Latest Gear Industry Products



New Spline Rolling System from Kinefac

The MC-6 FTF Kine-Roller from Kinefac is a spline rolling system that provides CNC control and programming for size, rolling feed rate, die speed and part feed rate.

According to the company's press release, the three cylindrical dies can be matched by using their direct-die phasing system and torque sharing die drive.

The roller can produce tooth-to-tooth spacing error below 25 microns and pitch diameter within 40 microns on splines up to 50 mm in diameter with pressure angles from 30-45°. In addition, the use of this system with its roll generating design provides maximum stability for the forced feed-thru spline rolling process.

For more information, contact Kinefac at (508) 754-6891 or by e-mail at sales@kinefac.com.

NEW BROCHURE FROM LOGANSPORT

A new 12-page electronic brochure from Logansport Matsumoto Co. features its line of workholding chucks, suitable for automotive part machining and high volume applications.

The products represented include the PS and PG power swing chucks from 6–12" angled work, PB pin arbor chucks from 5-10", and the PBH and PBN pin arbor chucks.



Cutting a keyway is one of the most common operations in gear manufacturing. Usually, keyways are cut using a broaching process, but engineers at Command Tooling Systems thought there had to be a faster and cheaper way to go about it.

The New Axis Keyway Cutter from Command Tooling Systems, a toolholding company located in Ramsey, MN, is the latest extension of the traditional right angle head. This version fits right in a milling machine, eliminating any secondary operations and saving setup time, says Bob Saby, the company's product manager.

The cutter is hydraulically powered, driven by a machining center's coolant system. It can machine keyways, splines or grooves without spindle rotation, in bores down to 1/2" diameter. The spindle rotation is not required for power because the positive displacement ball piston motor in the head achieves speed and torque relative to coolant flow and pressure.

Command Tooling Systems considers itself to be the only company to use fluid-driven means for key cutting.

According to Saby, Command Tooling has sold 45 units so far. Available in BT 40, CT 40, CT 50, HSK63A and straight shank sizes, the cutter can also produce odd-size keyways via multiple passes to meet depth and width requirements.

These keyway cutters use the same couplings as the company's larger, fluid-driven right angle head. The New Axis Right Angle, Fluid-Driven Cutter Head features an elliptical design head for machining cavities within 1" diameter.

Heads clamp the machining spindle and, like the keyway cutter, it doesn't require spindle rotation. Since it is free to function as an indexer, the C-axis allows machining at multiple radial positions with a single setup.

Loading is done from an automatic tool changer and, aside from keyway cutting, the heads are suitable for milling oil grooves, drilling bleeder holes at right angles to piston bores and machining at multiple radial positions on monolithic parts.

For gear companies, the most likely applications are automotive. However, the New Axis may not be a solution for all gear manufacturers since the system requires 300 lbs. of coolant pressure.

"Most newer machines have high pressure coolant, but we have run into companies without it," says Saby.

Nonetheless, he counters that this keyway cutter is still a cost-saver for the majority of companies. "It's universal, can cut small bore sizes and is definitely more compact than mechanically driven heads," he says.

Other items featured are the System 2R Hydraulic Rotating Cylinders for high performance chucking applications as well as other power-operated chucks, rotating cylinders and wheel chucks/ actuators, multi-axis rotary tables for turning and EDM applications.

For more information, contact Logansport Matsumoto Co. of Logansport, IN, by telephone at (574) 735-0225 or on the Internet at www.logan-mmk.com.

NEW TORQUE SENSOR FROM SENSOR TECHNOLOGY

The RWT310/320 series of Torqsense rotary torque sensors from Sensor Technology is designed for plug-andplay fitting.

According to the company's press



release, it does not need physical contact with the shaft it is monitoring. This is because it uses a radio frequency coupling to power and read the output of a small piezoelectric comb mounted on the shaft's surface and acting as a hypersensitive strain gauge.

During rotation, all the shafts twist at a microscopic level, and this deforms the comb so that its fundamental frequency changes. The twist and frequency change are related to the torque in the shaft, so monitoring the comb gives a direct torque measurement.

The sensor comes with integral electronics, outputs for torque, speed, power and angle, analog and/or digital outputs, a built-in peak torque sampling, storage and torque averaging, and a self-diagnostic test package.

For more information, contact Sensor Technology of Oxon, U.K., on the Internet at www.sensors.co.uk.



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Presrite Corporation
3665 E. 78th St. • Cleveland, OH 4410:
Phone: (216) 441-5990
Fnx: (216) 441-2644

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