

# Gleason

## ANNOUNCES 175GMS ANALYTICAL GEAR INSPECTION SYSTEM

Gleason Corporation recently announced the introduction of the 175GMS Analytical Gear Inspection System, with faster complete inspection of automotive, aerospace and other smaller gears, as well as gear cutting tools and non-gear parts.

The latest addition to the GMS Series (with models available for gears up to 3,000 mm in diameter), the 175GMS completes the development of the GMS series and replaces the 175GMM. The 175GMS includes features such as surface finish measurement and prismatic feature measurement, an intuitive user interface and input screen for programming of work pieces and cutting tool data, built-in tutorial information for gear features with text, pictures and videos that are user editable, and an easy setup, remote I/O controls system and improved movement optimization to reduce the cycle times required for the complete inspection of almost any gear or gear tool.

The 175GMS Analytical Gear Inspection System is the first GMS system to feature the new Windows 7-based Gleason GAMA 3.0 applications software suite. It features a new-generation Renishaw 3D scanning probe head to provide accuracy and flexibility for the inspection of gears and gear-cutting tools and, in particular, finer pitch gears, and a new mounted operator workstation and an Advanced Operator

Interface (optional) — both designed to improve the operator's effectiveness at every stage of the inspection process.



The Advanced Operator Interface puts a number of tools right at the operator's fingertips, including an environmental monitoring station to record temperature and humidity as well as video telephony, note pad and voice mail messaging capability, Gleason Connect for remote diagnostic support, creation of standard work instructions, online training tools, multi-lingual communication and more.

### For more information:

Gleason Corporation  
Phone: (585) 473-1000  
[www.gleason.com](http://www.gleason.com)

# KISSsoft

## ADDS KISSESY THERMAL MODELING

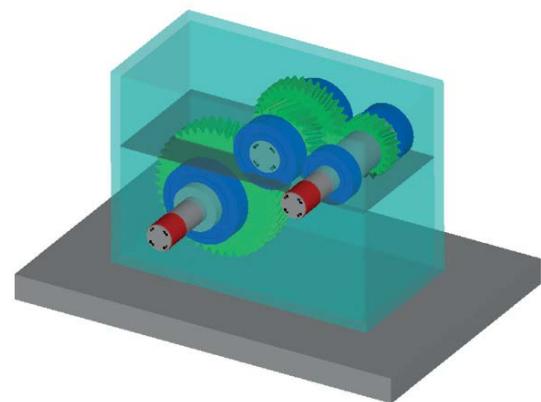
*KISSEsys* is a system add-on to *KISSsoft*, where complete transmissions and drive trains can be modeled (SYS module). The gearbox package GPK Calculation, which is based on *KISSEsys*, provides the user with 17 basic models of gearboxes as templates (GPK module).

With the "Efficiency Template" available for *KISSEsys*, the efficiency calculation and thermal analysis in accordance with ISO/TR 14179 are carried out for all types of transmissions and drive trains. In addition, the template now includes a large number of new functionalities, which meet the requirements of the industry.

With the integrated programming language in *KISSEsys*, a user's own modifications of the calculation code can be made. Improvements of the gear design and the required cooler power are therefore more purposefully and easily definable by the user.

### For more information:

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## EMCO Maier INTRODUCES HYPERTURN 65 POWERMILL

The Hyperturn 65 Powermill offers a large spindle clearance of 1,300 mm, a powerful counter spindle which also allows 4-axis machining, a B-axis with a direct drive for 5-axis simultaneous milling operations, and an additional Y-axis for the lower turret.

Turning, drilling, milling and gear cutting operations can be completed in one setup. Additional handling and part storage is eliminated and workpiece precision is improved. Total production time, fixture and personnel costs, as well as floor space requirements, can be reduced with the Hyperturn.

With 29 kW and 250 Nm, the counter spindle has enough power to machine the workpiece simultaneously with two tools, enabling 4-axis machining.

The milling spindle, with 29 kW, 79 Nm torque and speeds to 12,000 rpm, promotes



productivity in the complete machining of complex workpieces. The B-axis direct drive gives the Hyperturn 65 PM good dynamics and contour capabilities with 5-axis simultaneous machining, along with shorter tool change times. The additional Y-axis on the lower turret makes milling work possible at the same time as machining with the milling spindle.

The milling spindle with HSK-T63 tool interface can be used for both turning and drilling/milling work. It can be continuously swiveled within a range of  $\pm 120^\circ$  and clamped at any point. With a Y-travel of +120/-100 mm, most

machining work can be carried out. This includes gear-cutting operations, turning/milling work for crankpins, 5-axis machining, and more. The tools can be prepared according to the customer's requirements with a 20-piece pick-up magazine, or a 40 or 80-piece chain magazine.

The Y-axis is accomplished by two interpolating axes, resulting in a distribution of the cutting force in two levels and adds stability to heavy-duty turning and milling. This means the lower turret with integrated milling drive can also be used for complex milling operations at all 12 positions, combined with a Y-axis with  $\pm 50$  mm travel.

Twenty, 40 or 80-piece tool magazines with HSK-T63 give the user more possibilities for complete machining operations of workpieces, with simultaneously low set-up times for individual parts manufacturing and high-stability for turning and milling works.

As an alternative to the VDI30 or VDI40 12-position tool turret, EMCO offers a new generation turret with a BMT interface and direct drive. Higher stability and precision, and performance data similar to a milling machine, enable the complete machining of turning/milling workpieces.

The machine versions with a milling spindle and turret including milling drive (SMBY/SMBY2) have a cross slide underneath with a 12-position radial turret for 12 driven tools working up to speeds of 5,000 rpm.

The automatic bar machining and/or delivery of unit loads via a robot solution or the EMCO gantry loader offer increased efficiency in automation.

### For more information:

EMCO Maier Corporation  
Phone: (248) 313-2700  
[www.emco-world.us](http://www.emco-world.us)

# Jergens

## EXPANDS RANGE OF PALLET SOLUTIONS

Jergens, Inc.'s range of pallet solutions has been expanded to include two more styles, a 4-Pin pallet and a manual version of the company's ZPS (Zero Point System). Announced in September at IMTS 2014, the new pallet solutions offer users several key features.

The new 4-Pin pallet mounts directly to the machine table and uses a single hex actuator for quick fixture exchanges with precise, secure location for reduced setup time. Locating studs can be mounted directly to existing fixtures to convert them for quick change-overs. A machinable blank fixture plate is also available as an option.

The new ZPS features a manual, single-hex actuator to release and secure fixtures for a range of applications large and small. The manual actuation eliminates the need for air or hydraulic connections required with current ZPS systems. The new manual ZPS modules are available in two sizes, K10 and K20 and offer timing slots for 90-degree part indexing.

"The two additions complement our range of pallets that includes the Drop & Lock pallet changers that integrate with our Fixture-Pro line of multi-axis tooling and our QCB series allowing customers to choose the system that matches their specific need," said Paul Kieta, national sales manager for Jergens Workholding Solutions.

The Drop & Lock range of pallet changers is available in round and square configurations, two platform sizes, 130 mm and 250 mm, and in inch or metric mounting patterns. The QCB pallet series is available in two sizes, can interface with the Fixture-Pro mounting system, and provides for direct mounting of Jergens 5-axis (multi-axis) vises for raising parts above the machine table for 5 axis machining access.

### For more information:

Jergens, Inc.  
Phone: (877) 486-1454  
[www.jergensinc.com](http://www.jergensinc.com)



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## INTRODUCES NEW MACHINE TOOL OBSERVER

The new SKF Machine Tool Observer MTx serves as a single device connecting all operating-parameter sensors to actively monitor, observe and log the performance history of machine tool spindles, grinding machines, or other rotating equipment.

This solution collects information about the accumulated condition levels

of a machine tool via the connected sensors to monitor with continuous recording and long-term storage of critical operating data. The MTx can be used as a stand-alone unit or integrated into a control system, whether for OEM or end-user applications. The technology ultimately supports preventive maintenance objectives by helping to detect



operating abnormalities before they can escalate.

The system consists of a microcontroller-based electronics assembly with internal memory for data storage in real time. The electronics assembly can be connected to up to six different sensor types for monitoring vibration, speed, temperature, humidity, eddy probes, and oil streak, among other parameters. It supports a wide range of different types of sensors, where a maximum of 14 of these sensor types can be connected at the same time. The system compiles detailed documentation of machine tool history and working conditions and enables traceability of incidents by accurately logging their duration, date and time.

For parameterization and data presentation, a server/client software package has been developed for standard Ethernet (LAN) interface with DHCP/IP protocol. The software package allows users to manage and run multiple units installed on a PC, network or over the Internet. Each connected sensor can be monitored online for ongoing accessibility and shared evaluation.

The MTx requires minimal wiring. In addition, two relay outputs can be configured for alarm or emergency stops and email alerts can be generated, based on predetermined sensor limits.

### For more information:

SKF United States  
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# Seco Tools

## ADDS NEW HELICAL TOOL TO SQUARE T4-08 LINE

Seco Tools, LLC recently added a new helical tool to its Square T4-08 line of square shoulder mills that feature four cutting edges and a tangential cutter design. Designed for slotting and contouring/shouldering applications, the Square T4-08 Helical excels in machining challenging materials such as cast iron, steel and stainless steels.

Like other products within the line, the Square T4-08 Helical's pocket seats combined with multi-edge inserts improve cutting stability and allow for clean 90° walls. The inserts mount tangentially in the cutter so that the cutting forces impact the thickest parts of the inserts, allowing manufacturers to achieve the required levels of strength for increased depths of cut with small diameters.



The tool has cutting diameters that range from 0.98" (25 mm) to 2.13" (54 mm) and depths of cut between 0.87" (22 mm) and 2.52" (64 mm). Corner radii range from 0.02" (0.4 mm) to 0.063" (1.6 mm). Furthermore, the entire Square T4-08 Helical range has integrated through-coolant channels to provide extended tool life.

### For more information:

Seco Tools, LLC  
Phone: (248) 528-5200  
[www.secotools.com/us](http://www.secotools.com/us)

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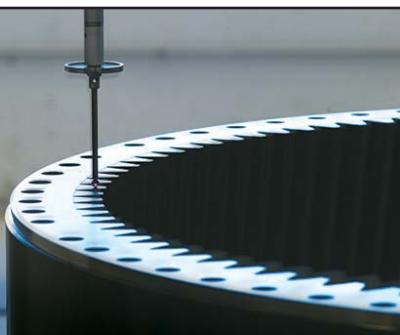
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Email : [sales@luren.com.tw](mailto:sales@luren.com.tw)  
Website : [www.luren.com.tw](http://www.luren.com.tw)

**North American Headquarters**  
Luren Precision Chicago Co., Ltd.  
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Schaumburg, IL 60173, U.S.A.  
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#### **Brevini Gear**

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## **Spectroline** INTRODUCES OL-444 INDUSTRIAL LEAK DETECTION KIT

The Spectroline OLK-444 Industrial Leak Detection Kit is a kit that pinpoints leaks in any size oil-based fluid system. It locates leaks in hydraulic systems, compressors, engines, gearboxes and fuel systems, preventing equipment breakdowns and potential environmental problems.

The kit features the Opti-Lux 400 violet light LED leak detection flashlight. It has power comparable to a 150-watt lamp. The unit is compact, lightweight and rechargeable. Its violet light enables dyes to fluoresce brighter and with greater contrast than with standard blue light inspection lamps.

Also included in the kit is a 473 ml twin-neck bottle of patented Oil-Glo 44 concentrated oil dye, which is compatible with all synthetic and petroleum-based fluids. When a leaking industrial system is scanned with the Opti-Lux 400, the dye glows a bright yellow/green color to reveal the location of all leaks.

Rounding out the kit is a 237 ml spray bottle of Glo-Away dye cleaner, a charging cradle with AC and DC cord sets, dye treatment tags and fluorescence-enhancing glasses.

#### **For more information:**

Spectronics Corporation  
Phone: (800) 274-8888  
[www.spectroline.com](http://www.spectroline.com)

## **Rego-Fix** INTRODUCES HI-Q/ERMX MINI-NUT

Rego-Fix, a manufacturer of Swiss precision tooling, recently introduced the Hi-Q/ERMX Mini-Nut for Swiss automatic machine tool applications. The nut has an anti-slip locking design that is engineered to prevent the locking wrench from slipping off the nut during assembly and disassembly.

Milled slots on the outside diameter of the nut mate with corresponding features of the wrench to prevent slippage during

the tightening and loosening processes. Benefits include operator safety as well as prevention of damage to other tools. The Hi-Q design includes a special surface treatment to enhance clamping forces and extend the life of the nut by protecting against corrosion.

#### **For more information:**

Rego-Fix  
[www.rego-fix.com](http://www.rego-fix.com)

# SMT

## RELEASES MASTA 6

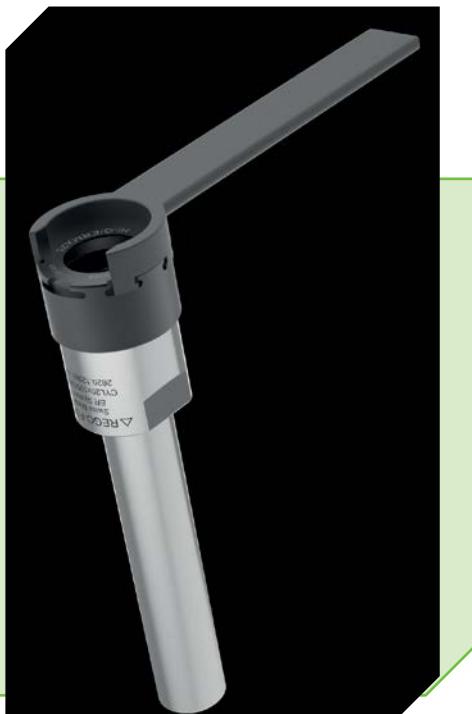
Smart Manufacturing Technology (SMT) recently announced the release of its CAE software, Masta 6.

Masta is for transmission and driveline design, analysis, simulation and manufacture. Its modular structure makes it tailored to the responsibilities of its user and is applicable to the entire development cycle for the automotive, energy, aerospace, marine and rail industries. Masta integrates and interfaces with a multitude of other platforms including Gleason's Cage software for manufacture and CAD modelling software for design and analysis.

A user interface overhaul allows the user to make faster accurate results in an ergonomic workflow allowing engineers to achieve higher levels of quality. Improvements include advanced customizable reporting features as well as importing and exporting CAD model enhancements.

New modules for fluid film bearings, plunge shaving micro geometry and shaving cutter dynamics have also added to Masta's repertoire.

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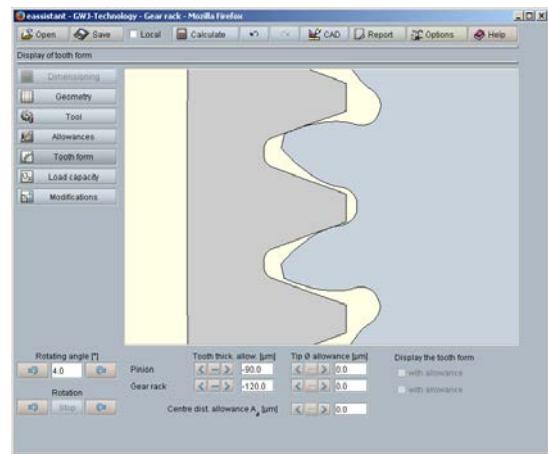
# GWJ Technology

## UPGRADES EASSISTANT SOFTWARE

GWJ Technology GmbH, headquartered in Braunschweig, Germany, has upgraded its web-based calculation software *eAssistant* with three new modules for the calculation of rack/pinion gear pairs as well as single external and internal cylindrical gears.

In addition to various calculation modules for many different machine ele-

ments (e.g., shafts, rolling bearings, shaft-hub connections, bolts, cylindrical gears, planetary gear trains, bevel gears), GWJ has released three new modules. Two modules can be used for the determination of single cylindrical gears. One module allows the calculation of single external cylindrical gears, the



other supports the calculation of single internal gears. Both modules enable *eAssistant* users to determine the gear geometry, test dimensions and allowances including the accurate gear tooth form. The user can export the tooth form as DXF.

The third new module makes it easier to calculate rack/pinion gear pairs. Spur and helical gears are possible to calculate. Profile shift on the pinion will be taken into consideration. The number of teeth or the length of the gear can be specified for the gear rack. The user can decide between rectangular or round gear racks. In addition to geometry, allowances and gear tooth form, the load capacity according to DIN 3990 and ISO 6336 Method B can be calculated. Herewith the safeties for fatigue or limited life strength and static strength can be determined. The calculation of surface durability (pitting), tooth bending strength and scuffing according the flash and integral temperature method is carried out.

There is also a calculation of load spectra. For 2-D CAD systems, the standard format DXF is available. The *eAssistant* 3-D CAD plugins support the creation of 3-D models. With one click, the design table with all manufacturing details can be placed on the manufacturing drawing.

### For more information:

GWJ Technology GmbH  
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# Walter

## INTRODUCES TWO INDEXABLE INSERT CARTRIDGES

Walter, a producer of precision cutting tools for milling, drilling, turning, boring and specialized tools, recently introduced two new indexable insert cartridges for the Walter F2010 face mill. These new cartridges, the FR751M and FR752M, bring the flexibility and performance of Walter BLAXX tangential indexable inserts to the Walter F2010 face mill. The family of indexable milling tools includes shoulder, helical and slitting mills.



The Walter BLAXX shoulder mill produces precise 90° shoulders. That system is only available for tool diameters up to 160 mm. The F2010 face mill, equipped with the FR751M or FR752M cartridge, can bring this technology up to a diameter of 315 mm. In addition, the F2010 can now be used for fine finishing because the indexable inserts can be adjusted axially with micrometer precision.

These inserts come in two geometry variants: the L55T, a universal geometry that can be used on most materials, and the L85T, which has a particularly sharp cutting edge for machining aluminum.

### For more information:

Walter USA, LLC  
Phone: (800) 945-5554  
[www.walter-tools.com/us](http://www.walter-tools.com/us)

# Oelheld

## RELEASES 'THREE MAGIC HELPERS'

Oelheld U.S. Inc. recently released three new products to aid with nagging shop problems: Oelheld LubTool 2000, Oelheld LubTool 4000 and Oelheld LubTool 6000.

Oelheld LubTool 2000 is a fully synthetic, PAO based lubricating oil that lubricates, cleans, protects and removes corrosion, even in extreme-

ly low temperatures. LubTool 2000 is NSF H1 approved, so it can be used around food stuff and it is neutral to all common plastic-and elastomeric materials. LubTool 2000 is free of silicon, acids and resins.

Oelheld LubTool 4000 is a universal cleaner that can remove multiple contaminations. LubTool 4000 is designed

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for the removal of resin, oil and grease, most coatings, paints and crayon marks, as well as cleaning of soiled machinery components. LubTool 4000 is also suited for surface prep, prior to bonding and painting. The product is free from hydrocarbon and evaporates residue free.

Oelheld Tool 6000 is a corrosion protection for precision-tools which forms a thin, grease-like protective film. It offers corrosion-protection on metal parts for long-term indoor and outdoor storage.

LubTool 6000 does not form any resins and can be removed after long-term storage. Treated parts can

be EDM wire-cut without removing the coating first. LubTool 6000 is free from FHC, CHC and FCHC.

**For more information:**

Phone: (847) 531-8501  
[www.oelheld.com](http://www.oelheld.com)



# Taylor Hobson

## INTRODUCES HI-RES INSTRUMENTS FOR SURFACE AND CONTOUR INSPECTION

A new series of high resolution instruments offering automated simultaneous surface and contour inspection has been introduced by Taylor Hobson, a unit of AMETEK Ultra Precision Technologies.

Precision machining and an FEA (Finite Element Analysis) optimized design combine to provide a low noise and high accuracy mechanical execution of the measuring axes. Balanced beam design allows the instruments to be used in any orientation. Traceable standards and algorithms eliminate instrument influence from the measurement results. The instruments are available in 1mm, 2mm and 5mm gauge ranges with an 18 bit gauge for improved resolution in surface detail, contour and 3D measurement. Software for analysis of surface finish and form is included.



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# Schunk

## INTRODUCES WSG SERIES SERVO-ELECTRIC 2-FINGER PARALLEL GRIPPERS

Schunk recently introduced the WSG series of servo-electric 2-Finger Parallel Grippers. They are designed for parts handling and assembly processes where flexibility and sensitivity is required. Schunk has now expanded the series with a long stroke version and a compact small parts version.

The WSG has a long stroke which allows reliable handling of different components and grip force can be controlled internally. These grippers have part detection and integrated grip force control system.

Through standard sensor interfaces in the base jaws, sensors are directly integrated into the gripping process without any additional cabling or interfering contours. By using the optionally available force-measuring fingers, forces which occur at the gripped component can be recorded and allow reliable handling of fragile components.

A belt drive ensures high jaw speeds and short cycle times achieving speeds of 400 mm/s.

**For more**

**information:**

Phone: (919) 572-2705

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