

Zoller and Ingersoll

PARTNER FOR MEASURING HOB CUTTERS



With growing markets in aerospace and energy technologies, measuring hob cutters used in gear cutting is becoming an essential requirement for workpieces and machine tools. Zoller, a provider of solutions for tool pre-setters, measuring and inspection machines and tool management software, has developed a new partnership with Ingersoll/Germany for shop floor checking of hob cutters by a combined hardware and software approach. "Ingersoll's experience enabled the Zoller software engineers to optimize the measuring process for hobs," says Robert Auer, export sales manager at Zoller. "Due to this partnership Zoller

now offers a measuring program for hob cutters which ensures an accurate and fast measurement combined with unrivaled user friendliness."

Its base is a Zoller Venturion 600 or 800 with a CNC driven tilting optic carrier with *Pilot 3.0* software featuring photo-realistic user dialog.

Programming boils down to nothing but entering the nominal parameters as indicated in the corresponding graphic. According to these nominal values, the measuring program is automatically generated by the *Pilot 3.0* software. Positioning and determining individual

continued

Leistritz

PROFILE ROLLING



CNC Thread Rolling machines for higher productivity through very short setup times and greater process control

- Thread Rolling
- Spline Rolling
- Knurling
- Worm Gears
- Burnishing
- Ball Screw & Special Forms
- Aerospace fasteners
- ACME Threads

201 934-8262 www.leistritzcorp.com

Leistritz Corp. 165 Chestnut Street Allendale, NJ 07401

measuring points on the cutting edges is carried out automatically and—more importantly—independent from the operator. Even superimposed or distorted edge images as they occur with the helical pitch pose no problem as Zoller Venturion optic carriers are

automatically and precisely rotated by numeric control if necessary.

Another advantage of this measuring approach is scanning the entire effective outline of all edges: This is of eminent importance for hob cutters with carbide inserts as the contour

in the work piece is produced by an entire range of different inserts. Only by scanning the contours of individual inserts and merging them into a total contour can errors be avoided, as they occur in the transmission zone, insert tolerances, imprecise mounting or excessive tolerances concerning insert positions.

When combining a Zoller Venturion with hob cutters by Ingersoll, users get a hands-on system to test tools quickly and with micron precision before using them on the machining equipment. As opposed to most tactile-based measuring machines in this area, measuring results do not vary according to which operator happens to be on duty. Zoller systems are tailored to the demands as posed by hob cutters and offer additional value as they may be used for measuring and presetting all types of other tools as well: reamers, mills and milling heads. The result of this partnership between Ingersoll and Zoller shows how users can profit when industries join forces for their mutual benefit.

“In today’s market it is important to not look just at individual components but at processes instead,” Auer says. “The combined hardware and software approach ensures an integrated, transparent manufacturing process from tool manufacturing to quality control, machining, process control and regrinding.”

For more information:
 Ingersoll Cutting Tools
 845 S. Lyford Road
 Rockford, IL 611108
 Phone: (815) 387-6600
www.ingersoll-imc.com

Zoller Inc.
 3753 Plaza Drive
 Ann Arbor, MI 48108
 Phone: (734) 332-4851
www.zoller-usa.com



Gear measurement solutions from Carl Zeiss and Koepfer America

Carl Zeiss offers CMMs to measure both parallel axis and bevel gears from the smallest gears used in microtechnologies up to four meters in diameter. Koepfer America is a leader in parallel axis gear manufacturing equipment sales, service and support for North America. Together, we bring the best technology and solutions to gear metrology.



*PRISMO navigator with VAST scanning.
 Available with rotary table as 4th axis.*



Carl Zeiss
 Industrial Metrology
 (800) 327-9735
www.zeiss.com/metrology

KOEPFER AMERICA, LLC
 (847) 931-4121
www.koepferamerica.com



We make it visible.