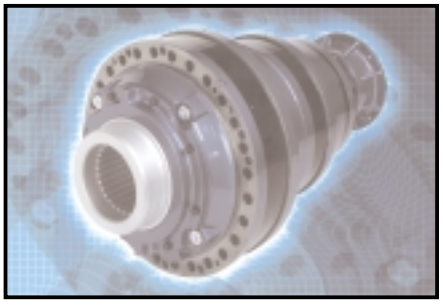
Latest Gear Industry Products

New Gearbox from Brevini

The S Series gearbox from Brevini features an epicyclical design that increases the available power from the unit without affecting the overall weight, according to the company's press release.



The series can be utilized by OEM designers in the mobile, industrial, petrochemical, mineral extraction, marine and food processing industries. Available in eight sizes, the series contains four reduction stages and offers maximum nominal torque outputs up to 370,000 N-m.

The gearboxes employ more than four planetary gear wheels and can therefore produce more torque output than other designs of equivalent weight and size. In addition, their planet carriers have a mono-bloc design.

For more information, contact Brevini UK by e-mail at *sales@breviniuk.com*.

New CMM System from Mitutoyo

The new Mitutoyo CMM auto body system is a large machine configured around a single or optional dual, horizontal CNC/CMM three-axis probe head system that operates from one or two pylons positioned alongside a large open bay.

According to the company's press release, the bay is sized to accommodate car and light truck body assemblies and other large-envelope components.

The CMM utilizes Metris LC Series high speed, non-contacting digitizing probes and a variety of scanning, vision or conventional touch probe inputs.

For more information, contact Mitutoyo America of Aurora, IL, by telephone at (630) 820-9666 or on the Internet at *www.mitutoyo.com.*

Arrow Offers Ground Spiral Bevels as On-Demand Stock Gears

Fifty-seven combinations of ground tooth spiral bevel gears with diameters up to 16 inches, quality up to AGMA Q13, and cost savings of up to 50 percent—all available on demand as stock gears from Arrow Gear Co.

With this new line of stock gears, Arrow can offer manufacturers a low-cost way to develop prototypes or produce gears in low volumes.

"Developing a new spiral bevel gear design from scratch is very costly," says James J. Cervinka, Arrow's CEO and chairman, "and the process can take months. Using our stock products, the customer can take delivery in a matter of days."

Moreover, these stock spiral bevels can be modified to meet customers' applications. Contact patterns can be changed to meet customers' gearbox deflection requirements. Arrow engineers are available to help customers make the changes to meet those requirements, and the gear teeth are carburized and hardened—not through hardened—which can make it easier to modify the gears.

Also, according to Arrow, gear blanks can often be changed in two weeks to meet a customer's gearbox envelope requirements.

Cervinka adds that, even when the stock gears are changed, savings can still be considerable compared with other options for prototype or low-volume production runs.

"With the flexibility of our stock gear products, engineers now have the choice of using high-quality precision gearing in their prototype phase," Cervinka says. "Even in aerospace applications, our products can be used for the initial testing of their applications without the months of waiting for a completely new design."

Arrow manufactures high precision gears for various industries, including aerospace, and has offered stock gears for years. But the gears consisted of only a few sets with ground teeth; the majority were lapped teeth for less-critical applications.

This new offering is Arrow's response to manufacturers' needs for lower costs, shorter lead times, increased life, quiet operation and smooth-running systems for registry or positioning.

"In view of the brutal global competition that many companies are now facing, we feel that our product line of stock gears can serve as a powerful resource for a manufacturer's competitive posture," says Joseph L. Arvin, Arrow's president. "The ability to get your product to market faster than the other guy is a strong component for edging out the competition."

For more information, contact Arrow in Downers Grove, IL, at (630) 969-7640 or by e-mail at *bevels@arrowgear.com.*

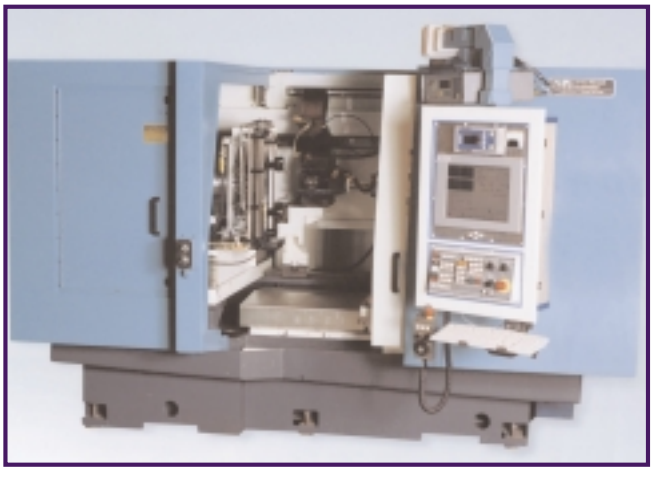
New Flat Honing Machines from Stahli

The Model DLM flat honing machine 705 from Stahli features a new construction and allows for faster processing speeds.

According to the company's press release, the dual wheel design enables both sides of the workpiece to be ground simultaneously. In this flat honing process, precision is achieved with fixed abrasives compared to conventional loose abrasive lapping or grinding.

Stahli adds that the need for pre-machining or secondary grinding is eliminated. Workpieces are held in carriers enabling continuous loading/unloading, which increases machine uptime.

For more information, contact Stahli USA of Wauconda, IL, by telephone at (847) 526-3527 or by e-mail at *sales@stahliusa.com.*



New Metal Cutting Software from Scientific Forging

DEFORM software from Scientific Forging Technologies Corp. uses finite element simulation to predict chip shape, cutting zone temperature, tool wear and surface effects such as residual stress on the workpiece.

According to the company's press release, DEFORM, an established finite element code for metal flow analysis, is capable of both 2-D and 3-D analysis of chip forming. Its heat treatment functions can simulate microstructural transformation and recrystallization.

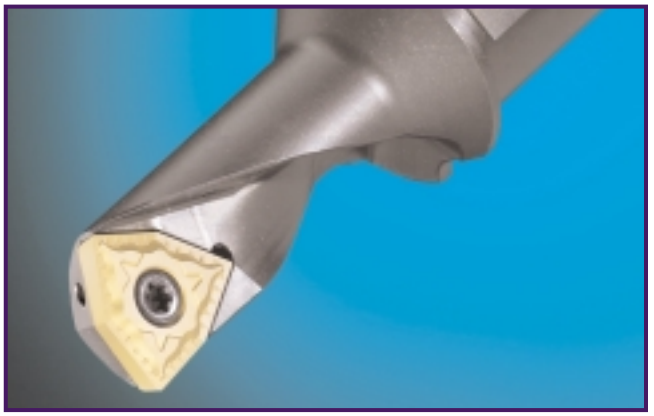
For more information, contact Scientific Forging of Columbus, OH, by e-mail at *sales@deform.com.*

New Spinning Machines from Leifeld

The new PNC 100 Series heavy-duty spinning machines have combined playback and CNC controls.

Operators have numerous options for programming. According to the company's press release, the machines' heavy rigid build can guarantee unmatched cycle times.

For more information, contact Leifeld USA of Colorado Springs, CO, by telephone at (719) 282-9061 or by e-mail at *info@leifeldspinning.com.*



New Turning Tool from LMT-Fette

The Pentatec from LMT-Fette can perform drilling, boring, facing, turning and counterboring with a single tool.

The tool's design is based on a variation of the conventional trigon-shaped carbide insert. According to the company's press release, it is capable of drilling holes down to 8 mm or 0.315".

The tool can drill a small hole and then rough, finish and chamfer the bore. Next, it can rough and finish turn the O.D. of the workpiece face in order to reduce cycle time.

Available in two insert grades and two optimized geometries, the tool can machine steel gear blanks, carbon and alloy steels, aluminum, stainless steel and cast iron.

For more information, contact LMT-Fette of Cleveland, OH, by telephone at (216) 225-0852 or by e-mail at *lmtfette@lmtfette.com*.

New Finishing Process from Kapp

The Kapp Group has introduced a combined process for hard finishing transmission gears that involves two machines, one for grinding and the other for honing via Kapp's patented process.

According to the company's press release, the two machines are coupled together. The KX300P has dressing for worms, dressing for form wheels, uses either CBN-plated worms or CBN-plated form wheels and also features on-board inspection and integrated balancing.

The CX250 is a Coroning machine designed as a mirror image of the KX300P. This machine uses the single layer plated diamond-coated coroning rings, which makes the setup time shorter. The process does not include dressing.

Motors and pumps are identical and compatible, as are the control and the human/machine interfaces.

For more information, contact Kapp Technologies of Boulder, CO, on the Internet at *www.kapp-usa.com*

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