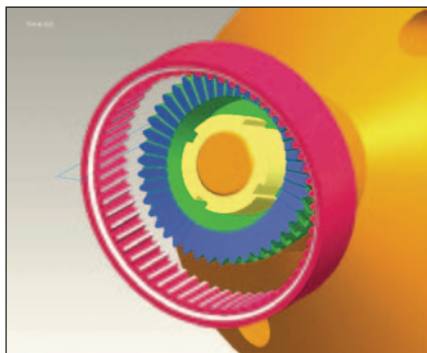


American Wera Profilator

INTRODUCES SCUDDING PROCESS



Rolled out at EMO 2007, the Scudding process is a continuous cutting operation that uses a tool design similar to a helical shaper cutter. It can be used for a wide range of gear applications including involute gears like sprocket or ring gears or on non-involute or non-symmetrical gears, like belt pulleys or straight synchronic gears.

In Scudding, the cutter feeds directly through the workpiece as the cutter and workpiece spin in a synchronized fashion. According to Scott Knoy, vice president of sales at American Wera Inc., the process can cut a gear in nearly the same time as hobbing and can be five to six times faster than shaping an internal gear.

The machine was originally developed for sliding-sleeve internal splines for manual transmissions, but it was soon realized that it could cut internal gears, external gears and non-symmetrical forms, and it could hard-finish internal gears with a carbide cutter.

“The response to the product has been very good,” says Knoy. “The automotive, aircraft, power tools and wind energy industries showed interest in the machine when it was introduced at EMO 2007.”

According to Knoy, the appeal of

the technology was the cycle time and the flexibility to cut either internal or external gears. Daimler Europe currently has three machines on order and Tremec in Mexico has expressed interest as well.

“We currently have several tests scheduled to work in these different fields,” says Knoy. “The challenge will be to increase the capacity well over the current 320 mm size limit.”

The technology itself is a current slant on an older hard-gear finishing process developed in Germany called walzschaelan, (translated as “hob-peeling”). The elements of hob-peeling are now being used in a different manner, providing the current green process called Scudding. Wera is currently testing the hard finishing process using a carbide-cutting tool.

The Wera machine line offers five processes including Scudding, gear cutting, gear tooth pointing, lock-step milling/pocket groove milling and polygon generation. The machines can be arranged three ways:

1. With a single process with one work spindle and one cutter spindle.
2. Two processes with one work spindle and two cutter spindles.
3. Three processes with two work spindles and three cutter spindles.

In the past, the processing of a sliding sleeve required operations such as turning, broaching, tooth-pointing, groove milling and lock-step milling on multiple machines. Separate washing stations were often required as well.

Innovations in cold- or net-forming technologies made it possible to produce “near finish” sliding sleeves, eliminating steps such as turning and

broaching. The Wera machine allows the combination of Scudding, tooth pointing, lock-step milling and groove milling in a single machine.

According to the company’s press release, the new machine can reduce investment costs as well as personnel and labor. With fewer machines required, there’s more floor space and reduced energy consumption. Less inspection costs also add to its appeal.

For now, Wera Profilator is working with a German gear tool manufacturer and a German university to iron out the process. Currently, there’s a cross axis angle between cutter and workpiece that results in a small amount of over-travel in the cutting process. It’s an issue the company is addressing, using cutting tool technology and machine axial movements.

To see videos of scudding in motion, visit www.geartechnology.com/news.php?in=1471.

For more information:

AmericanWera Inc.
4630 Freedom Dr.
Ann Arbor, MI 48108
Phone: (734) 973-7800
Fax: (734) 973-3053
E-mail: info@profilator.de
Internet: www.profilator.de

Guyson

INTRODUCES BLAST CABINET

Guyson’s single-spindle blast machine allows 360-degree coverage

by timed blast- and blow-off cycles, performed as a workpiece rotates. The blast cabinet features a touch-screen panel for spindle rotation speed or blast cycle duration. Both text and graphic indications occur when faults such as insufficient air supply pressure or low media levels are detected. A human operator, automated pick-and-place device or robot can configure the system.

The system is designed to use mineral grit abrasives such as aluminum oxide and silicon carbide to produce a specified texture or roughness on target surfaces. Abrasion protection features are built-in to resist erosion.

Interior surfaces have a bonded, abrasion-resistant rubber lining, as well as urethane rubber hoses that are fitted with hard, boron carbide nozzles. Prospective users of automated grit-blasting systems are encouraged to submit sample components for free laboratory testing.

For more information:

Guyson Corp.
13 Grande Blvd.
W.J. Grande Industrial Park
Saratoga Springs, NY 12866-9090
Phone: (518) 587-7894
E-mail: jccarson@guyson.com
Internet: www.guyson.com



Rex-Cut
INTRODUCES
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FLAP DISCS

The Rex-Cut Fusion Flap Disc combines two types of abrasive layers for one-step grinding and finishing. According to the company's press release, the flap disc is longer-lasting than traditional surface conditioning discs. They're offered in coarse, medi-

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ALL GEARED UP

Philadelphia Gear

INTRODUCES CORE ONLINE

Continuous Oil Rescue Equipment (CORE) filters, launched as an alternative to traditional barrier filtration techniques by Philadelphia Gear, are now available for purchase online at www.philagear.com. According to the company's press release, the CORE filter boasts a three-dimensional storage capacity that allows for longer periods of operation.

Inside the cast aluminum housing is an assembly of five magnets, each surrounded by a set of steel flux plates. "Collection zones" are machined into the plates to prevent oil flow restriction. These plates create magnetic fields that strip ferrous metal contaminants out of the lubricant while maintaining pressure.

“The simplicity of the CORE filter online sale offered Philadelphia Gear a unique opportunity to do business with our customers in a whole new way—the Internet,” says Carl Rapp, Philadelphia Gear’s chief executive officer. “CORE was a perfect fit for an online ordering system because its price point allows customers to purchase the filter out of their discretionary operating maintenance budgets.”

For more information:
Philadelphia Gear
King of Prussia, PA
Phone: (800) 766-5120
Fax: (610) 337-5637
Internet: www.philagear.com

The LZ90-360 offers a clamping range with a minimum of 90 mm and a maximum 360 mm, the LZ150-420 from 150 mm to 429 mm and the LZ110-500 has a range from 100 mm to 500 mm.

The steady rests maintain the integrity of shaft or bar workpieces that tend

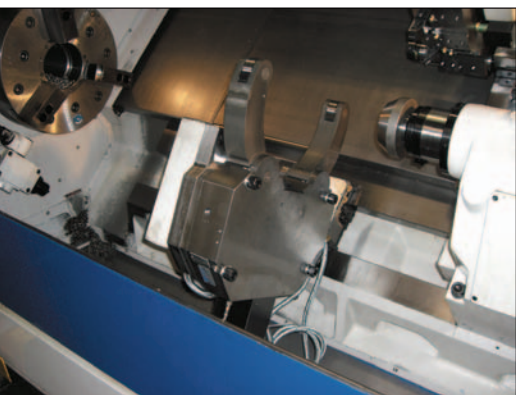
to bend or deflect under unstable cutting loads. The rests feature three roller levers with curved surfaces that arc towards the workpiece at a 120-degree angle. According to the company’s press release, this design reduces the size of the housing and provides a consistent, uniform clamping force.

continued

LMC

INTRODUCES LARGE ATLING STEADY RESTS

Designed to fit any CNC or conventional lathe, the LMC Atling self-centering steady rests feature three new models—the LZ90-360, LZ150-420 and LZ110-500.



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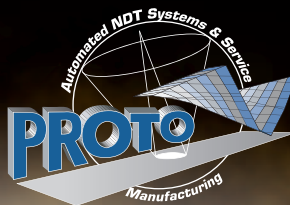
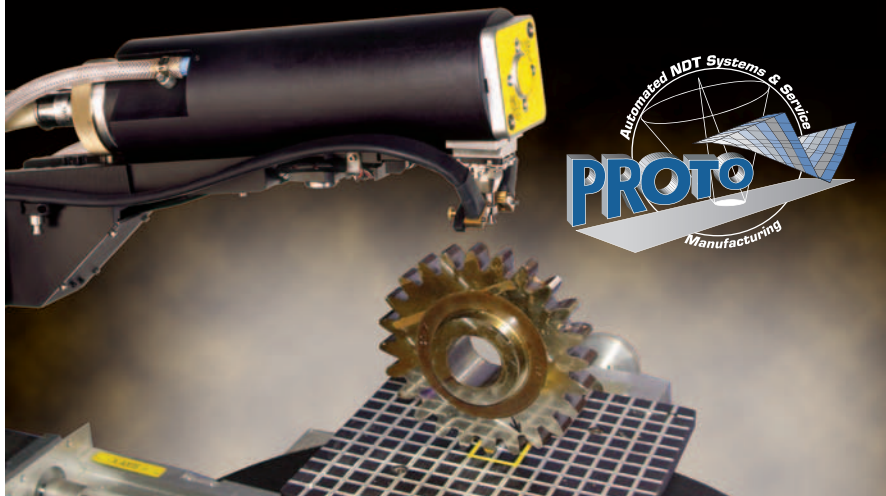
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Stafford recently introduced a universal mounting collar that can be supplied with different bore designs to fit rail mounts and other devices. The mounting collars have a flat surface with a countersunk and tapped hole that allows it to be mounted to a flat surface or onto a rail or shaft.

According to the company's press release, the collars feature smooth-, hex-, square-, threaded-, or keyed-bores to eliminate the need for drilling holes or welding. The mounting collars are suitable for applications in machinery, power transmission, packaging, conveyors, laboratories and consumer products. The universal mounting collars are priced at \$11.90 each.

For more information:

Stafford Manufacturing Corporation
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 Fax: (800) 649-5101
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Ultrasonic Tanks

AIM TO CLEAN-UP INDUSTRIAL MANUFACTURING

Ultrasonic tanks by Omegasonics assist in the process of toxic parts cleaning in all industrial machining applications. According to the company's press release, ultrasonic tanks can reduce the time and labor necessary to clean most industrial equipment.

Instead of personnel scrubbing and washing, users can place the parts directly in the tank. The ultrasonic tanks will clean through cracks and crevices typically missed using conventional equipment. They boast a filtration package as well as an accessible operator interface.

Omegasonics tanks have been utilized for military aircraft components, optical encoders and plastic injection molding. Bud Greener, manufacturing engineer at Eaton Aerospace, recently implemented the tanks at Eaton's Jackson, Michigan plant.

"Prior to the ultrasonic system, we cleaned tubes manually," says Greener. "Now, we put them into the cleaning systems, adjust the settings and walk away to do something else while the parts are being cleaned."

Ultrasonic tanks utilize environmentally friendly cleaning solutions, heat, water and ultrasonic sound waves for the cleaning process. The liquid can reach areas unable to be cleaned by human hands or other devices.

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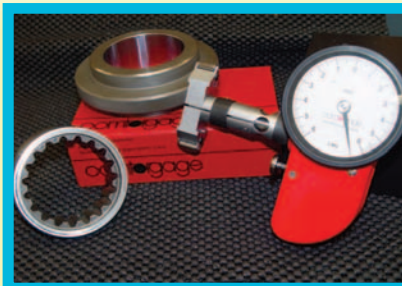
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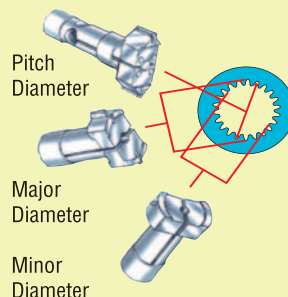
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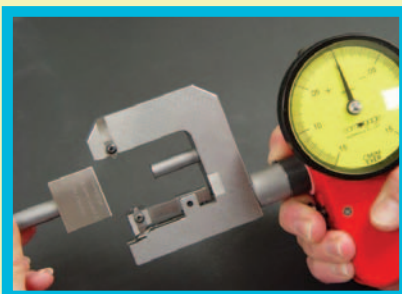


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