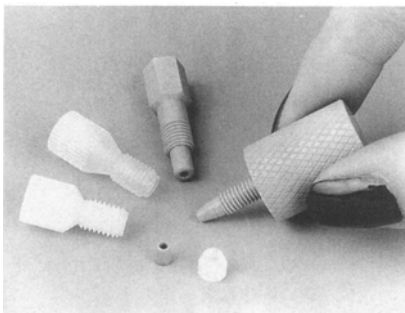


Material/Products

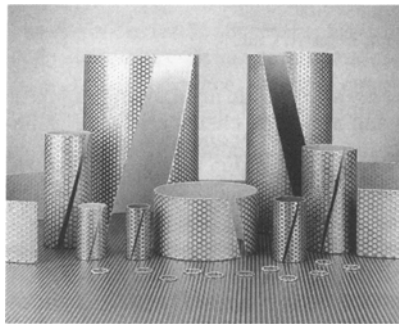
Structured Materials Industries, Incorporated has developed quantized nanocrystals, which can be used in light emitting films for light emitting diodes, flat panel displays, and photon detectors. *The small size increases quantum confinement effects, increasing the effective bandgap*, thus allowing a material like silicon with a bandgap of about 1 electron volt (infrared) to act as a material with a bandgap of a few electron volts (visible or ultraviolet). The effects can be further enhanced when the nanocrystals are placed in a dissimilar matrix. For further information, contact Dr. Gary S. Tompa, 120 Centennial Avenue, Piscataway, NJ 08854; tel: 908/885-5909; fax: 908/885-5910.

Custom fabricated finger fittings, ferrules, and other specialty components machined from engineering plastics for use in HPLC, laboratory, and related fluid handling equipment are available from **Queen Screw & Manufacturing, Inc.** The finger fittings are *machined from a wide variety of high performance plastics with ± 0.0005 in. tolerances and an RMS 8 surface finish*. Featuring clean, burr-free threads, these finger fittings can incorporate English or metric treads, knurls, and hexes. For further information, contact Peter G. Babigian, Queen Screw & Manufacturing, Inc., 60 Farwell St., Waltham, MA 02154; tel: 617/894-8110; fax: 617/894-0907.



Queen Screw & Manufacturing, Inc.

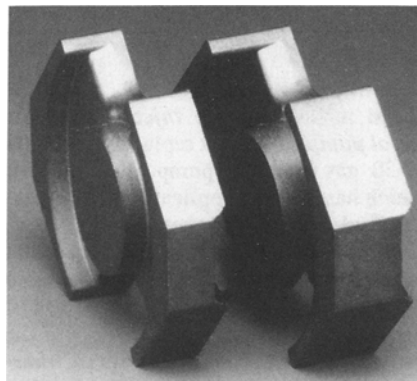
A line of metal backed Teflon bearings that are mechanically joined and can be *fabricated in a variety of shapes for low speed, high load applications in corrosive environments* is available from Engineering Plastics, Inc. EPI HY-LOAD bearing feature a Teflon liner that is mechanically joined to a perforated metal backing fabri-



Engineering Plastics, Inc.

cated from stainless steel, monel, carbon steel, or titanium. The bearings can withstand loads up to 15,000 psi at low speeds and are available as flats up to 6X6 X36 in. and in cylindrical shapes up to 6X48 in. diameter. For further information, contact John W Morse III, Engineering Plastics, Inc., 190 Turnpike Rd., PO Box 1440, Westboro, MA 01581; tel: 508/366-4425; fax: 508/366-2575.

The Special Products Division of **Siemens Components, Inc.** has introduced *RM Low Profile Ferrites that offer 30%*



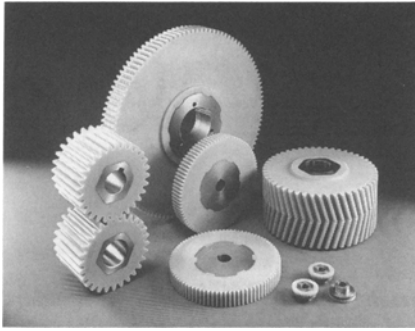
Siemens Components, Inc.

height reduction compared to standard RM cores. These parts are ideally suited for insertion through PC boards in planar applications. In addition, they achieve higher AL values because of smaller magnetic path lengths than standard RM cores. For further information, contact Siemens Components at 800/689-3717.

A paintable coating that allows near-zero oxidation of coated graphite parts to above 1000C (1832F) during use with molten aluminum has been introduced by **ZYP Coatings, Inc.** Specially formulated to allow easy application to all graphite grades, COVERGUARD provides an adherent, hard, abrasion-resistant layer suitable for multiple use and thermal cycling. It is ideal for setters, crucibles, molds, dies, liners, and electrodes. ZYP has also introduced a line of yttrium oxide paints to stop interactions between reactive materials at high temperatures for use as crucible or mold coatings and lubrication/release material. For further information, ZYP Coatings, Inc., PO Box 4005, Oak Ridge, TN 37831-4005; tel: 615/482-5717; fax: 615/482-1281.

Mica-based thermal insulation plate for a wide range of applications requiring a rigid material that withstands heat, pressure, and fire is available from **COGEBI Inc.** Cogeterm 505 thick plate laminates are constructed from layers of reconstituted mica paper which are resin impregnated and pressed to form plates ranging from 0.080 to 3.0 in. thick. Featuring *heat resistance to 1800F with low thermal conductivity and 25 KV/mm (at 68F) dielectric strength*, this asbestos replacement is easily machinable, punchable, drillable, chemically resistant and non-combustible. For further information, contact COGEBI Inc., 14 Faraday Drive, Dover, NH 03820; tel: 603/749-6896; fax: 603/749-6958.

Software developed by engineers at **In-tech Corporation** calculates the durability of Power-Core composite gears before they are machined and installed, thus as-



Intech Corporation

sureing designers and retrofit users of the performance they can expect in a fashion similar to Lewis formula calculation of metal gears. *Gear life can be accurately predicted and the designer can quickly generate gear design alternatives* to perform well under specific conditions. The software takes into account both the tooth root stress and the wear on the tooth flank when calculating durability. This is especially significant in non-lubricated applications where gears often fail due to wear rather than tooth root stress. For further information, contact Georg Bartosch, Intech Corporation, 250 Herbert Avenue, Closter, NJ 07624; tel: 201/767-8066.

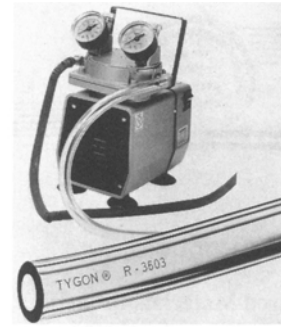
Dylon Industries has developed a unique all weather switchplate lubricant which is a suspension of highly lubricious graphite and stabilizing agents in a quick drying carrier. GRADE SP-MS lubricant has proprietary binders that bond the graphite to metal surfaces. The dried *coating is non-corrosive and capable of withstanding considerable periods of rain, snow, ice*



Dylon Industries Inc.

and abrasion while maintaining its lubricity and anti-stick characteristics. For further information, contact Keith A. Partee, Dylon Industries Inc., 7700 Clinton Road, Cleveland, OH 44144; tel: 800/237-8246.

Norton Performance Plastics Corporation has developed a *clear, flexible tubing that meets the demanding requirements for use with vacuum pumps*. The extra heavy wall of Tygon® R-3603 vacuum tubing will easily withstand a full vacuum of 29.9 in. of mercury at room temperature and up to 27 in. of mercury at 140F. Other features include excellent clarity and superior flexibility. Applications include air and as sapling equipment, sewage treatment, portable degassing, and leak detec-



Norton Performance Plastics Corporation

tion systems. For further information, contact Norton Performance Plastics Corporation, PO Box 2660, Akron, OH 44309-3660; tel: 201/696-4700; fax: 201/696-4056.

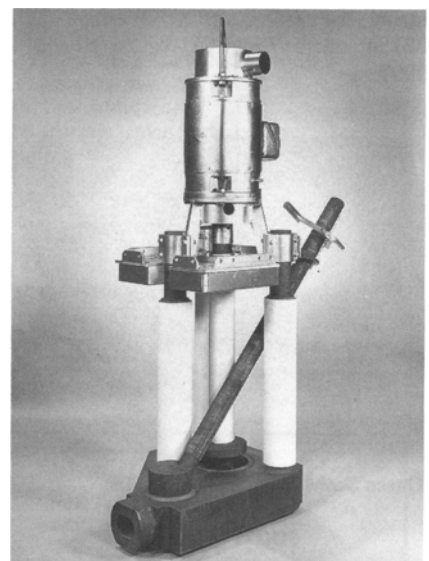
ORPAC, Inc. has introduced a line of specialty ceramic pastes ideally suited for R&D use. The *refractory pastes for high temperature applications to over 2000C* include yttrium oxide, silicon nitride, silicon carbide, boron nitride, zirconium oxide, aluminum nitride, and many other specialty ceramics. The pastes are used for filling, lining or stuccoing to increase the chemical and thermodynamic stability of substrates and to repair, or fill surfaces, joints, etc. Most pastes are usable in any atmosphere and all are safe, easily applied and offer high chemical purity. For further information, contact ORPAC, Inc., PO Box 5436, Oak Ridge, TN 37831; tel: 615/482-4635; fax: 615/482-1281.

Processing/Equipment

The Edison Welding Institute and TWI have jointly launched a Group Sponsored Project on corrosion resistant metallic coatings. Recent developments in high velocity oxyfuel (HVOF) thermal spraying equipment have enhanced production of dense, adherent coatings and *offer a lower cost alternative to weld overlays for the deposition of corrosion and corrosion/wear-resistant coatings*. A cost study has estimated potential savings of 25-60% compared with conventional processes. The project will also identify the most cost-effective routes to reliable corrosion protection of stainless steels, nickel alloys, cobalt alloys, and carbides using HVOF. For further information, contact

Ian Harris at EWI; tel: 614/487-5842; fax: 14/486-9528.

Metaullics Systems Co. L.P. has introduced its L-35GI *gas injection molten metal pump* as a direct replacement for its M-30 gas injection pump. The L-35GI, which has primary application for de-gassing and de-magging operations at secondary smelters, has substantially larger and stronger operating components that enable the L-35GI to run at 60% of the speed of the M-Series pump while achieving the same flow rates. This lower speed translates into significantly greater reliability and longer life. For further information,



Metaullics Systems Co. L.P.

contact Metallics Systems Co. L.P., 31935 Aurora Rd., Solon, OH 44139; tel: 800/638-2859.

Howmet Corporation has announced the *successful production of investment-cast fuel injectors* for gas turbines in place of more costly fabricated assemblies. Initial parts were produced using stereolithography prototyping technology, which proved very effective in validating the concept. Other components have been identified for conversion from fabricated assembly to investment casting. Complex cast hole patterns and net shape features are possible, which substantially reduce machining time and cost. For further information, contact Howmet Corporation, 475 Steamboat Road, Greenwich, CT 06836-1960; tel: 203/661-4600; fax: 203/661-0422.

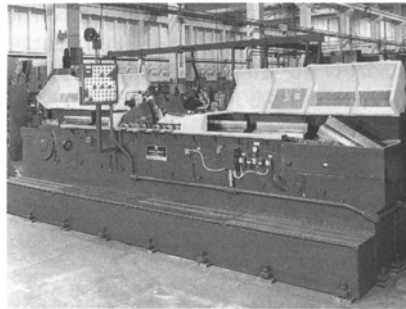
Hot Melt Technologies, Inc. has introduced a hot melt adhesive application system, the Proflex® Model 250 ETC, a *modular system designed for bead applications using hand or automatic guns.*



Hot Melt Technologies, Inc.

The system provides individual RTD temperature control for the tank zone and each hose/gun zone. Temperature control is adjustable between 300 and 400F. Other features include an individual on/off switch for each hose/gun zone, pump ready indicator light, and pump/motor warm-up lockout protection. For further application, contact Hot Melt Technologies, Inc., 1723 West Hamlin Road, PO Box 67, Rochester, MI 48309 tel: 810/853-2011; fax: 810/853-6650.

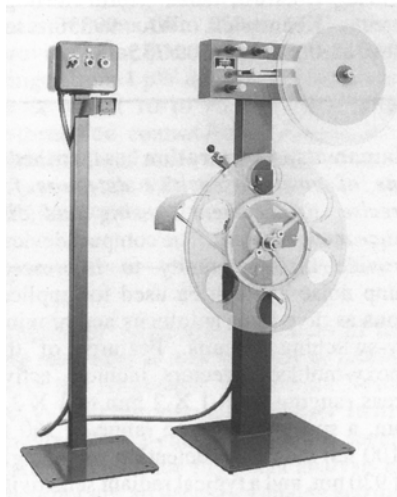
A heavy-duty continuous-chain broaching machine that removes 15.2 in.3 of alloy steel with one stroke in less than a minute has been designed and built by **General Broach & Engineering, Inc.**



General Broach & Engineering, Inc.

The chain carries 12 successive broaching tool assemblies in a continuous loop through the workpiece, which is mounted in a stationary fixture that straddles the chain. The continuous loop tool path shortens the virtual cutting path length to approximately half that of a conventional one-piece broaching tool for the same amount of metal removal. For further information, contact Dave Graham, General Broach & Engineering, Inc., 307 Salisbury Street, Morenci, MI 48256; tel: 517/458-7555.

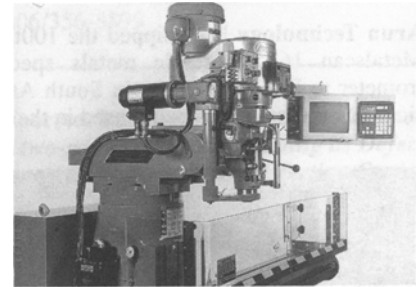
Coil Technology, Inc. has introduced a line of pay-out and rewind systems suitable for winding applications in the metals, plastic, rubber, wire, paper, and converting industries. using Coiltek's own ultrasonic loop control the CR-1505 series *provides absolute winding speed control without any part contact.* The systems offer smooth acceleration and braking at any speed, but



Coil Technology, Inc.

are responsive enough to exceed the demands of modern high speed production equipment. Other features include minimal set-up time, is fully programmable, and is self-adaptive with no on-line adjustments required. For further information, contact Coil Technology, Inc., PO Box 477, Wadsworth, OH 44281; tel: 216/334-1524.

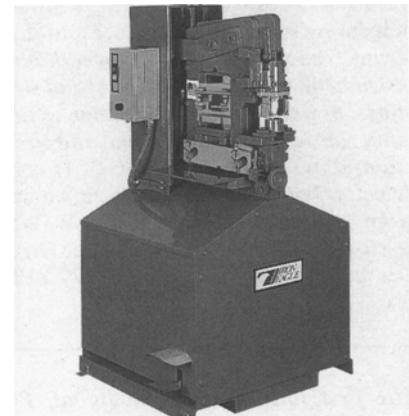
Bridgeport Machines, Inc. offers the EZ-TRAK DX, a Series I mill with a factory-fit 2-axis intelligent "DRO" that is now available with a *programmable 3rd axis.*



Bridgeport Machines, Inc.

The 3rd axis option consists of a side-mounted z-axis motor, gearbox, ballscrew and a connecting bracket that attaches to the quill of the machine. It can drill either manually or automatically. EZ-TRAK stores up to 1000 individual operations and has up to 10 routine mill and four drill preprogrammed cycles to choose from. For further information, contact Bridgeport Machines, Inc., 500 Lindley Street, Bridgeport, CT 06606; tel: 800/243-4292.

A line of affordably priced ironworkers, plate shears, and tooling has been introduced by **Multi-Tool.** With their small-footprint design, Iron Eagle ironworkers offer most of the features of larger models,



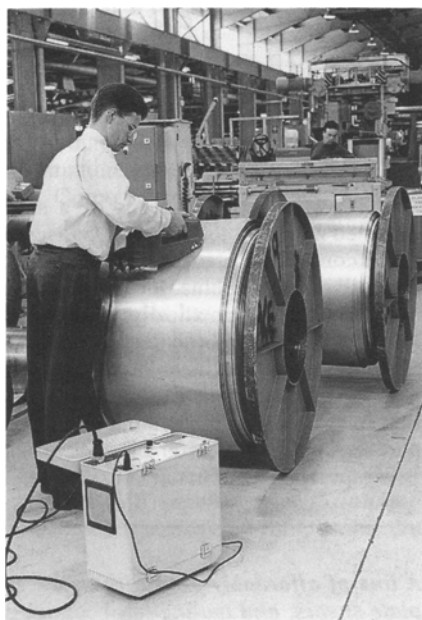
Multi-Tool

with enough power to perform most punching, shearing and bending jobs effectively. For example, the Iron Eagle 30-8 includes a 30-ton punch, an 8-inch bar shear and three stations with many tooling options. For further information, contact Multi-Tool, 18358-203rd Street, Hutchinson, MN 55350; tel: 800/433-5394.

ASC Machine Tools has introduced its **Break & Hump Roll Forming System**. Features include: one person operation,

Measurement/Testing/Evaluation

Arun Technology has shipped the 100th Metalscan 1625 portable metals spectrometer to Engen Refinery in South Africa. The instrument is being used in their

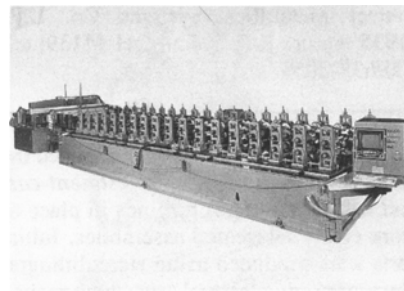


Arun Technology

inspection department for mixed alloy sorting and positive materials identification during routine maintenance and shutdowns. The Metalscan 1625 is a **multibase instrument calibrated for nickel and steel alloys, as well as copper, titanium, aluminum, zinc, cobalt, magnesium, and zirconium alloys**. It uses a linear CCD array detector. For further information, contact Arun Technology Inc., Suite 202 W, West Garrison Place, 19855 West Outer Drive, Dearborn, MI 48124; tel: 313/277-8186; fax: 313/277-8360.

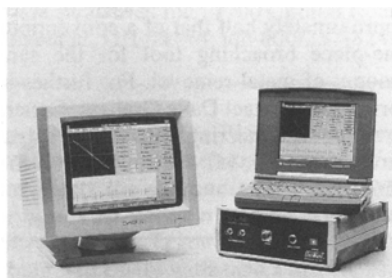
The first fully functional, digital, PC-based eddy current instrument has been introduced by UniWest. The E-Lab US

two post shear configuration, four post shear configuration for punching or notching, dual guide systems, quick disconnect drive option, and CNC control system and software. No special press foundations are required and the system has a reduced scrap rate. For further information contact ASC Machine Tools, Inc., N. 900 Fancher Road, PO Box 1619, Spokane, WA 99212-1619; tel: 509/534-6600; fax: 509/536-7658.



ASC Machine Tools.

450 can be plugged into a laptop for portability in the field, generates strip chart process control, and can be used in the laboratory for thickness, conductivity, and crack detection measurements. Features include: a frequency range of 100 Hz to 10 MHz, digital thickness gauging capability



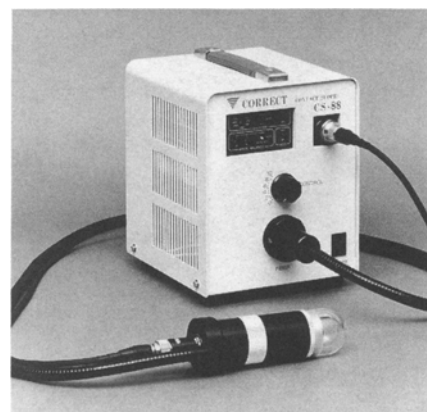
UniWest

for both conductive and nonconductive coatings, signal memory for comparative analysis, and direct readout of phase and signal magnitude. The instrument can also be used for crack detection on low conductivity superalloys. For further information, contact UniWest, 1021 North Kellogg Street, Kennewick, WA 99336; tel: 509/783-0680; fax: 509/735-6872.

Hamamatsu Corporation has launched a **line of position-sensitive detectors for precise displacement sensing and distance measurement**. The compact devices provide high immunity to fluorescent lamp noise and can be used for applications as diverse as autofocus and proximity-switching circuits. Features of the epoxy-molded detectors include: active areas ranging from 1 X 2 mm to 1 X 3.5 mm, a spectral response range of 760 to 1100 nm with peak detection wavelength of 920 nm, and a typical radiant sensitivity is 0.55 A/W at 920 nm with position resolution of only +/-0.1 to +/-0.3 micron. Ce-

ramic- and metal-packaged detectors are also available. For further information, contact Hamamatsu Corporation, 360 Foothill Road, Box 6910, Bridgewater, NJ 08807-0910; tel: 908/231-0960; fax: 908/231-1218.

Compact hand-held zoom video microscopes are being imported by **Optro-Mechanics (USA) Corp.** The ContactScope CS-66 and CS-88 offer a 3 to 1 zoom ratio

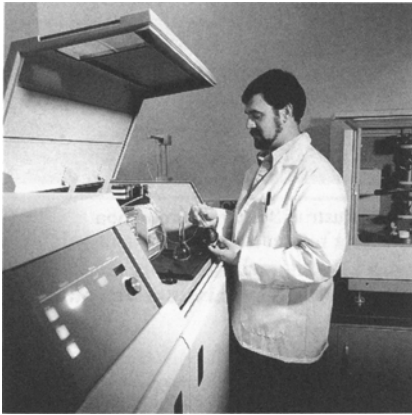


Optro-Mechanics

from 36X to 110X magnification on a 14 in. video screen. The microscopes can be used for inspection, analysis, and quality control in many different industries. The 410,000 pixel CCD camera with shadow-free fiber illumination offers crisp high resolution pictures. For further information, contact Optro-Mechanics(USA) Corp., One Blue Hill Plaza, Pearl River, NY 10965; tel: 914/620-1999; fax: 914/620-1950.

NSL Analytical Services, Inc. has added a Perkin-Elmer ELAN 5000 ICP-MS with laser ablation to its capabilities. **Detection limits obtainable with the state-of-the-art**

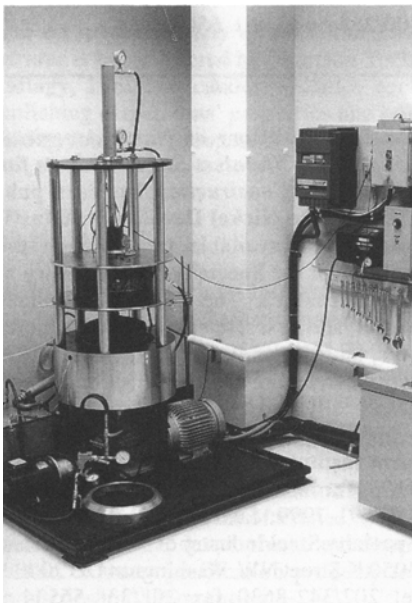
mass spectrometer are typically 10 to 1000 times lower than with conventional means. Depending on the sample matrix, traces to parts-per-trillion are detectable.



NSL Analytical Services, Inc.

With the ELAN, the laboratory can scan for low level detection of a total of 68 elements, using a single sample. For further information, contact NSL Analytical Services, Inc., 7650 Hub Parkway, Cleveland, OH 44125; tel: 216/447-1550; fax: 216/447-0716.

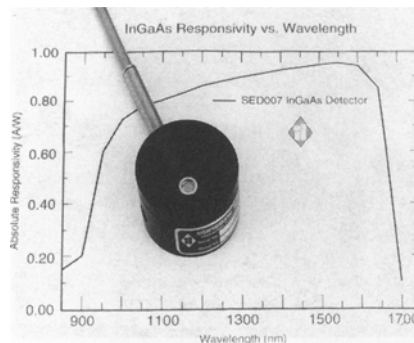
The AMRA Friction Wear Tribosystem has been introduced by **Micro Photonics Surface Test Division**. The AMRA system is the *first tribometer to simulate wear conditions similar to those existing in real machinery*, with the ability to simulate the pressures and temperatures found in such machinery. The system uses flat ended cy-



Micro Photonics

lindrical pins with a large surface area in contact with a large diameter wear disk. This geometry is much closer to the real life situation in terms of the material's responses to friction conditions. The system can be set up to simulate different mechanical conditions, such as load and speed, as well as different lubrication conditions (viscosity, temperature, flow rate and pressure). For further information, contact Micro Photonics Inc., PO Box 3129, 4949 Liberty Lane, Allentown, PA 18106-0129; tel: 610/366-7103; fax: 610/366-7105.

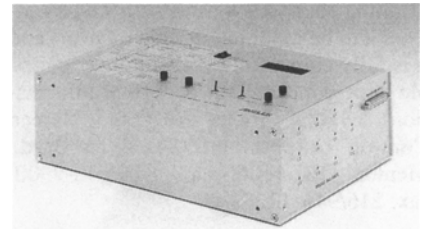
A line of highly sensitive infrared detectors for their portable radiometers that can be used to calibrate night vision systems, industrial controls, and related sensors has been introduced by **International Light, Inc.** IL SE007 Series Infrared Detectors



International Light, Inc.

feature high sensitivity over a nine decade dynamic range, handle low and high level measurements from 850 to 1700 nm and provide a flat linear response. Sensitivity ranges from 1 pW up to 2 mW, with a low noise of 6×10^{-14} W/Hz^{1/2}. For further information, contact Robert Angelo, International Light, Inc., 17 Graf Rd., Newburyport, MA 01950; tel: 508/465-5923; fax: 508/462-0759.

Alignment verification of material testing machines is now a matter of minutes with the Alignment Verification System ALV-2000 introduced by **Amsler Instruments**. The 12-channel system is specifically designed for alignment analysis and incorporates all necessary analog and digital functions in one unit. The system requires virtually no training and can either

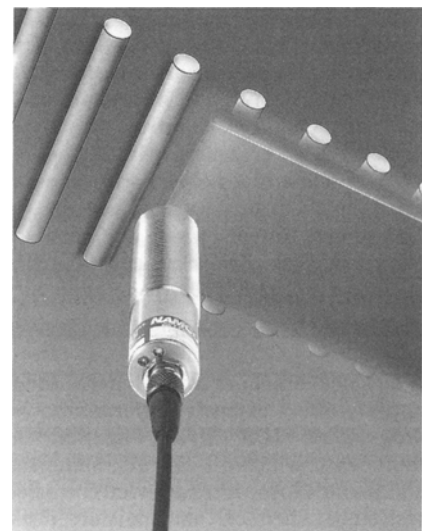


Amsler Testing Inc.

be operated in the stand-alone mode or in conjunction with a personal computer. For further information, contact Amsler Testing Inc., 1260 Independence Road, Walton, KY 41094; tel: 606/356-9200; fax: 606/356-8899.

Foerster Instruments, Inc. has published a *two-page data sheet detailing its Defectomat® EZ Eddy-Current Testing Equipment*. The instrument can be used in conjunction with a variety of different test coil systems to provide highly accurate detection of surface defects in ferrous and nonferrous bar, wire, and tubing, mass-produced parts with simple or complex geometries, and in-service structures and equipment. For further information, contact William J. Kitson, Jr., Foerster Instruments, Inc., 140 Industry Drive, RIDC Park, Pittsburgh, PA 15275; tel: 412/788-8976; fax: 412/788-8984.

The Namco ER 920 series of sensors available from **Namco Controls Corp.** respond to infrared energy radiated by heated surfaces. *Four pre-set sensing ranges are available to detect items up to 250C, 360C, 450C or 800C.* The sensors' size



Namco Controls Corp.

(30-mm diameter X 137-mm length) allows it to be mounted in tight quarters and it is fully compatible with all programmable logic controllers. For further information, contact Rick Wovrosh, Namco Controls Corporation, 7567 Tyler Blvd., Mentor, OH 44060; tel: 216/946-9900; fax: 216/946-1228.

From **LFE Industrial Systems**, this large scanning measurement and control system

Literature/Data Sources

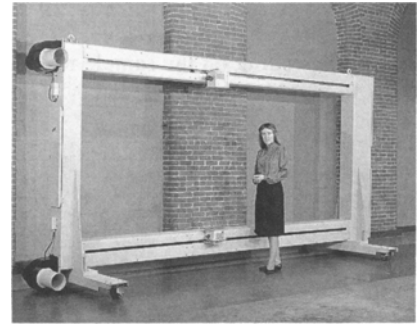
The **Powder Metallurgy Equipment Association** has published a *154-page directory containing catalogs of major suppliers of equipment used to manufacture powder metallurgy parts* and products made from particulate materials. Technical information is given on P/M compacting presses, tools and dies, sintering furnaces and atmosphere gases and metal grinding equipment. For a free copy, contact the Powder Metallurgy Equipment Association, 105 College Road East, Princeton, NJ 08540; fax: 609/987-8523.

The Handbook of Metal Forming has been published by the **Society of Manufacturing Engineers** and consists of 1200 pages of practical solutions, production methods, tool manufacturing methods and production systems. To order, call 800/733-4SME.

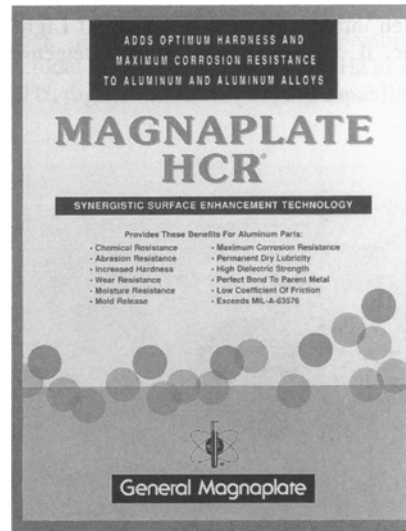
All aspects of the Weibull distribution—basic descriptions, parameter estimation, confidence intervals, goodness of fit—are covered in *Weibull Analysis (with Software)*, published by the **American Society of Quality Control**. Analysis procedures are presented using a step-by-step approach that helps clarify complicated mathematical techniques in an easy-to-use format, which are also included on disk. To order, call 800/248-1946 or 414/272-8575.

A technical brochure from **General Magnaplate** offers extensive *information on Magnaplate HCR surface enhancement treatments*, which provide aluminum and aluminum alloys with improved corrosion resistance, chemical and moisture resistance, and permanent lubricity. The brochure details the consistently uniform

accurately records quality of a product 124-in. wide and 60-in. thick. This unit is used to measure and control thickness of coatings, calendered material, non-woven materials, as well as extrusion processes. Scanners are available in a wide range of sizes and can be customized to meet specific requirements. For further information, contact **LFE Industrial Systems Corporation**, 55 Green Street, Clinton, MA 01510; fax: 508/365-3455.



LFE Industrial Systems Corporation

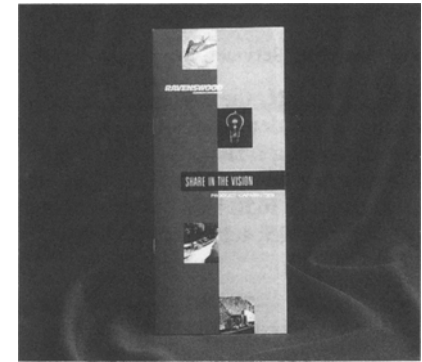


General Magnaplate

coating thicknesses and tolerances of the treatment. For copies, contact **General Magnaplate Corp.**, 1331 Route 1, Linden, NJ 07036; tel: 800/852-3301; fax: 908/862-6110.

Aerolloy Inc. offers a newly designed and reformatted brochure that *charts the comparisons of stainless steel, alloys and carbon used in open die forgings*. Details include metal specifications, typical applications, mechanical properties, chemical compositions, thermal treatment, and physical properties. For a free copy call 800/813-0382.

A *four-color product capabilities brochure* is available from **Ravenswood Aluminum Corporation** that outlines the company's technological capability and broad line of aluminum sheet, coil and



Ravenswood Aluminum Corporation

plate products. The 12-page brochure includes a complete listing of available products for such key industries as aerospace, automotive, construction, marine, among others. For a free brochure, contact **Ravenswood Aluminum Corporation** at 800/258-6686, ext. 6564.

The first *Directory of North American Suppliers of Stainless Steel Products for Building & Construction* has been published by the **Nickel Development Institute** and is available free through the Institute or the Specialty Steel Industry of North America. The directory provides names, addresses, telephone and fax numbers, and the products or services of 160 suppliers, listing them alphabetically, geographically, and by product or service. For a free copy, contact the Nickel Development Institute, 214 Kin Street West, Suite 510, Toronto, Canada M5H 3S6; tel: 416/591-7999; fax: 416/591-7987 or the Specialty Steel Industry of North America, 3050 K Street NW, Washington DC 20007; tel: 202/342-8630; fax: 202/338-55534.

Elsevier Science Publishers B.V. and NACE International have created a *network version of their corrosion reference database software*, Active library on Corrosion. The hypertext CD-ROM product contains a vast amount of practical corrosion reference information, including text and hundreds of graphics accessible through hypertext linking, as well as case histories. For further information, contact NACE International membership Services Department at 713/492-0535, ext. 81

A catalog describing a full line of alumina, silica, ceria, zirconia, diamond and other *polishing raw materials in dispersion* for



Solution Technology, Inc.

use on a wide variety of precision substrates is being offered by **Solution Technology, Inc.** The catalog includes each polishing dispersions' properties and polishing formulas for specific applications.

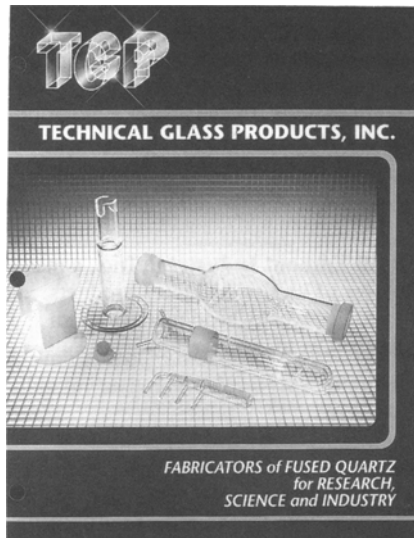
In Business

Structured Materials Industries, Inc. has been awarded a Ballistic Missiles Defense Organization/IST two-year contract for over \$827,000 to develop silicon and germanium light emitting nanocrystals.

United States Filter Corporation has acquired **Groupe Crouzat** of France, which specializes in the development and distribution of water purification products for industries and laboratories.

For further information, contact James W. Fox, Solution Technology, Inc., 3105 Chamber Dr., Monroe, NC 28110-2530; tel: 800/237-5973; fax: 401/728-2583.

Clear fused-quartz in all of its raw and fabricated forms is easily located in an *indexed reference guide* available from



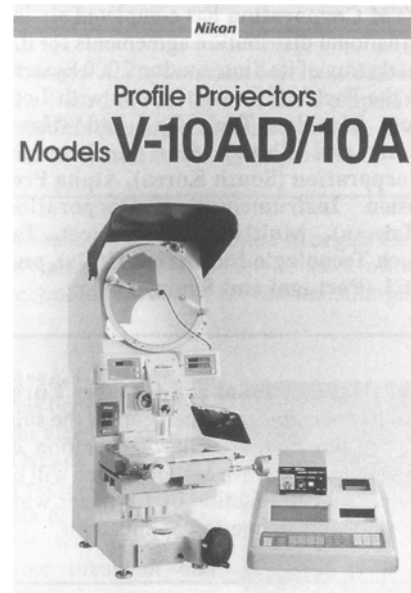
Technical Glass Products, Inc.

Technical Glass Products, Inc. The 24-page publication lists the material's properties and characteristics. For a free copy, contact Technical Glass Products, Inc., 8720 Twinbrook Rd., Mentor, OH 44060.

A 12-page full-color brochure describing *optical comparators* has been published by **Nikon Inc.** The brochure gives detailed information on the V-10A series of 10-inch optical comparators, which offer a broad range of optics, a wide variety of readout options, and varied stage options. For a free copy, contact Nikon Inc., Instrument

Philips Industrial Automation Division and **Philips Industrial X-ray Business** has been awarded ISO 9001 certification by the Dutch Council for certification.

Moco Thermal Industries and **Dea Tech Machinery SPA** have formed a joint venture called **MocoTech Machinery, Inc.** to engineer, manufacture and market systems for the magnet wire industry in the United States, Canada, and Mexico.



Group, 1300 Walt Witman Road, Melville, NY 11747; tel: 516/547-8500.

Several corrosion publications are available from **NACE International**. The fourth volume of *Corrosion Testing Made Easy: Atmospheric Corrosion Test Methods* provides an introduction to atmospheric corrosion testing techniques. A new standard, "*Design, Fabrication, and Inspection of Tanks for the Storage of Concentrated Sulfuric Acid and Oleum at Ambient Temperatures*" focuses on corrosion allowances and design specifications. The *1995 Products Catalog* offers a selection of more than 1000 reference books, technical standards, software, and other guides on corrosion. For further information, contact NACE Membership Services Department at 713/492-0535, ext. 81.

Lumonics/Carmarillo Operations has moved to a 44,000 sq. ft. facility at 130 Lombard Street, PO Box 9010, Oxnard, CA 93031-9010. The name has been changed to Lumonics/Oxnard Operations.

DuPont Automotive has donated aerospace materials to the University of Michigan's Solar Car Team for Solar Vision vehicle.

DTM Corporation has completed six international distribution agreements for the marketing of its Sinterstation 2000 System in the Pacific Rim and Europe with **Leepport Machine Tool, Co., Ltd** (Hong Kong and China), **Star Mechatronix Corporation** (South Korea), **Alpha Precision Instrumentation Corporation** (Taiwan), **Multistation** (France), **In-Tech Tecnologie Industriali** (Italy), and **SCL** (Portugal and Spain).

Davy International and Granges Eurofoil have signed an agreement for the supply of the first of a new generation of high-speed thin strip casters, which will be used for the production of 1.8 meter wide strip for thin gauge foil applications.

The Advanced Materials Group of **Hoeschst Celanese Corporation** has moved to new headquarters at the company's Robert L. Mitchell Technical Center in Summit, NJ. The Group was formerly headquartered in Chatham, NJ.

Republic Engineered Steels, Inc. has purchased the principal assets of **Baltimore Specialty Steels Corporation**, formerly owned by Armco Inc.

Kudos



Kevin Yonker

Ravenswood Aluminum Corporation has promoted **Kevin Yonker** from Eastern Regional Sales Manager to Manager, Inside Sales.

H. Kennedy Linge has been elected secretary of **PPG Industries**. He was previously associate general counsel.

Midland Aluminum Corporation of Florida has hired **Ray Cameron** to its expanding sales force.

Solarex Corporation, a manufacturer of photovoltaic modules and components, has received a three-year Advanced Technology Program award worth almost \$2 million for the development of a rapid thermal processing to produce low-cost solar cells.

Ransooff Company has signed an agreement with **R. Scheuchl GmbH Company** (Ortenburg, Germany) for exclusive distribution rights in North America for their new casting coring technology. This technology is used in the major automotive plants throughout Germany.

Ansell Edmont Industrial, Inc., a manufacturer of industrial safety products, has moved its world headquarters from Columbus, OH to Atlanta, GA.

An industrial park for process industries seeking infrastructure and access to raw materials and the European market has been launched by Norway's **Norsk Hydro** in Porsgrunn, Norway.

Foerster Instruments, Inc. has obtained certification of the company's employee



George McManus

George McManus has joined the editorial staff of **Iron and Steel Engineer**, the monthly publication of the Association of Iron and Steel Engineers. He was formerly with **Iron Age/New Steel** magazine.

The American Society of Mechanical Engineers has selected the following as Congressional Fellows: **Lisa A. Gray**, **Steven N. Kurtz**, and **Julie M. Swisshelm**.

Harvey P. Hack, Corrosion Science and Coatings team leader at the Carderock Di-

safety committee from the Pennsylvania Department of Labor and Industry.

The International Society for Measurement and Control is celebrating its 50th anniversary in 1995. The Society develops the consensus standards for instrumentation, automation, and control.

Hoechst AG (Frankfurt) and Mitsui Petrochemical Industries, Ltd. (Tokyo) have signed a worldwide market evaluation agreement which includes the joint pilot production of cycloolefin copolymers using new metallocene catalysts developed by Hoechst.

Hoechst Celanese Corporation has acquired exclusive, worldwide rights to **Imperial Chemical Industries PLC's** proprietary non-aqueous dispersion polymerization technology. Hoechst will use this technology to manufacture a range of thermoplastic polymers, including its **Vectra** liquid crystal technology.

ARCO Chemical Company has signed an agreement with **Rhone-Poulenc** to market its toluene di-isocyanate, which will continue to be manufactured by Rhone-Poulenc in France.

vision of the Naval Surface Warfare Center, has been elected to a three-year term on the **ASTM Board of Directors**.

Performance Review Institute has appointed **William G. Wagner** Managing Director, who was formerly Manager of the Society of Automotive Engineer's Technical Standards Division.



William G. Wagner

Dr. Ramas V. Raman has been elected president and Chief Operating Officer of **Ceracon Inc.** He joined Ceracon in 1989 as Director of R&D.

Force Industries, a producer of soldering, brazing and welding flux technology, has appointed **William J. Ristey** as Senior Chemist.

Stephen L. Heckman, Vice President of Jack Heckman Tube Company, Inc., has been elected to the **Tube & Pipe Fabricators Association Board of Directors**.

Lukens Steel has appointed **James P. Nolan**, general manager; **Gary P. Sarpen**, manager, clad, finishing and shipping; **Thomas E. Barneet**, general superintendent of steelmaking; and **Edward C. Frey**, general superintendent of rolling, planning, scheduling and heating.

Noel J. Olinger has been appointed Vice President of Operations for **Ungerer-America**, a newly formed division of Ungerer GmbH & Co.



Noel J. Olinger

The Pyron Corp., a producer of iron powder for the auto industry, has promoted **Dennis A. Valenti** to executive vice president of operations, **David J. Larson** to vice president of manufacturing, **Stephen F. Claeys** to technical director, and **Robert Roman** to atomization superintendent.

Intermet Corporation has named **John C. Engeswick** vice president of technical services, and **C. James Peterson**, vice president of foundry operations.

Thomas R. Schultz has been named Director of Quality Assurance at **American Steel Foundries**. He will be responsible for overseeing the quality function at all ASF facilities and for the development and implementation of state-of-the-art quality programs.

Dr. Herschel Cutler, executive director of the Institute of Scrap Recycling Industries, Inc. has been appointed to the **U.S. Bureau of Mines Advisory Board**.

Davy International has appointed **Larry Cates** to the sales staff of the Pittsburgh Automation Services Division as Business Development Manager. He will be responsible for technical sales of the automation



Larry Cates



Anthony Wilson

services with special focus on oxygen steelmaking automation technology. **Anthony Wilson** has been appointed to the position of Senior Vice President, Marketing at the company's Pittsburgh office

Richard A. Lofland has been re-elected to the Board of Advisors of the **Composites Manufacturing Association of the Society of Manufacturing Engineers**.

Ronald A. Varo has joined **Morgan Construction Co.**, a leader in steel rolling technology, as chief process metallurgist.

Asahel Parmelee has been named senior vice president for **Osram Sylvania's Precision Materials & Components**. He was previously vice president and general manager of the company's Electronic Components & Materials business.



Asahel Parmelee



Richard F. Martin

Pillar Industries, a supplier of induction heating and melting systems, has hired **Richard F. Martin** as Manager of its Michigan Induction Center. He will be responsible for the induction heat treating process development lab, sales, service, and program coordination of engineering and manufacturing.