

industry news

Timken

TO ACQUIRE PURDY CORP.

The Timken Co. announced an agreement to acquire the assets of The Purdy Corp., a leading precision manufacturer and systems integrator for military and commercial aviation customers, for \$200 million.

Purdy specializes in the design, manufacturing, testing, overhaul and repair of transmissions, gears, rotor-head systems and other high-complexity components for helicopters and fixed-wing aircraft. Based in Manchester, CT, Purdy employs more than 200 people and had 2006 sales of approximately \$87 million.

"Purdy's technology, manufacturing expertise and strong customer base make it an excellent fit with Timken's growing aerospace business," said Ron J. Menning, Timken's president-aerospace and defense. "As we accelerate our growth in this strategic market, we plan to add capacity and capabilities to expand the range of power transmission products and services we can offer to create value for Timken's global customers."

The sale is subject to the customary antitrust regulation and approval process, but Timken expects to close the transaction in the fourth quarter of 2007.

TB Wood's

CELEBRATES 150TH ANNIVERSARY

TB Wood's Inc. is celebrating its 150th anniversary on October 27 with a day-long open house and party at its Chambersburg, PA headquarters.

Founded in 1857, TB Wood's is a designer and manufacturer of electronic and mechanical power transmission equipment for industrial control. The company was launched when master mechanic T.B. Wood and his partner, Peter Housum, a millwright designer and machinery builder, bought Franklin Foundry & Machine Shop in Chambersburg. Initially, they produced wood-burning stoves as well as a wide range of mill gearing.

Today, TB Wood's is owned by Altra Industrial Motion.

Renold

MANUFACTURES ITS HEAVIEST-EVER WORMWHEEL GEARBOXES



Renold Gears manufactured a pair of wormwheel gearboxes which combined weigh nearly 25 tons. The gearboxes, made for a steel mill in Asia, are the heaviest ever manufactured by the company, according to a press release.

Bishop-Wisecarver

FOUNDER FEATURED ON NAM RADIO

Bud Wisecarver, founder of Bishop-Wisecarver Corp., recently discussed his role as an innovator with Mike Hambrick, host of "America's Business," the National Association of Manufacturers (NAM) weekly, one-hour radio show. The show featuring Wisecarver aired Sept. 14 and 15. Podcast versions of the show can be found online at www.AmericasBusiness.org.

For a segment on innovation and creativity in manufacturing, Wisecarver described his company's high-speed linear motion systems and how they are used to move machinery back and forth. He talked about the company's founding in 1950 and how he designed and hand-built production equipment for the original plant in Pittsburgh, CA.

Wisecarver attributed his company's staying power as a small business to his ability to innovate machinery that creates products.

"Everything—it doesn't matter what it is—starts with a toolmaker," Wisecarver said. "Without the toolmakers, you don't have anything."

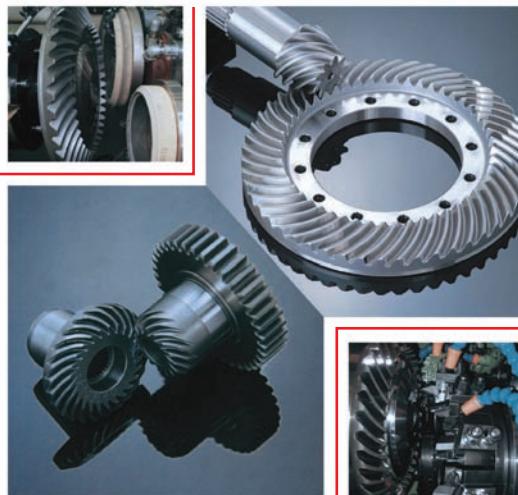
industry news

Designed to retrofit an existing steel mill, the gear units will be the main drives of a screw-down mechanism used to re-form newly cast steel billets into thinner width sections. Driven by 220 kW motors, the gear units squeeze the steel into the required section widths.

The single-reduction worm gears are designed specifically for this application with a reduction ratio of 21.5:1. They are designed with a larger than normal tooth thickness to withstand static torque in excess of 530,000 Nm.

“Where sudden and huge shock loads are going to be encountered, only wormwheel sets manufactured with the maximum tooth width are suitable,” says Stephen Whitehead, sales director for precision gears. “Only the combination of hardened steel wormshafts and ‘soft’ phosphor bronze wormwheels allows these loads to be withstood with no detrimental effect on service life.”

One worm has a right-hand thread, and the other has a left-hand thread, so that the two units produce output in opposite directions when the inputs are in the same direction.



PRECISION KLINGELNBERG & GLEASON-CUT SPIRAL BEVEL GEAR SETS FROM WELTER

Specializing in HPGS - Hard Cutting, CNC-grinding, Testing, and Lapping of Spiral Bevel Gears and Pinions, including in-house heat treating with complete state-of-the-art process.



USA & Canada Sales Office
(Spiral Bevel Gear Sets)
Nicholson Gear Technology, Inc.
P.O. Box 832 • Medina OH 44258
Phone: (330) 722-5807 • Fax: (330) 722-5807
Mobile: (330) 421-0420
Email: Marvin@NicholsonGear.com
Website: www.NicholsonGear.com

PCB Piezotronics

TO PRESENT INDY CAR DISPLAYS AT AUTOMATION TECH EXPO

PCB Piezotronics announced plans to partner with Andretti Green Racing (AGR) to present a special exhibit at the Automotive Testing Expo North America, October 24–26 at The Rock Financial Showplace in Novi, MI.

Automotive Testing Expo is the only North American show which combines dedicated automotive testing, vehicle dynamics and crash test exhibitions into one comprehensive event.

PCB will display replicas of Andretti Green Racing IndyCars in a special pavilion area, located at Booth #17024, as well as several larger-scale demonstrations of automotive testing applications.

“During a time in which our valued customers—including the Big 3 and Tier 1, 2, & 3 suppliers—are streamlining operations and investing in R&D toward the goal of more efficient, high performance, cost-competitive automobiles, PCB is committed to adding technical sales and applications engineering resources to support this effort,” says PCB president John Lally. “We look forward to demonstrating our technical capabilities in Novi, while also showcasing PCB products and our proud sponsorship of Andretti Green.”

As Official Sponsor of AGR, PCB supplies sensors and instrumentation, including DC response accelerometers, torque sensors and load cells, for its four IndyCar Series entries.

COMING SOON!

Results of Research on Trends
in Employment, Outsourcing,
Machine Tool Investment and
Other Gear Industry
Business Practises

Gear Technology
November/December
2007

Animatics Corp.

ANNOUNCES EXPANSION

Animatics Corp. has moved into a new, 104,000 square-foot facility in Santa Clara, CA.

According to the company's press release, this is the fifth expansion in the last two years. During that time, the company opened an office in Rochester, NY, acquired two companies and opened subsidiaries and regional offices in England, Germany and Japan. The most recent expansion is due to record sales growth, the release says.

The company started as a small CNC and general automation machine builder. Today it specializes in single-component motion control systems known as integrated motors. Animatics produces a patented servo version under the trademark "SmartMotors."

The new address is:

Animatics Corp.
3200 Patrick Henry Drive
Santa Clara, CA 95054
Phone: (408) 748-8721
Internet: www.animatics.com



Micronor's Fiber Optic Rotary Encoder System

AWARDED U.S. PATENT

Micronor Inc. has secured U.S. patent 7,196,320 for its ZapFREE fiber optic rotary encoder system.

The patent recognizes Micronor's wavelength division multiplexing approach, which produces a totally passive encoder utilizing no electronics within the sensor. The encoder is therefore deployable in stressful environments not suited for conventional electronic-based encoders.

The Micronor encoders meet ATEX requirements as "simple apparatus" and are certified for use in hazardous environments. An MRI-transparent encoder has been recently developed for the medical industry.

The technology was commercially introduced in 2004 as



the MR3XX series ZapFREE Fiber Optic Encoder series. Customer applications now range from aerial cable cars to electric trains; from mines to steel mills to oil rigs. The sensors are offered in 100–1024 ppr resolutions as well as industry-standard shaft or hollow-shaft configurations.

According to the company's press release, the MR3XX sensors mechanically mount like any conventional rotary encoder, then connect by a simplex fiber optic link to a MR310 Remote Encoder Interface (REI) module. The REI module offers an array of standard interfaces (quadrature, serial 4–20 mA and ±10 V, etc.) that ensures connectivity with all major motor drive, motion control and PLC systems.

Danaher Motion

INTRODUCES WEB-BASED SIZING AND SELECTION TOOL

Danaher Motion introduces *Linear Motioneer*, a powerful, web-based linear motion system sizing and selection tool that enables OEM and factory automation users to optimize machine design and operation in five steps.

Linear Motioneer guides users through a process for a slide table application to deliver all the data necessary to make a quick, logical system selection.

Deliverables include immediate 3-D CAD models in multiple formats, motor requirements, life and safety factor calculations, lead time and pricing information with options listed by price point, an automated e-mail of the inquiry and quote documenting the application, and a single part number to order from that includes all specified options.

Users simply enter application parameters, including mounting configuration, environmental conditions, positioning, loading and move requirements. With that information, *Linear Motioneer* recommends a choice of specific linear motion systems for the application.

The product solution recommended by *Linear Motioneer*, including any accessories and motor mounts, is assigned a "Smart Part Number" that the machine builder can use to order the linear motion system with all accessories pre-mounted and ready for integration into the machine. *Linear Motioneer* provides a detailed specification of the system and a summary of the loading and motion profiles, as well as an instant download of a complete 3-D CAD model provided in all of the most common CAD formats.

Users can select and specify the optimum linear motion system, and then load it into their machine design in a matter of minutes. In addition, users can view the list price and lead-time information, and request a quote online.

Overton Gear

CREATES NEW BRAND IDENTITY

Overton Gear of Addison, IL has recently unveiled a new logo and website to better highlight its facilities, processes and global capabilities, according to a press release.

"The need for a new identity was one of the action items that came as a result of our shift to 100 percent employee ownership," says Louis Ertel, president and CEO. "We wanted a new identity that would symbolize our renewed focus on infrastructure investment and our achievement of a thoroughly modern manufacturing facility."

The company has been adding new capabilities to meet customers' gearing needs, including new gear cutting, tooth grinding, inspection equipment and a 10,000 square-foot expansion of its heat treating facility.

To see the new logo and read more about the company, visit www.overtongear.com.

Heidenhain

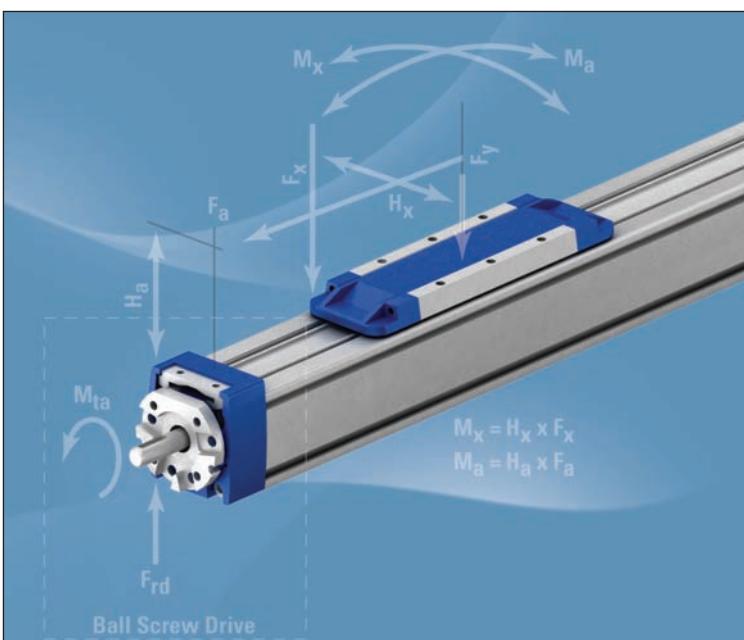
SHIPS 200,000 CONTROLS

In June, Heidenhain shipped its 200,000th NC control.

According to Heidenhain's press release, with over 30,000 units, the current iTNC 530 has succeeded the TNC 426 as Heidenhain's most successful model. More than 10,000 units of this model are expected to ship from Traunreut, Germany in 2007.

These NC controls feature user-friendly dialog guidance in applications that require shop-floor programming. Heidenhain controls guide the user with questions and prompts and automatically generate the program. Since 2004, the "smart.NC" operating mode has offered straightforward, fillable forms, interactive graphics and user aids.

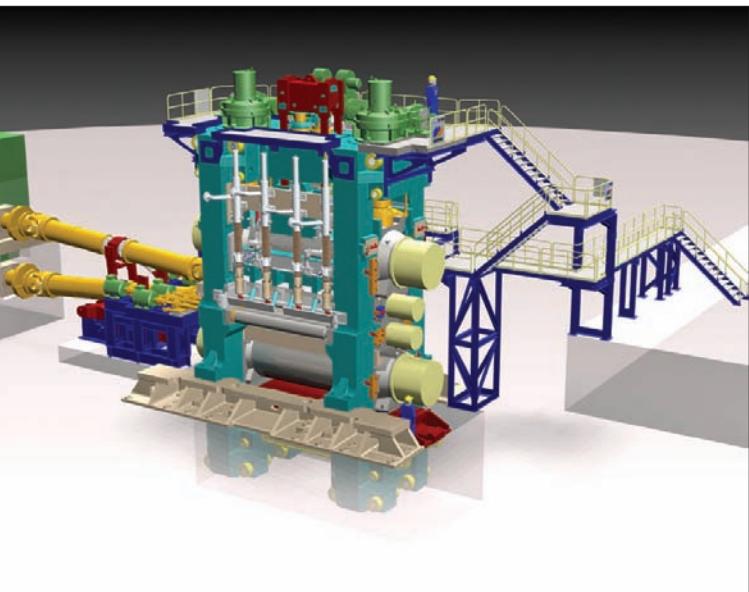
Heidenhain controls are widely used on machining centers and complex milling machines for five-axis machining. The iTNC 530 is designed for short machining times, high contour accuracy, short block processing times and optimal path control. In the mid-range, the TNC 320 provides precision in



manufacturing on machines with up to four controlled axes. The TNC 124, a straight-cut control for simple machine tools, is designed for less demanding control tasks. Controls for lathes such as the MANUALplus 4110 complete the product range.

Voith Turbo

SUPPLIES UNIVERSAL JOINT SHAFTS FOR HEAVY PLATE MILL IN INDIA



Reports indicate that the growing demand for high-quality steel in India is leading to investments in improved production facilities. One example of this was illustrated by Voith Turbo's announcement that it has been contracted to supply Indian steel producer Jindal Steel and Power Ltd. in Angul with two universal joint shafts from the combined H/CW series, as well as a torque measurement system.

According to Voith Turbo's press release, the universal joint shafts are among the strongest and largest that Voith Turbo currently produces and are being used in a new heavy plate mill at Siemens VAI in England.

Guido Christ, sales manager for universal joint shafts at Voith Turbo, says, "The Indian steel market has been slumbering for almost 40 years. All this has now changed. For three years, per capita steel consumption has been increasing constantly, and this is influencing the demand for universal joint shafts for steel production."

After growth of 7.5%, steel capacity was around 44 million tons last year. Economic researchers expect production of raw steel to continue its growth at a rate of 6% annually. The Indian Steel Ministry estimates its export rate will increase

from 15–24% in the next 15 years.

The two H Series universal shafts that Voith is supplying to Jindal Steel & Power each weigh 60 tons and are designed for heavy load requirements. They drive the working rolls with a diameter of 1,100 mm in the new heavy plate mill at Siemens VAI. This rolls the steel slabs into plates up to 200 mm thick. The heavy plate mill in Angul is designed for a maximum slab width of 5 meters, currently the standard width. According to Voith, approximately 1.5 million tons of steel pass through a heavy plate mill every year, and the slabs are becoming increasingly large.

Working rolls that can be moved axially ensure the uniformity of plates. The new universal joint shafts, slated for delivery to India next year, feature improved bearing embedding. Flange dimensions optimally adapted for the flow of forces and reinforced journal crosses increase the torque capacity. To transmit extreme torques, the bearing bore on all Voith joint shafts has a jointless design.

A torque measurement system from Voith's subsidiary ACIDA will also be installed in India to monitor the functioning of the universal joint shafts.

Modest Rebound in Motor Demand

CONTINUES IN SECOND QUARTER OF 2007

Shipments of integral and fractional horsepower motors increased for the second consecutive quarter, as NEMA's Motors Shipments Index increased 2.8% on a quarter-to-quarter basis during the second quarter of 2007.

On a year-over-year basis, the index suggests that underlying gains in motors demand growth remain small, with a 0.1% gain in the topline index compared to the second quarter of 2006.

Nonetheless, the motors shipment index has increased 56% from its low point in the last economic downturn.

According to NEMA's press release, given the optimistic prospects for capital spending, as well as strong export demand, integral horsepower motors will likely continue to see modest gains in demand going forward. By contrast, end-market conditions have soured for fractional horsepower motors and are expected to remain a limiting factor to future gains in the topline index.

The NEMA Motors Index is a composite measure of NEMA-member companies' U.S. shipments of fractional and integral horsepower motors. Product shipments data are drawn from NEMA statistical surveys and are adjusted for inflation and seasonal fluctuations.