

Gleason

INTRODUCES 300GMSP ANALYTICAL GEAR INSPECTION SYSTEM

Gleason Corporation recently introduced its latest gear metrology innovation at the Control Show in Stuttgart, Germany, on May 5.

The 300GMSP Analytical Gear Inspection System is designed to operate in production environments while yielding reliable measurement results, with integrated systems designed to compensate for the typical production floor thermal, vibratory and contamination dynamics that normally compromise the performance of metrology systems.

A patent-pending base design includes a leveling system to attenuate a broad spectrum of normal production environment vibrations, yielding measurement values in parallel with those achieved in controlled calibration laboratories, but without the delay of having to move to the lab location.

Thermal fluctuations normally associated with shop floor environments are proactively compensated for, allowing for reliable inspection results. The system identifies and applies a compensation for factory floor influences in real time.

The 300GMSP Analytical Gear Inspection System is designed and tested to perform as a turn-key gear inspection system in the manufacturing environment, and is the solution to gear inspec-

tion for today's applications in aerospace, automotive, and smaller power transmission industries.

This latest addition to the GMS Series (with models available for gears up to 3,000 mm in diameter) includes features like surface finish measurement and prismatic feature measurement. It is also included the Gleason GAMA 3.0 applications software suite which, like its GAMA 2.0 predecessor, offers users an intuitive user interface and simple input screens for programming of workpiece and cutting tool data. GAMA 3.0 also includes tutorial information on the gear features with verbiage, pictures and videos that are user editable.

The 300GMS P is equipped with a new ergonomically mounted operator workstation and an Advanced Operator Interface—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 opera-



tor'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 enhanced 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

Klüber Lubrication

INTRODUCES SYNTHETIC GREASE FOR EXTREME CLIMATIC CONDITIONS

Klüber Lubrication recently introduced Klübersynth EM 94-102, a fully synthetic lubricating grease incorporating a calcium complex soap thickener. The thickener enables formation of a resil-

ient lubricating film that provides high resistance to mechanical-dynamic loads while enabling wear protection.

Klübersynth EM 94-102 can be used in a variety of applications under different climatic conditions due to its wide service temperature range. As a result, various friction points can be supplied with one single lubricant, avoiding confusion due to multiple lubricant selection and use.

The resistance to water and corrosion pro-

tection properties of Klübersynth EM 94-102 make it suitable for use in wet and humid areas. Examples include rolling and plain bearings for winter sport applications, like ski lift equipment and snow grooming vehicles, or industrial offshore and marine applications.

Klübersynth EM 94-102 is suitable for an array of applications because of its wear protection, adhesion characteristics, load capacity and low-temperature behavior.

For more information:

Klüber Lubrication North America L.P.
Phone: (603) 647-4104
www.klubersolutions.com



Batch Furnace System – Single-Chain Model



ATLAS

Video Brochure

Ipsen's ATLAS atmosphere furnace line, which is manufactured and serviced in the USA, combines the achievements of past atmosphere furnaces with the evolutionary innovations of the future. This video showcases the single-chain model's features, benefits and technological advantages, including:

- Load size of 36" x 48" x 38" (W x L x H)
- Improved functionality and precision of the quenching system – TurboQuench™
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IpsenUSA.com/ATLAS-Video-Brochure



Mesys

SHAFT SYSTEM SOFTWARE OFFERS ADVANTAGES FOR GEARBOXES

The Mesys shaft and bearing calculation software is mainly purposed for bearing analysis, but it also offers advantages for gearbox manufacturers.

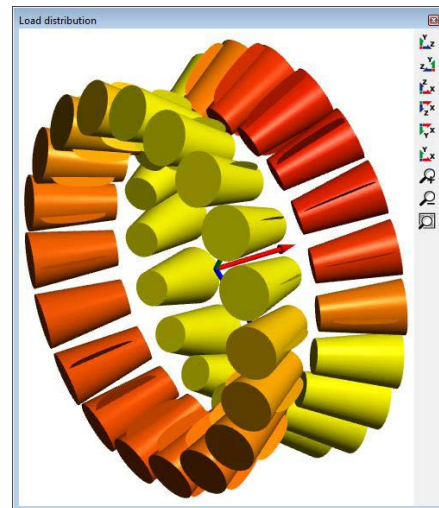
The Mesys shaft system calculations allow the definition of shaft systems coupled by gears and bearings. Cylindrical gear pairs, planetary stages, bevel and worm gears are supported. The software includes rating for bearings and shafts, but no gear calculations. Instead, interfaces to several gear calculation programs are available. Currently interfaces are available to GWJ eAssistant, Hexagon ZARI+, KISSsoft, Dontyne GPS and TBK 2014.

Shaft geometry with loading and supports can be defined for each shaft; gear connections and rules for positioning can be defined and load spectra can be considered. The result overview at the bottom of the program shows bearing life, bearing contact stress, flank and root safety for the gears and safety factors for shaft strength.

Gear connections can be defined by selecting two gears. This information is then also used for positioning. The integration of gear calculation programs is different. The web based eAssistant by GWJ Technology is directly integrated into the user interface and is shown if a gear pair is selected. For other programs an additional window is shown. All gear calculation data is saved with the shaft systems.

For the calculation of the load distribution the shafts are considered as Timoshenko beam elements and the deformation of the teeth are taken into account using the gear mesh stiffness, which can be taken from the gear calculation. As the calculation considers the shaft system, deformations of both shafts are taken into account. Bearing stiffness is considered, housing stiffness matrices could be considered too, if available.

In version 04/2015 an automatic parameter variation is added to the software. This parameter variation is best

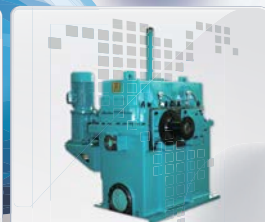
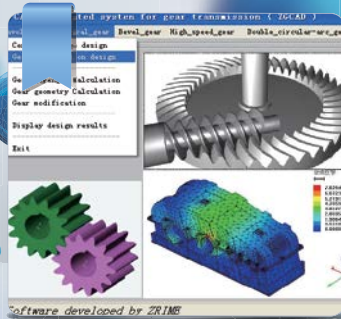


used to analyze results dependent on one or two parameters. Unfortunately, many parameters have tolerances. This could be addressed by using the statistical version of the parameter variation. This allows many parameters to vary within ranges and a given distribution.

For more information:
 Mesys AG
 Phone: 41 44 455 68 00
www.mesys.ch

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Seco

UNVEILS LATEST EVOLUTION IN DURATOMIC TECHNOLOGY WITH THREE NEW GRADES FOR TURNING STEEL

With the unveiling of its next-generation Duratomic Technology, Seco Tools, LLC recently introduced three new turning insert grades that achieve the balance of toughness and hardness when machining steel alloys and other work-piece materials such as cast irons and stainless steels.

The new TP2501, TP1501 and TP0501 represent an expansion of the Duratomic technology introduced by Seco in 2007, which was the industry's first textured, a-based Al₂O₃ coating. The Duratomic CVD aluminium-oxide coating process manipulates coating components at an atomic level to achieve improved mechanical and thermal properties and enhance performance.

The TP2501, TP1501 and TP0501 combine the benefits of aluminum-oxide coatings with specially developed compositions of the tools' bulk substrates and cobalt-enriched zones. Modifications of those elements make

the new grades both tougher and more wear resistant. According to Seco, the latest Duratomic technology used in TP2501, TP1501 and TP0501 improves productivity by at least 20% in average turning applications as compared with the original TP2500, TP1500 and TP0500 grades.

In addition to achieving the toughness and hardness balance, the new inserts incorporate Edge Intelligence, a used-edge detection technology. The insert surfaces feature an approximately

0.1µm-thick chrome-colored coating. Black aluminum oxide showing through the chrome-colored coating identifies a used insert edge and allows operators on shop floors to spot them. Also, key to Edge Intelligence is that its high-contrast used-edge marks do not impact tool performance or machining-related parameters such as cutting data. As a result, manufacturers can process more parts per edge, limit production interruptions and reduce waste.



All The Gear Cutting Tools You Will Ever Need Are Right Here DTR is one of the world's largest producers.

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Learn more about our outstanding quality tools at www.dragon.co.kr.

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Email alex@dragon.co.kr for a quotation.



DTOR

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DTR has sales territories available. Call for more information.

U.S. Office Location (Chicago)

Email inquiries to: alex@dragon.co.kr

1865A Hicks Road, Rolling Meadows, IL 60008

PHONE: 847-375-8892 **Fax:** 224-220-1311

Headquarters

36B-11L, Namdong Industrial Complex, Namdong-Gu, Incheon, Korea

PHONE: +82.32.814.1540

FAX: +82.32.814.5381

TP2501, TP1501 and TP0501 are available in a range of insert sizes and geometries to accommodate everything from roughing to finishing operations. Plus, the three grades' application areas overlap, resulting in a seamless progression, without gaps, from inserts engineered to reliably handle a wide range of general applications at moderate cutting speeds through tools that permit process optimization with higher parameters.

TP2501 is a versatile grade with secure edge toughness behavior that brings reli-

able part production to general steel turning applications. TP1501 is a general grade with well-balanced properties that make it suitable for applications requiring high wear resistance in low-alloy steel workpieces.

TP0501 is a general grade suited for stable machining conditions and situations requiring high output. Of the new TP grades, it provides the highest possible wear resistance and/or cutting speeds in high-alloy and abrasive steel turning applications.

For more information:

Seco Tools, LLC.
Phone: (248) 528-5444
www.secotools.com/us

NPI

INTRODUCES MODEL 450 SLIDING-JAW AIR CHUCK

Northfield Precision Instrument Corporation recently introduced its Model 450 Sliding-Jaw Air Chuck. This air chuck (0.0001" TIR) has special ID-gripping Top Jaws and an Integral Axial Locator.

Northfield Precision Instrument has a customer who inspects and balances torque converters and other driveline parts. The customer requested a chuck that could expand to grip the ID of their female splined shafts while it rotates on their balancing machine. Previously, their customer used a "homemade" fixture that had a slip-fit without the expanding capability to grip the ID of the part. Northfield custom-designed their Model 450 sliding-jaw air chuck to also grip the ID of the part.

Northfield Precision Instrument designs and manufactures the world's most accurate air chucks for any lathe, boring machine, grinder or VMC. Models include through-hole, high-speed and quick-change. Chucks are available in SAE or metric, in sizes starting at 76 mm. Accuracies of 0.001" to 0.00001"(0.254 m) are guaranteed.

For more information:

Northfield Precision Instrument Corporation
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Walter

INTRODUCES CAPTO FINE BORING TOOL WITH MODULAR DESIGN

Walter has introduced the B3230 Walter Capto fine boring tool. This highly flexible, single edge precision boring tool, available in diameters ranging from 0.078 to 7.992 in. with an adjustment accuracy of 0.0001 in. on the diameter, can be used for standard as well as reverse machining and features internal coolant supply up to the cutting edge. A range of indexable inserts adapted for precision boring is available for use with this new fine boring tool, allowing for optimal cutting parameters to be employed for each material.

Heightening the B3230's flexibility is the fact that it is available with the Walter Capto™ modular toolholding interface, as well as NCT and ScrewFit. Along with its high clamping force and even force distribution, the Walter Capto interface significantly enhances the new tool's versatility. That's because many of today's machine tools include a Capto interface as standard because Capto is the most universal of interfaces, suitable for turning, drilling, counterboring and precision boring, as well as for milling, in both rotating and static modes. With this unique interface system, all machining operations can be performed on lathes, machining centers and turn-mill centers.

Walter, a global leader in the metal-working industry with over 90 years of experience in precision cutting tools for milling, drilling, turning, boring and specialized tools, helps customers improve process reliability and increase productivity. With Regional Headquarters in Waukesha, WI, Walter markets its competence brands Walter Valenite, Walter Titex, Walter Prototyp and Walter Multiply through a strong network of distributors and field engineers across subsidiaries in the USA, Canada, Mexico, Brazil and Argentina.

For more information:
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Klingelnberg

UNVEILS NEW PRODUCTS AT CONTROL IN STUTTGART

Klingelnberg unveiled the P 16, a new solution for efficient measurement of small components, at Control Stuttgart 2015. From May 5-8, the system supplier presented a round of talks covering its entire range of products and services.

The five big segments — “gear measurement,” “shop-floor measurement,” “dimension, form, and position mea-

surement,” “measured value analysis,” and the segment covering Klingelnberg’s wide range of services — together shared a presentation space of 220 m2.

“With the P 16, we are offering a machine based on the tried-and-true qualities of the P series, but which comes in below the P 26 in terms of footprint,” said Dr. Christof Gorgels, division man-



ager for measuring instrument construction.

Because the P 16 is based on P series technology, all software application programs are compatible.

The P 16 owes its compact size to a modification: Because of a newly developed workpiece clamping system which is optimally adapted to accommodate small workpieces, there is no need for a counter support. This allowed Klingelnberg to design a relatively small machine.

“The workpiece mounting of small components is often accomplished using a chuck,” said Georg Mies, head of measuring machine development at Klingelnberg “For this reason, we developed for the P 16 an innovative electrical clamping system that has been integrated into the workpiece axis. This clamping system is suitable both for circular and cylindrical components and for mounting short shafts.”

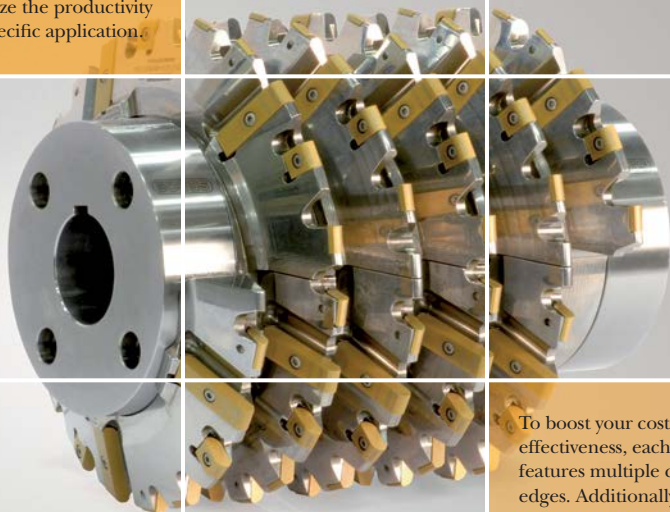
With the new precision measuring center, Klingelnberg is targeting areas in which the demands for precision in volume production are becoming increasingly stringent.

“The P 16 is specifically tailored for the requirements of small components, particularly those required in the automotive, power tools, pumps, e-mobility and small drives market segments,” said Mies.

For more information:

Klingelnberg GmbH
Phone: +49 2192 81-0
www.klingelnberg.com

Capitalizing on our global experience in gear cutting, Seco has developed a comprehensive line of indexable gear hobs and gashers. This range of cutters incorporates insert grades and coatings that allow you to maximize the productivity of your specific application.



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Heimatec

INTRODUCES COOLANT-THRU FEATURE

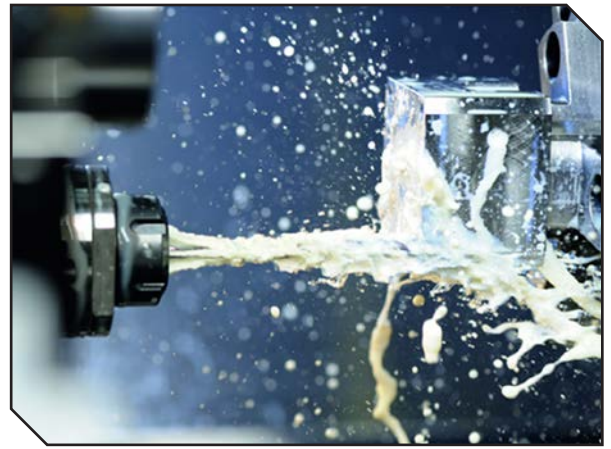
Heimatec recently announced the immediate availability of its newest development, a coolant-thru feature on all the company's current line items.

Coolant-thru technology is often the answer for faster, cleaner cutting on larger and deeper parts, where the chips and excess heat build-up are significant challenges. Heimatec now offers high-pressure coolant-thru designs up to 1000 psi on straight and 2000 psi on angle head tools.

"Production drilling should almost always be done with internal coolant tools and this development means we'll be able to satisfy more customer needs in that area," says Heimatec President Preben Hansen.

For more information:

Heimatec, Inc.
Phone: (847) 749-0633
www.heimatecinc.com



AKGears

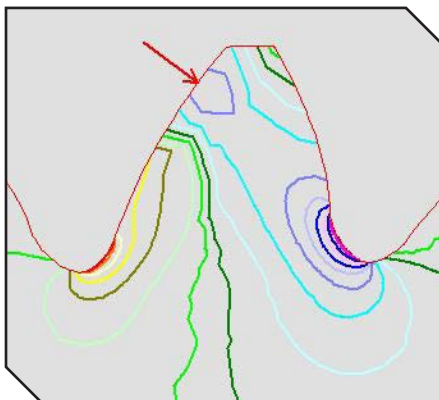
UNVEILS LATEST TOOTH ROOT FILLET OPTIMIZATION SOFTWARE

AKGears recently introduced the only commercially available tooth root fillet optimization software that defines the tooth root fillet profile to provide minimum bending stress concentration.

The software allows increasing gear load capacity by 15-25% and is applicable to involute and non-involute gears with external and internal, symmetric and asymmetric teeth. This optimization technique is presently employed in various gear drives for aerospace (Boeing), automotive (Delphi), medical devices (Abbott Labs), consumer products (Panasonic), and many other industries.

For more information:

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Oelheld

INTRODUCES AIRFORGE 4027 CLEAN LUBRICATION

Oelheld U.S. recently introduced AirForge 4027, a newly developed protective lubricant for hot forging of steel and alloys.

It's designed to deliver results when metal protection against oxidation, gas diffusion and heat is required. AirForge 4027 is colorless and does not contain graphite. AirForge 4027 is diluted in

water and can be used either by dipping or spraying the metal blanks.

The product is designed for a wide range of operations, even on challenging work piece shapes. It is free of lead or any other toxic components and does not contain solvents.



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Ti-Coating

ANNOUNCES ITS TINALOX SN2 COATING FOR APPLICATIONS IN ALL ISO MATERIALS

Ti-Coating recently announced its new PVD coating Tinalox SN2 for indexable carbide tooling. The TiAlN-based coating provides excellent machining characteristics and extends tool life for a variety of applications including turning, threading and milling. The properties of Tinalox SN2 allow it to machine a range of materials from steel to stainless steel and cast iron. The supernitride coating also provides high oxidation resistance.

“With Tinalox SN2, we have a single coating to offer customers who routinely machine a variety of materials,” said Keith Metzinger, sales manager for

Gleason

INTRODUCES NEW BEVEL GEAR LAPPING TECHNOLOGY

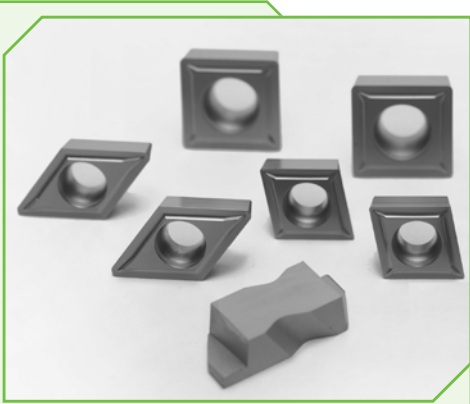
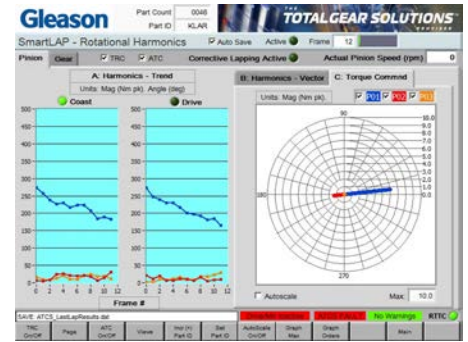
Gleason Corporation recently announced SmartLAP, a technology for lapping bevel gear sets, with increased productivity, control and data collection.

Available on the Gleason 600HTL Turbo Lapper Hypoid Lapping Machine (both new and as a field retrofit), the SmartLAP system combines a unique, yet simple gear spindle design with real-time motion-error measurement. It brings dynamic lapping forces under active servo control. The instantaneous tooth-to-tooth forces are no longer just a function of incoming part quality and passive physics but are instead actively modified by this smart mechatronic system to consistently improve DIN/AGMA part quality.

These enhanced dynamics also enable higher productivity without compromising quality. Pinion speeds and gear torques can now be increased by 30% or more without introducing the spacing errors that previously prevented faster cycles. The system also compensates for workholding run-out errors, making production less sensitive to tooling conditions. In addition, the tester-like data that is collected is displayed during the lapping process, giving users real-time insight into the process.

For more information:

Gleason Corporation
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Ti-Coating. "Furthermore, the coating performs predictably at a range of cutting speeds and applications, from finish to medium. The coating is the latest addition to the company's range of PVD and CVD coatings."

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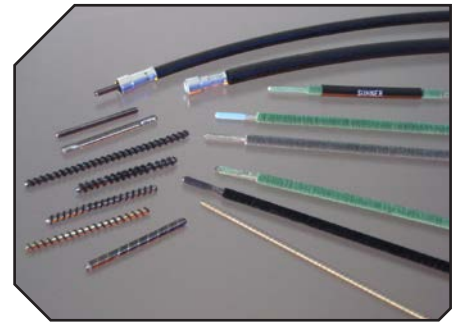
Suhner

OFFERING SU-FLOCK SILENT FLEX SHAFT FOR NOISE REDUCTION;
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Flexible shafts do not create noise, but they can transmit vibrations from the power source, thus creating unacceptable sound levels. Suhner Mfg., Inc. supplies ready-to-use assemblies according to various specs that are proven technologies; simple, ready-to-

use solutions; virtually maintenance-free; rugged and durably designed; and environmentally friendly.

SU-Flock shafts have been especially designed for applications in which noise is a critical factor such as luxury car power seats. There are numerous



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applications in other fields where friction and noise are of critical importance. These shafts are available either spiral flocked or fully flocked.

Suhner also offers a heavy-duty flex-shaft able to exceed 3,500 inch-pound in braking torque while offering a bend radius of less than 20 inches. This 1" core diameter shaft is characterized by its strength and flexibility, allowing it to achieve most difficult tasks.

For more information:

Suhner Mfg., Inc.
Phone: (706) 235-8046
info.usa@suhner.com
www.suhner.com