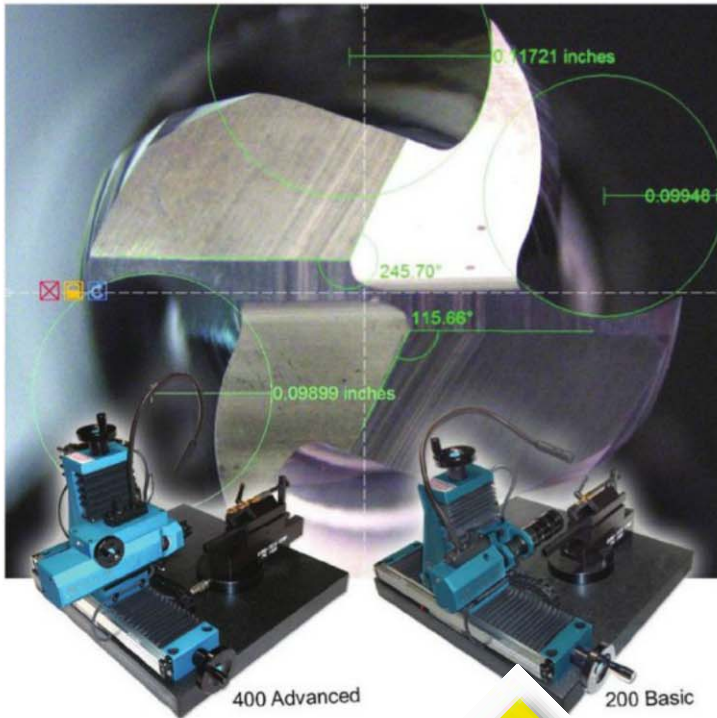


Cutting Tools & Accessories

Cutting Tool Inspection System



The PG 1000 Advance REACTION gage and the PG 1000 Basic REACTION gage offer digital low light inspection technology for cutting tool inspection.

"We have upgraded our hard-

ware for better accuracy," said a company representative. "Segmented scale technology on any PG 1000 sold as a series gage can now be used for the entire working envelope." *Continued on Page 16*

New Tool Presetter

"The new »smile« combines decades of experience and user-oriented development," said a Zoller spokesperson. "The ZOLLER myTouch »pilot 2 mT« touch screen operating technology is easy, self-

explanatory and saves on training expenses and makes work more convenient. Equipped with various operating technologies, »smile« offers everything needed for professional tool presetting." *Continued on Page 16*

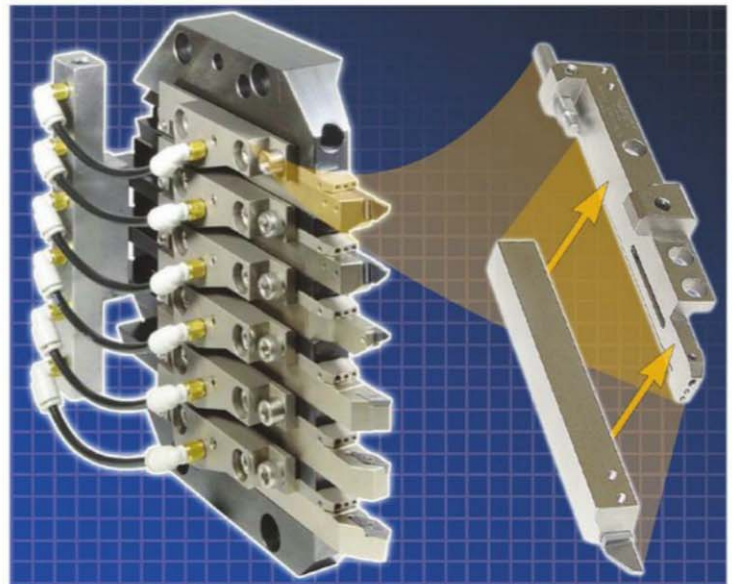


User-specific view display dialog shown.

Coolant Through Tool Clamp

GenSwiss' Multidec-Lube tool clamp system is intended to permit optimum coolant jet positioning and drastically reduce set-up time when employing high-pressure coolant de-

livery. "The patented design incorporates a coolant/oil delivery passage in the tool clamp, ensuring a repeatable jet" *Continued on Page 16*



Multidec Lube tool clamp system. Arrows indicate where a square shank Swiss style tool holder installs against the Multidec clamping wedge.

For more information on Cutting Tools & Accessories Visit www.mfgnewsweb.com

Automatic Tool Changer with Drum Style Magazine

Automatic tool changers type CTM are suitable for applications on NC milling machines, vertical and horizontal machining centers, CNC lathes, transfer machines, laser and plasma cutting machines. In addition, they are effectively applied on wood and granite routing machines and machines designed specifically for cutting extruded aluminum, according to Indexing Technologies.

CTM tool changers are manufactured in four standard

frame sizes and accommodate most types of tool holders. Each CTM tool changer consists of:

- A dual motion cam operated exchange mechanism that performs the high speed and mechanically synchronized movements for grasping, extracting, exchanging and inserting the tools simultaneously between the spindle and the magazine, plus the release of the tool grippers. This entire high-speed cycle is operated by one 3-phase, self-braking motor.
- A mechanical exchange mechanism." *Cont. on Page 16*



Cutting Tool

Continued from Page 14

of the microscope. Our new REACTION software makes both scale and edge detection inspections in real time. Make, save and recall inspection scenes for new tool inspections of a tool image using scales, screen, edge detection, comparisons or .dxf file overlays in multiple colors, and annotate the screen to make your own tool inspection document."

All systems are sold ready to use with standard V-block assemblies. Optional accessories are available. All machined PG 1000 components are made in the United States to Euro-Tech specification. All software is written by Euro-Tech Corporation.

"While the basic cutting tool may look similar to what was made 10 to 20 years ago, the similarity ends there," said the spokesperson. "Cutting tools manufactured today are made to tolerances of 1/10th of what was made 10 years ago. Cutting tool inspection using micrometers and indicators is gone. Toolmakers microscopes and comparators are insufficient for today's requirements. Today's manufacturers are measuring tool tolerances in microns, finishes are highly polished and possibly diamond coated, making contactless inspection the only acceptable method. Traceability for ISO is no longer an option but a requirement from the reticle certification to gage calibration reports to the tool inspection report. The PG 1000 REACTION Series by Euro-Tech Corporation meets and exceeds these demands."

For more information contact:
Euro-Tech Corporation
N48 W14170 Hampton Avenue
Menomonee Falls, WI 53051
262-781-6777
info@eurotechcorp.com
www.eurotechcorp.com
www.pg1000.com

New Tool Presetter

Continued from Page 14

and measuring of cutting tools. Featuring a functional design, it can be placed directly next to the machine.

"This is the first time that power-operated tool clamping is available as an option in the entry level price category. Especially with regard to HSK, this is a prime requirement for high changing accuracy at optimal operating comfort. Manual tool clamping is always influenced by operator's skill - now power-operated tool clamping at the push of a button provides micro-accurate changing options."

Depending on individual requirements, »smile« is available with different operating technologies, such as: »pilot 2.0« for the basic functions of measuring and inspection; the new »pilot 2 mT« with state-of-the-art touch-screen operating technology and freely configurable user interface; »pilot 3.0« comprehensive image processing technology is available for greater demands and flexibility.

"With the intuitive operation and state-of-the-art touch screen operating technology of the »pilot 2 mT«, ZOLLER sets benchmarks in the development of user-friendly tool presetter and measuring machines," said the spokesperson. "This technology not only saves training expenditure, but also makes work more comfortable. The user-specific view of the display dialog on the main monitor allows respective users to define their priorities on the interface. Information can be highlighted or backdropped depending on the application without the remaining information disappearing out of sight.

"ZOLLER »pilot 2 mT« focuses on the main functions that are important for the presetting and measuring of tools. The automatic recognition of cutting edge shapes and the measuring range of over 100 different cutting edge shapes, functions such as adapter management, cutting edge inspection or the

navigation system »compass« ensure accurate measuring results at simple operation."

For more information contact:
Zoller Inc.
3753 Plaza Drive, Ste. 1
Ann Arbor, MI 48108
734-332-4851
sales@zoller-usa.com
www.zoller-usa.com

Tool Clamp

Continued from Page 14

flow even after multiple tool changes or set-ups or teardown, and replaces the original equipment gang slide tool clamps provided with the Swiss machine," said a company spokesperson. "This feature also allows use of conventional square shank tool holders as if they were coolant-through since the coolant travels through the clamp and can remain semi-permanently plumbed into the high-pressure system. The clamp is designed to work with square tool holder shanks and allows for an easy fit into the machine, plus gaining greater rigidity when compared to other quick-change coolant-through tooling available to the industry.

"In addition, a fixed and adjustable stop makes it possible to position the tools in exactly the same location following insert changes, ensuring high repeatability. Typical problems solved include elimination of chips collecting on coolant jet nozzles, eliminating stringy chip wrap-arounds or clogging, avoiding accidental bending or repositioning of coolant tubes/nozzles with subsequent tool changes over machining cycles, resulting in time savings while achieving measurable machining efficiencies."

For more information contact:
Genevieve Swiss Industries, Inc
6 Old Stage Road
Westfield, MA 01085
413-562-4800
sales@genswiss.com
www.genswiss.com

Tool Changer

Continued from Page 14

arm with dual rapid release gripper hands and built-in safety interlocks.

• The tool storage magazine, on which all tool holder pockets are hinged to enable a 90° tilt during a tool exchange, are assembled on a mechanical cam driven indexing table operated by a 3-phase self-braking motor, with an optional servomotor drive available on some models. The tool holder tilt unit is pneumatically operated as is the tool taper cleaning head actuated as the used tool is inserted back into the magazine. A built-in switch system provides precise tool holder identification and is used for management of the migrating tools. In addition, a dedicated tool holder to tool pocket identification management system is available upon request.

"All CTM tool changers are fabricated using pre-engineered sub assemblies that are manufactured using state of the art steels, alloys and plastics so that they are durable yet lightweight," said a company spokesperson. "In many instances the tool changer assembly is attached directly onto the machine without affecting the machines performance.

"The main characteristic of these self-contained CTM tool changers is the high-speed tool exchange cycle itself, which is determined by the pre-engineered cam mechanisms. The cams motion law has been studied and applied in the best way to obtain a fast and harmonic motion of the exchange arm. This exchange time varies from 0.6 to 5 seconds depending upon the frame size of unit, the tool weights and the length of the exchange arm."

For more information contact:
Indexing Technologies Inc.
37 Orchard Street
Ramsey, NJ 007446
201-934-6333
info@indexingtechnologies.com
www.indexingtechnologies.com

3 MICRON (0.0001") Holders - THE ULTIMATE PRECISION

Reasons Why

1. Compact size for hard to fit areas
2. Improves tool life up to 4 times
3. Coolant Sealed

See for yourself. Call for a no obligation demo.

sales@pioneerNA.com | 866-593-6611 | www.pioneerNA.com

PIONEER

Premium Tool Holding Systems
30 Year Anniversary



Two Linear Broaching Systems



Benz is now offering two broaching systems that perform rotary and linear broaching. The new Benz LinA broaching system provides linear reciprocating motion for turning centers, while the LinS system is used to perform linear broaching motion for machining center applications.

"Both the Benz LinA and LinS broaching tools are innovative in that they enable machine shops to perform linear I.D. and O.D. broaching with the