

Welcome to our Product News page. Here we feature new products of interest to the gear and gear products markets. To get more information on these items, please circle the Reader Service Number shown.



New Preloaded Rack and Pinion Drive Systems from Andantex

Andantex has announced a line of preloaded rack and pinion drive systems for axis drive applications requiring high accuracy positioning. These systems effectively eliminate the backlash between the rack and pinion by using two pinions—one to drive the axis and one to preload the axis to eliminate the backlash. By eliminating the system backlash, accurate axis positioning is preserved during the transition period between acceleration/steady state and deceleration, where the rack and pinion flank contact and load reverses direction.

There are two types of preloaded rack and pinion systems: mechanically preloaded and electronically preloaded. Mechanical systems achieve preload by spring loading or torsionally winding one pinion against the other. These systems are typically driven by one motor and do not require a special motor controller. Electrical systems achieve their preload by electrically "braking" one pinion against the other. These systems require two motors/gearboxes and usually a special motor controller to handle the preload.

For additional information on preloaded rack and pinion drive systems, contact Andantex USA, Inc., at (800) 713-6170 or visit their website at www.andantex.com.

315

New Harmonic Gear Drives from HD Systems

HD Systems, Inc., has introduced its new Size 11 and Size 14 harmonic gear drives. Each has a 30:1 gear ratio, the low-

est ratio available for harmonic drive gearing. These systems offer 2 arc-min positional accuracy and smooth motion. With the new low ratio of 30:1, harmonic drive gearing may now be used in applications where planetary gears might have been used previously, resulting in a reduction in package size and weight while increasing positional accuracy and achieving zero backlash. The Size 11 (pictured) measures 40 mm in diameter and 26 mm in length. It has a maximum output speed of 460 rpm, rated torque of 19 in.-lbs., and repeated peak torque of 40 in.-lbs. The Size 14 has a diameter of 50 mm and a length of 29 mm. It also has a maximum output speed of 460 rpm, but its rated torque is 35 in.-lbs. and its repeated peak torque is 80 in.-lbs.

For information contact HD Systems, Inc., at (800) 231-4374 or visit www.hdsystemsinc.com.

316

New Hobbers from Basic Machine Tools

Basic Machine Tools, national distributor of 75 models of Wolf gear machines, announces these new Wolf horizontal gear hobbing machine models: #GH3-2.5 and #GH5-5. Both machines, which are suitable for quantities ranging from single parts to mass production, can generate spur, helical and worm gears.

The GH3-2.5 can hob gears with a maximum diameter of 3.2", with a maximum tooth width of 2.5". The GH5-5 can handle gears with a maximum diameter of 4.9" with a 4.9" maximum tooth width. Options for the GH5-5 include a bevel gear hobbing attachment and a "tangential" worm wheel hobbing attachment. For more information contact Basic at (323) 933-7191 or log onto their website at www.basicmachinetools.com.

317



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CIRCLE 190

Software for Parallel Axis Gear Analysis

Drive Systems Technology, Inc., and Eversolv Software have released PowerGear, a design and analysis tool for spur, single-helical and double-helical gears of either external or internal configuration. Originally developed by Ray Drago, president of Drive Systems Technology, for his *PC Applications in Parallel Axis Gear Design* seminar,

which he teaches at the University of Wisconsin—Milwaukee, PowerGear is designed to be easy to use for both students and gear industry veterans alike.

From data entered by the operator, the program will calculate all required basic tooth geometry including tooth thickness, fillet geometry, contact ratios, etc.; as well as tool geometry, bending and contact stresses, flash temperature, strength and durability ratings in accor-

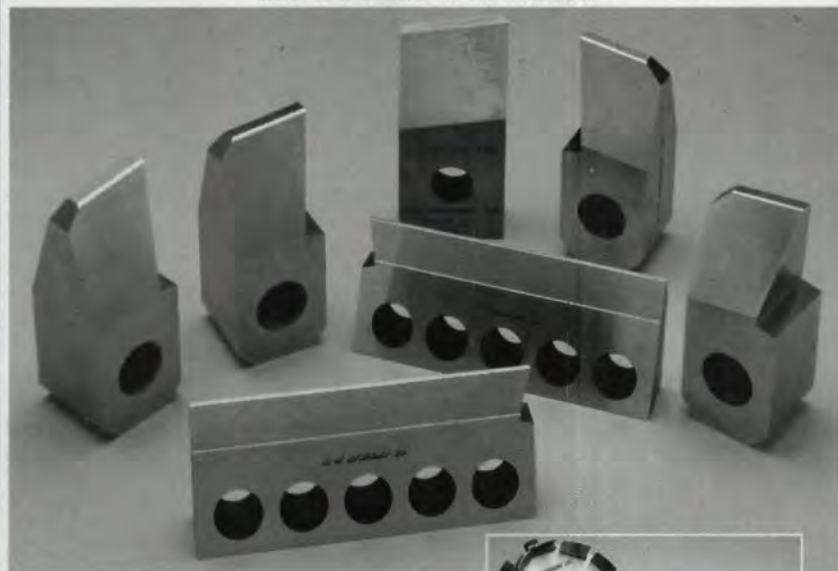
dance with AGMA Standard 2001-C95. It will also calculate elastohydrodynamic film thickness for wear probability rating, frictional power loss, scoring hazard rating, tooth profile kinematics, subsurface shear stress/strength and much more. A number of output formats and methods are available including conventional printed format with analysis text notes, on-screen with real-time updates, graphical format, and CSV data files, which can be read by other programs (e.g. word processors, spreadsheets, etc.) for ready report and presentation preparation.

For more information about PowerGear, contact Eversolv at (513) 469-8400 or for a free, 30-day full demonstration version of PowerGear, log onto www.eversolv.com.

318

NEW! NOW YOU HAVE ANOTHER CHOICE...

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AW Systems Co. announces that it is now a manufacturing source of spiral gear roughing and finishing cutters and bodies.

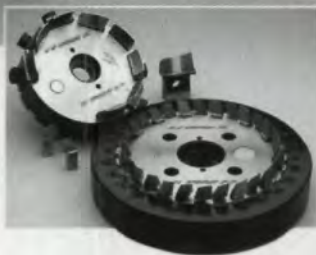
We also can manufacture new spiral cutter bodies in diameters of 5" through 12" at present.

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Whether it's service or manufacturing, consider us as an alternative source for cutters and bodies.

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Royal Oak, Michigan 48067
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New Gearheads from Thomson

Thomson Industries, Inc. has come out with two versions of its DuraTRUE 90 True Planetary right angle Gearhead, a hollow shaft design (pictured above) and a dual shaft design. Both units offer a backlash of 8 arc-minutes, a peak torque rating of 7,450 in.-lbs., a peak radial load capacity of up to 1,798 lbs., and ratios ranging from 1:1 to 500:1.

The DuraTRUE 90 Hollow Shaft provides a direct coupling to multiple drives, making it ideal for tightly constrained designs. Also, it increases system reliability while decreasing cost by eliminating the need for separate couplings and reducing valuable real estate with a shorter installed length. It comes in 90 mm, 115 mm and 142 mm square frame sizes with bore sizes of 22 mm, 30 mm, and 38 mm. The DuraTRUE 90 dual shaft model gives

CIRCLE 122

designers the option of operating 2 axes with a single servo motor, saving money by eliminating components. The unit is available in 60 mm, 90 mm, 115 mm and 142 mm square frame sizes.

For more information contact Thomson Industries, Inc., at (516) 883-8000 or log onto their website at www.thomsonindustries.com.

319



New "Golden" Surface Enhancement from General Magnaplate

General Magnaplate Corporation has announced the release of its new, ultra-hard, micro-thin Goldenedge™ surface enhancement treatment for blades and other sharp edge cutting tools. The coating provides precise thickness control, giving razor-sharp edges a dramatically increased service life by as much as 20 times, while maintaining sharpness. Due to the fine-grain structure, surface tension is reduced, which in turn decreases cutting resistance while improving equipment operational speeds.

The new coating creates a dense, smooth golden surface with increased hardness up to Rockwell C 85. A thin, uniform coating ranges in thickness from 0.00004" to 0.00006" or 1.0 to 1.5 microns. The non-stick surface meets USDA/FDA codes for food and drug contact, cleans easily with water and resists most chemicals and solders. The service temperature ranges from -300°F (184°C) to +1000°F (538°C), and the process temperature is from +450° F (232°C) to +932° F (500°C). Applications include die cutting, flaking, forming, filleting, gutting, grinding, pulverizing, scaling and sawing.

For more information, contact General Magnaplate at (800) 852-3301 or visit the company's website at www.magnaplate.com.

320

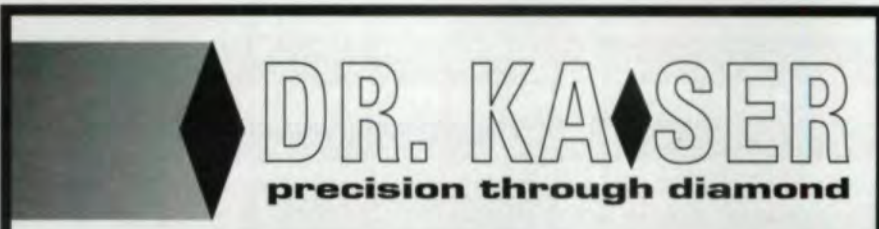
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CIRCLE 196