

Absolute Machine Tools Showcases Machine Tool Capabilities and New Technologies



Absolute Machine Tools showcased its capabilities of a wide selection of lathes, machining centers and turning centers as well as EDM wire, sinker, and hole drilling machines.

Absolute Machine Tools Inc. recently hosted an Oktoberfest-themed open house at its 40,000 sq ft. technical center in Mason, Ohio. The company showcased its capabilities as a distributor and supporter of a wide selection of lathes, machining centers and turning centers as well as EDM wire, sinker, and hole drilling machines.

Displayed machine tool lines represented by Absolute Machine Tools included Nexturn Swiss-type lathes, Precihole deep hole and gundrilling machines, and the new AccuteX wire EDM linear series.

During a Nexturn demonstration, the Nexturn SA38PY turning machine, fed by a CNC Indexing & Feeding Technologies 12' bar feeder, machined complex revolver cylinders. PartMaker CAM software was used to program the operation.

"Nexturn machines are engineered to provide a wide range of application as well as operational flexibility," said an Absolute spokesperson. "Most models feature three levels of sophistication to fit a user's specific application and budget. Guide bushing ma-

chines cover a range from 12mm – 38mm, while non-guide bushing sliding headstock machines range from 56mm – 67mm in capacity. Nexturn's S-model lathes, for example, include 'e' and 'P' series that each consist of four models capable of handling 20mm, 26mm, 32mm or 36mm bar stock. The machines offer easy operation and conversational software as well as high rigidity that produce consistent accuracy. While the e series machines have an integrated traditional guide bushing, the guide bushing in the P series units is removable. Long parts can be precisely machined using the guide bushing, while removing the bushing enables use of less expensive cold-drawn bar stock and also minimizes the size of the bar remnant left after machining, resulting in significant savings in material costs."

"There is a growing demand for small, complex and precise parts," said Steve Ortnier, President, Absolute Machine Tools. "The Nexturn lathes give the customers of Absolute Machine Tools a range of options for producing those parts in a cost-efficient way."

An additional demonstration showed the Precihole GVN25C gundrilling machine processing AR-15 rifle barrels, drilling a 0.222"-dia. hole approximately 18" in length. "The twin-spindle machine can drill 0.20" - 1.00"-dia. holes to a depth of 40" and handle components as large as 5"-dia.," said an Absolute spokesperson.

In another demonstration, the Precihole XYGVN25 gundrilling machine drilled copper heat sink parts. "Designed to drill prismatic parts,

the single-spindle machine has X and Y-axes travel of 20" and 12" respectively, and can handle workpieces weighing as much as 2,200 lbs.," said an Absolute spokesperson.

Precihole Machine Tools' products include single- and three-axis gundrilling machines, BTA/STS drilling machines, and boring/trepanning equipment. The company's BTA machines feature linear guides for axis motion, box type guideways, high-pressure coolant systems, centralized lubrication, and FANUC or Siemens CNC controls. Some versions of the machines can produce holes up to 400mm (16") in diameter and 20m (65') deep. The company's 3-axis drilling machines are capable of drilling asymmetrical holes for applications in die/mold and other industries. Precihole also provides skiving and burnishing machines able to perform final hole sizing and surface finishing with a single tool passage through a cylindrical part.

a workpiece as large as 38" x 22" x 11.5", weighing up to 1,100 lbs."

"The linear shaft motor of the AccuteX AL56SA wire EDM gives users a clear advantage in terms of speed, accuracy, and savings in maintenance costs," said Ortnier.

During the event, Absolute showcased an automation display demonstrating a FANUC LR Mate 200iD robot tending a manufacturing cell consisting of a Tongtai TMV-510G machining center and an AccuteX DS-550CM die sinker EDM. The machining center cut graphite blanks that the robot moved to the EDM for use in a deep-rib burning operation. The graphite electrodes being tended were 0.030"-dia. at the tip, 1.75" long, and burned to a depth of 1.25". "For many customers of Absolute Machine Tools, automation can be key tool for productivity and success," said Ortnier. "The wide range of robots from FANUC America can help those customers maxi-



An automation demonstration including a FANUC LR Mate 200iD robot tending a manufacturing cell consisting of a Tongtai TMV-510G machining center and an AccuteX DS-550CM die sinker EDM.

"Precihole technology gives Absolute Machine Tools customers an efficient way to handle a variety of difficult and precise deep-hole operations," said Ortnier.

The new AccuteX AL56SA wire EDM that features a high-speed linear shaft motor. "Engineered for high-end users of wire EDM, the machine's linear shaft technology offers advantages including no backlash or lost motion, enabling ultra precise linear and circular interpolation; no guideway friction and thereby no wear, assuring maintenance-free operation for the life of the machine; no heat transfer, a result of the shaft design; and fast servo and spark control when matched with the AccuteX 64-bit Windows CE control," said an AccuteX spokesperson. "The machine features AccuteX's award-winning AWT automatic wire threader that provides effective threading at the break point. With travels of 22" x 14" x 12", it can handle

mize their results."

In addition to the new brands, Absolute also showed new machine models in its existing line-up including You Ji Vertical Turret Lathes, Johnford Sliding Double Column Machining Centers, Tongtai Horizontal Machining Centers, and Quick-Tech Multi-Axis Turning Centers, and a

The Nexturn SA38PY turning machine.



The Precihole GVN25C gundrilling machine machines AR-15 rifle barrels.



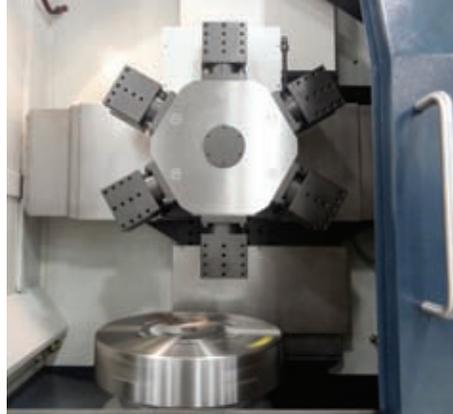
The new AccuteX AL56SA wire EDM.



Steve Ortner, President, Absolute Machine Tools, with the Nexturn SA20P 7-axis Swiss-Type turning center.



The Johnford ST-40EX 9" hole turning center demonstrates pipe turning / threading. The ST-40EX has a 39.4" swing over bed; 31.5" swing over cross slide; and a 31.5" Z-axis travel.



The You Ji YV-600A vertical turning center features a 6-station hex turret.



The Tongtai HS-22 + Loader auto loading turning center. The HS-22 has a 8.66" turning diameter with a 7.87" turning length. It has 15HP, a 6,000 RPM spindle and a 6" chuck; one-piece 30-degree slant bed with box ways; 12-station servo driven turret; rear discharge chip conveyor; 14 pallet work stocker; 3.94" dia. x 2.36" length x 6.6 lb. loader capacity; FANUC OiT-D control and weighs 5,100 lbs. (Inset) A close-up of automated loading of machined components.



variety of AccuteX EDM wire, sinker, and hole drilling machines.

"It was a fun time with Bavarian foods, beers, costumes, and we presented new machine tool lines that we are now selling and supporting in North America," said Ortner.

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