关键的因素，使这次合作的意义更加重大。”

### Nexans – 法国

传真: +33 15669 8484

电子邮箱: info@nexans.com

网站: www.nexans.com

### Bel Stewart – 美国

传真: +1 717 235 4675

网站: www.belfuse.com/StewartConnector

## 新任执行长官

Borouge是中东、亚太和非洲地区的革新塑料解决方案提供者，它已经任命Harald Hammer为Borouge Pte Ltd的执行长官，这是其以新加坡为基地的市场开发公司。

Hammer先生替换了Hubert Puchner，他领导Borouge五年，使公司经历了一段强劲的增长，将出任在奥地利林茨的AgroLinz Melamine International (AMI)的执行副总裁，管理公司全球的三聚氰胺业务，他仍然是Borouge董事会成员。Hammer先生对全球的塑料工业拥有丰富的经验，他当前是Borealis的

薄膜和纤维业务的副总裁，Borealis是Borouge的合资企业的伙伴，他从2002年起担任这个职位。他于1998年从奥地利PCD的聚丙烯销售总经理加盟Borealis，当时PCD与Borealis合并。他获得奥地利林茨大学经济学学位，并从加拿大多伦多大学获得MBA学位。

### Borouge Pte Ltd – 新加坡

传真: +65 6377 1233

电子邮箱: info@borouge.com

网站: www.borouge.com

## 产能翻一番

在阿拉巴马州Decatur的ETFE成功开车后，Daikin已经将其产能翻一番。这次扩建证明了公司要成为美国最大的乙烯-四氟乙烯聚合物(ETFE)制造商的承诺。

ETFE已经成为线缆和汽车管路应用的一种重要的树脂，它的抗切割和抗磨损性能使其成为一种线材绝缘的理想材料，用于航天器机身、军事、电子、油和气体生产应用中。ETFE越来越多地用于公共交通电缆中，精选的汽车应用中，以及航空应用薄膜和光伏打板中。

“对ETFE的需求持续增长，这是由于其独特地结合了机械和电气性能及其耐高温新能，”销售和市场营销副总裁Tison Keel说道。Daikin America 将继续在ETFE产能上予以投资，以支持我们的客户以及对我们产品不断增长的需求。我们认为它在我们的氟聚合物业务中是一个具有战略重要性的产品。”

### Daikin America Inc – 美国

传真: +1 845 365 9598

电子邮箱:

customer.service@daikin-america.com

网站: www.daikin-america.com

## Nexans获得6500万欧元的交易

Nexans已经获得一个为期三年的框架协议合同，价值6500万欧元，向索尔特河项目（SRP）提供中电压电力电缆，这是美国第三大公共电力设施。这些电缆将把电力送到SRP供电范围内的各家各户，包括亚利桑那州大都市菲尼克斯地区、斯科特斯德、滕比以及偏僻农村地区90万以上的用户，这个框架协议合同是2003年签署的、为期四年的现有5000万欧元合同的一个三年期延续，而且有一个第四年更新的可选项。

在三年合同中，Nexans将提供SRP大约3700公里15千伏各种规格的电缆，包括铝质和铜质导体，适合于安装在地下下的电力基础设施，为家庭和建筑服务。电缆将由Nexans在加拿大的Weyburn工厂生产。

### Nexans – 法国

传真: +33 15669 8484

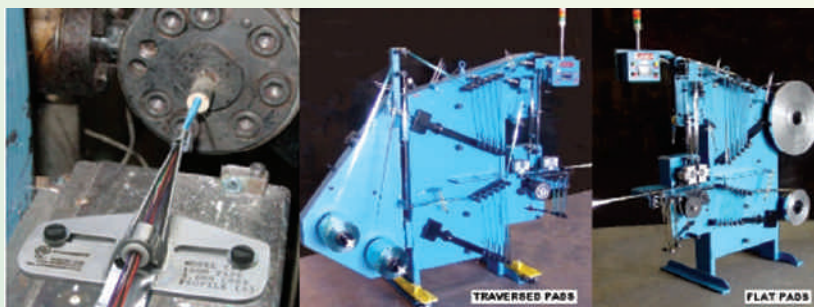
电子邮箱: info@nexans.com

网站: www.nexans.com

## 合力向前！

美国的Dynamex Corporation和英国的RG Attachments合力，分别掌领贸易，促进相互之间的服务。

Dynamex基于加利福尼亚，是电缆制造设备的领军供应商，也是带材松卷设备专家。他们在线缆工业已经有30多年的经验，他们专利的通用自动化切带送卷设备是其技能的一个标志。



▲ 安装的RG型号(A)带子成型机和Dynamex的自动切带送卷机

RG Attachments Ltd基于莱切斯特，制造成带设备，用于电缆芯包扎带。RG成带设备将包扎带包扎在电缆芯上，然后进入最后的夹套阶段。成带设备适用于各种带型材料，包括聚酯薄膜、金属箔、防水带和纸。成带设备能用于各种宽度的带子，5毫米-210毫米，还适用于客户的规格。

带子松卷设备和成带设备适用于所有采用纵向包扎带电缆的挤出装置，由Dynamex提供的带子松卷设备系统为用户提供不间断的运行，不必终止生产就能自动切换台架，然后，通过RG的成带设备将其包扎在电缆芯上，可以包扎各种折叠剖面。

### Dynamex Corporation – 美国

电子邮箱: sales@dynamexcorp.com

传真: +1 310 329 0159

网站: www.dynamexcorp.com

### RG Attachments Ltd – 英国

电子邮箱: info@rga.co.uk

传真: +44 116 261 2403

网站: www.rga.co.uk





## Vodafone said to vie for Indian mobile phone giant Hutchison Essar

Commerce Minister Kamal Nath, of India, said in New Delhi on 9<sup>th</sup> January that the chief executive of **Vodafone Group PLC** planned to meet with Indian government officials to discuss the British company's interest in buying a controlling stake in **Hutchison Essar**. The deal for a position in the fourth-largest mobile phone operator in India could top \$14 billion, said executives involved in the negotiations.

As reported in various media, Mr Nath said Vodafone had requested the meeting to talk about its potential bid for a 67% share in Hutchison Essar. The stake is currently held by Hong Kong-based **Hutchison Whampoa**, which is controlled by the Hong Kong billionaire Li Ka-shing. Essar owns the rest, and has the right of first refusal in any deal.

As their operations in traditional markets stagnate, established telecoms are actively considering fast-growing emerging markets. According to a study by the international Gartner Group, less than 10% of the 1.1 billion people in India have a mobile phone, compared with more than 70% in the United States.

But new users are growing at record rates. According to the Telecom Regulators Authority of India, in November 2006 India registered 6.79 million new mobile subscribers. In comparison, some surveys say that in certain areas of Europe and Asia, including the United Kingdom, Hong Kong, and Sweden, there is already more than one mobile phone subscription for each person.

Vodafone is not alone in its interest in Hutchison Essar, which has 18 million customers. **Orascom**, another Indian telecom, and the private equity group **Blackstone**, possibly in concert with **Reliance Communications** of India, were mentioned among the potential suitors.

## 3Com seeks full control of its joint venture with Huawei

**3Com Corp**, an American maker of computer networking equipment, is paying \$882 million for an additional 49% stake in **Huawei-3Com Co**, valuing the maker of routers and network switches at \$1.8 billion.

The Marlborough, Massachusetts-based company's shares fell on concern that it may struggle without the help of **Huawei Technologies Co**, its Chinese partner, after buying the remaining stake in their venture.

As reported by Bloomberg News on 29<sup>th</sup> November 2006, the acquisition is part of a strategy by 3Com, after posting losses over the past five years, to regain profitability by tapping international markets. Huawei-3Com, a three-year venture that sells equipment made by 3Com, accounted for about 50% of 3Com's sales in the fiscal first quarter of last year.

The joint venture currently does most of its business in North America and Europe; its sales in China are

negligible. Closely held Huawei, China's biggest maker of telecommunications equipment, last year posted a 56% gain in sales of \$6 billion, more than 13 times the revenue reported by Huawei-3Com.

"The sale is good for Huawei because it can now focus on its core telecom equipment business," one Hong Kong-based analyst told Bloomberg. "Huawei-3Com is peripheral business for Huawei."

3Com's bid, made first on 15<sup>th</sup> November, trumped an offer by private equity firms Bain Capital LLC and Silver Lake Partners. They, along with Huawei, planned to borrow about \$1 billion to buy 3Com's stake, according to bankers involved in the transaction.

The bidding process was part of the original agreement in 2003 that said either company could seek control of the venture after three years. 3Com chairman Eric Benhamou had said earlier in 2006 that acquiring full control would turn 3Com into a global player.

Without the venture, 3Com's business consists primarily of networking gear for smaller companies, security

products, and corporate phone systems. In each, it trails larger rivals including **Cisco Systems Inc** and **Juniper Networks Inc**, both based in California.

The transaction is subject to the approval of the Chinese government.

## Western European companies embrace voice/data convergence

According to a pan-European survey of 660 medium-and-large-size enterprises conducted by a global market research firm, Western European companies are embracing the convergence of voice and data.

The results, published on 30<sup>th</sup> November, indicate that some 44% of respondents are already at some stage in the convergence process, while 51% are expected to be in the convergence process within 12 months.

IDC, a provider of market intelligence gathered from more than 50 countries, observed that growth of voice/data convergence is facilitating the potential for companies to migrate from traditional PSTN (public switched telephone network) PBXs (private branch exchanges) to IP (Internet Protocol) PBXs.

Organisations across Western Europe continued to replace their TDM (time division multiplexing)-based PBXs and telephones that were installed around 2000 and earlier.

French companies reported the highest usage of pure IP PBXs (29%), while the Netherlands reported the lowest usage with only 3% of companies using a pure IP PBX.

Most enterprises reporting to IDC use a combination of solutions to achieve convergence of their voice and data networks. The most frequent reason to outsource some or all of the convergence process was absence of in-house expertise.

Large enterprises (1,000+ employees) most often develop and manage the voice/data convergence in-house. There was an increase in the number of enterprises undertaking the entire convergence process in-house from 25% in 2005 to 30% in 2006.

"Voice and data convergence is a reality," said Julie Wall, IDC research

>>>



<<< analyst, European VoIP. "While some companies remain static, with traditional voice strategies, others are forging ahead into new areas of converged communications, seeking newer services and service providers."

Each year, IDC conducts a WAN Manager Survey, interviewing European enterprises to gauge their attitudes toward communications.

Fuller information may be obtained from the website [www.idc.com](http://www.idc.com) or from Ms Wall in Amsterdam at [jwall@idc.com](mailto:jwall@idc.com)

## Short takes . . .

① In a bid to save money on GSM rollouts in emerging markets, **Motorola** of the US is turning to local manufacturing of GSM (global system for mobile communications) products to be supplied to local mobile operators currently engaged in network buildouts.

As reported by Chee Sing Chan from the International Telecommunication Union 'Telecom World 2006' Show in Hong Kong (4<sup>th</sup>-8<sup>th</sup> December), Motorola will begin production in India of its Reach Strongbox, an outdoor enclosure for the company's Horizon II macro base transceiver station (BTS).

Phased production of 1,300 unit shipments has begun and will serve major mobile carriers in India. The strategy is expected to ensure lower production costs and lower duties and taxes.

The company's intention is ultimately to lower rollout costs for operators in emerging markets, with China and Africa included during the course of 2007.

② China's own technology for 3G mobile phones is ready for large-scale commercial use, a *Financial Times* article reported on 5<sup>th</sup> December.

Citing an Agence France-Presse report, the London-based newspaper quoted Chinese telecom equipment maker **ZTE** as saying that equipment based on the Beijing-backed TD-SCDMA standard for 3G telecoms services could now compare with that of the rival European-led W-CDMA standard and the US-favoured cdma2000.

Commercial readiness for China's TD-SCDMA technology could clear the way for Beijing to issue long-awaited 3G licences to home telecom operators, the *FT* said.

ZTE president Yin Yimin was quoted as saying, "Now it is up to the state and the operators."

③ **Swisscom AG** will repurchase a 25% stake in **Swisscom Mobile** from Britain's **Vodafone Group Plc** for \$3.5 billion.

The deal will enable Swisscom, which is majority held by the government of Switzerland, to strengthen its domestic position. Swisscom has sought to retrench at home after a surprise government decision a year before blocking major foreign takeovers.

The British mobile giant said it expected to record a gain on the sale of approximately \$195 million for the year ending 31<sup>st</sup> March 2007.

Vodafone acquired the 25% holding in Swisscom Mobile in early 2001 not long after the height of the telecoms boom, but recently has been shedding stakes to focus on its core western European markets and expand in emerging markets.

Last August, it sold its 25% stake in Belgium's **Proximus** to partner **Belgacom** for \$2.63 billion. Before that, it had sold its struggling Japanese business.

④ The electronics maker **Vtech Holdings** said that telephone sales in the US have sent its profits soaring. For the first half of its 2006 fiscal year the Hong Kong company posted a \$65.8 million net profit – some 42% higher than in the corresponding period of 2005. Sales rose 27.1%, to \$713.8 million, from \$561 million in the year-earlier period.

The advance reflected a rebound in cordless phone sales in the US. But with so much of its growth concentrated there, Vtech said it sees the wisdom of diversification. The company will build a new factory in Dongguan, China, for contract manufacturing for Japanese clients, among others.

⑤ Taiwan's **Chunghwa Telecom Co** plans to spend nearly \$4 billion over the next five years to upgrade its

telecom networks and build a new undersea cable system, Chairman Ho Chen Tan said on 3<sup>rd</sup> January.

The spending plans were in place before the earthquake off Taiwan's southern coast in late December damaged data transmission cables, disrupting telephone and Internet links within Asia and between China and the US.

The island's largest communications company said it is earmarking around \$2.1 billion for its mobile network. It will also spend around \$1.88 billion on upgrading its fixed-line network by replacing the existing copper lines with fibre optic cables, Mr Ho said.

Chunghwa Telecom is working with Verizon Communications Inc, of the US, and four Asian operators to build a \$500 million trans-Pacific undersea cable system linking the US and China.

⑥ Shares of **China Netcom**, the smaller of Hong Kong's two fixed-line telephone operators, fell as much as 7% on a report on 8<sup>th</sup> January that the company may scale back its businesses in Shanghai and Guangdong.

The *South China Morning Post* reported that China Netcom may sell assets in the two areas back to its parent, which currently owns most of Netcom's southern China business.

As noted by Janet Ong in China Daily (9<sup>th</sup> January), a withdrawal by Netcom would indicate a failure to weaken **China Telecom's** dominance in the southern regions of the country. In Shanghai and Guangdong, which have about 47 million fixed-line users, China Telecom has an estimated 95% market share.

**Order your  
subscription  
online @:**

**[www.read-wca.com](http://www.read-wca.com)**





## 沃达丰计划控股印度移动通信巨头Hutchison Essar

印度商务部长Kamal Nath 1月9日在新德里宣布沃达丰集团首席执行官计划与印度政府讨论购买Hutchison Essar的控股权问题。据参与谈判的高层人士透露,购买这家印度第四大移动通信公司的资金可能高达140亿美元。

据多家媒体报道,Nath称沃达丰请求与印度政府商讨购买Hutchison Essar 67%股份的权力。目前Hutchison Essar的这部分股份由香港和记电信持有,和记电信的控股人香港富豪李嘉诚。Essar拥有其余股份,并拥有优先拒绝这笔交易的权力。

由于在传统市场增长缓慢,知名的大电信公司纷纷往快速发展的新兴市场寻求机遇。根据国际咨询公司Gartner Group的研究,印度11亿人口中拥有手机的人数不足10%,相比之下美国的人数为70%。但是,印度的手机用户在以创纪录的速度发展。据来自印度电信监管当局的消息,2006年11月印度的手机用户增长了679万。

相比之下,据某些调研显示,在欧洲和亚洲的部分地区,包括英国、香港和瑞典,每个人拥有的手机数已经超过一部。沃达丰不是对拥有1800万用户的Hutchison Essar唯一感兴趣的公司。另一家印度电信公司Orascom及其背后的私人投资公司Blackstone可能和Reliance合作购买Hutchison Essar的事宜。

## 3Com寻求全面控股华为3Com

美国计算机网络设备制造公司3Com Corp向华为支付8.82亿美元购买华为3Com中49%的股份。这样这家路由器和网络交换机制造公司的总价值达到了180亿美元。

这家位于马萨诸塞州莫尔伯勒的公司在此前股价下降,因为投资者担心当中国伙伴华为退出后这家公司将失去技术支持。

根据Bloomberg News 2006年11月29日的报道,这次购并是3Com连续五年亏损后为通过开拓国际市场恢复盈利能力的战略举措。华为3Com是一家成立有三年时间的合资公司,其销售额在去年一季度占3Com销售总额的约50%。

华为3Com的主要销售额在北美和欧洲,在中国的销量基本可以忽略。华为是中国最大的电信设备制造公司,去年的销售收入为60亿美元,为华为3Com的13倍。

一位来自香港的分析人士在接受Bloomberg采访时表示:“出售华为3Com对华为来说是正确的,因为华为这样可以专注于核心电信设备产业。华为3Com对华为而言属于外围产业。”

3Com在去年11月15日的出价高于私人投资公司Bain Capital LLC和Silver Lake Partners的出价。据涉入的银行透露,这两家公司准备和華為一起借款10亿美元买下3Com在华为3Com中的股份。

这次招投标符合2003年签订的合资企业协议。该协议称三年后两公司任意一家都有权寻求控股权。3Com的董事长Eric Benhamou 2006年初表示获得华为3Com的完全控股权有助于3Com成为一家全球公司。

如果没有华为3Com,3Com公司的产品将主要由面向小型企业的网络设备、安全产品和公司电话系统构成。而在每个产品线中,它都落后于位于加州的竞争对手思科和Juniper。

此次购并尚待中国政府审批。

## 西欧公司欢迎语音/数据汇聚

根据一家全球市场调研公司对欧洲660家大中型企业的调研,西欧企业对语音和数据的汇聚表示欢迎。此项11月30日公布的调查结果显示44%的被访公司已经在某种程度上走上了汇聚之路,另有51%预计将在12个月内采用汇聚技术。

在50多个国家有业务的市场咨询公司IDC认为语音/数据汇聚将促进企业从传统的PSTN(公共交换电话网络)PBX's(专用局点交换)向IP(因特网协议)PBX's迁移。西欧的企业一直在替换它们2000年及以前投入使用的TDM(时分复用)PBX's和电话。法国企业据报道使用纯IP电话的比例最高,为29%,而荷兰使用纯IP电话的比例最低,为3%。

多数企业向IDC表示它们将综合使用多种解决方案来实现语音和数据网络的汇聚。由于缺少内部技术人员,汇聚工作的部分或者全部常常外包。而大型企业(雇员超过1,000人)则一般采用内部技术人员实现语音/数据汇聚。采用内部技术力量完成汇聚的企业从2005年的25%上升到2006年的30%。

据IDC的欧洲VoIP专家Julie Wall称:“语音和数据的汇聚已经成为现实。虽然部分企业仍然采用传统的语音方案,其他企业已经进入汇聚通信的新领域,并在寻找新的服务和供应服务商。”

每年IDC都会举行一次广域网经理调研,对欧洲企业进行访谈,了解它们对通信的看法。欲知详情,请访问[www.idc.com](http://www.idc.com)或者给Wall的邮箱jwall@idc.com去邮。

### 短新闻...

① 为了降低新兴市场GSM(全球移动通信系统)网络的建设成本,美国摩托罗拉正在转向本地生产,以供应目前正在进行的网络建设的本地移动通信公司。根据Chee Sing Chan在国际电信联盟2006年香港展(12月4日至8日)的报道,摩托罗拉计划在印度制造其Reach Strongbox,这是其Horizon II宏基站的室外型箱体。首批1,300台已经投产,并将供应给印度的

移动通信公司。这项措施的目的是降低成本、税赋和关税。公司的最终目的是降低新兴市场运营商的网络建设成本。在中国和非洲投产的计划也已提上日程。

② 据《金融时报》12月5日报道,中国自行研发的3G移动电话已经可以投入大规模商用。《金融时报》引用法新社的报道,称中国电信设备公司中兴中国运营商支持的TD-SCDMA 3G电信服务标准可以媲美欧洲主导的W-CDMA标准和美国主导的cdma 2000标准。中国TD-SCDMA技术的成熟将为中国政府对中国国内营运商发放等待已久的3G牌照铺平道路。据法新社报道,中兴总裁Yin Yimin表示:“现在完全取决于营运商和政府。”

③ Swisscom AG计划用35亿美元回购沃达丰拥有的该公司25%的股份。这项交易将巩固这家瑞士政府控股的电信公司的国内市场地位。自一年前瑞士政府出人意外地决定拒绝外国购并以来,Swisscom一直在争取巩固其在国内市场的地位。沃达丰表示通过这次资产出售,到2007年3月31日的本财年结束沃达丰将增加1.95亿美元的收入。沃达丰是在电信高潮之后不久的2001年初购买Swisscom Mobile 25%的股份的,但由于近期沃达丰把注意力集中在西欧重点市场的巩固和新兴市场的扩张上,沃达丰一直在出售并购股份。去年8月,沃达丰以263亿美元的价格把比利时Proximus中25%的股份出售给了合作伙伴Belgacom。之前,它还出售了岌岌可危的日本业务。

④ 电子设备制造公司Vtech Holdings表示由于在美国市场的电话销售,其利润大幅增长。2006年上半年这家香港公司的净利润达到了6,580万美元,比2005年同期上升42%。公司的销售额从2005年的5.61亿美元上升到7.138亿美元,增幅27.1%。公司的发展现实美国市场对无绳电话的需求上升。虽然公司的增长主要来自无绳电话,但公司认为有必要进行多元化操作。公司将在中国东莞建设一家新的工厂,为日本和其他地方的客户提供产品。

⑤ 台湾中华电信董事长贺陈旦1月3日表示中华电信将在今后五年内投资40亿美元升级现有电信网络并建设一条新的海底光缆。中华电信的计划是在去年12月在台湾南海发生地震之前就决定了。这次地震摧毁了数据电缆,严重影响了亚洲内部以及中国和美国之间的电话和因特网通信。贺陈旦表示将在移动网络上增加投资21亿美元,并将在固网方面投入18.8亿美元,以光缆替换现有的铜缆。中华电信正在同美国Verizon Communications Inc以及其他四家亚洲营运商合作投资5亿美元新建一条连接中国和美国的跨太平洋海底光缆。

⑥ 由于1月8日有消息称中国网通计划撤出上海和广东的业务,其港股价格下降了7%。据《南华早报》的报道,中国网通可能将把两个地区的资产出售给其母公司。其母公司目前拥有其在南中国资产的大部分。据Janet Ong在《中国日报》(1月9日)上的报道,网通撤出表明挑战中国电信在中国南部垄断地位的行动的失败。在有4,700用户的上海和广东,中国电信的份额高达95%。



## Immigration

### An early start on controversy over illegal residents in the US

Normally, a story about the first American baby born in 2007 would not find its way into the pages of this journal. But in fact it belongs here, as demonstrating the acrimony (some might say lunacy) of the national debate over how to deal with the problem of illegal immigration.

There was no question, initially, of the identity of the first baby and the validity of her claim. At New York Downtown Hospital, a short distance from the Manhattan offices of *Wire & Cable ASIA*, a Chinese-American baby girl came into the world at the stroke of the New Year and was declared the winner of a \$25,000 savings bond pledged by the global toy chain Toys 'R' Us and its Babies 'R' Us division.

But very quickly the infant, Yuki Lin – a citizen of the United States from the moment the ball dropped in Times Square – was disqualified and the prize withdrawn. Like six out of 10 babies born in New York City, she has immigrant parents. More to the point, her mother is not a legal resident of the country.

As reported by Nina Bernstein in the *New York Times*, Albert Wang, a corporate lawyer, read about Yuki Lin's lost chance on the website of the Chinese-language World Journal. An angry Mr Wang shared his indignation in email to such prominent Chinese-Americans as the president of the Asian American Business Development Center and officers of the Organization of Chinese Americans. Just one month after the opening of the first Toys 'R' Us store in China, in Shanghai, the chain came under threat of a media campaign against it. ('First-Baby Sweepstakes Fuels Immigration Debate,' 5<sup>th</sup> January)

"They want business from China," Mr Wang told Ms Bernstein, noting that most of the chain's toys are made by Chinese workers in China. "But when it comes to this Chinese-American US citizen, she was deprived of \$25,000 intended to be used for her college education because of who her parents are."

Toys 'R' Us defended its decision that Yuki Lin was entitled only to a gift basket and a \$100 bond, bestowed on all New Year babies born in hospitals that signed up for the contest. But within a week the company saw reason. Expressing 'deep regret that this sweepstakes became a point of controversy,' it announced the award of not one but three \$25,000 bonds: to Yuki Lin and two also-rans.

❖ Albert Wang told the *Times* he was satisfied that his client had received justice. He also said something that hints at a new phase in the immigration controversy in the US. Some people were concerned that the publicity surrounding the Toys 'R' Us award had exposed the illegal-resident status of the parents – both 22-year-old restaurant workers. Mr Wang responded, "The safest place is actually the eye of the storm. Any politician who says we should deport the parents, it would be the end of that political career."

As to the other first babies, Jayden Swain, born 19 seconds after midnight, was described by her grandmother as black and 'American all the way.'

The second runner-up was Yadira Esmeralda, born to immigrant parents from El Salvador. It is interesting to speculate on the family background of other close contenders. A technicality (late reporting of the birth online) disqualified Odunayo Muhammed, born at the stroke of midnight to a Nigerian immigrant couple.

### US tech industry pushes for more visas for foreign workers

The specialty visas under which many workers arrive in the United States from overseas have not figured prominently in the heated national discussion of immigration and its effects on American job-holders. Now, a study released on 3<sup>rd</sup> January by a former technology executive, himself an immigrant from India, seems likely to generate controversy over the H-1B visas, which allow US companies to sponsor temporary workers in such occupations as computer programming and systems analysis.

Vivek Wadhwa, a professor at Duke University (Durham, North Carolina) and the study's author, found that some 25% of the technology and engineering companies launched in the past decade in the US had at least one foreign-born founder. His report, based on telephone surveys with 2,054 companies and projections by university researchers, found that immigrants – mostly from India and China – helped start hundreds of American companies with estimated sales of nearly \$50 billion.

Mr Wadhwa said, plausibly, "[My] research shows that immigrants have become a significant driving force in the creation of new businesses and intellectual property in the US – and that their contributions have increased over the past decade." The next day in the *Washington Post*, Krissah Williams noted that technology-industry lobbyists had already begun citing the Wadhwa study in their campaign to persuade Congress to increase the annual allotment of H-1B visas. She wrote: "The companies say they cannot find enough Americans to fill jobs. Other proponents contend that globalisation requires US companies to import talented workers." ('Immigrants a Driving Force Behind Start-Ups, Study Says').

Last year, the industry raised the issue in the national debate over immigration reform, but Congress ended its session without acting. Tech lobbyists want to revive that bill, which would increase the annual quota on H-1B visas to 115,000 from 65,000, eliminate green-card caps for some advanced-degree holders, and streamline the processing of employment-based green cards. [These are documents affording non-citizens certain rights of citizens, sometimes preliminary to naturalisation.]

Ms Williams noted that such an expansion of the specialty-worker programme, described by one industry lobbyist as 'a great fix for a lot of our companies,' would draw opposition from those who favour low levels of immigration. Jessica M Vaughan, an analyst at the Center for Immigration Studies, told the *Post* that an increase in the green-card cap would amount to 'a subsidy for business because it allows them to bring in cheaper labour from overseas.'

❖ The Wadhwa study looked at founders of engineering and technology companies started from 1995 to 2005, and analysed the World Intellectual Property Organization Patent Cooperation Treaty database. Among its more





striking statistics: about 25% of international patents filed in the United States in 2006 were submitted by immigrants.

## Automotive

### Toyota surpasses DaimlerChrysler as No 3 in the US

Toyota Motor Corp had its best year ever in 2006, with sales of more than 2.5 million vehicles giving it a boost of 12.9% for the year. The Japanese company's market share rose more than two percentage points, up from 13.3% at the end of 2005. Toyota also pushed past Detroit's DaimlerChrysler as the No 3 auto seller in the US for the first time during a calendar year. According to figures released on 3<sup>rd</sup> January by Autodata Inc (Rochester, Minnesota), Toyota ended 2006 with 15.4% of the US automotive market, compared with DaimlerChrysler's 13.3%. Industry analysts credited Toyota's success to its reputation for quality and fuel efficiency as high gasoline prices over much of the year sent American consumers back to cars from fuel-guzzling trucks and sport utility vehicles.

Ford Motor Co ended 2006 with 16.4% of the US market, retaining its No 2 position, despite having been eclipsed in sales by Toyota for the first time in July and again in November. But Ford almost certainly will be surrendering second place to Toyota before very long. Having lost \$7 billion during the first three quarters of 2006, Ford is now launched on a major restructuring to shrink its factory capacity. The other member of Detroit's Big Three producers – General Motors Corp, the world's largest automaker – reported a drop of 8.7% in sales for 2006 compared with 2005. Its market share was 24.3% for 2006, with just over 4 million vehicles sold. Industrywide, US sales dropped 2.6% for 2006 to about 16.5 million from just under 17 million in 2005, Autodata said.

#### Of related interest . . .

- ❖ To gain access to a growing segment of the automotive market in which it now has no significant position, the Chrysler Group of **DaimlerChrysler AG** has agreed with China's **Chery Automobile Co** on a plan for the Chinese manufacturer to build small cars to be sold worldwide. They will be offered through Chrysler dealerships in the US, Europe, and elsewhere under the Chrysler Group brand Dodge, Chrysler, or Jeep. According to a Chrysler spokesman the cars, still in the design stage, are to be based on an existing model but modified by Chrysler and Chery engineers. Chrysler had wanted for some time to enter the global market for small cars, but was deterred by the high labour and other costs of production in the United States.
- ❖ In another joint small-car initiative, together with its major shareholder **Ford Motor Co**, of the US, **Mazda Motor Corp** of Japan plans to invest more than \$430 million to build a plant in Thailand. The Tokyo-based business daily *Nihon Keizai* had reported last autumn that Mazda was set on playing a key role in Ford's small-car operations to exploit growing demand for fuel-efficient Mazdas in the US and Europe. The paper said Mazda and Ford want to begin operations in 2009 at the Thai plant, which is to roll out some 200,000

vehicles per year including the 1.3-litre Mazda Demio, intended mainly for the North American market. Mazda's longer-range plans include a factory of its own, possibly in Mexico, to start operations after 2010.

- ❖ In other news of **DaimlerChrysler**, the company on 3<sup>rd</sup> January said a proposed joint venture with **China Motor Corp** to make vans had won the approval of Beijing, paving the way for expanded capacity in China. According to a Beijing-based DaimlerChrysler spokesman, Daimler, China Motor, and the **Fujian Motor Industry Group** received permission from the Ministry of Commerce for a \$264 million venture to build as many as 40,000 Mercedes-Benz vans a year.

Meanwhile, as reported in *Indiatimes.com* (3<sup>rd</sup> January), DaimlerChrysler India realised volume sales growth of 11% last year and sees 'immense potential' for even more buoyant growth ahead. Also in 2006, the DaimlerChrysler Research and Technology Center – the US company's R&D unit in Bangalore – completed 10 years in India.

## Telecom

### Experts say communications disaster planning is urgent

The grade 6.5 earthquake in the ocean off Taiwan on 26<sup>th</sup> December jolted Chunghwa's undersea cables and disrupted communication between the US and China. When the fibre optic cables owned by the largest Taiwanese telecom operator were damaged, call volume fell by half and Internet usage slowed to a crawl. The routes were restored fairly quickly, but according to experts the episode highlights the vulnerability of international telecommunications in a global economy that has grown dependent on real-time connectivity.

According to *Einnews.com*, the earthquake and aftershocks that jolted Asia for hours and reverberated in broken US-China connections for weeks also raised the stakes for \$500 million in planned investment in new trans-Pacific undersea cables. ('Earthquake Exposes Worldwide Telecommunications Vulnerabilities,' 28<sup>th</sup> December). "Natural disasters can expose weaknesses in global communications," said Ken Zita, chairman of the Pacific Telecommunications Council conference 'PTC'07: Beyond Telecom,' 14<sup>th</sup>-17<sup>th</sup> January in Honolulu, Hawaii (US). "Despite the latest network management technologies, traffic concentration remains susceptible to strong natural hazards."

PTC'07 was expected to draw telecom executives from over 60 countries to discuss emergency communications and disaster management. Session topics included rapid deployment of communications tools in times of disaster and the establishment of emergency tactical plans for critical communications facilities. Founded in 1980, the Pacific Telecommunications Council is an international non-profit organisation, based in Honolulu, with a mission to promote the development, understanding, and beneficial use of telecommunications and information technology throughout the Pacific region.

According to David Lassner, who heads the PTC board of governors, the earthquake off Taiwan underscores



the importance of emergency planning. "Global telecommunications cannot be underestimated," he told *Einnews*. "Everything from billions of dollars in international trade to personal communication is silently carried by our industry. When we go dead, the world goes dead."

### Elsewhere in telecom . . .

- ❖ In the last quarter of 2006, shares of **Motorola Inc** – the world's second-largest mobile-phone maker – dropped the most in more than four years. The Schaumburg, Illinois-based company had introduced cheaper phones in China and India to meet competition from companies, including market leader **Nokia Oyj**, hurting Motorola profit. Nokia, of Finland, is China's top handset seller, with a market share of 36.6% in the third quarter, as compared with Motorola's 23.3%, according to researcher IDC. China is the world's largest mobile phone market by number of users.
- ❖ The networking and communications technology company **Cisco Systems, Inc** (San Jose, California) expects to triple its employees in India, from the current 2,000, in three to five years. John Chambers, Cisco's chief executive, said in December last year that half of all future growth in the workforce would come from India and that the company was considering setting up a manufacturing plant there. Cisco said it had dedicated more than \$750 million of the \$1.1 billion investment announced in 2005 toward research and development and training in India.

## Steel

### Fewer steel exports from China may ease trade friction with the US

Steel exports from China, supplier of one-third of the world's steel, could drop as much as 23% in 2007 – to 40.1 million tons from 52.1 million tons last year – as a result of government cuts in tax incentives, according to the China Iron and Steel Association. Lower steel exports would help trim China's growing trade surplus with the US, a source of chronic friction between the two countries. In October, the last month for which figures are available, the Chinese sold a record \$24.4 billion more goods to Americans than it imported from them.

China, which makes more steel than the US, Russia, and Japan combined, has since 2004 tightened up on bank loans and shut mills to rein in capacity growth. Even so, a near-doubling of steel exports last year intensified concern in the US that China is unfairly aiding producers with subsidies, tax breaks, and a weak currency – charges denied by Chinese officials. "China's rising steel exports were purely a result of market demand," Wang Shouwen, foreign trade director at the Ministry of Commerce, told *Bloomberg News* (20<sup>th</sup> December) in Beijing. "[In 2007] China will continue to discourage the exports of low value-added products."

Mr Wang said that more talks with the US on steel export issues were planned for the first half of the year. China, which became a net steel exporter only in 2005, has held nine rounds of such talks with South Korea, 11 with Japan, and two with the United States.

### Barriers to high-grade steel imports are dropped by the US

In a victory for US and Japanese auto makers, federal trade regulators revoked most of the tariffs and duties on imports into the US of the carbon steel used in cars. The 14<sup>th</sup> December vote of the International Trade Commission (ITC) put an end to tariffs and duties on corrosion-resistant steel sheet imported from Canada, France, Australia, and Japan. Only steel from Germany and Korea will continue to face the duties, imposed since 1993.

DaimlerChrysler, Ford Motor, and General Motors had joined the Japanese auto makers Honda Motor, Nissan Motor, and Toyota Motor in seeking an end to the tariffs. They claimed to have been hit with \$3 billion in additional costs since 2004 because of steel prices rendered artificially high by the barriers to imported steel.

The ITC action offers the promise of help for the struggling US auto industry and manufacturers in many other industries that use steel. But it was not welcome news to US steel makers, who say the tariffs helped stem the dumping of low-priced and subsidised imports that almost destroyed the domestic steel industry in the 1990s.

- ❖ **Nucor Corp** (Charlotte, North Carolina) said on 2<sup>nd</sup> January that it had agreed to acquire the **Harris Steel Group**, of Canada, for \$1.07 billion. Already the second-largest American steel producer, Nucor operates mini-mills in 18 states across the US and has been seeking to broaden its scope. Its relationship with the Canadian steel maker dates to 2004, when Nucor paid \$21 million to acquire a 50% stake in Harris's 11 reinforcing steel products operations in the United States. Harris, based in North York, Ontario, also has 23 plants in Canada. On completion, the deal will be the biggest-ever for Nucor.

### First acquisition for Arcelor Mittal is a Mexican steel company

The European steel makers Mittal Steel Co NV (Rotterdam) and Arcelor SA (Luxembourg) announced on 20<sup>th</sup> December last year that they had bought Mexico's Sicartsa from Grupo Villacero for \$1.44 billion. As well as an integrated steel plant, a mini-mill, and two rolling mills in Mexico, the deal includes the acquisition of the mini-mill Border Steel Inc (Vinton, Texas).

Mittal is in the process of completing its \$33.4 billion acquisition of Arcelor. The combination, due to be completed by April or May, establishes Arcelor Mittal as a giant with close to 10% of global steel production.

The companies said their combined forces in Mexico would lead to the creation of Mexico's largest steel producer, with an annual capacity of 6.7 million tons. Besides the acquisition of Sicartsa, Arcelor Mittal also enters into a 50-50 joint venture with Grupo Villacero to distribute its long steel products in Mexico and the southwestern United States.

Sicartsa had revenue of \$956 million in 2004, but its sales were curtailed by a labour strike that halted production for 46 days in 2005 and for four months of 2006. Border Steel had 2005 sales of \$110.8 million.





Arcelor Mittal CFO Aditya Mittal said his company saw significant potential for improving the profitability of Sicarta. The decision to expand into Mexico was prompted by expectation of annual growth in the Mexican market of up to 6% over the next 10 years.

## Elsewhere in metals . . .

❖ **Alcoa**, the world's largest producer of primary aluminium, on 4<sup>th</sup> January announced the formal opening of its aluminum brazing sheet plant in Kunshan City, China. Established in April 2006 as a joint venture of Alcoa and Yencheng Engraving, **Kunshan Aluminium Products Co Ltd** produces heat exchanger materials for automotive and other industrial HVAC applications and complementary alloy aluminium products.

It is Alcoa's third flat-rolled products facility in China. At full capacity Kunshan Aluminium would produce 50,000 mtpy of aluminum brazing sheet, primarily for the Asian automotive market.

Kunshan Aluminum has two other brazing sheet operations: in Lancaster, Pennsylvania, near Alcoa world headquarters in Pittsburgh; and at Kofem, in Hungary. Alcoa also produces aluminium rolled products at **Alcoa Bohai Aluminum Industries Co Ltd**, a joint venture with China International Trust & Investment (CITIC), based in Qinghuangdao, China; and at the **Alcoa Aluminum Products Ltd** facility in Shanghai. The American company said that the Bohai plant is the largest foil producer and exporter in China.

❖ The Canadian aluminium producer **Alcan** said it would invest \$1.8 billion over 10 years to expand its smelter operations in the Saguenay-Lac-St-Jean region of Quebec, Canada. The expansion is expected to create 740 high skill jobs over the period, and 1,200 to 1,500 construction jobs.

## China pulls back on preferential treatment for overseas firms

Even as the US hails China's expression of intent to curb steel exports ('Fewer Steel Exports from China,' above), another Chinese initiative will be far less welcome to American companies doing business in China. Beijing has begun implementing a plan to do away with the low tax rates available to 'foreign-invested' firms that had been a major factor in attracting overseas direct investment.

As of the New Year, foreign companies active in China are required to pay land-use tax, formerly imposed solely on Chinese firms. And the standing committee of the National People's Congress is expected to approve a new corporate income tax structure that will have foreign and domestic firms paying taxes at the same rate. The Chinese legislature will likely dictate a single tax rate of 25% by the end of 2007.

Beijing clearly wants to discourage investment in several sectors as a means of cooling down its economy. According to Saibal Dasgupta, writing from Beijing in the *Times of India*, the withdrawal of foreigners' 'privileges' will effect a major transition that brings China closer to the Indian model: "If the absence of direct elections and parliamentary democracy made it possible for China to implement

the differential tax system, economic reasons are now prompting" the withdrawal of accommodations extended to overseas interests over 20 years. ('China Ends Tax Benefits for Foreign Companies,' 3<sup>rd</sup> January).

## Aero notes . . .

❖ **The Mesa Air Group** has said it will become the first American passenger airline to operate flights out of mainland China. The Phoenix, Arizona-based company said in December last year that it plans to sign a joint operating agreement with **Shenzhen Airlines**, whose fleet of 45 planes flies 100 routes within China and Southeast Asia. According to Mesa's filing with the US Securities and Exchange Commission, the as-yet-unnamed new airline expects to begin service within 12 months, in time for the Beijing Olympic Games in 2008. An initial operation of 20 regional jets will serve Shenzhen, Beijing, Nanjing, and Zhengzhou.

❖ On 21<sup>st</sup> November last year **Korean Air Lines** ordered 25 planes from **Boeing Co** (Chicago) in its largest-ever deal as it seeks to benefit from rising demand for passenger and cargo flights. *Bloomberg News* reported that South Korea's biggest carrier ordered 15 short-and-long-range passenger aircraft and 10 freighters, which it expects to begin receiving in 2009. The airline said the order was valued at as much as \$5.5 billion at list prices.

## IMF director sees strength in '07 despite slowdown in the US

The global economy will remain strong this year as Europe and Asia compensate for a slowdown in the US, according to International Monetary Fund Managing Director Rodrigo de Rato. "We are moving into another year of strong growth," Mr de Rato told reporters in Basel, Switzerland, on 8<sup>th</sup> January. "We certainly see strong growth in Europe, a continuation of growth in Japan, and we see very strong growth in many emerging economies."

While a housing slowdown is cooling growth in the US, unemployment in Germany in December dropped the most since 1990 and business confidence in Japan rose to a two-year high. The IMF head said a US slowdown would not be severe enough to derail the global economy.

The IMF in September 2006 forecast that the global economy would expand 4.9% this year, down from 5.1% in 2006. Mr de Rato in January declined to say whether he would revise those projections.

He did say that 'complacency' should nonetheless be avoided as 'ample liquidity' in the global economy helps boost asset prices and reduces the price of risk.

Mr de Rato also said the price of oil, which has gained almost 25% in the last two years, posed an inflationary threat. The IMF, essentially a Washington-based lender, describes itself as 'an organisation of 184 countries working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty.'

**Dorothy Fabian – Features Editor**



## 移民政策

### 2007年第一新生儿引发美国非法移民政策大争论

本来关于2007年美国降生的第一个婴儿的故事应该和这个栏目无关,但今天我们不得不谈一谈。目前关于非法移民的争论已经波及整个国家,言辞无不用其极。

本来今年降生的第一个美国婴儿的身份并没有什么问题。这位女婴降生在《线缆亚洲》在纽约曼哈顿的办公室附近的纽约城市医院。她是新年刚刚到来时候降生的,是个中国美国混血儿,并赢得了国际玩具连锁Toys 'R' Us及其美国分部Babies 'R' Us提供的25,000美元的储蓄券。

但是很快这位名为Yuki Lin,从新年到来就成为美国公民的新生儿的奖金被取消了。纽约每10个新生儿中,有6个是移民子女,她也不例外。但有一点很重要,她的母亲是非法移民。

根据《纽约时报》记者Nina Bernstein的报道,一位公司律师Albert Wang从“中文世界期刊”网站得知了这件事情。他给华人圈子里的高层人士,包括亚洲美国商务发展中心总裁和美国华人组织的官员去了愤怒的邮件。Toys 'R' Us在中国上海刚刚开设了一家分店,现在处于被媒体猛烈抨击的不利地位。(见1月5日的《第一婴儿引发移民政策争论风潮》)

王律师在采访中表示:“Toys 'R' Us希望在中国拓展业务,而且他们的多数产品产自中国,但具体到这位中美混血儿,他们就取消了给她的用于大学教育的25,000美元的奖金,而原因来自她的父母。”

Toys 'R' Us刚开始坚持表示只能给Yuki Lin纪念奖,包括一个礼品篮和100美元储蓄券,和给其他参加此次比赛的婴儿无异。不到一个星期,Toys 'R' Us认识到了问题所在,立刻表示收回奖金也不是公司的统一意见,并表示非常遗憾。Toys 'R' Us宣布将发放三个25,000美元的奖金,包括Yuki Lin和其他两位落选婴儿。

❖ 王律师在接受《时报》采访时表示他对他的客户得到公正表示满意。他还表示这个事件表明美国的移民政策发展到了一个新的阶段。当问及有些人担心Toys 'R' Us事件的高曝光度会暴露Yuki Lin父母的非法移民身份(两人都是22岁的餐馆服务人员)。王律师表示:“风暴最安全的就是风眼,现在如果有官员说要遣返Yuki Lin的父母,就意味着他政治生涯的结束。”

在另外两位获奖婴儿中,新年来临19秒里降生的Jayden Swain的祖母据称是黑人,是标准的美国人。另一位婴儿是Yadira Esmeralda,父母是来自萨尔瓦多的移民。了解其他竞争者的背景是很有意思的。根据生育在线的消息,另外一位未能入围的在新年来到出生的婴儿名为Odunayo Muhammed,来自尼日利亚移民家庭。

### 美国技术行业需求更多外国劳工签证

发放给海外劳工的特别签证及其对美国人工作岗位的影响在这次移民政策大争论中并没有占据重要位置。但是,根据一位前技术高层(同时是印度移民)1月3日提供的研究报告,美国公司用来雇佣从事计算机编程和系统分析的海外员工的H-1B签证上存在相当的争议。

杜克(Duke)大学(北卡罗来那州达勒姆)教授Vivek Wadhwa在研究中发现过去十年中25%的美国新成立技术和工程公司有至少一位国外出生的创始人。他的研究是杜克大学研究人员对2,054个公司和项目采访的结果。研究发现,主要来自印度和中

国的移民帮助成立了数百家美国公司,销售额达到大约500亿美元。

Wadhwa教授表示:“我的研究表明移民已经成为美国新公司和新知识产权的重要推动力量。他们对美国的贡献在过去十年中显著增长。”

次日,在《华盛顿邮报》上Krissah Williams报道技术行业的院外集团已经在说服国会提高H-1B签证配额的活动中引用了Wadhwa的研究报告。她的报道写道:“技术公司表示他们无法找到足够的美国人来从事这些工作。”

另外一些支持者表示在全球化格局下美国公司应该引入外国人才。”(见《研究表明移民在新建公司中扮演重要角色》)。

技术行业在去年就发起了移民政策改革的全国大辩论,但国会直到休会也无动于衷。

技术行业院外集团想重启这个法案,他们的要求包括:把H-1B签证的配额从65,000个提高到115,000个,取消对某些高精尖人才的绿卡配额限制,简化发放有从业资格的绿卡的处理流程。这些文件可为非公民提高部分公民权力,一般是移民归化的初始要求。

Williams女士报道说这个扩大引进海外劳工的计划,虽然被一位技术行业院外集体人士称为“许多公司的强心剂”,会引起那些希望严格控制移民的人的强烈反弹。

移民研究中心的Jessica M Vaughan在接受《华盛顿邮报》的采访中表示增加绿卡配额相当于给这些公司发补贴,因为他们可以使用更多廉价海外劳工。

❖ Wadhwa的研究覆盖了1995年到2005年的新建工程公司和技术公司的创始人,并分析了世界知识产权组织专利合作协议的数据库。更加震撼的统计结果是2006年大约25%的专利是移民提交的。

## 汽车行业

### 丰田超越戴姆勒克莱斯勒,位居美国市场第三

丰田汽车2006年业绩达到有史以来的顶峰,总共售出250万辆车,比上年增长12.9%。公司的日本市场份额在2005年底的13.3%的基础上有两个百分点的增长。在美国市场,丰田首次超过了原来排名第三的底特律戴姆勒克莱斯勒。

根据Autodata Inc(明尼苏达州罗彻斯特)1月3日公布的数据,2006年丰田公司在美国的市场份额是15.4%,超过了戴姆勒克莱斯勒的13.3%。

行业分析人士把丰田的成功归功于重视质量和低油耗。去年长期的高油价使很多美国人放弃高油耗的卡车和运动车,重归低油耗的轿车的怀抱。

福特汽车2006年的美国市场份额为16.4%,虽然销售量在7月和11月低于丰田。不过,福特很有可能在不久的将来把第二的位置让给丰田。由于在2006年前三个季度亏损了70亿美元,福特正在通过重组砍掉过多的生产能力。

底特律三巨头排名第一的通用仍然是世界最大的汽车制造商,2006年的销售额比2005年低8.7%。通用2006年的市场份额为24.3%,销售量刚刚超过400万辆。

根据Autodata的统计,从整个行业的角度讲,美国汽车销售量2006年下降了2.6%,从2005年将近1,700万辆下降到1,650万辆。





## 其他汽车行业新闻...

- ❖ 为了在快速发展的世界市场获得更大的份额，戴姆勒克莱斯勒和中国吉利汽车达成协议，让吉利为戴姆勒克莱斯勒生产旨在出口的小型轿车。这些轿车将以克莱斯勒下属的道奇、克莱斯勒和Jeep品牌在美国、欧洲和其他地方发售。根据克莱斯勒发言人的说法，这些轿车还在设计阶段，其原型来自已有车型，但将被克莱斯勒和吉利的工程师修改。克莱斯勒希望在世界小型轿车市场上赢得更多份额，但受困于美国制造的高额劳务成本和其他成本。
- ❖ 日本马自达和其美国股东福特也有推出小型轿车的计划。两家公司计划投资4.3亿美元在泰国建设一家制造厂。《日本产经新闻》东京报道称去年秋马自达决定参与福特的小型车计划，为美国和欧洲市场提供省油的小型轿车。《产经新闻》称马自达和福特计划在2009年开始生产，计划年产量20万辆，车型包括1.3升的Demio，主要供应北美市场。马自达还计划在墨西哥兴建一个自己的工厂，计划在2010年后投产。
- ❖ 戴姆勒克莱斯勒1月3日表示将与中华汽车公司合作生产旅行车，并且已经得到中国政府许可，这为戴姆勒克莱斯勒在中国的扩张铺平了道路。据常驻北京的戴姆勒克莱斯勒发言人Daimler表示，中华汽车公司已经得到商务部许可，同意投资2.64亿美元兴建这家工厂。该厂年产能将为4万辆梅赛德斯一本茨旅行车。

另外，根据《印度时报》1月3日的报道，戴姆勒克莱斯勒印度子公司去年的销售额上升了11%，并认为今年的增长潜力还很大。2006年还是戴姆勒克莱斯勒设在班加罗尔的研发中心成立10周年。

## 电信行业

### 专家表示防灾计划十分紧迫

12月26日发送在台湾外海的6.5级地震毁坏了中华电信的海底电缆并严重影响了美中之间的通讯。

当排名台湾第一的中华电信的光缆受损后，中美之间的通话量下降了一半，因特网速度变为爬行。虽然链路得到了很快恢复，但据专家意见，这个事件折射出在全球经济越来越依赖实时连接条件下国际电信行业的脆弱性。

根据Einnews.com的消息，这次地震及其后果在数小时内给亚洲造成了严重影响，并给美中之间的连接造成了数星期的影响。这给准备投资5亿美元建设的新跨太平洋海缆计划蒙上了阴影。（见12月28日《地震暴露世界电信的脆弱性》）

在1月14日到17日在火努鲁鲁举行的题为《超越电信》的太平洋电信会议（PTC' 07）上，主席Ken Zita表示：“自然灾害暴露了全球电信行业的脆弱性，虽然有最先进的网络管理技术，集中的流量难以抗拒自然灾害的打击。”

PTC' 07计划召集60个国家的电信高层来讨论应急通信和灾害管理议题，具体包括灾害期间快速部署通信工具和为关键电信设施设立应急计划。

设立于1980年的太平洋电信会议是一家非盈利国际组织，总部设在火努鲁鲁。组织的宗旨是促进太平洋地区电信和信息技术的发展、了解和应用。

PTC理事会主席David Lassner表示，台湾海外发生的地震折射出应急计划的重要性。他告诉Einnews：“全球电信行业绝不可低估。从数百亿美元的网上交易，到个人通信，都通过我们的行业静静传递。我们出事，世界就会出事。”

## 其他电信新闻...

- ❖ 世界排名第二的手机制造公司摩托罗拉公司的股票在2006年4季度发送了4年多以来的最大一次跳水。位于伊利诺斯州绍姆堡的这家公司在中国和印度连续推出廉价手机，以应对诺基亚等竞争对手的挑战，这严重影响了公司的利润。根据调研公司IDC提供的数据，做为世界最大的手机制造商，芬兰诺基亚在中国市场2006年第三季度的份额是36.6%，相比之下摩托罗拉是23.3%。
- ❖ 位于加州圣何塞的网络和通信技术公司思科计划把印度的雇员人数从目前的2,000人在三到五年内扩大三倍。思科的首席执行官钱伯斯去年12月表示未来雇员增长人数的一半将来自印度，公司还在考虑在印度设立制造工厂。思科宣称已经投入了2005年宣布的11亿美元投资计划中的7.5亿美元用于印度的研发和培训工作。

## 钢铁行业

### 中国减少对美国钢铁出口有助于减轻两国贸易摩擦

根据中国钢铁协会公布的消息，由于政府削减税务优惠，占世界产量三分之一的中国的钢铁公司的出口量2007年将从2006年的5,210万吨降至4,010万吨，下降23%。

钢铁出口的下降有助于降低中国对美国的贸易盈余，缓解两国长期以来的纷争。根据去年10月份的数据，中国对美国的贸易盈余达到了244亿美元。

中国的钢产量已经达到美国、俄罗斯和日本的总和，自2004年开始，中国政府通过收紧银行贷款和关闭钢厂来限制产量增长。即便如此，中国钢铁产量去年仍然翻了一番。美国指责中国为钢铁公司提供补贴、税收减免并保持人民币币值低估。中国方面对此予以否认。

根据中国商务部对外贸易司司长Wang Shouwen在北京表示（见12月20日Bloomberg News）：“中国不断增加的钢铁出口纯属市场需求，中国将持续采取措施降低低附加值产品出口。”

Wang表示今年上半年将计划与美国就钢铁出口展开多轮谈判。中国是从2005年才开始成为钢铁净出口国的，目前已经与韩国展开了9轮谈判，日本11轮，美国2轮。

### 美国取消对高级钢材的关税

在美国和日本汽车制造商的成果游说下，联邦政府取消了轿车用高级钢材的大部分关税。根据国际贸易委员会(ITC)12月14日的投票结果，对来自加拿大、法国、澳大利亚和日本的不锈钢板的关税取消了。这样，根据这项1993年生效的法案，只剩下德国和韩国的产品仍然需要征收关税。

戴姆勒克莱斯勒、福特和通用与日本的本田、尼桑和丰田一道为关税取消而努力。它们声称，由于人为的制造的进口限制导致的高价格，它们自2004年以来付出了30亿美元的额外成本。

ITC的投票结果表明政府将帮助汽车制造业等用钢大户。但对美国钢铁企业而言，这并非喜讯。美国钢铁业90年代认为关税有助于防止低价钢和补贴钢的进口摧毁美国钢铁行业。

- ❖ 位于北卡罗来纳州夏洛特的Nucor Corp. 1月2日宣布将出资10.7亿美元购买加拿大的Harris Steel Group。已经是美国第二大钢铁企业的Nucor在18个州都有钢厂，并在寻找机会扩展业务。它与加拿大钢铁公司的业务关系始于2004年，当时



Nucor支付2.1亿美元购买了Harris在美国的11家强化钢产品生产厂。Harris总部设在安大略省的North York, 在加拿大也有23家工厂。如果能够顺利完成, 这将是Nucor的最大一次购并。

## Arcelor Mittal在墨西哥第一次购并钢铁企业

根据位于鹿特丹的Mittal Steel Co NV和卢森堡的Arcelor SA去年12月20日联合发布的消息, 两公司出资14.4亿美元, 买下了Grupo Villacero旗下的墨西哥Sicartsa。

这次交易除了在墨西哥的一家全生产线厂、一家小型钢厂和两家轧钢厂, 还有一家位于德克萨斯Vinton的名为Border Steel Inc小型钢厂。

Mittal还准备出资334亿美元兼并Arcelor。这两家公司如果能够如期在4月或者5月合并, 新公司Arcelor Mittal将具备控制全球钢产量10%的能力。

两家公司表示两公司在墨西哥的联合购并活动将产生墨西哥最大的钢铁企业, 年产量达到670万吨。

除了购并Sicartsa, Arcelor Mittal还计划与Grupo Villacero各投资50%组建一家合资企业, 负责墨西哥和美国南部的钢长材系列产品。

Sicartsa 2004年的收入为9.56亿美元, 但由于劳资纠纷, 其生产在2005年被迫中止46天, 2006年中止4个月。Border Steel 2005年的销售额为1.108亿美元。

Arcelor Mittal的首席财务官Aditya Mittal表示他的公司认为Sicartsa的盈利能力大有潜力可挖。决定进入墨西哥市场的原因是据调查墨西哥市场将在今后10年内以6%的速度扩展。

## 其他金属行业新闻...

❖ 世界最大的原铝公司美铝公司1月4日宣布其在中国昆山的铝复合板工厂正式投产。这家名为昆山铝制品公司的合资企业是美铝公司和Yencheng Engraving组建的, 主要生产汽车和其他工业HVAC (供热通风与空调工程) 应用所需的热交换器铝材以及其他补充性铝产品。这家工厂是美铝在中国的第三家平轧产品企业。全面投产后, 该企业能够年产50,000 MTPY铝复合板, 主要供应亚洲地区的汽车制造业。

美铝公司还有另外两家铝复合板厂, 一家位于美铝公司总部附近的宾夕法尼亚州兰开斯特, 另一家位于匈牙利的Kofem。美铝公司还在与中信实在秦皇岛成立的美铝(渤海)铝业有限公司(Alcoa Bohai Aluminum Industries Co Ltd)和在上海独资的美铝铝制品公司生产铝轧产品。据美铝公司称, 美铝(渤海)是中国最大的铝箔制品生产公司和出口公司。

❖ 美铝公司宣布将在10年内投资180亿美元扩建其在加拿大魁北克Saguenay-Lac-St-Jean地区的铝熔炼厂。这次扩建将增加740个高技术岗位和1,200到1,500个建筑岗位。

## 中国取消对外资企业的优惠税率

就在美国要求中国控制钢铁出口的同时(见上文《中国钢铁出口量减少》), 中国政府出台了一项非常不受在华美国公司欢迎的政策。中国政府正在执行一项取消对外商投资企业执行的低税收的政策。对外商投资企业执行低税收是中国吸引外国投资的一项重要措施。

就在新年到来之际, 外国公司被要求缴纳以往只有中国公司才缴纳的土地使用税。

而且, 人大常委会有望通过一项新的企业所得税法。根据新法案, 外国公司和中国公司的企业所得税率将统一。人大常委会可能在2007年将统一税率设定在25%。

中国政府很明显想降低对某些领域的投资, 以防止经济过热。根据《印度时报》驻京记者Saibal Dasgupta的报道, 取消外资企业的“特权”将使中国经济更加接近印度经济模式: “由于缺乏直选和议会政治的原因, 中国执行了区别税率的税务体系。现在由于经济原因, 中国将取消业已存在20多年、保护外国利益的政策。”(见1月3日《中国取消对外资企业的优惠税率》)

## 航空新闻...

❖ Mesa Air Group宣布其将成为第一个在中国大陆经营客运航线的美国客运航空公司。这家位于亚利桑那州凤凰城的公司去年12月宣布将与深圳航空公司签订合作协议。深圳航空公司有一个45架飞机的机队, 在中国和东南亚有100条航线。根据Mesa提交给美国证监会提交的报告, 这条还没有命名的航线将在一年内投入运营, 赶得上北京2008年奥运会的时间。初步将投入20架支线客机, 航线包括深圳、北京、南京和郑州。

❖ 高丽航空公司去年11月21日给波音公司下了有史以来最大的一个订单, 订购了25架飞机, 以满足不断增长的客运和货运所需。根据Bloomberg News, 高丽航空公司订购了15架短程客机和10架货运飞机, 预计到2009年交货。高丽航空公司称这些飞机的目录价格为55亿美元。

## IMF董事认为美国经济下滑不妨碍2007年全球经济增长

根据国际货币基金组织(IMF)执行董事Rodrigo de Rato的看法, 2007年由于欧洲和中国经济的发展弥补了美国经济的下滑, 全球经济的表现仍然将十分强劲。

De Rato在1月8日于瑞士巴塞尔接受记者采访时表示“我们将看到新一年的高速增长, 我们已经看到欧洲经济的高速增长, 日本经济的持续增长, 而且新兴国家的经济增长也很强劲。”

虽然房价的下滑使美国经济陷入冰冷, 德国的失业率降到了1990年以来的最低点, 而日本经济的信心指数也达到了两年来的最高点。De Rato表示美国经济的下滑不会使全球经济出轨。

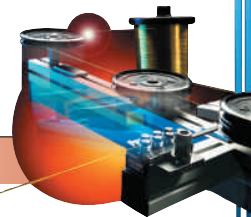
IMF曾于2006年9月预计2007年全球经济增长率为4.9%, 低于2006年的5.1%。De Rato在接受采访中谢绝表示他是否调整该预期。

但他表示, “满意”并不意味着推高资产价格和降低风险成本的“充足流动性”。他表示由于油价过去两年中上涨了25%, 有推动通胀的危险。

位于华盛顿的IMF是一家借贷机构。它对自己的定义是“由184个国家组成、为强化货币合作、保持财政稳定、促进国际贸易、提高就业率、稳定经济增长和减少贫困的组织”。

Dorothy Fabian – 专栏编辑





## Resists corrosion in harsh environments

Metallurgically bonded platinum or nickel-clad molybdenum wire for use in devices subjected to high temperatures, high vacuum and oxidation, is available from Anomet Products.

Anomet clad molybdenum wire is a metallurgically bonded alternative to solid wire and is capable of withstanding temperatures up to 1,200°C, depending upon the material and application.

Featuring either platinum or nickel cladding, and depending upon the desired surface properties, this metallurgically bonded wire is available straight, spooled or as ribbon.

Providing superior ductility, formability and weld-ability, against wire that is plated or produced using deposition methods, Anomet clad molybdenum wire is offered in sizes from 0.1mm to 1.55mm OD with claddings from 14% to 38% by weight, and 4.5-55 microns, depending upon diameter.

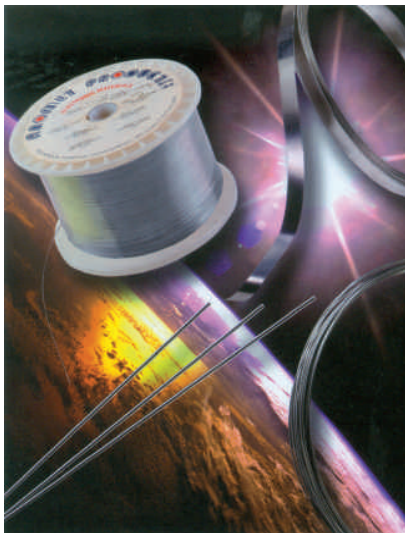
Applications include high vacuum devices and components for furnaces and sensors. Anomet clad molybdenum wire is priced according to configuration and quantity.

### Anomet Products Inc – USA

**Fax:** +1 508 842 0847

**Email:** bgallant@anometproducts.com

**Website:** www.anometproducts.com



▲ Anomet clad molybdenum wire

## GER – they're the machine specialists

GER SA, Belgium, is specialised in the sale of new and second-hand machinery for the wire and cable and tube and sheet works for the ferrous and non-ferrous industry.

As well as selling single machines they have complete plants for steel rod and wire, non-ferrous wire, steel ropes and electrically insulated cables available.

A large stock of machinery is immediately available, but GER will also search for the correct equipment to completely satisfy customer demand.


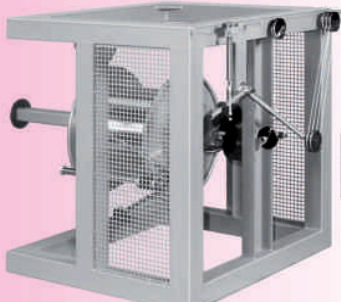



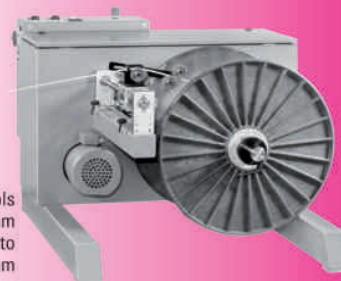
Delivery, installation and the training of operators complete the service offered by the company, which was formed in 1980.

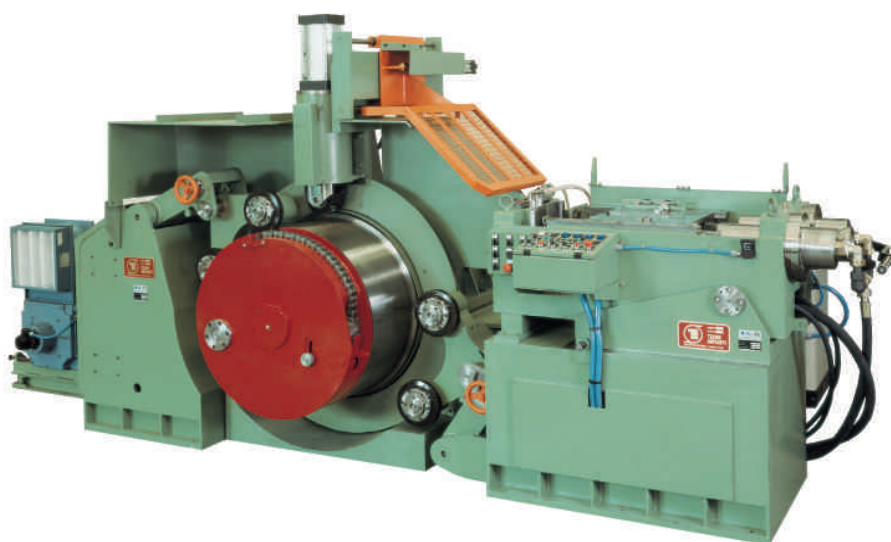
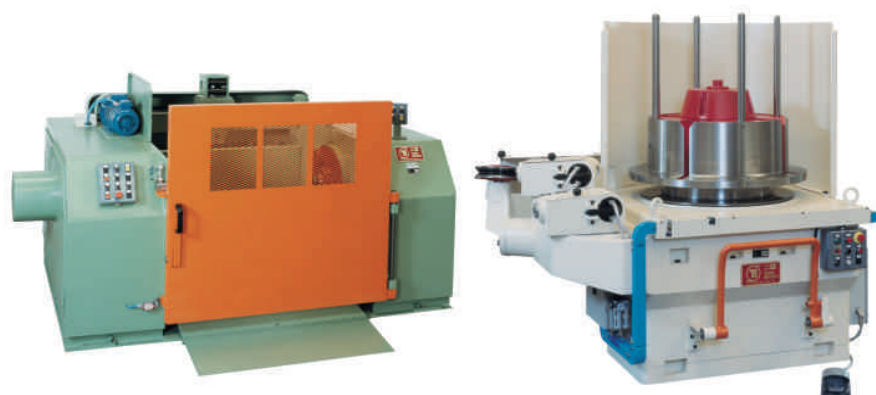
### GER SA – Belgium

**Fax:** +32 8726 0201

**Email:** ger@ger.be

**Website:** www.ger.be

Payoff Flyers		mobac <sup>®</sup> GMBH-KIEL	
<b>Flyer Payoff with dancer accumulator</b>  <p>for spools dia 100 mm to dia 300 mm</p>	<b>Payoff with dancer accumulator...</b>  <p>... and double pivot to pre-load</p> <p>for spool dia 800 mm, tension adjustment by magnetic particle brake or hysteresis brake</p>	<b>Tangential Payoff</b>  <p>Double-tangential Payoff with dancer accumulator for spools dia 160 mm to dia 355 mm</p>	<b>Phone +49 (0)431-65 0277</b> <b>Fax +49 (0)431-65 0511</b> <b>Bunsenstr. 1, D-24145 Kiel</b> <b>www.mobac.de</b> <b>E-mail: mobac@t-online.de</b>
<b>Driven Tangential Payoff</b>  <p>with tension and rpm control by sensor and frequency inverter for single wire, multiwire and flat wire sections for spools up to dia 800 mm</p>	<b>Flyer Payoff to put in bobbin hole</b>  <p>for spools dia 500 mm to dia 1250 mm</p>	<b>Take Up</b>  <p>for spools dia 560 mm to dia 800 mm</p>	
<h2>and Winders</h2>			



**Quality,  
heavy-duty  
wire  
drawing  
machinery.**



**TECNO  
IMPIANTI**

**TECNO IMPIANTI S.r.l.**

**Via Postale Vecchia, 67**

**23857 VALGREGHENTINO (LC)**

**ITALY**

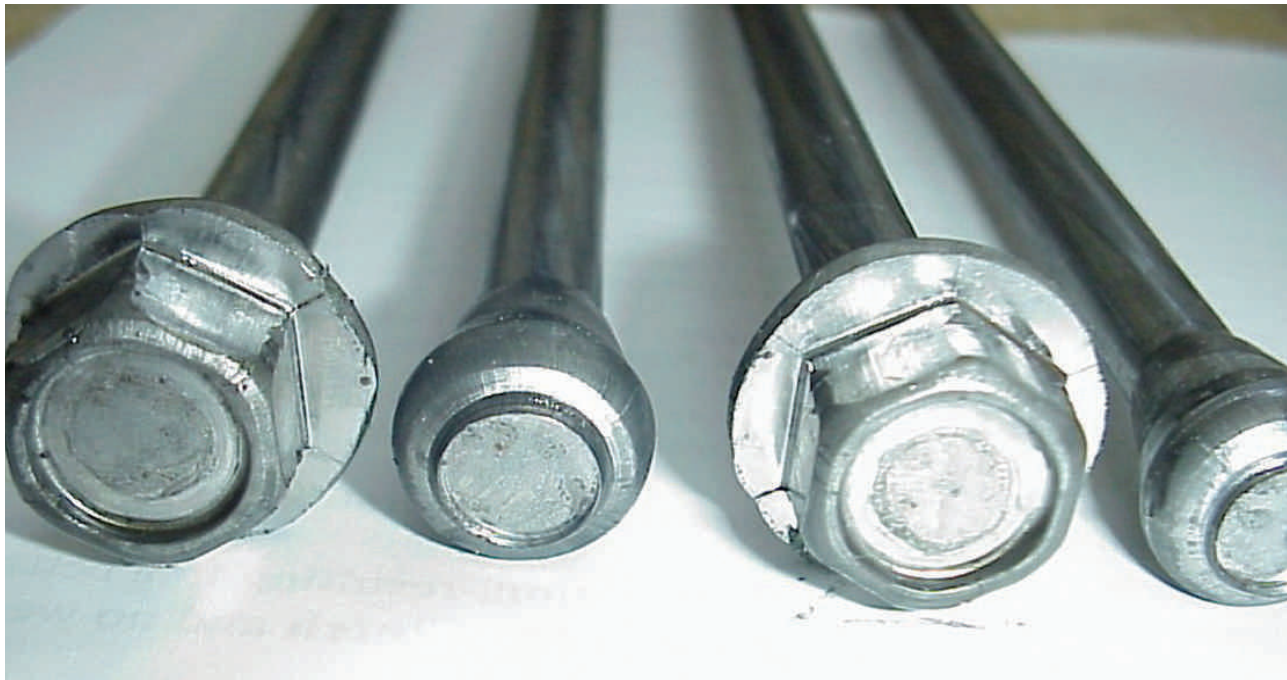
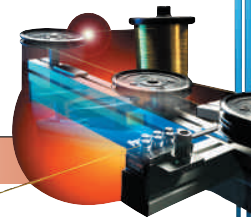
**Tel. +39 0341 60.48.01**

**Fax +39 0341 60.42.89**

**[info@tecnoimpianti-italy.com](mailto:info@tecnoimpianti-italy.com)**

**[www.tecnoimpianti-italy.com](http://www.tecnoimpianti-italy.com)**





▲ Hex washer bolts, headed on Videx rod header

## Videx hand feed cold formers

Videx is offering open die cold formers for long fasteners, with 1 or 2 dies up to 200 ton heading.

The machines are offered either fully automatic from coil, semi-automatic from magazine or hand fed manually by an operator.

The hand feed cold formers are an inexpensive solution for production of small and medium size batches of long parts, headed, collared or extruded.

The machines are very efficient for long parts or for parts which require long strokes.

The gripper dies are mounted in an independent block which is lifted by a pneumatic cylinder and then slides out of the machine, enabling a change-over in minutes.

The stroke is adjusted by an easily accessible nut at the back part of the machine.

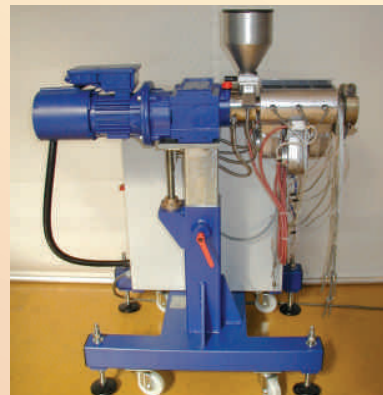
The machine is designed with a slim body that enables feeding of pre-bent parts either from the front or the side.

**Videx Machine Engineering – Israel**  
**Fax:** +972 3536 4802  
**Email:** videx@videx.co.il  
**Website:** www.videx.co.il

## wire 2006 success for Extrudex

Success at wire 2006 in Düsseldorf, Germany, has seen Extrudex receive a large number of enquiries for extruders and follow-up equipment for the production of miniature cables. This has included several successful sales of mini extrusion systems for medical technology.

Due to ever-complex systems in the medical and automation fields, date and power supplies need to be securely provided in the smallest space available. This means conductor diameters in the range of AWG 25-AWG 50 and wall thicknesses in the micron range, for example 20µ. The required tolerances correspond to these and keeping to them is a must for all processes. Extrudex extruders with screw diameters of 12mm and 15mm have a conveying length of 25D. Minimum melt stopovers prevent excessive demands and reduce any quality loss, such as inclusions or burns. In addition to this, possible rejects are kept to a minimum.



▲ Extrudex – keeping rejects to a minimum

Output is between 50 and 3,500gh depending on the material and tools used. The unit is driven by a maintenance-free AC motor. The conveying screw range is designed for standard pellet shapes and can be optimised according to the materials. More than 50% of all enquiries are about fluoroc plastics. Extrudex has long had procedural competence in this area. The extruder for this field is corrosion protected in all material carrying areas and equipped with high temperature heating systems.

Installation of the extruder can be according to the users' needs. There are machine stands with horizontal or vertical adjustability for localised use, of a permanent base frame with integrated gear and temperature controls.

**Extrudex – Germany**  
**Fax:** +49 7041 96 25 22  
**Email:** info@extrudex.de • **Website:** www.extrudex.de



# Plants for P.C. wire, P.C. strand and Hi-Bond

Lines and complete plants for the production of P.C. wire and 3-wire and 7-wire standard, compact and galvanized strand for pre-stressed concrete (normal and low-relaxation)

Batch pickling for wire rod • Drawing • Stranding and stabilizing • Precision layer coil rewinding

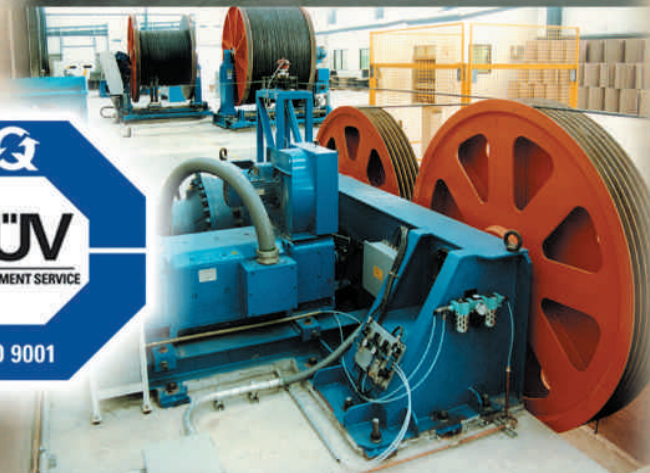
## Hi-bond Lines

Round or grooved medium carbon Hi-bond wire for concrete armoring

In-line mechanical descalers • Bull-blocks with rotating die • Intermediate pinch rolls • Double step thermal treatment (pre/post Curie) • Basket coilers

## Production programme

- Wire rod surface preparation lines (mechanical descalers and/or descalers with brushes, electrolytic pickling, steam pickling, boraxing, lime-coating, phosphating, etc.)
- Surface treatment lines (pre-cleaning, degreasing and/or electrolytic pickling)
- Heat treatment lines
- Mono- and multi-wire electrolytic plating lines
- Units for hot-dip galvanizing lines
- Straight-through dry drawing machines
- Vertical and horizontal wet drawing machines equipped with cones or single capstans, combined with in-line dry drafts
- Double-twist and four-twist stranding machines
- Double-twist bunching and cabling machines
- Spiral wrapping machines
- Skip stranders
- Tubular stranders
- Single and multiple spool pay-offs and spoolers with random or precision layer rewinding take-up systems
- Single and multiple coil pay-offs and coilers with random or pattern lay take-up systems
- Single or multiple-head rewinding lines
- Cold rolling lines
- Complete processing lines
- Complete production plants

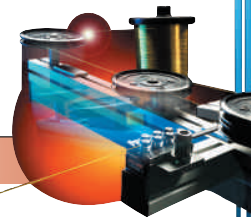


## GCR Eurodraw SPA

Via Camillo Chiesa, 19/21  
20010 Pogliano Milanese (MI), Italy  
Tel. +39-02 93963.1 - Fax +39-02-93540452  
E-mail: [gcr@gcrgroup.com](mailto:gcr@gcrgroup.com) - Web: [www.gcrgroup.com](http://www.gcrgroup.com)

# GCR Eurodraw SPA





## Taking care of small diameters

Increasing manufacturing efficiency and product quality is ever-important in these competitive times.

The cost and the quality of products are essentially determined by the dies used and demand resulting from this, with regard to improved geometric drawing parameters, presupposed a sustained further development of the drawing die processing machines currently in use.

There are two new developments in the wide range of tungsten carbide die working machines from Bremer GmbH in Germany.

The company has developed the new KSP1 and EK2000F machines, especially for small diameters in the range of 0.12-1mm.

In the range of 0.40-6mm Bremer has developed a fully automatic machine, the KPM4AC.



▲ The fully automatic KPM4AC

Both types of machines are using modern computerised technologies and built-in electronic systems.

At first the dies are automatically processed to the meeting point. After the conical section is worked, the dies are automatically transferred to the calibration station, which calibrates the bearing section of the die with an accurate tolerance of 0.001mm.

The system continuously checks the bore diameter and the whole cycle which ensures very close tolerances for radii angle and bore diameter.

These latest developments can eliminate the human factor and produce a perfectly controlled die quality.

To increase customer service, and to provide optimum technical support to all Asian customers, Bremer also has two agent offices in Asia, in Osaka, Japan, and Shanghai, China.

**Willi Bremer GmbH – Germany**

**Fax:** +49 2778 2190

**Email:** bremer-willi@t-online.de

**Website:** www.bremer-willi.de

## Handling fine wire applications

Huestis has introduced a compact fine wire pay-off for strand annealing furnaces.

The FWP1000 is designed to handle fine wire applications with very low process tension.

The stand incorporates an AC variable speed drive and an integral dancer utilising a dancer duty potentiometer.

Combined with an adjustable counterweight, the unit is capable of handling fine wire as small as 0.005" diameter.



▲ Mini spooler from Huestis

Built for maintenance free operation, the stand uses lightweight aluminum sheaves with ball bearing and hard coated v-grooves.

Quick lock arbor collars allow for spool changes without tooling. The dog pin plate includes an adjustable dog pin.

Extremely compact, much less than two square feet, the design allows for single or multiple station installation.

**Huestis Industrial – USA**

**Fax:** +1 401 253 7350

**Email:** sales@huestis.com

**Website:** www.huestis.com

## Experience is golden!

With more than 25 years' experience, Pleuger is one of the leaders for hot-drawing machines for noble materials like gold, silver, platinum and compositions.

The drawing process usually starts with Ø 0.6mm – outlet of the extrusion line – and ends at about 2mm or below 1mm, depending on customer requirements.

The time-saving drawing process is very gentle to the surface of the material and there are a number of advantages in comparison to the standard cold-drawing machines.



▲ Pleuger machines – one of the leaders for hot-drawing machines

Both the drawing temperature and speed are adjustable.

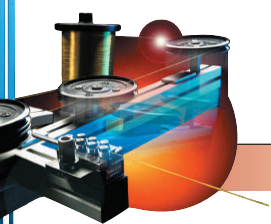
In addition to those drawing machines Pleuger, based in Altena, Germany, also produces pay-offs, take-ups, wet and dry-drawing machines, spooling machines and hot-straightening machines for special materials.

**Pleuger GmbH – Germany**

**Fax:** +49 2352 71973

**Email:** info@pleuger.de

**Website:** www.pleuger.de



## New cast film take-off system

Wayne Machine has introduced a new medium sized 'Yellow Jacket' cast film take-off system that features orientation capability.

This is accomplished by a second chill roll featuring a high precision speed ratio follower drive linked to the main chill roll drive.

The closed loop AC Flux Vector drive system maintains the selected speed ratio between the two rolls, allowing the film to be orientated in the machine direction to the exact degree required. Once set, the motors are constantly monitored with encoders.

The chill rolls feature double shell, spiral baffle construction with mirror finish chrome plating, and are direct driven with independent motors. A nip roll station is an integral part of the take-off system. The nip rolls also feature a precision speed ratio follower drive linked to the second chill roll that maintains the exact amount of film tension desired.

Orientation and tension control are key to achieving critical mechanical property parameters in the finished film, especially when dealing with engineering and highly filled polymers. Various roll finishes are available to make specialised film, such as corrosion-resistant types for Teflon FEP, and anti-stick matte finishes for polyurethane films.



▲ The new 30" (750mm) cast film take-off

A complete emergency stop system opens the nip rolls and stops the chill rolls whenever air pressure drops, the safety chain is pulled or when a mushroom pushbutton is pressed.

Screw jacks provide for easy height adjustment of the entire system. The new 'Yellow Jacket' cast film take-off systems are ideal for adding cast

film capability to existing extruders, as drop-in replacements for existing take-offs or as part of a complete cast film system including extruder, die, take-off and winder.

Complete computer and SCADA control system interface is available for automatic, remote control and data logging and trending.

Custom options, including pay-offs for fibre or paper-backed film are available.

## Keeping set up times to a minimum

Håmex's complete range of exchangeable tungsten carbide inserts for dies and cutters eliminate the need for regrinding and allow replacements instead of the tools having to be scrapped.

The patented dies have a rotatable and exchangeable insert of tungsten carbide with up to three profiles. Changing from one profile to another can be done very quickly, which allows three nail dimensions to be manufactured with minimum set up times.

The cutters have an exchangeable insert with two cutting profiles. When worn to a certain level, the insert is turned 90 degrees to a new cutting profile. When both cutting sides are worn out, a new insert can be fitted to the holder.

The complete range of tungsten carbide tools for nail manufacturing consists also of cutters for Enkotec machines and chisel feeders, cutters, punches and wire guides for Wafios N90 machines.

**Håmex – Sweden**  
**Fax:** +46 13 357660  
**Email:** info@hamex.se  
**Website:** www.hamex.se

**Wayne Machine & Die Company – USA**  
**Fax:** +1 973 256 1778  
**Email:** jlischak@waynemachine.com  
**Website:** www.waynemachine.com

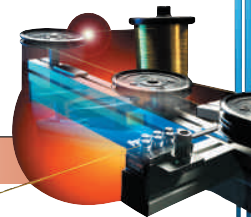
## Wanda wire . . .

Wanda Galvanized, China, is a manufacturer and global exporter of galvanised iron wire, ranging in diameter from 0.18mm-4.5mm, with a zinc coating of 12-250gm<sup>2</sup>.

Coil sizes range from 25-800kg and are available by special order.

**Wanda Galvanized – China**  
**Fax:** +86 318 785 8884  
**Email:** wandawiremesh@hotmail.com  
**Website:** www.galvanizedironwire.com





## Accuracy is the name of the game

A laser scanning system with an accuracy of  $\pm 0.1\text{mm}$  has been developed by American company, Laser Design Inc.

The PM-300 Extrusion Profile Monitoring System, monitors extrusion profiles in real-time.

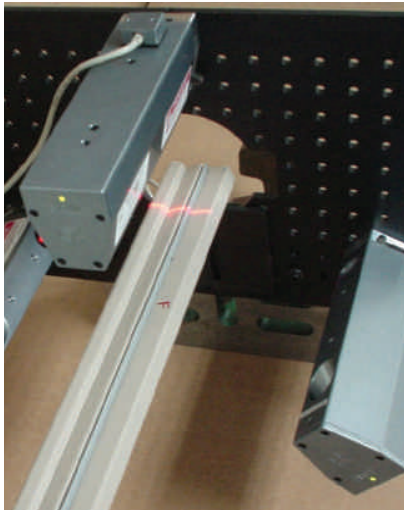
Already installed at a major US window manufacturing company, the system automated their manual measuring process that previously stopped production lines, costing them millions in lost revenue.

The PM-300 system's three laser probes monitor the two-dimensional cross-sectional profile of moulded vinyl and wooden products used in window frame construction.

The PM-300 is the first low-cost complex profile monitoring system with exceptional  $\pm 0.01\text{mm}$  accuracy.

It checks multiple complex feature measurements at the rate of 12 times per second on inline extrusion production lines.

The continuous monitoring happens in real-time during the manufacturing



▲ The new PM-300 laser scanning system

process, so every extruded portion is verified. Corrections can be made right away whenever the ongoing measurements indicate a problem.

When thousands of parts come off the line per day, the cost and time savings potential is enormous.

Laser Design markets the PM-300 system worldwide. "Our Extrusion Profile Monitoring System is affordable for all types of extrusion scanning applications, both large and small,"

said C Martin Schuster, president of Laser Design.

"Window rail component manufacturing is a good example of where this system can replace the time-consuming, off-line periodic sampling process that stops the production line with uninterrupted non-contact profile monitoring using our laser scanners.

"Productivity is greatly increased and accuracy is continuously monitored by the PM-300 system."

When profiles are monitored on a non-stop basis, any deviations from spec are caught immediately and corrected, before the production line makes hundreds of faulty products.

"This technology is perfect for monitoring extrusions of aluminium, wood, vinyl, vinyl-clad, and rolled steel shapes," Schuster added.

"The PM-300 system's successful implementation in the window manufacturing industry is just one example of the many industries that could benefit from the technology."

**Laser Design Inc – USA**

**Fax:** +1 952 884 9653

**Email:** sales@laserdesign.com

**Website:** www.laserdesign.com

## Dry cleaning – Decalub style!

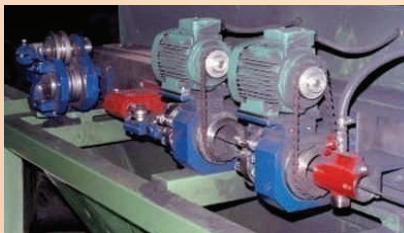
Decalub, France, has introduced its new dry cleaning, coating and drawing (DCCD) process, greatly improving the present state of rod preparation, wire lubrication, and in-line wire cleaning.

The process allows immediate substantial cost savings in drawing applications, including spring wire, high-tensile rope wire, bead wire, PC strand wire, galvanised H/C or L/C wire, AL clad wire, plating wire, CO<sub>2</sub> welding wire, coiled nail wire and cold heading wire.

All those products are drawn directly from mechanically descaled bare rod containing up to 0.88-0.90%C, at the highest drawing speeds, without traditional wet pre-coating chemicals, in a completely dry, one-step operation.

The DCCD process incorporates high-performance rod acid-free

preparation and dry coating/lubrication technology, enabling 'frictionless' drawing with the full lubricant film at wire-die interface (physical separation of metal-to-metal contact), thanks to an automatically controlled fusion of the standard lubrication compounds.



▲ Acid-free rod cleaning and wire drawing

Such a liquefied substance, with controlled viscosity, performs an exceptionally consistent residual coat, adjustable in weight at all speeds, eliminating the need for phosphate and borax pre-coating chemicals and their wet substitutes.

Full film coatings are achieved automatically in a wide variety, from

ultra thin for plating wire through a strongly adherent hard coat for spring wire and similar products.

One of the system's new applications consists of direct drawing of mechanically descaled H/C rod, without pre-coating chemicals, with water soluble sodium lubricants in all drafts, enabling in-line wire cleaning for wire plating, galvanising, brass coating, etc.

The DCCD process features 'zero' energy consumption, 'zero' consumables cost and is easy to operate (fully automatic) and very simple to install in-line with any wire drawing machine.

There are no hot liquid tanks for rod pre-coating, no hot air blowers to dry wet rod and, therefore, the process operates at virtually 'zero' maintenance cost.

**Decalub – France**

**Fax:** +33 1 60 20 20 21

**Email:** info@decalub.com

**Website:** www.decalub.com



### Market and Technology Leadership

Nextrom & Rosendahl are known for their experience in the fields of Extrusion, Optical Fiber, SZ Stranding, Forming-Welding and Corrugation. Continuous innovation of products regarding technology and design – combined with 40 years of market experience – enable Nextrom & Rosendahl to offer complete turnkey solutions according to quality standards in the fiber, wire and cable industry.

Nextrom & Rosendahl: strongest group in the wire and cable industry with more than 400 highly skilled employees. Nextrom & Rosendahl: more than 3000 references of installed lines world-wide. Two strong companies under 100% ownership of the Knill Group, a family owned company since 1712 with an annual turnover of more than 120m euros. Nextrom & Rosendahl: a solid group on solid grounds with global expertise to provide best of services & best of technology.

### Worldwide Network

The Centers of Expertise in Austria, Finland and the USA are the backbone of a worldwide network with special know-how in the following areas:

#### Austrian Center of Expertise

- Metal Communication
- Energy & Automotive
- Fiber Optical Cable
- Metal Tape Forming & Welding

#### Finnish Center of Expertise

- Preform MCVD
- Fiber Drawing
- Fiber UV Coating
- Fiber Optical Cable

#### American Center of Expertise

- Preform, Soot-VAD & OVD

Nextrom & Rosendahl: two strong brands, two technology leaders acting together, pursuing one goal: to deliver best of services with best of technology according to YOUR specific market requirements.

**Nextrom OY - Finland** • Phone: +358 9 5025 1 • Fax: +358 9 5025 3003 • [www.nextrom.com](http://www.nextrom.com)

**Rosendahl Maschinen GmbH - Austria** • Phone: +43 3113 5100 0 • Fax: +43 3113 5100 59 • [www.rosendahlaustria.com](http://www.rosendahlaustria.com)

### Product Lines

In fiber communication NEXTROM is the exclusive provider of complete production lines:

- Preform Manufacturing VAD, OVD, MCVD
- Fiber Draw & Proof Test
- Fiber Optic Cables in combination with Rosendahl technology
- Fiber UV Coating Lines

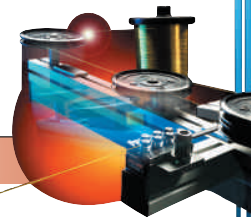
In metal and fiber communication as well as in the field of energy, automotive and metal tape forming & welding ROSENDAHL offers the complete product range of manufacturing equipment for the production of:

- Power cables
- Automotive Wires
- Fiber Optic cables in combination with Nextrom technology
- Coaxial cables
- LAN cables
- Telephone cables

**Extrusion • Optical Fiber • SZ Stranding • Corrugation**







## Latest addition to the USYS family from Zumbach

Zumbach Electronics has introduced the latest version of their well-proven multi-tasking controllers of the USYS family.

The new model USYS 200 reflects many new features and improvements for comprehensive on-line measurement, control and quality monitoring.

USYS 200 is a complete system for one measuring point (1 diameter/ovality gauge ODAC or 1 eccentricity/diameter gauge ODEX or 1 capacitance measuring system CAPAC).

Additional sensors for faults, events and line speed can also be connected. A complete status display of the parameters informs on the performance of the production line.

## PS Costruzioni engineers to the rescue

After a special request from Prysmian, Aberdare, UK (formerly Pirelli), PS Costruzioni engineers have designed and manufactured a new packaging line – the automatic coil winding machine, model PS200/8-2.

This brand-new line is unique because it can wind up short length coils (eg 5,10,15 and 25m), with the following dimensions:

- Maximum outer diameter: 230mm;
- Inner diameter: 110mm or to be decided according to the customer's requirements;
- Adjustable height: from 30mm-110mm.

What is worth emphasising is the presence in this line of a perimetral taping unit, as well as a film drilling one. This is designed to automatically apply adhesive tape onto the coil outer diameter.

The film drilling machine, located at the exit of the tunnel, can drill both sides of the shrink-wrapped coil, producing a circular drilling and a hole to enable the customer to pull the end of the cable easily.

### PS Costruzioni Meccaniche Srl – Italy

**Fax:** +39 039 689 8769

**Email:** ps@pscostruzioni.com

**Website:** www.pscostruzioni.com

The flexible configuration – with process-specific intelligence from the Zumbach software library, provides optimal adaptability to suit the process and production line.

USYS 200 can be used in any production line, e.g. in the wire and cable industry, plastics and rubber industry for control of tubing, pipe hoses, etc or in the steel and metal industry, for peeling, cold rolling, drawing, grinding, polishing and many other processes.

USYS 200 manages and monitors quality and production costs by simultaneously carrying out many functions.

### Zumbach Electronic AG – Switzerland

**Fax:** +41 032 356 0430

**Email:** sales@zumbach.ch

**Website:** www.zumbach.ch

## Research pays off

Wire cleaning is necessary to totally remove lubricants used in wire-drawing, in order to prepare a perfect cleaned surface before the wire goes for annealing in the furnace.

Fismet Industriale's new cleaning machine fits into the manufacturing line and has no adverse impact on production line efficiency. The new machine, which is able to clean from 1 to 12 (or more) wires, is completely automatic and works 24 hours per day.

The cleaning cycle has three phases: washing in hot detergent solution activated by an ultrasonic system; rinsing in dry saturated steam and hot air drying.

### Fismet Industriale Srl – Italy

**Fax:** +39 02 3350 3251

**Email:** info@fismet.com

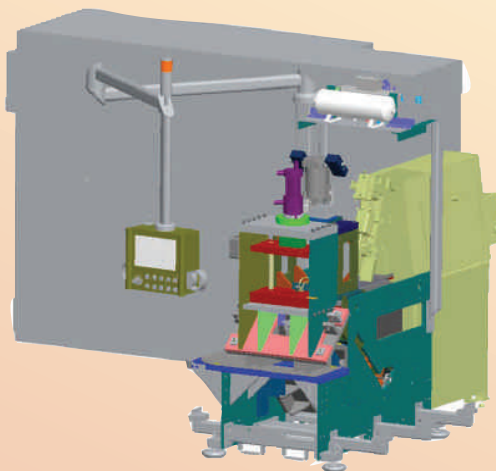
**Website:** www.fismet.com

## Increasing capacity 10-fold

The capacity of FisherTech's Injected Metal Assembly (IMA™) process has been increased 10-fold with the launch of the AM51 system.

A maximum shot volume of up to 500 grammes allows for forming and joining of much larger component assemblies and end terminations.

New design features, such as a stationary operating head, shot control and a two-stage melt pot, provide options for advanced automation up to full robotic operation. Pneumatic injection increases operating capability by 50% for greater productivity, reduced operating costs and improved die cast integrity.



▲ FisherTech's new AM51 system

IMA technology uses molten zinc alloy to die cast a component while it is simultaneously joined to other components in an assembly, or to form and join an end termination directly onto a wire, cable, rod or shaft.

This process eliminates one or more pre-manufactured parts from the assembly, as well as multiple joining methods for increased cost saving.

The precision die casting tool ensures high quality, close tolerance part-to-part consistency with no secondary finishing required. The zinc alloy, with mechanical properties equivalent to low carbon steel, forms a high strength component, and the alloy's fluidity allows casting of complex, intricate detail.

### FisherTech – USA

**Email:** info@fishertech.com

**Fax:** +1 705 748 6312

**Website:** www.fishertech.com

## 对小直径材料的细心呵护

在竞争激烈的时代，提升生产效率和产品质量变得越来越重要。

所使用的模具和由此产生的需求决定了产品的成本和质量，在改进几何拉伸参数后，当今使用的拉伸模具加工机械将得到进一步持续不断的发



▲ 全自动KPM4AC

他们开发了新型KSP1和EK2000F设备，尤其适用于0.12-1毫米的小直径。

在0.40-6毫米范围中，Bremer开发了全自动化设备KPM4AC。两种设备都采用现代化计算机化技术和内嵌式电子系统。

首先，模具经过自动化加工后达到要求，在完成锥形面后，模具被自动转移到校准台，以便校准模具的支承节，其精度达到0.001毫米，系统检查孔径并继续完成整个周期，保证非常精密的半径角和孔径公差。

这些最新的发展能消除人为因素，生产出来的模具质量得到了完美的控制。

为了提升客户服务，对所有亚洲客户提供优化技术支持，Bremer在亚洲设立了两个办事处，它们分别在日本大阪和中国上海。

**Willi Bremer GmbH – 德国**

传真: +49 2778 2190

电子邮箱: bremer-willi@t-online.de

网站: www.bremer-willi.de

## 经验就是金!

Pleuger是金、银、铂等贵金属热拉伸设备领军企业之一，拥有25年以上的经验。拉伸工艺通常从6毫米直径开始 - 挤出机出口 - 结束时直径为2毫米或1毫米以下，这取决于客户的要求。

这种拉伸工艺节约时间，对材料表面非常柔和，与标准的冷拉伸设备相比，它具有许多优点。拉伸温度和速度都可调节。

除拉伸设备外，基于德国Altena的Pleuger还生产送卷、缠绕、湿法和干法拉伸设备，特殊材质线轴设备和热拉直设备。

**Pleuger GmbH – 德国**  
电子邮箱: info@pleuger.de

传真: +49 2352 71973  
网站: www.pleuger.de



▲ Pleuger设备 - 热拉伸设备领军企业之一

## 精确是游戏的名称

美国公司Laser Design Inc.已经开发出精度达±1毫米的激光扫描系统。

PM-300挤出层面监测系统对挤出层面执行实时监测。

已经将该系统安装在一家重要的美国窗户制造公司，他们以往要停止生产线后才能进行手动测量过程，造成百万元的收入损失，而现在该系统能自动执行这种测量。

PM-300系统的三个激光探头监测用于窗户框架施工的模塑乙烯基和木质产品的二维横截面。

PM-300是首个低成本复杂层面监测系统，具有优异的精度，达到±1毫米。它以12次/秒的速度对挤出生产线进行在线检查，测量多重复杂特性。

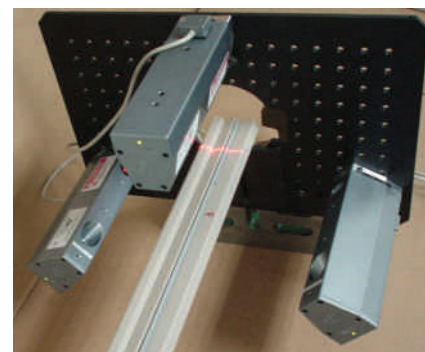
生产过程的实时连续监测验证了每个挤出部分的规格符合性。若在测量时发现问题，就可以立即采取纠正措施。随着生产线每天生产出成千上万个产品，可以看到巨大的成本和时间节约潜力。

Laser Design将PM-300系统定位于全世界市场。“我们能把我们的挤出层面监测系统应用于所有类型的挤出扫描，不管是大型的还是小型的生产线。” Laser Design总裁C Martin Schuster说道。

“窗户导轨元件的生产就是一个很好的实例，证明该系统能取代耗时、离线、定时采样的过程。采用我们的激光扫描后，能使生产线免受干扰，实施无接触层面监测。PM-300系统大力提升了生产率，并连续监测精度。”

不停顿的层面监测模式能立即抓住任何规格偏差，并予以纠正。这样，生产线就不会生产出成百上千个问题产品。

“这项技术对铝制品、木材、乙烯基材料、乙烯基复合材料和滚卷钢板的挤出监测都非常理想。” Schuster补充道。



▲ 新型PM-300激光扫描系统

“PM-300系统在窗户制造工业获得成功实施，这是许多工业的一个实例，他们使用这项技术后能从中受益。”

**Laser Design Inc – 美国**

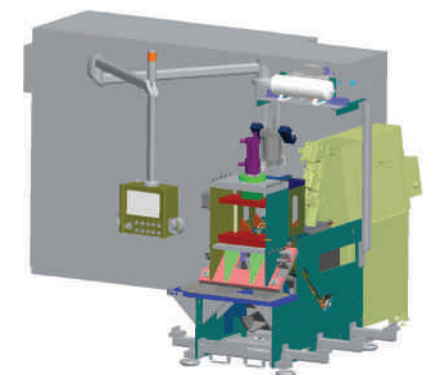
传真: +1 952 884 9653

电子邮箱: sales@laserdesign.com

网站: www.laserdesign.com

## 产能提升10倍

推出AM51系统后，Fisher Tech的注射金属组件(IMA™)工艺能力被提升了10倍。最大冲击体积可达到500克，可以形成和连接大得多的元件组件和终端。



▲ Fisher Tech的AM51系统

系统拥有新的设计特性，例如静态操作压头、冲击控制和两段熔融炉，它们为人们提供了可选项，从先进的自动化直到全机器人操作。IMA技术采用熔融锌合金来模铸一个元件，同时将组件与其它元件连接，或将终端与线、棒或轴直接成形和连接。

这种工艺消除了组件中一个或多个预制部件，而且它的多重连接方法进一步节约了成本。精确的模铸工具能保证高质量、部件与部件之间高精度公差的一致性，而且无需二次精加工。机械特性与低碳钢相当的锌合金能形成高强度元件，而且利用合金的弹性能完成复杂的铸造和精巧的细节。

**FisherTech – 美国**

传真: +1 705 748 6312

电子邮箱: info@fishertech.com

网站: www.fishertech.com



# 杭州三普机械有限公司

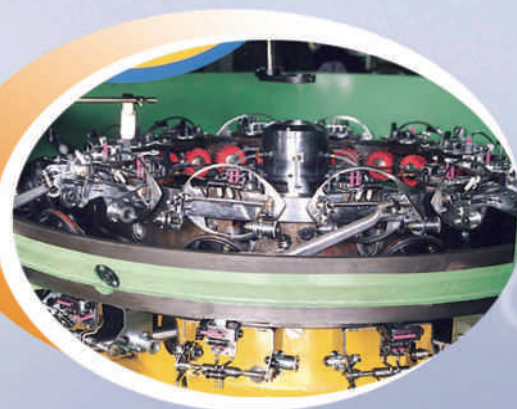
## HANGZHOU SANP MACHINERY CO.,LTD

### HGSB-16、24型高速编织机

信息高速宽带网络，需要有高质量、高要求的同轴电缆。我们为你提供解决之道，HGSB高速编织机更适合你生产高要求的计算机线、网络线（6号缆、7号缆）、高级音频线。

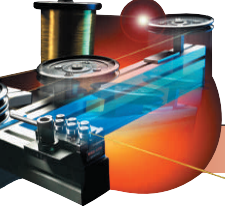
### HGSB-16、24 high-speed braiding machine

The informational high-speed wide network needs high-quality and demand coaxial cable, just we can solve all of that. HGSB high-speed braiding machine is more suitable for you to produce high-speed computer wires. net wires ( cable NO.6 and NO.7 ) and advanced audio frequency wires.



编织装置  
Braiding device





## Wayne Machine的新型流延薄膜缠绕系统

Wayne Machine推出新型中等尺寸、具有取向性能的“Yellow Jacket”（黄夹克）流延薄膜缠绕系统。

它配备二道急冷辊，具有与主急冷辊驱动匹配的、高精度速度比例伺服驱动。

闭路AC Flux Vector（交流流动矢量）驱动系统能保持所选择的辊速度比例，使薄膜沿机器方向的取向完全达到要求。一旦设定后，马达通过编码器得到持续的监测，保持取向程度。

急冷辊的构造具有双夹套、螺旋挡板和镜面铬镀层，由独立马达驱动。缠绕系统还包括一个轧辊台，上面有精确的速度比例伺服驱动，与二道急冷辊保持联动，保证所要求的精确的薄膜张力。

最终薄膜达到关键机械特性参数的关键是取向和张力控制，尤其在处理工程和高填充聚合物时。还可以提供各种轧辊精加工，生产特殊薄膜，例如防腐型Teflon FEP以及抗粘不光滑聚氨酯薄膜。



▲ 新型30" (750毫米) 流延薄膜缠绕设备

设备拥有完整的紧急停车系统，只要空气压力下降，安全链被拉出或当按下钟形罩按钮时，它就会打开轧辊，并停下急冷辊。

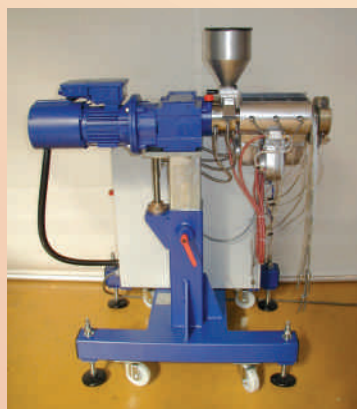
采用螺丝千斤顶能很容易地调节系统的高度。新型“黄夹克”流延薄膜缠绕系统是非常理想的，它作为现有缠绕设备的一个简单更换，或作为包括挤出机、模具、缠绕和卷筒在内的整个流延薄膜系统的一部分，可以把流延薄膜能力添加到已有挤出机。

设备拥有完整的计算机和SCADA控制系统界面，提供自动化、远程控制 and 日期纪录和趋势显示。按照用户的选择，还可以提供纤维或纸衬薄膜送卷设备。

**Wayne Machine & Die Company – 美国**  
 传真: +1 973 256 1778  
 电子邮箱: jlischak@waynemachine.com  
 网站: www.waynemachine.com

## Extrudex在2006线缆会展获得成功

Extrudex收到了有关挤出机和生产微型电缆下游设备的大量询价，从中可以看到Extrudex在德国杜塞尔多夫2006线缆会展中所取得的成功。



▲ Extrudex—保持最低的剔除率

输出在50到3500克/时之间，这取决于所用的材料和工具。该单元由紧凑、无维护交流马达驱动，设计的输送螺杆范围适用于标准粒子形状，并能根据材料予以优化。

在所有询价中，50%以上与氟塑料有关，Extrudex在该领域具有程序性优势，用于该领域的挤出机在所有材料传输区域具有防腐蚀保护，并配备高温加热系统。

还能按照用户要求安装挤出机。拥有机器平台，可以进行水平或垂直调解，使其适合于当地应用。采用带有组合式齿轮和温度控制的固定式框架。

**Extrudex – 德国**  
 电子邮箱: info@extrudex.de

传真: +49 7041 96 25 22  
 网站: www.extrudex.de

这还包括若干医疗技术用小型挤出系统的成功销售。

由于医疗和自动化领域系统变得日益复杂，需要在最小空间内稳固地提供日期和电源，这意味着所需的导体直径处于AWG25-AWG50之间，所需的壁厚为微米级，例如20密耳，所要求的公差必须与此相符，满足所有过程。

Extrudex挤出机的螺杆直径为12毫米到15毫米，输送长度为25个直径。最小熔融切换能防止过度需求，并减少任何质量损失，例如内含物和烧结，除此之外，还要保持尽可能低的剔除率。

## 处理细线材的应用

Huestis推出一种结构紧凑的、用于台式退火炉的细线材送卷设备。

FWP1000设计用来处理细线材的应用，具有很低的处理张力，操作台采用交流变速驱动以及浮辊负载电位器组合式浮辊。

单元配备可调式配重，能处理细到0.005"直径的细线材。单元设计用于免维护操作，操作台采用轻质铝制滑轮，配备球轴承和硬质涂层V型槽。

▼ Huestis的微型线轴



快速锁定心轴轴环允许进行无工具更换线轴。栓销板包括一个可调节栓销。

它的结构极其紧凑，比两平方英尺小得多，设计允许单个或多个操作台安装。

**Huestis Industrial – 美国**  
 传真: +1 401 253 7350  
 电子邮箱: sales@huestis.com  
 网站: www.huestis.com

## 设备专家

比利时GER SA专业为黑色和有色工业销售新的和二手的、线缆和管件和钢板生产设备。

公司还销售单台设备，拥有生产钢棒和钢丝、有色金属丝、钢绳和电气绝缘电缆的整套装置。

尽管公司备有大量设备现货，但GER还在寻找正确的设备，以满足客户的需求。

公司还提供交货、安装和操作人员培训服务，那是在1980年成立的。

**GER SA – 比利时**  
 传真: +32 8726 0201  
 电子邮箱: ger@ger.be  
 网站: www.ger.be



# JIANGSU JINTAILONG

江苏金泰隆



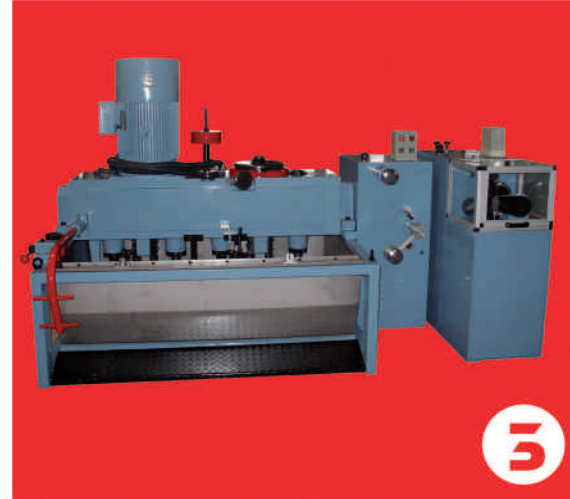
1



2

江苏金泰隆作为中国最大的钢帘线成套设备生产厂家，在持续数年为客户提供高性价比设备的同时，还致力于高新产品的创新和研发。并和世界一流的轮胎帘线公司建立了长期稳定的合作关系，快速将研发成果投向市场。为中国和全球各大轮胎钢帘线公司提供高质，价廉，世界领先水平的全套设备。

JIANGSU JINTAILONG is the largest equipment manufacturer in China for the steel cord making industry. Over the years we have made high-quality, cost-effective machinery for some of the best-known steel cord producers in the global tyre market. Long-term relationships with our customers have been built upon our proven innovation and our ability to take designs through development and into real-time production. Come to JIANGSU JINTAILONG for high-quality, cost-effective steel cord equipment.



3



4



5

1

电镀收放线机组  
plating line

2

12/560 直进式拉丝机  
dry drawing machine

3

23 水箱拉丝机  
23 Wet drawing machine

4

双捻机  
double twisting strander

5

25p 水箱拉丝机  
wet drawing machine

6

CL 外绕机  
wrapping machine

江苏金泰隆机电设备制造厂

JIANGSU JINTAILONG MECHANICAL AND

ELECTRICAL EQUIPMENT MANUFACTURER

地址：中国江苏省泰兴市大庆东路 288 号

ADDRESS: NO.288 DAQING.E.RD.TAIXING CITY,

JIANGSU PROVINCE P.R.CHINA

邮编 (AREA CODE): 225400

电话 (TEL): 0086-523-7668197

传真 (FAX): 0086-523-7760660

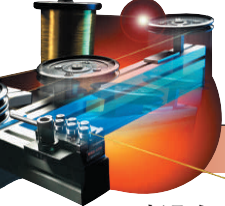
EMAIL: jstl@vip.163.com

cellphone: 0086-13905264693

网址 (website): www.jsjintai.cn

6





## 对设备有更多的需求

在所有工业领域中，越来越多的复杂的需  
求都更多地需要冲孔和成型元件以及它们  
的生产设备。

多年来，都要求冲孔和弯曲设备执行比冲  
孔和弯曲多得多的操作，尽管它们的名称  
是这样叫的。许多情况下，设备必须具有  
附加的全自动操作，例如：卷线、绝缘剥  
除、焊接、铆接、钻孔和组装已经准备就  
位的元件。

毫无疑问，制造商，例如在Como Lake 的  
Gera Eario 的Cotr Mecc Koradi，就  
遵循这个趋势，即脱离单目的、标准的设  
备，而是朝着为客户定制的方向发展。

除BSA和BA系列的冲孔和弯曲设备  
外，这些设备还基于持续得到改进的  
Kombimat 和Filomat系列的型号。

Filomat成型并自动切线，将其转化为螺  
旋弹簧和其它二维和三维元件，例如单层  
和多层电磁线圈。

采用合适的PC，还可以生产具有不同节距  
的螺旋弹簧，可以从右侧或左侧、从后面  
和顶部喂入线材和线段。

Kombimat系列设备是模块化CNC制造  
中心，配备线性转化，并具有若干种尺寸。

垂直工作台面能配备冲压和许多其它工具，  
能生产复杂的成型元件，例如软管夹、各  
种螺旋张力和成型弹簧以及准备就位的线  
圈。

例如，这些设备能处理宽达100毫米的  
线段，直径达14毫米的线材，张力能达  
到400牛/平方毫米，最大喂入速度达  
160米/分钟。

Koradi成立于1962年，它为自己的设备而  
感到自豪，在二手市场上看不到他们的设  
备。

这些定制的设备配备许多控制，采用特殊  
的软件，与NC系统的Siemens兼容。

**Cotr Mecc Koradi – 意大利**  
传真: +39 0344 84684  
电子邮箱: koradi@tiscali.it  
网站: www.koradi.it

## Wanda 线材...

Wanda Galvanised, China是一个镀锌  
钢丝制造商和全球出口商，其产品范围从  
0.18毫米-4.5毫米，带有12-250克平方  
米的锌涂层。线圈尺寸范围为25-800公斤，  
可按要求提供特殊规格。

**Wanda Galvanised – 中国**  
传真: +86 318 785 8884  
电子邮箱: wandawiremesh@hotmail.com  
网站: www.galvanizedironwire.com

## Videx手动输入冷成型机

Videx提供长紧固件开式模具冷成型机，  
配备1个或2个模具，能达到200吨压头。



▲ Videx棒材压头机冲压六角垫片  
螺栓

手动输入冷成型机是一种经济的解决方  
案，适合于批量生产小型和中型尺寸的、  
带头、带颈或挤出的长部件，设备非常适  
合于长部件或要求长冲程的部件。夹具  
模安装于独立滑轮上，由气动汽缸将其  
提升后滑出设备，能在几分钟内完成切  
换。



▲ VEM-100 (150) 011 手动输入挤出和压头机

冲程是可调的，在设备背面配有一个螺  
母，很容易调节。

设备的结构设计紧凑，能从前面或侧面喂  
入预弯制的部件。

**Videx Machine Engineering – 以色列**  
传真: +972 3536 4802  
电子邮箱: videx@videx.co.il  
网站: www.videx.co.il

## 随时为您服务...

Carlo Banfi成立于65年以前，是一家国际  
领军企业之一，设计和生产抛丸和喷砂机  
以及侵蚀装置。

公司员工拥有高度合格的资质、经验、技  
术知识来满足客户的需要，他们的知识  
持续改进公司的产品范围和质量，获得  
UNI EN ISO9001/2000认证。

在Carlo Banfi设备和应用中，其中最重要  
的应用是：

- 铸-锻、抛丸系统，以去除铁和非铁金  
属的砂和锈。
- 锻块、坯段、板坯的连续喷砂，以去除  
高炉垢，进行目视和超声波检验。
- 热轧板、I-梁和段的连续喷砂，在生产  
性油漆之前。
- 各种尺寸和截面的线棒筋的侵蚀，可以  
使连续的或线圈式的，作为化学侵蚀工  
艺的一种有效的变通方法。
- 达到钢材拉伸机轧辊的预先期望的表  
面粗糙度
- 牵引棒内，单牵引或多牵引的圆形、六  
角形和方形铁棒的侵蚀
- 在油漆和塑化处理以及各种涂层之前  
对管件和管道进行连续侵蚀
- 最终金属元件和金属框架在油漆前进  
行侵蚀和清理
- 轨道车和集装箱表面清理和恢复
- 喷丸硬化设备，特别是设计用于螺旋、  
圆柱、抛物线和膜片弹簧
- 各种气体瓶在油漆和金属化之前进行  
外部和内部喷砂和清理
- 整套设备和装置，用于各种钢制品的清  
理和保护，例如板材和I-梁，它包括喷  
砂、油漆和涂层、干燥和输送系统
- 锻造和膜塑部件的侵蚀。

**Carlo Banfi SpA – 意大利**  
传真: +39 331 578 656  
电子邮箱: banfi@carlobanfi.it  
网站: www.carlobanfi.it

## 在最短的时间内完成设置

Håmex拥有用于模具和切割具的硬质合金插件，插件的范围完整，可以互换，不必  
重新研磨，允许更换，不必放弃工具。

专利模具拥有可旋转和可互换的硬质合金插件，插件可拥有三个工作面。可以快速  
地从一种工作面更换到另一种工作面，这样，就可以在最短的设定时间内生产三种  
螺钉尺寸。

切割具拥有可互换的插件，插件有两个切割面。当磨损到一定的程度后，插件可以  
被旋转90度，采用另一个工作面。当两个切割面都被磨损后，可以在支架上装配一  
个新的插件。

用于生产螺钉的硬质合金工具的完整范围还包括：用于Enkotec设备的切割具、凿  
子传导、切割具、冲头和用于Wafios N90设备的线材导轨。

**Håmex – 瑞典**  
电子邮箱: info@hamex.se  
传真: +46 13 357660  
网站: www.hamex.se



# Wire Drawing Machinery

## Wire drawing is one of the most sophisticated processes in the entire field of industrial practice

The Devil's Rope Museum, in McLean, Texas, USA, on Old Route 66 in the Panhandle, bills itself as the largest museum in the world dedicated to the history of barbed wire. Its claim is not disputed by this journal, which is indebted to the museum for supplying the earliest known written reference to wire manufacture: "And they did beat the gold into thin plates, and cut it into wires." (Exodus, Chapter 39).

The word 'plates' in the ancient text is an eye-opener, even if thin gold plates from three millennia back have no direct connection with the draw plates in series that reduce the cross-section of the product of a modern wire making plant. Wire drawing is one of the most sophisticated processes in the entire field of industrial practice. But in both instances a painstaking procedure is employed to produce a valuable commodity. The methods of both sets of technicians are carefully noted for future reference. Most important of all, the world – of yesterday and today – is the richer for their efforts. That will be true as well for the world of tomorrow.

The wire drawing specialists that appear in the pages that follow are in that tradition. Evolution is the nature of their business, as demonstrated by the machinery featured. What was state-of-the-art last year has in fact been improved upon. The editors of Wire & Cable ASIA take keen satisfaction in reviewing these superb products and services.

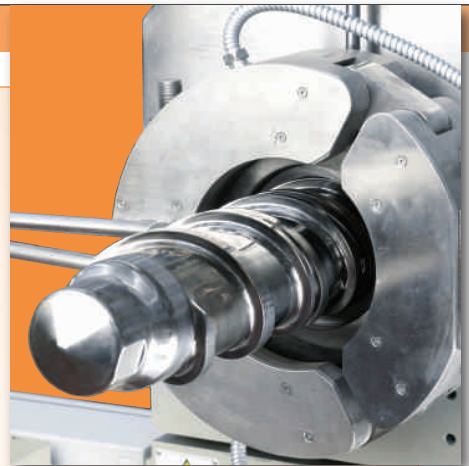


Photo credit: Samp SpA

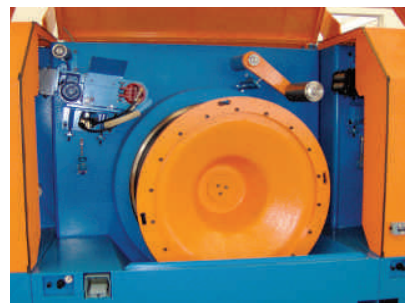
### Maximising performance

From their inception the companies RTM (Redaelli Tecna Meccanica), Italy, and OTT, France, became synonymous with high carbon steel wire transformation machinery. Since 1999, these two wire and rope machinery companies have become the wire machinery division of Continuous-Properti SpA. A year later, Continuous-Properti SpA introduced the new generation of the dry drawing machine the 'MegaLogos'.

The primary concept was for the design to be ergonomic to make operation easier and maximise performance. Thanks to the high

performance of the capstan and die cooling technology, the lack of wire path deviation, better back pull control, the complete lack of wire torsion, and the use of the most modern inverters and motors, the MegaLogos has established a new class of drawing machine providing optimal quality and performance. Inherent to the horizontal capstan design machine are greatly reduced down time and maintenance.

The use of the most modern design and components reduces power consumption and with the easy maintenance allowed by the horizontal design, the MegaLogos again proves itself as the optimal machine design across a broad range of products.



▲ The MegaLogos 1270 capstan in detail

The EVO 3 water-cooling of the capstans is the result of many years of successful and proven experience in the cooling of hot casting lines and assures maximum wire quality and production speed with reduced water consumption.

From Redaelli and OTT's many years of experience and the continuous research into the use of modern and dependable technology, through Continuous-Properti, the wire machinery division has proved to have a specific strength in PC wire and PC strand machinery.

**Continuous-Properti SpA – Italy**  
**Fax:** +39 0298 10358  
**Email:** sales@properi.it  
**Website:** www.properi.com

▼ A general view of the MegaLogos



# Wire Drawing Machinery



▲ Straightening system for dry drawing machines

Witels-Albert believes that the DR series straightening systems beats the common practice in the industry of using the drawing die for wire straightening.

Experience clearly shows that the die-based method has disadvantages both for the workpiece and for the tool. The primary disadvantages for the workpiece or process material are non-uniform distribution of tension and variations in material structure across the diameter.

This results in a level of finished product quality that makes handling difficult in downstream processes, causing repeated problems. It has, for example, a negative impact on the dimensional accuracy of finished products (springs, bent parts, etc.).

## Witels-Albert – USA

**Fax:** +1 410 228 1813

**Email:** info@witels-albert-usa.com

**Website:** www.witels-albert-usa.com

## 100 years of experience

Fenn Technologies has been manufacturing a range of wire drawing, wire shaping, and rolling mill equipment for more than 100 years.

Using Fenn's wire shaping equipment, round wire is presented to a wire shaping mill. The wire is shaped by being drawn through two model 3U HP turks heads units. These units are suitable for the production of squares and rectangles using two simple roll adjustments.

▼ Fenn Technologies' wire shaping mill



In the example pictured, the shaped wire is drawn onto a horizontal capstan fitted with extension arms suitable for collecting loose coils of the shaped wire. The unit includes a variable speed drive, re-circulating coolant system with individual flow controls and is fully guarded for operator safety.

Units such as this can be incorporated with Fenn wire flattening mills to form wire flattening and shaping lines. For irregular shaped wire, Fenn makes other types of turks heads more suitable for that application.

Also available for shaped wire drawing are different types of pulling devices, including shedding drums and plain-faced double capstans.

Fenn Technologies also manufactures custom-built wire drawing machines, swagers, spring coilers and rolling mills.

## Fenn Technologies – USA

**Fax:** +1 860 667 4667

**Email:** mcdiv@fenn.spx.com

**Website:** www.fennotech.com

## A generation of wet drawing machines

Many years of development and the adoption of innovative technical solutions has allowed M+E to create their new generation of wet drawing machines, significantly reducing or eliminating many of the quality and production problems.



▲ An M+E wet drawing machine, complete with fully-automatic spooler

Operation of M+E wet wire drawing machines at leading wire manufacturers and with different wire types confirmed remarkable quality and productivity increases compared to traditional machines, while keeping the die wear constant.

M+E wet wire drawing machines are particularly noted for drawing of the following steel wires: brass-coated wire (steel cord, saw wire), electrolytic or hot dip galvanized wire, stainless steel wire and high quality spring wire.

>>>



The EUROLLS GROUP is the result of the union and synergy of single divisions which, taken one by one, are highly specialized in their specific fields. The divisions, closely linked to the holding company, stand out for their features characterised by a strong flexibility and vocation to the development of highly innovated solutions, with regards to technology but above all to the economies produced by the same.

Today, the EUROLLS GROUP can count on the arrival of a new division: CORTINOVIS, a prestigious company bringing a new range of technologies thereby permitting the EUROLLS GROUP to increase its product range and widen its customer portfolio.

The foreign based branches of Cortinovis will work in synergy with the EUROLLS GROUP divisions already present in USA and Brazil, contributing in this manner to their further growth.

The EUROLLS GROUP, moreover, announces the establishment of IBER EUROLLS, based in Vitoria, Spain, which is a service center division already operating roll regrinding services.



Visit the EUROLLS GROUP stands at: WIRE RUSSIA 2007 - INTERWIRE USA CLEVELAND - WIRE & CABLE EXPO 2007 NEW DELHI



**Rod BreakdDown Machine "R3 type" in horizontal tandem design with the Continuos Horizontal Annealer "AH type"**



**Euroalpha S.r.l.**  
Via Aldo Moro, 13  
36060 Pianezze (VI) - Italy  
Tel. : (+39 0424 472084)  
Fax. : (+39 0424 72780)  
info@euroalpha.it  
www.euroalpha.it





# World Wire and Cable Conference

Incorporating the KMI Fiberoptics Conference

10-12 June 2007, Paris Rive Gauche Hotel, Paris, France

THE WORLD'S  
AUTHORITATIVE  
WIRE AND CABLE  
EVENT FOR  
SENIOR  
EXECUTIVES



**CRU | EVENTS**

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

## WHY ATTEND **WORLD WIRE AND CABLE CONFERENCE?**

- Hear a high quality programme organised by CRU – the independent authority on the global wire and cable business
- Gain the latest intelligence on the vital topics driving the wire and cable industry from raw materials to end-users
- Network with senior-level decision makers in the wire and cable community from around the world – cable manufacturers, cable users, materials and process suppliers and financial institutions

## REGISTER YOUR INTEREST TODAY

Tel: **+44 20 7903 2402** or Email: [cruevents@crugroup.com](mailto:cruevents@crugroup.com)

Online: [www.cru-wirecable-conference.crugroup.com](http://www.cru-wirecable-conference.crugroup.com)

Please quote reference: WCA

Co-Hosted by



Supported by



Media partners



# Wire Drawing Machinery



<<<

The M+E production range includes machines with 2, 4 or 6 cones with a maximum of 12, 25 or 33 dies for a finished wire diameter down to minimum 0.08mm (0.0031").

The main wet drawing machine characteristics are: Straight wire path, without transfer sheaves, wire drawing only in one direction, high ratio between ring diameter and wire diameter, guaranteed proper wire and dies lubrication during stringing-up, high pressure individual die cleaning system, water cooled final die and final capstan, robust, anti-vibration steel frame, heavy duty bearings and cone shafts, cone shafts specially sealed to prevent bearings damage, compact design with excellent accessibility during stringing-up, minimum wire slip percentage on cones, AC main motor with slip-proof belt transmission, complete accessibility to all components allowing easy maintenance, completely pre-wired, with incorporated electrical cabinet and an enclosed design with interlocked safety guards conforming to the most stringent safety regulations.

M+E wet drawing machines are supplied complete with wire pay-off and traditional or fully-automatic spooler. The spooler can be supplied for taking up wire on vertical or horizontal axis spools.

**M+E Machine + Engineering SpA**  
– Italy  
**Fax:** +39 03418 06002  
**Email:** info@meitaly.it  
**Website:** www.meitaly.it

## The personal treatment from WWM

Specialists Welding Wire Machineries produce a wide range of machinery and complete plants for the production of welding wires.

The range includes different types of wet drawing lines for carbon steel, stainless steel, aluminium, aluminium and copper alloys and CO<sub>2</sub> wires, drum packaging lines up to 35m/s, semi-automatic and fully-automatic precision layer re-spooling lines, copper coating tanks, take-ups and pay-offs of different sizes and for different uses.

**Welding Wire Machineries Srl – Italy**  
**Fax:** +39 04995 00682  
**Email:** salesdept@wwmsrl.com  
**Website:** www.wwmsrl.com

## Machines to cover all production steps

Manufacturers of copper or aluminium wire are confronted with the challenge of a keen competition and increasing quality requirements.

Niehoff has developed wire drawing machines and adequate continuous annealers which cover all production steps from wire rod drawing to fine and super-fine wire drawing.

These are also available in line drawing and annealing lines for wire made of aluminium and aluminium alloys. The type M85 multi draft rod breakdown machines – by far the most popular machines – are designed to draw wire rod made of copper or aluminium from an initial diameter of 8mm or 9.5mm, respectively, down to a final diameter of 1mm.

The experiences gained with these conventionally driven machines have been the basis of the electronically

>>>




## RECONDITION YOUR TC DIES



A complete range of machines and consumable products to manufacture and resize TC dies  
**MOUTON has also developed wire shaving machines for over 15 years**

## Our know-how for your efficiency

The AGIR TECHNOLOGIES Group Mouton & Rivom ( [www.rivom.com](http://www.rivom.com) ),  
 the world Leader thanks to its wide range of tools for metal forming, from the simplest wire drawing dies  
 to the most complex dies and punches.  
 3 chemin de thil 01700 SAINT MAURICE DE BEYNOST - FRANCE  
 Tel : 33 (0)4 78 55 15 81 - Fax : 33 (0)4 78 55 03 27 - Email : [webmaster@mouton-sa.com](mailto:webmaster@mouton-sa.com)  
 Website : [www.mouton-sa.com](http://www.mouton-sa.com)





# Wire Drawing Machinery

<<< controlled rod breakdown machines type MSM85. As each capstan is individually driven, for each draft different wire elongations can be realised in a wide range. In the same way slip on the drawing capstans can be reduced to a minimum, resulting in wires with an especially high surface quality.

Some aluminium wire producers are using lines, which consist of a type MSM85 machine connected with a type RA501 continuous annealer. Both types of drawing machines are modular-built in 1-wire and 2-wire-versions and can work with a speed up to 40m/s. More than six years ago, Niehoff delivered the first medium-wire drawing line (an MH120 drawing machine with an RA200 annealer) for the simultaneous production of two wires made of pure aluminium and around 30 different aluminium alloys with a starting diameter of 2 x 1.4mm and a final diameter of 0.01mm to 0.50mm.



▲ The MSM85 type rod breakdown machine

The MMH type multiwire drawing machines with an integrated RM continuous annealer for copper wire are now built to draw up to 42 wires simultaneously with line speeds of up to 40m/s. The wires are characterised by highly uniform properties meeting or exceeding the highest specifications and processing requirements.

Features of the machines are special die holders with an integrated drawing capstan spray system which are tailor-made for the specific requirements of aluminium wire drawing. The drawbox can be operated either with drawing oil or drawing emulsion.

▼ Aluminium wire over the drawing capstans



## Specialists for the construction industry

Based in Italy, Tecno Impianti specialises in the supply of wire drawing and cold rolling lines for the construction industry.



▲ A cold rolling line from Tecno Impianti

bullblock and vertical or horizontal spooler. All machines are equipped with variable-speed drives and AC motors.

Customer specifications can also be met and, depending on whether the customer utilises dies or rolls for the wire diameter reduction, the bullblock can be equipped with drawing die-boxes or also with rolling cassettes, which permit higher working speeds. The bullblock can be equipped with a single or double-pass capstan, the line can be supplied with two horizontal or vertical bullblocks and the reduction passes can be one, two or three. Wire can be taken-up on fixed reels if the wire goes directly to the production department or on collapsible reels in the event that it goes to stock or is sold, in the form of bound coils.

Vertical spoolers can also be supplied with a double reel configuration, allowing the reduction of down-times needed for reel changes.

**Tecno Impianti Srl – Italy**

**Fax:** +39 0341 604289

**Email:** info@tecnoimpianti-italy.com • **Website:** www.tecnoimpianti-italy.com

The MMH104 is combined with an RMA201 type continuous electrical resistance annealer with individually driven contact pulleys working with a protective atmosphere. The modular MKN101 super-fine wire drawing machine completes Niehoff's range of drawing machines. This precisely engineered machine is designed for the production of wire to a final finish diameter of 0.014mm. The MKN101 is based on a compact concept that enables extreme flexibility and scalable configurations.

Each pair of cones forms a separate module, which can be combined with others to create an 11, 15, 21 or 31-draft machine available either with or without a final capstan. This machine is used to draw wire made of copper and copper alloys as well as precious metals and aluminium alloys for a variety of applications, including the highly demanding medical and electronics industries.

**Maschinenfabrik Niehoff GmbH & Co KG – Germany**

**Fax:** +49 9122 977 55

**Email:** info@niehoff.de

**Website:** www.niehoff.de

## Range of metallic reels

Since 1967 Italy's OML has been producing metallic reels for the wire and cable industry. They offer a wide range of reels, standard (fully maintained, press steel flanges, etc.) and collapsible, but they can also produce reels made to customer specifications.



▲ One of OML's metallic reels

Production is regulated by CAD-CAM proceedings that allow the control of all machines and guarantee the process and quality.

**OML Srl – Italy**

**Fax:** +39 0575 89071

**Email:** info@omlbobine.it

**Website:** www.omlbobine.it

# Wire Drawing Machinery



## Spinner is a real winner for Delisi

Delisi Srl manufactures and sells automatic straightening and cutting machines for smooth and ribbed wires from 1-20mm in diameter.

The main characteristics of Delisi machines are low maintenance and production costs, coupled with high output, quality straightening and precision.

The most important innovation is in the spinner. Delisi is the only company which builds wire straightening and cutting machines with the rapid change of diameter. The spinner is supplied with a straightening unit of pre-regulated jaws for each diameter of wire to work with, which makes it easy to install the correct straightening unit so that the spinner will be ready to work without wasting time and material.

Feeding rolls need never be changed, because the right groove for the wire diameter to work with can be selected by a hand wheel.

Another advantage of this new spinner is that the jaws have a longer contact with the wire, so it buckles less and the production can be increased. The pressure of the rolls is pneumatically regulated.

Delisi machines can also be equipped with an electronic programmer and a picker for the rod collection bed, fitted with three lines of tiltable arms.

This makes it possible to program different lengths and the number of pieces which will be collected separately in one of the three lines, without stopping the machine.

### Delisi Srl – Italy

**Fax:** +39 08823 33236

**Email:** [delisi@delisisrl.com](mailto:delisi@delisisrl.com)

**Website:** [www.delisisrl.com](http://www.delisisrl.com)

## Lubricants and coatings for all

Pan Chemicals is a European producer of special drawing lubricants and coatings for ferrous, non-ferrous and stainless steel wire and equipment.

The production programme includes:

- Dry drawing lubricants for low carbon steel wire, plating quality wire, welding wire, CHQ, high carbon steel wire, drawing after galvanising and high alloyed steel;
- Wet drawing lubricants: Soluble lubricants, neat oils and greases.

Products for surface treatment include:

- Phosphate coatings, non-reactive precoatings, precoatings for stainless steel;
- Auxiliary products for degreasing, surface treatment, pickling of stainless steel, special applications.

Pan can also provide customers with a variety of machinery, including sanding belt descender, mechanical descenders, debaster TR 1 (single wheel shot blaster), rotating pressure die boxes, Borax coating and drying equipment, and hi-tech die reconditioning equipment.

### Pan Chemicals – Italy

**Fax:** +39 03597 7288

**Email:** [info@panchemical.com](mailto:info@panchemical.com)

**Website:** [www.panchemical.com](http://www.panchemical.com)

## Get the Best in Resale Equipment

**INTERWIRE**  
TRADE EXPOSITION  
May 7-10  
Booth 3209



Choose experienced and immediately available second-hand machines !

- Off-the-Shelf Selection
- Customized Solutions
- Equipment Updating
- Mixed Equipment
- Technical Assistance
- Appraisal and Liquidation



Main contact : J.P. Davenne

### Gauder & CO

Rue de la Révision, 93  
4032 CHENÉE - Belgium  
Tél. +32 4 367 87 87  
Fax. +32 4 367 87 98  
[sales.gauder@gaudergroup.com](mailto:sales.gauder@gaudergroup.com)

Contact in the USA :

### Gauder Group, Inc.

Tél. +1 336 856 8176  
Fax. +1 336 856 8117  
[sales.usa@gaudergroup.com](mailto:sales.usa@gaudergroup.com)

Visit [www.gaudergroup.com](http://www.gaudergroup.com)

Ask for **FULL COLOR** catalogues !



Subscribe

NOW!

# Wire & Cable ASIA 线缆

Asia's Largest Circulation to the Wire, Cable & Wire Product Industries



## In the May 2007 Issue:

- wire Russia 2007 - Show Issue
- Wire Bending & Forming Machinery
- Cable Production Equipment

## Read Wire & Cable ASIA for:

- Essential Global Industry News in both English & Chinese
- The latest technology & innovations in wire & cable production and processing
- Absorbing & informative feature sections in every issue
- Educational and in-depth technical articles by authoritative industry scientists & engineers
- Extensive wire & cable event coverage throughout the year
- And much, much more!

## Wire & Cable ASIA 线缆

Wires • Cables • Fibre Optics • Springs • Fasteners • Precision Parts

January 2007



Subscribe On-line: [www.read-wca.com/subscribe.cfm](http://www.read-wca.com/subscribe.cfm)

Subscription Hotline: +44 1926 334137



# Wire Drawing Machinery

## Tradition and innovation

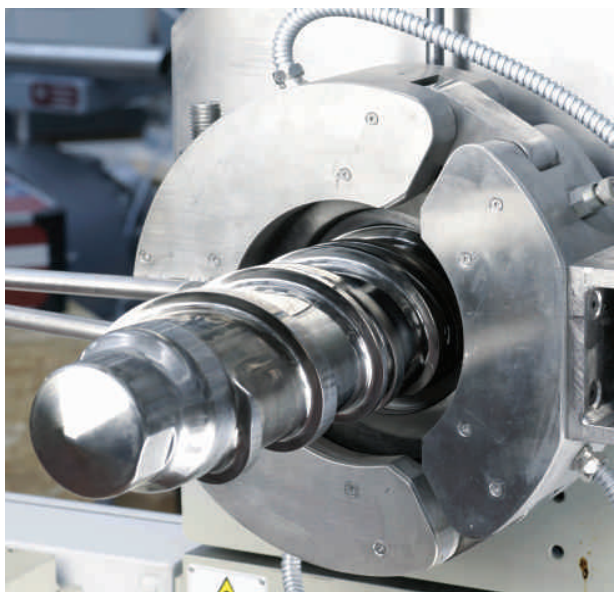
Tradition and innovation are what lie at the heart of the Sampsistemi product range. Being able to rely on the tried and tested principles of precision mechanics from the last 70 years has also allowed the Italian company to introduce new solutions to the industry.

As a whole, the Samputensili, Sampingranaggi and Sampsistemi divisions of the Samp group have always been at the forefront, designing and optimising gears for advanced aeronautical and automotive industries.

They produce gear cutting tools and machines (hobbing, grinding and chamfering machines), type-approved by the most demanding of producers, and supply internationally-patented, top-quality transmissions.

Sampsistemi also provide a complete range of machinery and equipment for the manufacture of wire and cables.

Innovation is being the first company on the market to produce multiwire drawing machines with more than 40 wires (up to 56).



▲ Sampsistemi can offer a whole range of solutions

In use all over the world for more than a decade, these avant-garde solutions give Sampsistemi customers a real competitive advantage.

In fact, what years ago was considered a technical challenge is today seen as an essential investment for any efficient production plant.

Energy saving solutions, reduced manpower and space requirements, optimised maintenance, rationalised downstream handling and simplification of the subsequent wire bunching process are just a few of the advantages Sampsistemi can offer.

**Samp SpA – Italy**

**Fax:** +39 051 356750

**Email:** info@sampspa.com

**Website:** www.sampsistemi.it

# TOUGH CUSTOMER

## TOUGHER AIR WIPE

**Air Miser™**  
Low air consumption  
- Uses approx.  
.016m<sup>3</sup>/min. per air jet at  
2.8 bar (.56 SCFM at 40 PSI)

**Huestis Industrial Air Wipes stand up to the rigors of the most demanding customers.**

Huestis Industrial Air Wipes use precision controlled air flow to save air, reduce noise and dramatically cut energy consumption. Air Wipes require only a fraction of the horsepower of a centrifugal blower to generate the compressed air requirements. Very often, a change to Air Wipes results in a reduced number of compressors on line, saving you energy and money. Call today, for more information and find out how you can save with the Huestis Industrial line of Air Wipes.

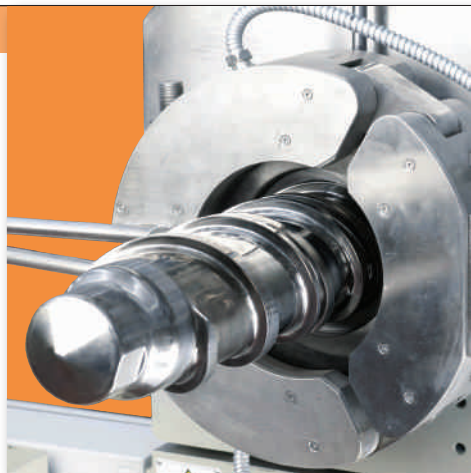
**HUESTIS INDUSTRIAL**  
making it possible™

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

*Air Wipes, Pay-offs, Take-ups, Buncher Pay-offs, Accumulators, Cable Jacket Strippers, Spoolers, Cold Pressure Welders, Custom*

68 Buttonwood Street, Bristol, Rhode Island 02809 U.S.A. **ISO9001:2000**  
401-253-5500, 800-972-9222, Fax: 401-253-7350 **REGISTERED**





图片: Samp SpA

## 拉丝机

位于美国德克萨斯州麦克林Old Route 66号的Devil's Rope博物馆声称是世界上最大的刺绳历史的博物馆。本杂志并未对此有所争议，而是因为该博物馆拥有已知的最早的有关线材生产书面资料。“并且他们的确把黄金制成薄片，然后切割成丝了”。（出埃及，第39章）

即使几千年前，薄薄的金片与现代线材厂可以生产的缩小产品横截面的起模版没有直接联系，但是“片”这个词在古代技术文本中仍然是一个让人觉得不可思议的字眼。在工业生产的整个领域内，线材的拉丝工艺是最为精密的过程。但是这两个都是用艰辛的过程来换取价值连城的商品的例子。所以人们仔细的记录下这两套技术的全过程，以备后人参考。最重要的是，整个世界——不管是过去还是现在——都因为他们的努力而更加富

有。将来，这个世界依然会受益于他们的努力。

接下来的几页里要介绍的线材拉丝工艺专家就是这样的人物。就像机械时代证明了的那样，进化是他们的业务的本质特征。去年的技术发展水平已经证明了这一点。亚洲电线电缆的编辑很荣幸能够借此机会对这些超级的产品和服务进行回顾。

## 可用于各种生产环节的设备

铜或铝线的制造商正面临着日益加剧的市场竞争和不断提高产品质量的需求。

Niehoff公司已经开发了拉丝机和连续式退火机，这些机器运用于从线杆拉制到最后工序以及优质线材拉制的整个过程，它们还适用于铝和铝合金线材的拉制和退火生产线。

M85型多线大拉机是目前最通用的设备，用以拉制内径为8mm或9.5mm的铜杆或铝杆，每种材料加工后的直径为1mm。

从这些传统的驱动机中获得的经验已成为电控的MSM85型多线大拉机的基础。

由于每个绞盘都是单独驱动，以便在空间上控制每根线材的延长工艺。以同样的方法，可以将拉制绞盘的滑动减少至最少，使加工线缆获得特别高的表面质量。一些铝线生产商采用由MSM85型设备并配置RA501型连续退火机的生产线。这两种类型的拉丝机都采用1线

和2线的模块化结构，工作速度可达40m/s。

6年多以前，Niehoff公司首次开发出中拉机生产线（配置RA200型退火机的MH120型拉丝机），用于同时加工两股纯铝和大概30种铝合金形成的线材，这些线材的输入直径是2 x 1.4mm，输出直径是0.01mm~0.50mm。

集成RM型连续退火机的加工铜线的MMH型多股拉丝机现已同时能加工42股线材，生产速度可达40m/s。这些线材在性能上高度一致，满足或超过最高规格和加工需求。

这种机器的特点是采取了特殊的模具支持器，并配备了整体式拉丝绞盘喷射系统，该特制系统可以满足铝线拉丝的特殊需求。MMH104型机器结合了配有单独气动驱动的接触带轮的RMA201型连续电阻退火机。

MKN101型超精细线材拉丝机能完成Niehoff公司的各种拉丝机的工作。这种精确的工程设备可使线材在处理后的直径可达0.014mm。这种MKN101型拉丝机灵活性好，配置可升级。

每对锥体都形成一个独立的模块，每个模块都能与其他模块相结合以形成11、15、21或31线材，可配置或不配置绞盘。该机用于拉制铜和铜合金线以及用于各行各业包括高要求的医疗和电子行业中的贵重金属和铝合金线材。

**Maschinenfabrik Niehoff GmbH & Co KG - 德国**  
传真: +49 9122 977 55  
电子邮件: info@niehoff.de  
网站: www.niehoff.de

## SAS公司为您提供各种解决方案

科技价值是意大利SAS工程与规划公司从事事业所追求的目标。

在近30年来，SAS公司对安装在生产线上的设备所采用的简单而可靠的解决方案以及为满足用户需求所采取的灵活性方法始终获得很好的声誉。

SAS公司的组合式拉丝生产线上配备了一对凸轮、液压载物架以及液压飞剪机，这样可使该生产线能够以很高的速度工作同时还能够确保精度最高。该生产线的加工范围达到市场上最大范围之一，即Ø3mm~45mm。



▲ SAS公司的简单而可靠的解决方案

采用直流电驱动器可使在生产任务有变化而处理不同的材料时选择适宜的速度。SAS公司的组合式拉丝机可以全部配置最先进的附件以成为完全自动化的生产线，包括放线架、预矫直机构、倒角机、带捆扎机、称重和处理，每种工序均可自动完成。

**SAS Engineering & Planning Srl - 意大利**  
传真: +39 031 657 223  
电子邮件: info@sas.it  
网站: www.sas.it

▼ 拉丝绞盘上的铝线材



# 拉丝设备

## 最佳性能

在他们的理念中，意大利RTM公司和法国OTT公司都是生产加工高碳钢线缆机的代名词企业。自从1999年以来，这两家线缆和绳索设备公司已成为Continuus-Properti SpA公司的线缆设备分公司。

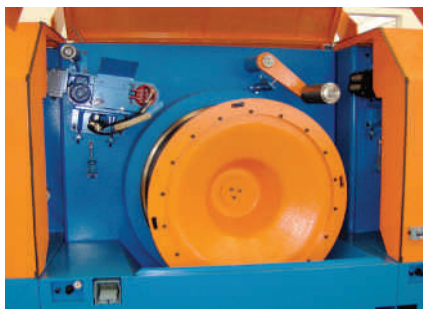


▲ 新一代的MegaLogos拉丝机

一年后，Continuus-Properti SpA公司又引进了新一代干式拉丝机‘MegaLogos’。这种设备设计理念是以人类环境改造为出发点，使操作简单，最大化地发挥其性能指标。

由于从技术上牵引盘和模具有了更先进的性能，线缆运送路径没有了偏差，方便控制，采用了最先进的转换器和电机，因此，该MegaLogos机是新一代具有最优化质量和性能的拉丝机。

在设计上采用了水平牵引盘，因而大大地减少了停工时间和维护工作。操作者在操作该机时只需正常姿势，而无须倾斜或爬到机器上面去，很多证据已证明MegaLogos机是目前世界上最安全的设备之一。



▲ 配置1270型牵引盘的MegaLogos机

MegaLogos机采用了最先进的技术和部件，水平式设计使维护方便，通过各种产品已经证明该机器是最佳设备。EVO 3型水冷牵引盘是多年在铸造生产线冷却系统方面的成功和宝贵经验的结晶，能在降低水消耗的情况下保证线缆达到最高的加工质量和最大的生产速度。

通过Redaelli和OTT公司多年的研究成果和经验，利用先进和可靠的技术，使Continuus-Properti公司—线缆设备分公司—在PC线缆和PC绞线机械方面占据了特殊的位置。

**Continuus-Properti SpA – 意大利**  
传真: +39 0298 10358  
电子邮件: sales@properzi.it  
网站: www.properzi.com

## 使生活变得容易

拉丝工艺在线缆生产中起到不可缺少的作用，在每个拉丝机中矫直部件和矫直系统是最基本的组成部分。

德国柏林的Witels-Albert GmbH公司是环型材料矫直机的主要提供商，最近研制出适用于线缆干式拉丝加工的新型辊子矫直机构和偏转辊子机构。

这种DR系列矫直机和偏转辊子的设计工艺是受几个边界条件影响的，如较大的线缆速度以及从长远观点看的易于操作和降低维护成本的需求。

该图片显示了适用于干式拉丝机的矫直系统，体现出该矫直系统详细的设计工艺，如密封和润滑的辊子，优化的辊子直径以适应于弹性和非弹性加工材料的变形，考虑线缆从下面纹盘到上面纹盘的特殊加工路径而精确设计的可调整径向和轴向辊子以及偏转辊子的安装位置。

采用许多方法来调整线缆路径可精确适应各种拉丝机的几何特性，有助于预防线缆在进给和退出时的磨损。

易于接近的部件如迅速开启/迅速关闭外部零件或润滑点很受用户的欢迎。根据

需要，该矫直系统可辅助被加工材料进行直径测量。

Witels-Albert认为DR系列矫直系统打破了常规的在拉丝机中利用拉丝模进行拉丝的行业惯例。

经验已经很清楚地表明基于模具的方法对加工工件和工具都存在着不利的影响，其对工件或加工材料的主要影响是使材料在直径方向上拉伸和变形的不一致。



▲ 用于干式拉丝机的矫直系统

这将降低加工产品的质量，使后续工艺增加操作难度，进而需要进行重复性的操作。

如对已加工产品（弹簧、弯曲零件等）的几何精度产生负面影响。

**Witels-Albert – 美国**  
传真: +1 410 228 1813  
电子邮件: info@witels-albert-usa.com  
网站: www.witels-albert-usa.com

## 建筑行业的专家

起源于意大利的Tecno Impianti公司是专业从事于建筑行业的线材拉丝和冷扎生产线的提供商。

这种平滑的或螺纹的线材可用于焊接网和桁架梁的生产，这种线材收绕在安装于生产线末端的线轴上。

这种标准生产线包括：带有两个倾斜臂的立式开卷机以允许焊接操作可在线圈两端之间进行而无需停止生产线、机械除鳞器、润滑剂分配器、立式或卧式拉丝机以及立式或卧式卷线机。所有机器均配置变速驱动器和AC马达。

当然，根据用户在减少线直径时是使用模具还是使用辊子，将拉丝机配置拉丝模盒或辊子盒以便提高工作速度，这样也可以满足用户的规格要求。

拉丝机可配置单或双绞盘，该生产线可配置两个立式或卧式拉丝机，这样，可减少1、2或3个通道。如果线材直接被送到生产单元或者在可涨缩的卷取机上以捆扎成线圈的形式存放到仓库中或被销售，则要将线材绕在固定线轴上。立式绕线机也能配置双卷线轴，以便减少更换线轴时的停工时间。



▲ Tecno Impianti公司的冷轧压生产线

**Tecno Impianti Srl – 意大利**  
传真: +39 0341 604289

电子邮件: info@tecnoimpianti-italy.com  
网站: www.tecnoimpianti-italy.com

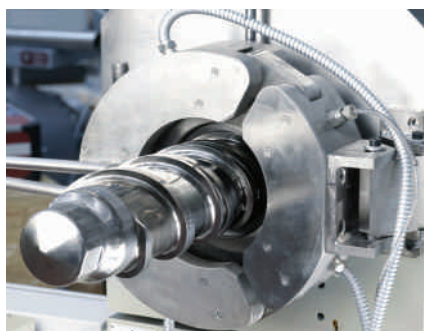




## 传统与革新

传统与革新是Sampsistemi 公司生产中的一个核心问题。

由于近70年来该公司始终将已经使用过和测试过的精密机械引入意大利各公司，以便为工业提供新的解决方案。



▲ Sampsistemi公司可为您提供各种解决方案

总的来看，Samp集团的Samputensili分公司、Sampingranaggi分公司以及Sampsistemi 分公司始终走在发展最前沿，为先进的航空业和汽车业设计和优化了各种齿轮。

他们生产了齿轮切削工具和机床（铣刀、磨床和倒角机），获得了最苛求的生产商的认可，还提供了具有国际性专利的顶尖级质量的传动装置。

Sampsistemi公司还提供各种各样的线材与线缆制造所使用的机床和设备。

该公司第一家革新性地首次在市场上生产了多股拉丝机，可同时加工40股线材（最多可达56股）。

这些产品通过全球十几年来用户的使用，这些先进解决方案使Sampsistemi公司的用户获得了真正的市场竞争优势。实际上，几年前所考虑的技术性挑战对一些高效的生产厂而言现已变成最基本的投资了。

能源方面的解决方案，对劳动力和空间需求的降低，优化的维护工作，合理化下游工序的操作和简化的束线工艺都是Sampsistemi公司向您提供的先进技术中的几个实例。

**Samp SpA – 意大利**  
传真: +39 051 356750  
电子邮件: info@sampspa.com  
网站: www.sampsistemi.it

## 降低生产和铜材成本

您希望减少生产成本和铜材的成本吗？  
那您的答案已经找到！

Sicme Italia Impianti公司的TSP型直线式拉丝机在输入端仅需要相同直径的线缆，却可加工出各种直径的线缆以满足漆包线工厂的各种要求。

由于直线式拉丝机输入端线缆的直径相同，所用铜材的数量明显减少，因而，维护铜材的时间也大大地减少。



▲ TSP型4线拉丝机

由于这种系统能够适应加工条件的迅速改变，因此当直径变化时仅需改变最后工序的拉丝模而无须改变其他工序的拉丝模，从而大大地节省了各种不同直径铜材的加工时间。

这样，大大的降低了对拉丝模的购买、管理和维护。

这种拉丝机由铝架组成，这种经过加工的铝架采用电焊式结构。

该加工单元由2个或4个生产线组成，每个生产线都有自己独立的控制，这种控制线圈均有瓷表层（氧化锆）——除非是用户指定的陶瓷线圈（氧化锆）。

**Sicme Italia Impianti – 意大利**  
传真: +39 011984 5508  
电子邮件: sicmesales@italiaimpianti.com  
网站: www.italiaimpianti.com

## 百年经验

100多年来，Fenn公司始终从事于各种线缆拉丝、线缆成型和轧延设备的制造。利用Fenn公司的线缆成型设备，圆形线缆也可用于线缆成型机上。这种线缆通过两个3U HP型组合式辊压模部件使线缆成型。



▲ Fenn公司的线缆成型机

轧扁和成型生产线。对于不规则的线缆，Fenn公司制造了更加适合于这种情况的其它类型的组合式辊压模，同时也制造了适合于已成型线缆拉丝工艺的不同类型的控制机构，包括梭口凸轮和平面双绞盘。

Fenn公司还为用户定制线缆拉丝机、弹簧盘卷机和轧延机。

**Fenn Technologies – 美国**  
传真: +1 860 667 4667

电子邮件: mcdiv@fenn.spx.com  
网站: www.fenntech.com

这些设备利用了两个简单的棍子调整机构，适合于正方形和矩形零件的生产。在图片显示的实例中，该成型线缆是在水平牵引盘上拉制而成的，该绞盘配置了拉伸臂以适用于收集松卷的成型线缆。

该设备包括一个变速驱轮以及具备单向流控制的循环式冷却系统，完全地解决了操作者的安全问题。

这些设备可以与Fenn公司生产的线缆轧扁机结合起来以构成线缆

## 系列金属盘

自从1967年以来，意大利OML公司始终为线材线缆行业生产金属盘。他们提供各种金属盘，包括标准盘（彻底维护的冲压纲法兰等）和特殊的线盘，但是他们还根据用户要求定制线盘。



▲ OML公司生产的金属盘

他们的生产过程由CAD-CAM工艺予以调控，以便控制所有机床并确保了加工工艺和质量。

**OML Srl – 意大利**  
传真: +39 0575 89071  
电子邮件: info@omlbobine.it  
网站: www.omlbobine.it



## WWM 公司的个性化加工

专业为焊接线生产厂商生产各种焊接线设备。

其范围包括各种不同类型的湿式拉丝生产线，可适合于碳钢、不锈钢、铝、铝合金和铜合金、CO2线缆、速度可达35m/s的盘式包装线、半自动和全自动精确复绕线、铜涂层箱、不同规格和不同用途的放线和收线装置。

除了制造标准生产线外，WWM公司还制造用于处理线缆表面的个性化生产线，如电镀生产线、镀镍层生产线和黄铜层生产线，这些生产线均以较高速运行。



▲ WWM's TB4/M1 拉丝机

该公司生产的适应于碳钢线缆的TB4/M1型湿式拉丝机有4根轴，采用全旋转式模系统和内置张力调节机构。

这些设备的主要特点是：速度最高可达25m/s；最大的输入线缆直径是2.5mm；最小的输出线缆直径是0.4mm；11道工序；可预先设置干式模具（12）；每工序的加工量可减少15%；浸没水中的圆锥线拉丝系统具有4个涂以标准钨化碳的水平轴；内置于机床框架中的补偿器；以及通过泵和管式热交换器的润滑剂/冷却液的循环。

**Welding Wire Machineries Srl – 意大利**  
传真: +39 04995 00682  
电子邮件: salesdept@wwmsrl.com  
网站: www.wwmsrl.com

## 一代湿式拉丝机

多年的发展和不断地利用革新技术，使M+E公司开发出一代新型的湿式拉丝机，从而大大地降低或消除了产品在质量和生产方面的许多问题。

与传统的设备相比较，一些主要的线缆制造商采用M+E公司生产的湿式拉丝机后对于各种不同类型线缆的生产均证实了能明显地提高产品质量和生产率，而且对模具的磨损没有增加。

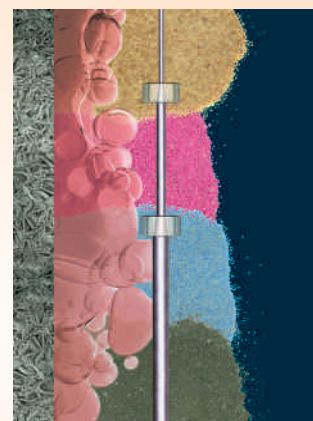
M+E公司的湿式拉丝机特别适合于下列钢丝线缆的拉制：镀铜线缆（钢芯、锯网）、热浸镀锌线缆、不锈钢线缆和优质弹簧线缆。

## 适合于各种场合的润滑剂和涂层

Pan化学用品公司是一家生产用于有色金属、无色金属、不锈钢线和设备所需的特殊拉丝润滑剂和涂层的欧洲生产商。

他们的产品包括：

- 干式拉丝润滑剂，用于低碳钢线、电镀线、焊接线、CHQ、高碳钢线、电镀后拉制和高合金钢。
- 湿式拉丝润滑剂：可溶性润滑剂、纯净油和润滑脂。
- 用于表面处理的产品：盐酸涂层、非活性预涂层以及适用于不锈钢的预涂层。
- 用于去脂、表面处理、不锈钢酸洗以及特殊应用的辅助产品。



▲ Pan公司生产用于线缆行业的特殊拉丝润滑剂

Pan公司还向用户提供各种设备，包括砂打磨带去鳞机、机械式去鳞机、TR1型去鳞机（单轮喷丸）、旋转式压力模机构、硼砂涂层和烘干设备、以及高科技的模预加热设备。

**Pan Chemicals – 意大利**  
传真: +39 03597 7288

电子邮件: info@panchemical.com  
网站: www.panchemical.com

M+E公司的产品范围包括最大具有12、25或33个模具并配有2、4或6锥体的拉丝机，适合于已经过加工的线缆和最小直径为0.08mm（.0031"）线缆的加工。

这种湿式拉丝机的主要特点是：线缆直线进给、无需转换机构、仅在一个方向上控制线缆、线缆盘圈直径和线缆直径的比率大、确保加工期间线缆和模具的适宜润滑、具有高压单个模具的清理系统、水冷却最后工序的模具和最后工序的牵引盘、高强度防振钢架、经过特殊密封的重载轴承和锥形轴以预防轴承的磨损、结构设计紧凑使加工期间易于接近、锥体上线缆滑片所占比例最小、具有无尘带传动的AC电机、易于接近所有部件使其维护和线缆预拉制的操作简单、采用一体化结构的电子柜和封闭式设计使其自锁性安全机构满足了最严格的安全要求。



▲ 一种配置了全自动绕线机构的M+E湿式拉丝机

M+E公司生产的湿式拉丝机还配置了放线架和传统的或完全自动化的收绕线装置。这种绕线装置可在水平轴或垂直轴线轴盘上收绕线缆。

**M+E Macchine + Engineering SpA – 意大利**  
传真: +39 03418 06002  
电子邮件: info@meitaly.it  
网站: www.meitaly.it

## 钢丝矫直机是Delisi公司最自豪的产品

Delisi Srl公司制造和销售用于生产直径为1~20mm的光滑和螺纹线材自动化矫直和切制机。

Delisi设备的主要特点是低的维护和生产成本，高产出、优质矫直和精确的加工精度。

最重要的革新项目就是钢丝矫直机。Delisi Srl公司是唯一一家生产能快速变换直径的线材矫直和切制设备的公司。

这种钢丝矫直机配置了预调整颚的矫直机构以适应各种加工直径的线材，这使该机易于正确安装矫直机构以便钢丝矫直机可在不浪费时间和材料的情况下开始工作。

由于进给辊子从不发生什么变化，因而，可手动选择线缆的右侧槽。

这种新型钢丝矫直机的另一个优点是它的颚与线材接触长，所以弯曲少，它可以提高生产率。辊子压力是靠气动原理调节的。

Delisi机也可配置电子编程器和收集线杆的收集器，也可配置带有可倾斜的臂三条生产线。

这可对不同长度和各种数量的加工线材进行编程，这些线材将各自地在三个生产线之一上单独地被收集而不用停机。

**Delisi Srl – 意大利**  
传真: +39 08823 33236  
电子邮件: delisi@delisisrl.com  
网站: www.delisisrl.com



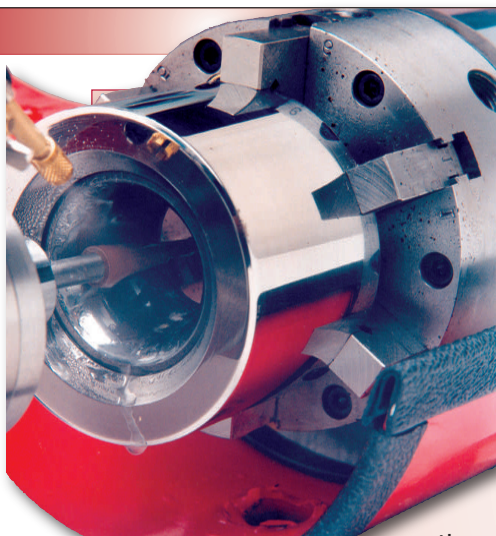


Photo credit: Die Quip Corp

## “Straight as a die”

Before the computer revolutionised many of the processes of wire production, the die maker was one of the most prestigious figures in the plant. The advent of the computer has only enhanced that reputation.

The sheer variety of materials in current use, together with today's increasingly rigorous standards and abbreviated lead times, impose demands on the die making operation that have intensified with automation. In one busy old-line wire plant the die shop was always known as the wheelhouse. Today – although looking more like the control room of a Vanguard-class submarine than of a sailing vessel – it still is.

The industrial diamonds employed in wire dies are expensive. Cutting around complex contours to create precision templates is exacting work. Customers are demanding, specifications dictate ever-smaller tolerances, certifiably accurate results must be guaranteed. The responsibility for much of this rests with the die shop.

This section of Wire & Cable ASIA reviews machinery, equipment, products, and services for professionals for whom “straight as a die” is more than a handy expression. It is their particular benchmark of quality.

## A real gem!

Kemet International Limited has developed the next generation of diamond products for polishing diamond and tungsten carbide wire drawing dies.

Diamond compounds and diamond suspensions are available in oil or water soluble formulations. They offer high heat stability and excellent lubrication properties.

Users have reported up to 30% increase in stock removal compared with conventional polishing.

Diamond compounds are mainly used on tungsten carbide wire drawing dies. The die is rotated in a chuck at approximately 1,500rpm. A metal shaped lap (cast iron, mild steel) is entered into the die with coarse diamond compound.

▼ Diamond products from Kemet International



The laps are then changed from metal to hard and soft wood sticks. The grades of diamond compound used are usually 45, 14 and 3 micron.

For diamond wire drawing dies, Kemet has developed a thick diamond suspension with a very high diamond concentration. This diamond suspension is far more effective at polishing than conventional methods.

Both tungsten carbide and diamond wire drawing dies require diamond products which will withstand heat and pressure without drying out or prematurely breaking down. The Kemet range of diamond products was developed specifically for this purpose and is the preferred choice amongst die polishers.

**Kemet International Ltd – UK**  
**Fax:** +44 1622 670915  
**Email:** sales@kemet.co.uk  
**Website:** www.kemet.co.uk

## Complete tool kits

Formed in 1973, CTR Birmingham has been supplying fastener tooling to the automotive, aerospace and building industry.

Peter Ruitenbergh, sales manager, commented: “We specialise in the



▲ A complete tooling service from CTR

manufacture of complete tool kits and offer a fast turn around service, helping our customers achieve their own schedules on-time and in full, which is why we are one of the largest fastener tool manufacturers in the world today.”

From segmented dies to a variety of coated punches CTR offer a complete service, which gives customers the option of a sole source of supply if required.

And with continued investment in the latest machining techniques and on-going training programmes, the company ensures that they continue to stay at the forefront of a competitive market place.

**CTR Carbide Dies Ltd – UK**  
**Fax:** +44 121 773 9342  
**Email:** info@ctr-uk.com  
**Website:** www.ctr-uk.com

# Dies & Die Shops

## Laser drilling expertise

Nota Zakład Mechaniki Precyzyjnej, Poland, is a producer of high quality wire drawing dies made from either natural diamond, PCD or synthetic diamond (Monodie 111).

A modern laser drilling machine type YAG with full PC control has been installed at the company's second factory, which enables precise processing of elements made from super hard materials.

A modern system of steering, together with the unique system of setting up the shaped material, achieves a full geometry of the wire drawing die with the high precision of up to 0.01°.

Many years of research, experiments and trials has made it possible for Nota to arrive at the level of technical and technological precision in order to satisfy customer needs.

**Nota Zakład Mechaniki Precyzyjnej – Poland**

**Fax:** +48 8144 41125

**Email:** nota@nota.pl

**Website:** www.nota.pl

## Experience counts

With nearly 40 years' experience, India's Kay Pee Dies are ideally placed to provide the best quality tungsten carbide dies at reasonable prices.

It has been a real case of a father and son team after being founded in 1968 by Harish Jindal, a mechanical engineer. His son, Asim, also joined the company in 1995.

At its state-of-the-art manufacturing unit, Kay Pee Dies manufacture tungsten carbide dies for wire, bar (0.2-100mm) in all shapes, fasteners, extrusion, welding electrodes, deep drawing and other metal forming applications.

Dies are custom designed and manufactured to high quality standards using the best available Indian and European carbide.

With broad customer bases in India, Nepal, Sri Lanka, Bangladesh, the Middle East and Africa, Kay Pee are also involved in negotiations to begin exporting to Europe.

In addition, Kay Pee also supply die shop consumables, die checking equipment, die shop machinery and

undertake re-cutting of used dies. Consultancy services for the correct selection of dies and management of die inventory, setting up of in-house die reconditioning shops is also provided.

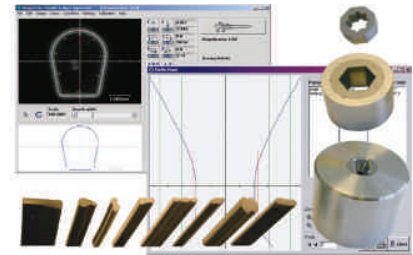
**Kay Pee Dies & Tools – India**

**Fax:** +91 120 270 1320

**Email:** kaypeedies@hotmail.com

## Quality counts at Conoptica

Conoptica is launching several new production and quality control systems aimed at tackling the challenges in the shaped wire and rod industry. It is necessary to measure both the drawing die and the product for efficient quality control of shaped wires and rods.



▲ Quality control systems to tackle challenges

If the wire or rod dimensions deviate from nominal values, the drawing die might need modification.

A quality control system that can measure corresponding parameters for both product and tool is needed to specify the correct drawing die parameters.

>>>

A large advertisement for Braude. It features a red background with a repeating 'BRAUDE' pattern. In the center is a large industrial tank heater with a circular head and a flexible neck. To the right is a smaller, boxy industrial machine, likely a cooling system. Text overlays include 'tank heaters', 'external heating systems', 'Tank and vessel heaters for pickling', and 'Specialists in heating & cooling systems and equipment for highly corrosive liquids...'. The Braude logo is prominently displayed at the bottom right.

**tank heaters**

**external heating systems**

**Tank and vessel heaters for pickling**

**Specialists in heating & cooling systems and equipment for highly corrosive liquids...**

**BRAUDE**

Liberta House · Sandhurst · Berkshire · GU47 8JR · England  
**Telephone:** +44 (0) 1252 876123 • **Facsimile:** +44 (0) 1252 875281  
[www.braude.co.uk](http://www.braude.co.uk) • [sales@braude.co.uk](mailto:sales@braude.co.uk)





Conoptica's quality control system is perfectly suited for this task. Measurements are closely linked through a common model for both product and tool.

This ensures that measurements of corresponding parameters are carried out with reference to exactly the same definitions and coordinate ranges, and simplifies the task of modifying the die so that the nominal product geometry can be achieved.

The Conoptica quality control system makes tool making more cost effective, especially in the finishing stage where measurements play an important role. It also improves the communication between toolmaker and wire producer through objective comparison between tool and product.

Tool making skills are accumulated while human measurement errors are reduced to a minimum.

The full range of Conoptica production and quality control systems cover applications from fast, accurate and low cost measurement of round/shaped die and/or wire diameter to high end 3D full profile measurement

of any geometrical object (drawing/shaped/enamelling die/wire/rod/pin/needle/tube) within system specifications (0.010mm-400.00mm).

## Conoptica - Norway

**Fax:** +47 7283 1435

**Email:** conoptica@conoptica.com

**Website:** www.conoptica.com

## Sole representative

India's Ajax & Turner has been selected as the sole representative for Metalube Ltd, UK, for India, Sir Lanka, Nepal, Bhutan and Pakistan for their wire drawing lubricants. The Delhi-based company manufacture wire drawing dies, cold heading dies, shaped dies in PCD-diamond carbide, die polishing machinery, accessories and consumables.

Metalube products, including Lubricool and Alumol, contain special cleaners, biocides, corrosion inhibitors and emulsion conditioners.

## Ajax & Turner Wire Dies Co - India

**Fax:** +91 11274 52640

**Email:** ajax@ndf.vsnl.net.in

## All sizes and styles. . .

OSG Tap and Die has a worldwide reputation for their quality cutting tools and dies.



▲ OSG have a worldwide reputation

Manufacturing a wide range of thread rolling dies and much more, OSG offers a complete range of high quality in-feed and thru-feed cylindrical dies for thread and form rolling.

Their planetary dies are precision ground on both the rotary die and segment dies, offering maximum accuracy.

In addition, OSG produces trimming dies, segmented carbide dies and rack dies.



## TEL-MAK-SAN

### High Quality Steel Process Reels

*Pressed Reels*

*Fully machined Reels*

*Heavy Duty Reels • Drums*



**Tel:** +90 216 593 05 20

**Fax:** +90 216 593 05 24

**e-mail:** telmaksan@telmaksan.com

**web:** www.telmaksan.com

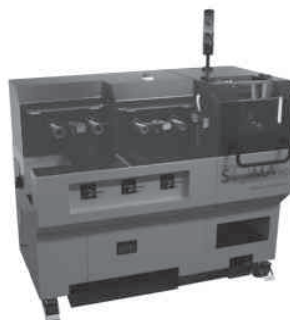
**Istanbul / TURKEY**

## SOMA AG

Soma offers a complete range of machines for the production and the processing of fine wire in the diameter range of 0.015 - 0.5 mm (0.0006 - 0.02 inch). Years of development and improvement with the support of admitted clients and end users has led to machines that provide:

- maximum process stability
- minimum maintenance efforts
- optimal operating comfort

Our fine wire machines are designed to produce top quality fine wires, non ferrous as well as ferrous.



### ZAM Drawing unit

for bonding and ultra fine wire

- Drawing system with singel drive capstans for a maximum flexibility
- scaled and optimized for bonding and ultra fine wire
- dry drawing to avoid wire sticking on the drawing capstans
- anti corrosive treated module
- winding patterns for conical spools and ballistic winding

SOMA AG  
Fabrikstrasse 6  
8340 Hinwil ZH  
Switzerland



T +41 44 938 98 88  
F +41 44 938 98 38  
info@somafinewire.ch  
www.somafinewire.ch

# Dies & Die Shops

With more than 700 styles and sizes to choose from, OSG is confident they have exactly what is needed for customers.

**OSG Tap and Die Inc – USA**

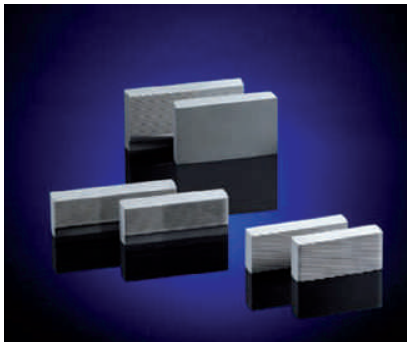
**Fax:** +1 630 653 2821

**Website:** www.osgtool.com

## Flat die specialists

Manufacturing a wide range of thread rolling dies, specifically flat dies, Sterling Die is introducing a wide range of licensed products for which they can manufacture flat dies.

Sterling is licensed to produce flat dies for a number of products for Reminc, including Remform®, Taptite 2000®, Taptite II® and Plastite®.



▲ Sterling Die – licensed to produce flat dies for a number of products

In addition, Sterling is licensed to manufacture dies for Ejoyt products including the PT® and Delta PT®. They are also licensed for the MATHread® design.

As well as licensed products, Sterling can produce dies made to customer specifications.

A variety of tool steels and surface treats are available to optimise performance and die life, and the latest CNC equipment is available to help machine close tolerances.

Sterling can further support the quality of their product with the availability of their in-house heat-treat capabilities.

**Sterling Die Inc – USA**

**Fax:** +1 216 267 3356

**Website:** www.sterlingdie.com

## Building a reputation

Shanghai East Diamond, China, specialises in producing optimum and complete series of superfine wire

drawing dies, covering all requirements for the wire and cable industry.

With the steady growth over the years, the company has built its reputation with continuous improvement and innovation.

Products include natural and single crystal diamond dies, polycrystalline diamond dies, tungsten carbide dies, extrusion guides and dies, enamelling dies as well as die reconditioning equipment.

The finished diamond dies' sizes are from 0.01mm-25mm and tungsten carbide dies' sizes are from 0.15mm to 100mm.

Today, Shanghai East Diamond Co Ltd is quickly expanding internationally. With a major manufacturing facility in China, a sales office in Canada, and agents in different countries, the company is poised to serve customers on a global scale.

And those customers can be certain of stringent quality control and of excellent customer service.

**Shanghai East Diamond Co Ltd – China**

**Fax:** +86 21 6475 3167

**Email:** east-diamond@online.sh.cn

## Expecting 20,000 visitors to exhibition

A total of 20,000 buyers and 300 exhibitors are expected take part in this year's 5<sup>th</sup> International Mould and Die Making and Manufacturing Technology Exhibition for Asia (Mould and Die Asia 2007) at the Chinese Export Commodities Fair Pazhou Complex, Guangzhou, China between 26<sup>th</sup>-29<sup>th</sup> September.

Designed for the international market of the mould and die industry and the manufacturing sector, the event is packed with a variety of exhibits including moulds and dies, mould components, parts and components forming machines, mould and die repair equipment, mould and die processing machines, mould design/engineering/manufacturing/inspection systems, hot runner systems, mould and die materials, surface treatment, metal finishing, and other auxiliary equipment.

The Mould and Die Asia International Forum will be held alongside the exhibition.

>>>

## All Kinds of Rolls from China

- \* Quality products
- \* Competitive price



We manufacture all kinds of rolls for wire & Tube. The material of the rolls is Tungsten Carbide or steel according to user's requirement. We have more than 500 clients in China as well as overseas. They are all very satisfied with our products. We can offer a rapid and reliable service for both the supply of new rolls as well as regrinding of existing rolls.

we are looking  
for overseas agents

**JYD TECH. & INDUSTRY CO., LTD.**


(Jin Ying Da Alloys)

**Add:** No. 40-5 South Huju Road,  
Nanjing, China

**Tel:** 86-25-86668069 86604889

**Fax:** 86-25-86604499

**E-mail:** market@nj-jyd.com



**SHREE**  
**M** **AHALAXMI**  
**DIE INDUSTRIES**

- \* MFRS. OF WIRE DRAWING DIES.
- \* NATURAL DIAMOND
- \* P.C.D. DIES
- \* T. C. DIES
- \* DIAMOND POWDER / PASTE
- \* DIE REPAIRING MACHINERY

6/653, Moti Sheri, Lal Darwaja,  
Surat - 395 003. (Gujarat) INDIA.  
Ph.: 91 - 261 - 3296894, 2418189  
Fax : 91 261 2412845  
E-mail : mahalaxmidie@yahoo.co.in  
Website : www.mahalaxmidie.com



<<< Industry veterans will share their insights with local and overseas counterparts on the topic of 'Sustainable Development of Asian Mould and Die Industry'.

In addition, technological advances will be introduced through a series of seminars at the same venue, making the event a one-stop platform for business networking, market information and cutting-edge technology sourcing.

In 2005, Mould and Die Asia attracted 13,000 buyers from 41 countries and regions.

59% of the buyers were from manufacturing industries and 18% from the mould and die making industry. Executive management, production management and purchasing personnel formed 61% of the buyers.

Proved by these achievements, the organisers believe that the 2007 event will enlarge its scale and increase the number of visitors to more than 20,000.

Mould and Die Asia 2007 is organised by Business and Industrial Trade Fairs Ltd and Genertec International Advertising and Exhibition Co Ltd, and is fully supported by Hong Kong Mould and Die Council (Federation of Hong Kong Industries) and Guangdong Die and Mould Industry Association.

## Business and Industrial Trade Fairs Ltd – Hong Kong

**Fax:** +852 2866 1770  
**Email:** enquiry@bitf.com.hk  
**Website:** www.mould-die.com

## Quality and service from Balloffet

A forerunner in manufacturing innovation (drilling, forming, sizing, polishing) tight controls of the products, Balloffet is ideally placed to help reduce maintenance costs, combined with excellent quality and service.

The French company has bases in the UK, USA and Germany, alongside a worldwide network of agents.

The product range includes natural diamond dies from 6 $\mu$  to 2.5mm, mono-crystalline dies from 6 $\mu$  to 0.5mm, poly-crystalline (PCD) dies from 50 $\mu$  to 28mm, compacting, stranding and special shape dies, enamelling guides, extrusion tooling (guides and dies), special tooling with diamond insert and repolishing machines and equipment.

The company offers training of operators and technicians at the Balloffet training centre and showroom, or at customer sites. They also offer control and technical reports of customer dies.

Balloffet is an ISO 9001-2000 certified company.

### Balloffet – France

**Fax:** +33 474 357901  
**Email:** balloffet@balloffetdie.com  
**Website:** www.balloffetdie.com

## New machines to repair tools

With more than 130 years' experience in the manufacturing of drawing dies Mouton has developed a complete range of machines dedicated to the production and repairing of tools, in particular tungsten carbide wire drawing dies.

In 2006 Mouton introduced the new grinding machine MU210 for internal and external grinding, which allows the resizing of drawing dies and shaving tools.

Mouton designs and manufactures metal wire shaving machines, and also a complete range of consumable products – diamond paste and grinding wheels – necessary to the production of quality drawing dies and tools.

Some new machines – including a lapping machine for small diameters, a die cleaning machine and a new machine to grade radii – are under development and will be commercialised in 2007-2008.



▲ The new MU210 grinding machine (top) and the wire shaving head TR02

Mouton and Rivom belong to the Agir Technologies Group.

### Agir Technologies Group, Mouton-Rivom – France

**Fax:** +33 3 80 51 81 36  
**Email:** ferret@agir-technologies.com  
**Website:** www.mouton-sa.com

## Devotion to die manufacture

Since 1974 Chyi Meei Precision have devoted themselves to developing and manufacturing a wide variety of natural and polycrystalline diamond dies.

## Bongard®

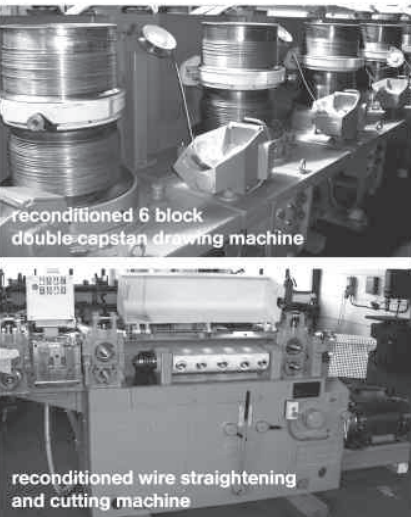
### M a c h i n e s

**More than 1200 second-hand machines in stock –**  
please visit our marketplace for used machines for the wire-, cable- and rolling mill industry

**www.bongard.de**



**reconditioned 6 block double capstan drawing machine**



**reconditioned wire straightening and cutting machine**

**Interwire, Cleveland USA,  
May 7-10, 2007**  
**wire Russia, Moscow  
May 28-31, 2007**

**Contact us:**  
Bongard Trading GmbH & Co. KG  
Ohlweg 7 · 58730 Fröndenberg/Germany  
Tel. +49 2378 915-5  
Fax +49 2378 915-300  
info@bongard.de · www.bongard.de

# Dies & Die Shops



▲ Chyi Meei manufacture a wide range of products



Establishing a joint venture with Osaka Diamond Industrial Co Ltd (ALMT Corp) in 1998 has allowed Chyi Meei to deliver cutting-edge solutions.

With highly stable manufacturing technology, the product specification is from the maximum 8mm to the finest 0.01mm. Chyi Meei is also an ISO9002 certified company, which deploy quality assurance to deliver advanced solutions.

Chyi Meei continually strives to meet customer demand and has clients in the wire electronic industry, semiconductor, electronic devices and automobile to optoelectronic, optical products and medical apparatus businesses.

The products include natural diamond dies, polycrystalline (or sintered) diamond dies, shaped wire-drawing diamond dies, guiding dies, PVF dies, tin-coated copper dies, point dies, diamond wheel, diamond ultra precision cutting (UPC) and diamond rotary dressers.

**Chyi Meei Precision Industry Co Ltd – Taiwan**  
**Fax:** +886 22657 2929  
**Email:** chymeei@diamonddies.com.tw  
**Website:** www.diamonddies.com.tw

## Go on, make the switch

By the mid-1970s it took a long time and a lot of effort convincing wire drawers to switch from inexpensive tungsten carbide dies to the new

PCD dies. Even some of the diameter ranges traditionally covered by natural diamond dies were quickly replaced by PCD dies, particularly the bigger sizes where, beside a clear price advantage, better performance soon convinced the users to adopt the new material.

PCD blanks have considerably evolved and improved throughout the years and there are now a wide variety available in the market with different dimensions, grain structures, supported or unsupported by a metal ring, thermally stable at temperatures up to 1,200°C, round blanks, square and hexagonal.

However, when large bore size diameters are involved, which is synonymous of inclusion in the budget for an expensive die, users are still reluctant to switch from tungsten carbide dies to PCD.

PCD dies have opened a new world of possibilities for the wire and cable industry. A constant and steady production, maintaining strict tolerances and excellent superficial quality for much longer, are the most important facts that are positively considered by potential users.



▲ The PCD die blank in > ø 33.00mm size

A clear example is now the increased application of 'XXL' PCD dies for cable stranding and compacting. Three well-known main PCD blank manufacturers cover all possible diameters involved from the small-medium sizes up to the spectacular >ø 33.00mm.

At Temsa-Diamond, the technical department develops and designs the most suitable die geometry for cable stranding and compacting, supported by an accurate execution and perfect final mirror polishing, thus ensuring the expected dimensional exactness, long die life and satisfactory performance.

**Temsa-Diamond – Spain**  
**Fax:** +34 93660 0473  
**Email:** jcabrera@temsadiamond.com  
**Website:** www.temsadiamond.com

## PIONEER DIE MANUFACTURER IN INDIA

**Kay Pee**

**Dies Since 1968**

Draw on our Experience & Expertise



*Assurance of Quality .....  
 ..... Reputation of Reliability*

## KAY PEE DIES & TOOLS

D-16, Meerut Road Industrial Area  
 Ghaziabad - 201 003 (U.P.) INDIA  
**Ph. :** ++91-120-2712085, 3297194  
**Fax :** ++91-120-2701320  
**E-mail :** kaypeedies@hotmail.com

An ISO 9001 Approved Company

## GARG INOX LTD.

(Formerly known as Garg Sales Co. Pvt. Ltd.)

Govt. Certified Export House

**Manufacturers of:**

**Stainless Steel Wire & Round Bars**

**Grades:**

**Austenitic, Ferritic and Martensitic Series**

**Diameter Range:**

**0.040mm to 12mm in Wire**

**1.6mm to 50mm in Round Bars**



**We also deal in :**

Stainless Steel Wire Products • Stainless Steel Sheet & Sheet Products • Galvanized Wire • Zinc Wire

**Works:** CH-9, Old Industrial Area, Bahadurgarh, Haryana (India)

**Tel.:** +91-1276-244231 / 32 / 33 / 34 • **Fax:** +91-1276-244235

**E-mail:** gargwire@vsnl.com • **Web:** www.gargwire.com

**OUR OVERSEAS OFFICES:**

**U.K.**

**gargwireuk@yahoo.co.uk**

**U.S.A.**

**gargwireusa@yahoo.com**



## quality inside



more  
information  
at  
[www.uhing.com](http://www.uhing.com)

**Joachim Uhing KG**  
GmbH & Co.  
Tel.: +49 4347 906-0  
Fax: +49 4347 906-40  
D-24247 Mielkendorf  
[sales@uhing.com](mailto:sales@uhing.com)

...made by



### Improving the life of the die

Diamond dies, when used effectively, increase the die life, and improve the quality and surface finish on the wire.

Mikrotek manufactures various types of dies: viz diamond dies, polycrystalline diamond dies, tungsten carbide dies, PCD enamelling dies, TC enamelling dies, and also offers a reconditioning service and die polishing equipment.

The selection of the correct profile and blank ensures good quality wire for a prolonged time.

Mikrotek selects the correct die profile and type of blank (fine or coarse grain) for the material drawn, machine design and drawing speed.



▲ Drawing dies from Mikrotek

The company also ensures that the customers' requirements like diametric tolerance, surface finish and mechanical properties are maintained. Continuous technical support, service and consistent quality are making Mikrotek a leading player in the global market.

### Mikrotek Machines Ltd – India

**Fax:** +91 80 23621769

**Email:** [mmmmm@vsnl.com](mailto:mmmmm@vsnl.com)

**Website:** [www.sim123.com](http://www.sim123.com)

### Tested through time

Die Quip manufactures die-finishing equipment used in the wire bar and tube drawing industry to re-work tungsten carbide dies from 0.75-125mm diameter.

With semi-automatic and manual machines Die Quip are able to fit the polishing or re-cutting needs of any mill. The designs and construction are the strongest in the market



▲ The BG6 die grinder polishing a die

because they are based on time-tested machine-building principles that provide long production life.

The DS/2 Die Saver is a manual grinding and semi-automatic polishing machine featuring an NSK electric spindle and angle setting gauge.

It is the ideal multi-purpose machine for reworking dies due to its easy to use grinding and polishing systems.

Made of heavy duty construction, it also has a powerful grinding spindle and precision angle setting.

Wire or bar mills that use larger than 6mm diameter dies can use the BG6 Die Grinder, featuring the most powerful grinding spindle available (1.2kw).

This power, along with the 12° grinding concept and special polishing pins, will provide finished dies in less time with no hand polishing to a 2-4 Ra finish.

Die Quip also provide the training and materials needed to make and maintain dies, as well as offering die design material and consulting to help customers produce more tons per die.

Proper die design will reduce the overall cost of production compared to reducing the cost of the die.

### Die Quip Corp – USA

**Fax:** +1 412 835 6476

**Email:** [diequip@diequip.com](mailto:diequip@diequip.com)

**Website:** [www.diequip.com](http://www.diequip.com)

### Going ultrasonic!

One of the major points to boosting any wire drawing or cable plant's

# Dies & Die Shops



▲ *Ultrasonic technology with the USP-TWIN*  
economy is not to allow costly precision wire drawing die tools to deteriorate, as prolonged die tool life will ensure that more wire can be drawn.

Eder Engineering, Austria, with 60 years' experience, is an acknowledged specialist in the field of both advanced drawing die-tools, die processing technology and equipment.

As a global supplier and adviser to the international wire and cable industry, Eder offers single equipment in the latest technology to upgrade existing installations, complete die-tool reconditioning workshops and turn-key die-tool production lines, with the entire hard- and software.

Modern multi-line wire drawing machines are using many more dies which wait in increasingly larger numbers for reconditioning in die workshops, where skilled operators or suitable die reconditioning are often in short supply.

Among many other leading conceptions available, Eder has recently designed the 'USP-TWIN', the first-ever ultrasonic machine with two workstations for reconditioning of natural and PCD dies.

It can be easily handled by one single operator whilst at the same time nearly doubling the output of processed die tools.

**Eder Engineering GmbH – Austria**  
Fax: +43 1367 494949  
Email: office@eder-eng.com  
Website: www.eder-eng.com

## Experience counts!

With more than 75 years' experience, Schaff are ideally placed to offer expert advice on wire drawing dies.

There are a number of advantages of pressure dies over conventional wire drawing dies.

A conventional wire drawing die has a simple profile with an entry angle, reduction angle, bearing and exit angle.

A pressure die is made of two components – a wire drawing die and a pressure nib insert, securely fastened on the wire die, which leads the lubricant in the reducing zone or the so-called pressurised lubricant zone.

Exclusive features of the pressure die include pressure nib which clamps on the face to arrest leakages, and the optimum use of lubricant to increase cost savings.



▲ *A selection of pressure dies from Schaff GmbH & Co*

Savings are also increased on production time with simple dismantling and assembly.

Other advantages include a quick change assembly system, minimum use of tools and expertise for dismantling and assembly.

Other benefits, which again lead to lower production costs, also include maximising die performance, minimising redundant work during drawing, increased drawing speeds, reduction in down time of the machines and the consistency in wire output.

**Schaff GmbH & Co**  
– Germany  
Fax: +49 2772 62019  
Email: S-C-O-B@t-online.de  
Website: www.scob.de

## M&M METAL WIRE CO., LTD

- \* Quality Products
- \* Competitive Price



ARMOURING CABLE WIRE

Tel: +86-10-51656609  
+86-13910833898  
Fax: +86-10-84928449  
Email: sales@china-ironwire.com  
Web: www.china-ironwire.com

## AJEX & TURNER

### QUALITY OF WIRE BEGINS WITH AJEX DIES



- PCD, Natural & Mono Wire Dies
- Tungsten Carbide Dies & Bush
- Stranding Dies & Compacting Dies
- Wire Guides & Dies (PCD, ND & TC)
- Enamelling Dies in all shapes

#### DIE REPAIRING CONSUMABLES

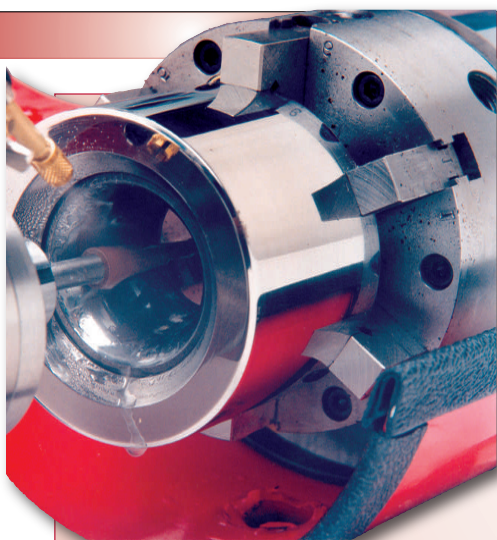
- Diamond Paste & Powder
- Diamond Hand Files, Angular Pins, Checking Pins
- Boron Carbide Powder & Paste
- Ceramic Parts, Bush & Pulley

#### DIE RECONDITIONING MACHINES FOR PCD, N.D. & CARBIDE DIES

*For further details, please contact :*

**Ajex & Turner Wire Dies Co.**  
QUALITY-INNOVATION & EUROPEAN KNOWHOW  
A-53, G.T. Karnal Road, Delhi-33 (INDIA)  
Tel.: 0091-11-47092209, 65167901-02  
Fax: 0091-11-23940226 / 27452640  
Mob: 0091-98 110 78882  
E-mail: ajexturner@gmail.com  
Website: www.ajexdiamond.com





图片: Die Quip Corp

## 模具和模具车间

在电脑彻底革命了线材的生产过程之前, 模具的制造者在厂里就已经是最举足轻重的人物, 而电脑的出现, 更加使他们的地位更上一层楼。

目前模具使用材料种类繁多, 日益严格的标准, 越来越短的产品交付期限, 给模具制造生产提出了更高自动化的要求。过去在一个繁忙的旧式线材厂里, 模具车间可谓是厂里的舵手室。如今它依然起着舵手室的作用, 虽然比起一艘普通航船的控制室来, 它更像是先锋级潜水艇的控制室。

线材模具使用的工业金刚石价值昂贵。切割出复杂的轮廓来制造精密的模版是非常精细的工作。客户要求, 在规格要求规定公差应尽可能小, 必须保证结果准确可靠, 而模具车间对此负着大部分责任。

亚洲电线电缆这部分关于机械、设备、产品和服务的评论来自专业人士, 对他们来说‘像模具一样平直可靠’不仅仅是一个常挂在嘴边的词, 更是他们严格执行的质量基准。

## 助您恪守时间

CTR伯明翰公司成立于1973年, 一直向汽车、航空航天和建筑业提供紧固件模具。

销售经理Peter Ruitenbergh说: “我们专业生产制造完整工具套件, 并提供完整快速周转服务, 以帮助顾客达到并实现自己的时间表, 这就是为什么我们会成为一个最大紧固件工具厂商的原因之所在。

“从分割模具至各种涂层冲压板, CTR均提供了完整的服务, 在必要情况下是客户的惟一供应来源。”

▼ 来自中部地区公司的完善服务

公司持续投资最新加工技术和现行培训计划, 以保证其继续走在市场竞争的前沿。

**CTR Carbide Dies Ltd – 英国**

传真: +44 121 773 9342

电子邮箱: info@ctr-uk.com

网站: www.ctr-uk.com

## 真正的宝石!

Kemet国际有限公司已研制出用于抛光金刚石及硬质合金拉丝模具的新一代产品。

金刚石混合物及金刚石悬浮物可作为石油或水溶性制剂。其润滑性能优良、热稳定性高。

据用户反馈, 与传统抛光相比, 切削量提高30%。



▲ Kemet国际的金刚石产品

金刚石化合物主要用于碳化钨拉丝模。模具在一个大约1500RPM的卡盘内旋转。模具内有一个金属搭接(铸铁、低碳钢)连通粗金刚石合成物, 该搭接然后由金属变换成软、硬木棒。通常用45、14和3微米金刚石合成物。

就金刚石拉丝模, Kemet已研发出了一种拥有极高金刚石浓度的厚金刚石悬浮物。该金刚石悬浮物在抛光方面远远比传统方法更为有效。

无论碳化钨还是金刚石拉丝模均要求其能抗热抗压而不变干或过早破裂。Kemet旗下的各类金刚石产品均专门为此研制, 并在模具抛光中独树一帜。

**Kemet International Ltd – 英国**

传真: +44 1622 670915

电子邮箱: sales@kemet.co.uk

网站: www.kemet.co.uk



# 模具和模具加工



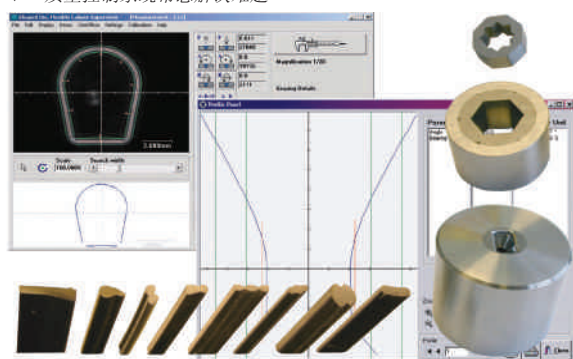
## Conoptica 品质至上

Conoptica正在推出几款新的产品和质量控制系统，以解决成型线和型材行业中的难题。

有效的控制型线和型材的质量需要对拉丝模和产品都进行测量。如果型线或型材的尺寸偏离了标称值，那么拉丝模就需要调整。

需要有能够测量产品和工具的相应参数的质量控制系统来明确正确的拉丝模参数。Conoptica的质量控制系统就可以出色的完成这个任务。

### ▼ 质量控制系统帮您解决难题



产品和工具的测量通过一个共同的模块连接起来。

这就保证了执行相应参数的测量时采用的精确度和范围是完全相同的，这样简化了调整模具的任务，从而使产品达到标称几何尺寸。

Conoptica质量控制系统可以实现工具的制造的更加低成本高效，尤其是在制造的最后阶段，测量起着举足轻重的作用。同时，它还通过对工具和产品的主观比较改善了工具生产商和线材生产商之间的交流。随着人们的测量误差降低到最小，模具制造技能不断提高。

Conoptica产品和质量控制系统适用范围广泛：从低成本、迅速、精确的圆形模/异形模/或线材的直径测量，到任何0.010mm-400.00mm规格内的几何物体（拉丝/异形/漆包线模/线材/棒/栓/针/管）的高端3维测量。

**Conoptica – 挪威**  
传真: +47 7283 1435  
电子邮箱: conoptica@conoptica.com  
网站: www.conoptica.com

## 来自Balloffet的品质和服务

Balloffet是制造业创新（钻孔，成形，定径，研磨）中对产品进行严格控制的先驱。

Balloffet拥有卓越的品质和服务，是帮您降低维护成本的理想帮手。

这家法国公司在英国、美国和德国都有基地，同时还在世界各地拥有众多的代理点。

该公司产品的范围包括6 $\mu$  到 2.5mm的天然金刚石模具、6 $\mu$  到 0.5mm的单晶模具、50 $\mu$  到 28mm的聚晶(PCD)模具、紧压模、绞线模以及异形模，漆包线模、挤出工具（模芯和模嘴）、专用嵌钻工具、抛光机和设备。

Balloffet公司可以在其自有的Balloffet培训中心和展厅，或顾客的场地向操作员和技术员提供培训服务。他们为客户的模具提供控制和技术报告。

Balloffet公司已经通过ISO 9001-2000认证。

**Balloffet – 法国**  
传真: +33 474 357901  
电子邮箱: balloffet@balloffetdie.com  
网站: www.balloffetdie.com

## 经验丰富

拥有近40年的经验，印度Kay Pee 模具公司以合理的价格向客户提供最优质的硬质合金模具。

该公司是一典型的父子团队，由机械工程师Harish Jindal创立于1968年。随后，其子Asim于1995年同样加入该公司。

在其艺术级的制造单位下，Kay Pee 模具公司生产的碳化钨模具适用于各形状的钢丝、钢棒(0.2—100毫米)紧固件、挤压、电焊、深冲及其他金属成形应用。

模具采用印度和欧洲最佳碳化物，为用户量身设计及制造，品质卓越。

Kay Pee 模具公司不仅在印度，尼泊尔，斯里兰卡，孟加拉，中东和非洲拥有广泛的客户，而且还涉足于出口到欧洲的谈判。

此外，Kay Pee 模具公司还提供模具车间耗材、模具检测设备、模具机械并承担已用模具的修模。

同时提供有关正确选择模具、模具库存管理的咨询服务以及内部模具修模。

**Kay Pee Dies & Tools – 印度**  
传真: +91 120 270 1320  
电子邮箱: kaypeedies@hotmail.com

## 搓丝板模专家

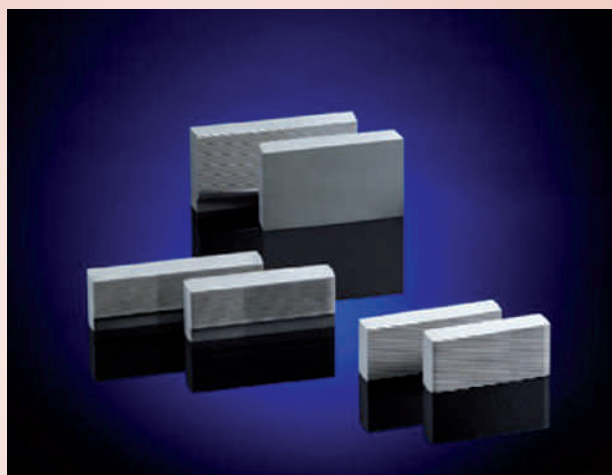
Sterling 模具公司拥有多种用于生产平板模具的许可证产品，广泛生产多种滚丝模具，尤其是搓丝板模。

Sterling 有权生产用于多种Reminc产品的搓丝板模，包括Remform®, Taptite 2000®, Taptite II® 和Plastite®。

此外，Sterling公司获权生产用于Ejot产品的模具，包括PT® 和Delta PT®。同时，还获权进行MATHread®设计。

在获得许可证的产品中，Sterling公司可以按客户规格制作模具。可优化各种工具钢、表面处理的性能以及模具寿命。其最新的数控机床设备可有助于机器严格的公差。Sterling公司还有内部热处理能力，可进一步保证其产品质量。

**Sterling Die Inc – 美国**  
传真: +1 216 267 3356  
网站: www.sterlingdie.com



▲ Sterling 模具—获权生产用于各种产品的搓丝板模



## 继续促进变革

在70年代中叶, 公司花费很长时间和很大精力使人们将拉丝模具从便宜的碳化钨磨具到新的聚晶金刚模具转变。尽管传统上天然金刚石模具包含的一些直径范围很快被聚晶金刚模具代替, 除了价格优势和较好的性能, 尤其是能提供较大的尺寸, 因此用户开始采用新材料。

聚晶金刚的应用经过几年的努力已经得到很好的改进与发展, 现在市场上有多种规格、多种结构、带有金属环支撑或没有金属环支撑、具有1200°C内热稳定、具圆形的、正方形以及六边形模坯等可供选择。



▲ 聚晶模坯规格 >Ø 33.00mm

三家著名的聚晶金刚制造商能够生产出从中小尺寸到大于30毫米所有直径系列的产品。Temsam-Diamond的技术部门开发设计出更适用的几何模具用于绞缆和紧压, 精确的制作和完美的镜面抛光保证了预期的精度、使用寿命长和令人满意的性能。

**Temsam-Diamond - 西班牙**  
传真: +34 93660 0473

电子邮箱: jcabrera@temsadiamond.com  
网站: www.temsadiamond.com

然而, 当要求很大的孔径的时候就比较麻烦, 也就是说价格比较昂贵, 用户还是很不情愿将碳化钨磨具转到聚晶金刚模具。

聚晶金刚模具已经为线材和电缆产业开辟了一个新的世界。这是一种稳定的产品, 拥有严格的公差和卓越的表面质量, 更重要的是潜在的用户对它非常肯定。

显著的例子之一就是越来越多的‘XXL’聚晶金刚模具应用于绞缆和紧压。

## 展会预计将有2万名访客

预计共有300个参展商及20,000名买家将参加在中国广州琶洲中国出口商品展览馆在9月26日-29日期间举办的本年度第五届亚洲国际模具制作及制造技术展览会(2007年亚洲模具)。

针对国际市场的模具业和制造部门, 该展会将展出各种展品, 包括模具、模具零件、零部件成型机、模具修理设备、模具加工机械、模具设计/工程/制造/检测系统、热流道系统、模具材料、表面处理、金属加工及其它辅助设备。

亚洲国际模具论坛将与展会同期举行。行业内专家将与国内外同行就“亚洲模具业的可持续发展”进行探讨。

此外, 会场还将通过一系列的研讨会介绍先进技术。使该活动成为商业网络、市场信息和尖端技术来源的一站式平台。

2005年, 亚洲模具吸引了来自41个国家和地区的13,000名买家。这些买家, 59%来自制造业、18%来自模具制作业。61%由执行管理、生产管理和采购人员组成。之前的这些成就使主办单位相信2007年将进一步扩大规模, 访客人数将超过两万。2007年亚洲模具展览会由工商交易会有限公司、Genertec国际

广告和展会有限公司组办, 香港模具协会(香港工业总会)、广东省模具工业协会支办。

**Business and Industrial Trade Fairs Ltd - 香港**  
传真: +852 2866 1770  
电子邮箱: enquiry@bitf.com.hk  
网站: www.mould-die.com

## 激光钻孔专家

波兰Nota Zakład Mechaniki Precyzyjnej主要生产由天然钻石、聚晶金刚石或人造金刚石(Monodie 111)制成的高品质拉丝模具。YAG型全电脑控制现代激光钻孔机已安装于公司第二工厂, 该机可对由超硬材料制成元件的精密加工。现代转向系统外加独特的成型材料设置系统可制作完美几何形状的拉丝模具, 精度可达0.01°。

经过多年的研究、实验和试用, Nota的技术和工艺水平足以满足客户需求。

**Nota Zakład Mechaniki Precyzyjnej - 波兰**  
传真: +48 8144 41125  
电子邮箱: nota@nota.pl  
网站: www.nota.pl

## 独家代理

印度Ajex & Turner公司是英国Metalube有限公司的拉丝润滑剂在印度、斯里兰卡、尼泊尔、不丹和巴基斯坦的独家代理公司。公司以德里为基地, 生产拉丝模具、冷镦模具、PCD金刚石硬质合金成形模具、模具抛光机械、配件及耗材。

Metalube产品包括Lubricool和Alumol, 包含特别清洗剂、除菌剂、缓蚀剂以及乳化剂调节装置。

**Ajex & Turner Wire Dies Co - 印度**  
传真: +91 11274 52640  
电子邮箱: ajex@ndf.vsnl.net.in

## 致力于模具制造

其美精密工业股份有限公司从1974年已经致力于开发和制造天然的和多晶的金刚石模具。1998年和大阪钻石工业有限公司建立一家合资公司, 使得其美可提供一流的解决方案。

拥有高度稳定的制造技术, 产品规格从最大8毫米精确到最小0.01毫米。其美已通过ISO9002质量体系认证, 为先进的解决方案提供高品质保障。其美不断地努力满足客户需求并且在电线电子工业、半导体、电子设备、光电运动、光学产品和医学器械领域也都有客户。



▲ 其美生产的各种系列产品

他们的产品包括天然金刚石模具、多晶(或者说烧结的)金刚石模具、异型拉丝金刚石模具、导线模具、聚氟乙烯模具、镀锡铜模具、导向模具、金刚石模轮、金刚石超精密刀具和金刚石旋转砂轮。

**Chyi Meei Precision Industry Co Ltd - 台湾**  
传真: +886 22657 2929  
电子邮箱: chyimeei@diamonddies.com.tw  
网站: www.diamonddies.com.tw



## 修理工具的新机器

拥有超过130年的拉丝模具制造经验，Mouton已经建立了门类齐全的专用机械的生产和修理工具，尤其是碳化钨拉丝模具。



▲ 新MU210 研磨机 (上) 和 线修整头 TR02

2006年，Mouton引进新式研磨机MU210用于内外的研磨，这种研磨机能够满足模具和切削工具的恢复到所要求尺寸的要求。

Mouton设计并制造出金属线修整机以及门类齐全的耗材——钻石膏、砂轮等——生产高质量模具和工具的必需品。

一些新型机器——包括用于小直径的研磨机、模具清洗机和不同半径等级的新型机器——正在研制并且将会在2007-2008年进入商业领域。

Mouton 和 Rivom是Agir科技集团成员。

**Agir科技集团, Mouton-Rivom – 法国**  
传真: +33 3 80 51 81 36  
电子邮箱: ferret@agir-technologies.com  
网站: www.mouton-sa.com

## 型号和规格齐全

OSG Tap & Die公司以其高品质的切削工具和模具在世界范围内享有盛誉。

OSG公司广泛生产多种滚丝模具并提供完备的用于滚丝的优质横、纵切搓牙板。其行星模具的精度均基于旋转模具及分割模具，保证了最高的精度。

此外,OSG还生产切边模具、分割硬质合金模具和上料模具。

OSG产品有700多种型号和规格可供选择，OSG有信心满足客户的各种需要。

**OSG Tap and Die Inc – 美国**  
传真: +1 630 653 2821  
网站: www.osgtool.com

## 提高模具的寿命周期

金刚石模具，如果正确有效使用能够增加模具的寿命以及提高工件的质量和表面状况。

Mikrotek加工各种类型的模具：包括金刚石模具、多晶体金刚石模具、碳化钨模具、聚晶金刚上釉模具、碳化钨上釉模具。同时提供修模服务和模具磨光设备。

选择正确的外形和结构能够延长使用寿命提高工件质量。

Mikrotek根据拉丝原材料、机械设计和拉丝速度选择正确的形状和结构、模坯(精粒或者粗粒)。

公司确保满足客户对直径公差、表面抛光和机械特性严格要求。

### ▼ Mikrotek的拉丝模



## 经历时间的考验

Die Quip制造修模设备用于棒料和管材行业修整直径0.75-125毫米碳化钨模具。

应用半自动和手动机器，Die Quip能够适应任何研磨的重切割和抛光。它的设计和构造在市场上最有竞争力，这主要是因为他们采用的是经受时间考验的机械制造原理保证产品较长的寿命。

DS/2节省装置是手工研磨和半自动抛光机，配特性NSK电动轴和角度设定表。鉴于它的容易应用的模光和抛光系统，DS/2是理想的修模多用途机器。设计为重型结构，它拥有功能强大的研磨轴和精密角度设置装置。

使用直径大于6毫米模具的线材或者棒材设备可以使用BG6研磨机，特点是功率强大(1.2kw)。这样大的功率和12°磨削理念以及专用研磨针，将能够提供更节省时间和无须手工抛光的模具。

Die Quip提供培训和制模、维护模具需要的材料，也提供模具设计材料和咨询服务以帮助用户用每个模具生产更多吨的产品。与降低模具费用相比，合适的模具设计可以降低总的生产费用。

**Die Quip Corp – 美国**  
传真: +1 412 835 6476

持续的技术支持服务和稳固的质量保证了Mikrotek领军世界市场。

**Mikrotek Machines Ltd – 印度**  
传真: +91 80 23621769  
电子邮箱: mmmmm@vsnl.com  
网站: www.sim123.com

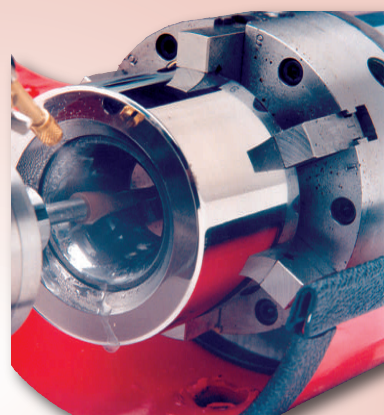
## 打造品牌

中国上海East Diamond，专业从事最佳超细线材拉丝模具系列的生产，能够满足电线电缆行业的全部需要。随着时间的推移，公司稳步发展，不断改进和创新，如今已经名声在外。

其产品包括天然金刚石和单晶金刚石模具，聚晶金刚石模具，碳化钨模具，挤出模芯和模嘴，漆包线模，以及修模设备。金刚石模成品的尺寸从0.01mm到25mm。碳化钨模的尺寸从0.15mm到100mm。

如今，East Diamond 已经把其业务迅速拓展到国际市场。公司的主要生产设置在中国，加拿大设有销售办事处，在世界各地拥有代理点，这样East Diamond可以为世界各地的客户提供服务。East Diamond为用户确保产品严格的质量控制和完善的客户服务。

**Shanghai East Diamond Co Ltd – 中国**  
传真: +86 21 6475 3167  
电子邮箱: east-diamond@online.sh.cn



▲ BG6研磨机抛光模具

电子邮箱: diequip@diequip.com  
网站: www.diequip.com



# BRUSHES for Mechanical DE-SCALING

Remove Scale, Filings,  
and Excess Coatings from  
**WIRES • CABLES • RODS**

**Fastest delivery and  
factory-direct pricing!**

**Brass-Coated Steel Filament**  
with galvanized steel holding section -  
2.25" and 3" ODs

**Stainless Steel Filament**  
with stainless steel holding section - 1.00"  
and 1.25" ODs

**Nylon or Polypropylene  
(Black or White) Filament**  
with stainless steel holding section - 2.25" ODs

**Feather-Touch Nylon Filament**  
non-scratching, ideal for removing talc from copper wire

**Spirals - stock and made-to-order.  
Shortest lead times!**

## Don't see what you need?

Larger and smaller diameter spirals  
are available with short lead times.  
Spirals and straight strip brushes are  
available in almost any length, or  
can be cut to the exact length you  
need!

### **Straight Strip Replacement Brushes**

Brass-coated steel  
brushes manufactured to  
fit your original  
equipment. We work  
with you to ensure you  
get the right brush,  
proper fit, and best  
delivery.



**FREE Product Catalog and Brush Sample, Call: 1-800-787-7325**



Your call will be answered by experienced brush application specialists.  
NO automated answering system or gate keepers!

**E-Mail: [industrial@sealeze.com](mailto:industrial@sealeze.com)  
Visit us at [www.sealeze.com](http://www.sealeze.com)**





# Advertisers Index

Ajex & Turner Wire Dies Co .....	69	Kay Pee Dies & Tools .....	67
AlphaGary Corporation.....	2	Kunshan Fuchuan Machinery Co Ltd.....	14
Anbao (Qinhuangdao) Wire & Mesh Co Ltd .....	12	OM Lesmo .....	15
Balloffet SA.....	Front cover	Leyer & Kiwus Ultraschall & Lasertechnik GmbH .....	14
Beijing Master International Trading Co Ltd.....	69	Messe Düsseldorf ASIA Pte Ltd .....	13
Bongard Trading GmbH & Co KG .....	66	Mobac GmbH Kiel.....	35
E. Braude (London) Ltd .....	63	PS Costruzioni Meccaniche Srl.....	50
Changzhou Changhua Photoelectricity Plastic Co Ltd.....	10	Ranasur Machtech Technologies pvt Ltd.....	16
CRU .....	52	Rivom .....	53
Decalub .....	16	Rosendahl Maschinen GmbH .....	42
Dongguan Zhangli Machine Fittings Co Ltd.....	8	Paul Schaaf GmbH & Co.....	1
Dow Wire & Cable Compounds.....	Inside back cover	Sealeze – A Unit of Jason Inc.....	74
Euroalpha Srl.....	51	Shanghai East Diamond Co Ltd .....	8
Eurolls Group.....	3, 51	Shanghai Huarilong Import Export.....	18
Fort Wayne Wire Die Co Inc .....	Back cover	Shanghai Nanyang Equipment Factory.....	23
Karl Fuhr GmbH & Co KG .....	11, 19	Shree Mahalaxmi Die Industries.....	65
Garg Inox Ltd.....	67	Sikora AG .....	7
Gauder & Co SA .....	55	Soma AG .....	64
GCR Eurodraw SpA.....	38	Supermac Industries (India) Ltd .....	9, 10
Gimax Srl.....	Insert between p16-17	Tecno Impianti Srl.....	36
Hangzhou SANP Machinery Co Ltd.....	45	Telmaksan.....	64
Huestis Industrial.....	57	Troester GmbH & Co KG .....	17
Jiangsu Jintailong Mechanical & Electrical Equipment Manufacturer.....	47	Joachim Uhing KG GmbH & Co.....	68
JYD Tech & Industry Co Ltd .....	65	Zumbach Electronic AG .....	Inside front cover

**INTRAS**  
PUBLICATIONS

46 Holly Walk • Leamington Spa • Warwickshire CV32 4HY • UK

Tel: +44 1926 334137 • Fax: +44 1926 314755 • Email: intras@intras.co.uk • Website: www.read-wca.com

## New from Wire & Cable ASIA: The digital E-Zine online magazine



**Brings your Advertisement to Life!**

**To see a FREE demonstration  
visit [www.read-wca.com](http://www.read-wca.com)**

Tel: +44 1926 334137 Email: paul.b@intras.co.uk

### Simple to use

It looks like the magazine, reads like the magazine, and even turns pages like the magazine, but it's all done digitally and is totally interactive for online readers.

### FREE to Read!

Anyone, anywhere can log on to the website to read the digital version of Wire & Cable ASIA magazine\*, giving added value to your advertisement in a format where it can be seen all over the world, 24/7 (\* without technical articles).

### Added Value

If you are an advertiser in Wire & Cable ASIA, we can add links from your advertisement direct to your website, making navigation easy for readers and buyers - direct to your sales department if you wish.

### Multi Media Ready

We can embed video and other media content into the e-zine to enhance your advertisement by showing working machinery or equipment on screen - giving online readers an insight into your company's technology and experience.

### Options

Regular readers and international subscribers may also purchase an annual e-subscription to receive all 6 editions of Wire & Cable ASIA magazine (including full technical articles) sent direct to their inbox with every issue.

**Wire & Cable ASIA** 线缆世界



# 如果您必须制造一条环绕世界的电缆...



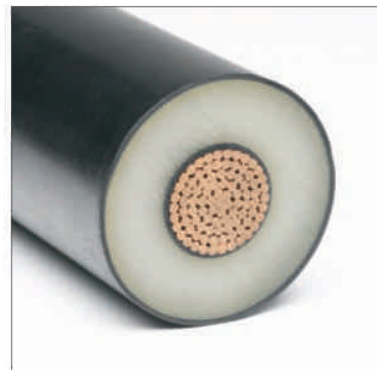
一条长达 40,000公里的电缆穿过水底和地下、浮现在世界各个城市、城镇和村庄。这是一条必须持久的电缆，一条数十亿人依靠的、不能中断的电缆，一条不得不在六大洲制造的电缆。

您会向谁求购绝缘和护套原料呢？您将依靠谁来保证一贯质量和纯度呢？依靠谁来获得所需要的产品组合和专有技术为各种环境提供合适的材料呢？依靠谁来确保测试和检验能力使您的材料符合性能和工艺规范呢？依靠谁来获得全球性的制造和支持呢？

毫无疑问，您会遇到许许多多意料不到的挑战。那么您会信赖谁来提供整体的解决方案，而不单单是原料呢？

如果世界的电力或通信传输离不开您的产品，那么陶氏电线电缆业务部就是您的首选材料供应商。

**不只是购买原料。  
而是购买解决方案。**



如需更多资料，请联系亚太区的陶氏客户咨询中心：

所有太平洋区国家，印尼和越南除外  
免费电话：+800 7776 7776  
免费传真：+800 7779 7779

所有太平洋区国家  
非免费电话：+60 3 7958 3392  
非免费传真：+60 3 7958 5598

电邮：dowcig@dow.com 网址：www.dowwireandcable.com

© 陶氏化学公司的商标。陶氏电线电缆业务部是陶氏化学公司及其子公司的一个全球业务单位。



# PLAYING TO YOUR SUCCESS



## When the quality of your wire is critical, Fort Wayne Wire Die delivers.

Not only the finest diamond dies—world-renowned for their precision, consistency and wearability, but a symphony of value-added advantages that can improve your operational efficiency and better ensure your wire quality.

- Single crystal natural diamond dies
- Poly-Di® polycrystalline diamond dies
- Innovative die design-engineering
- Proactive technical support
- Highly cost-effective die recutting and management services
- Ongoing die seminars and training
- Wire die reconditioning, inspection and measurement equipment

—And a global presence for rapid response anywhere in the world.



**FREE**

Latest Wire Drawing  
Reference Guide FREE  
when you contact us.

ISO 9001:2000



**Fort Wayne Wire Die, Inc.**

*Where great wire begins.*

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

**USA, Corporate**  
Fort Wayne, Indiana  
(260) 747-1681  
[sales@fwwd.com](mailto:sales@fwwd.com)

**USA**  
Columbus, North Carolina  
(828) 894-8257  
[sales@WayneWireDie.com](mailto:sales@WayneWireDie.com)

**China**  
Shanghai, China  
86-21-6876-5529  
[sales@fwwdshanghai.com](mailto:sales@fwwdshanghai.com)

**Asia**  
Metro Manila, Philippines  
63-43-405-5555  
[sales@fwwdasia.com](mailto:sales@fwwdasia.com)

**Canada**  
London, Ontario  
(519) 659-3030  
[sales@AdvancedWireDie.com](mailto:sales@AdvancedWireDie.com)

**Europe**  
Frankfurt, Germany  
49-6192-25028  
[sales@FortekGmbH.com](mailto:sales@FortekGmbH.com)