
The Absolute Oktoberfest
24 OCTOBER
11AM–7PM
Join us for German-Style Food,
Beer & Cutting-Edge Technology
at our Mason, OH location
See inside for more info
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PCI
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productive robotics
quicktech
MITSUBISHI ELECTRIC
ABSOLUTE MACHINE TOOLS
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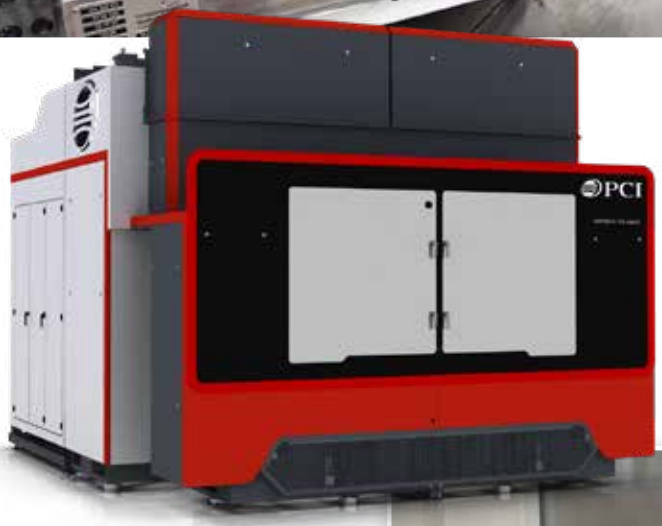
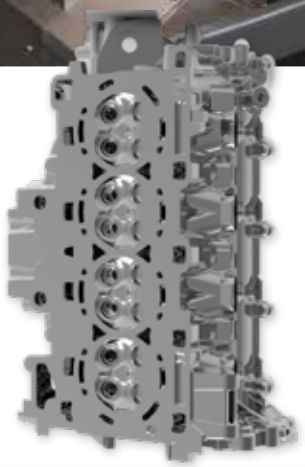
PCI





Why Dual Spindle Technology is a Boon to Automakers

Max Paulet, Business Development Manager - PCI/Absolute Machine Tools, Inc.

Machines with dual spindles represent an evolutionary step in HMC development. These machines can simultaneously process two separate steps in the manufacture of a part, or machine two completely different parts. A single compact machine with two spindles can perform the work of two machines, boosting output while maximizing shop floor space to permit future production flexibility and expansion. A typical automotive application of a dual-spindle HMC is machining of a transmission assembly composed of a gearbox housing and a clutch housing. With dual-spindle technology it is possible to machine the gearbox housing on one spindle and the clutch housing on the second spindle. This enables the user to machine the entire transmission assembly on one machine.

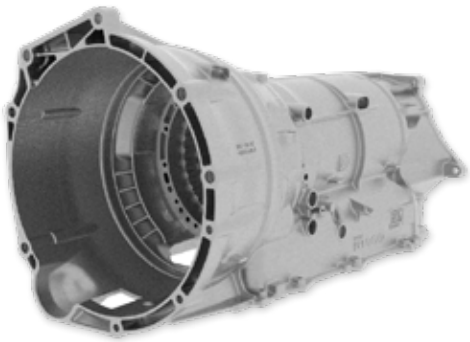
Advanced twin spindle technology on machines from PCI operate independently of each other, which is a brand-new concept in design and beneficial functionality. The independence allows them to be manipulated separately without entirely reprogramming the machine. Adjustable distance between the spindles provides flexibility of application. Part size capacity is 800mm rotation diameter and 1275mm length. A disc-type tool changer and optional pallet changer speed throughput, and gantry, robotic and manual loading/unloading systems are available. The machine's compact footprint permits maximum utilization of shop floor space, which is a concern for OEMs and suppliers as demand grows in the industry.

Independent spindles also minimize the effect that one spindle can have on the other. A typical example involves machining two gearbox housings on a twin-spindle machine. On a machine where the spindles are not independent, resonance and vibration from large-diameter reaming on one spindle can negatively affect the results from the second spindle. A machine with independent spindles does not have that problem.

Data-integrated machines from PCI obtain and use information in many ways, such as employing sensors to detect vibrations as an indication of problems in the machining process, and monitoring spindle health enables proactive scheduling of maintenance to avoid unanticipated downtime that can interrupt production overall.

These new dual-spindle configurations can process a wide range of automotive components, including internal combustion vehicle parts such as gearbox housings and cylinder blocks as well as electric motor housings and battery tray components for hybrid and fully electric vehicles. The machines can also produce structural and suspension components including steering arms and knuckles in addition to aluminum parts for nearly any automotive application.

In an industry with hallmarks of innovation, the automotive sector has driven machine tool technology to advance. Independent dual-spindle HMCs represent the newest example.



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Production Turning Solutions

NEXTURN
SWISS TURN LEADER

The key to maximizing profitability in the production turning industry is to match the right part to the right machine. This means analyzing part complexity, materials, tolerances, lot sizes, and selecting the best type or style of machine to match those characteristics. Absolute has experts on staff who have lived the production turning life in every capacity from Swiss machines to owning their own screw machine houses. Absolute has production turning lines ranging from simple CNC gang-style lathes to multi-slide, multi-axis turning CNC screw machines. Whether your application requires sliding headstock Swiss solutions or fixed headstock CNC screw or hybrid machines, we have the right equipment and expertise to help you make the right choices. Come to the Absolute Oktoberfest to see for yourself.

LICO

PMPA
PRECISION MACHINED PRODUCTS ASSOCIATION
MEMBER

Cobots, Robots & Automation

PROUDLY MADE IN THE USA

Finding qualified and reliable labor can be tough, but you don't have to jump into expensive, complex robotic cell designs to introduce automation to your shop. Absolute is committed to showing customers how to simply and cost effectively begin their automation journey. We offer 7-axis easy-to-use cobots for entry level collaborative automation as well as full blown Mitsubishi and FANUC robots for high end machine tending and part inspection. Absolute also offers a number of machines with "built-in" automation such as turning centers with integrated loading systems including single and twin spindle gantry loaders and palletized robotic systems. These "canned" systems are easily adopted by manufacturers. In addition, Absolute also offers retrofit gantry-style loading systems and bar feeding systems that can be easily interfaced with existing machines.

MITSUBISHI ELECTRIC
CNC AND ROBOT

quicktech

Tongtai

TONGTAI SEIKI
FORMER HITACHI SEIKI OEM

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Cost-Effective Engineered Solutions

Bridge Mills

Absolute Machine Tools represents several machine tool builders, each with their own areas of specialization. From small parts to heavy industries and from high speed to heavy duty, we offer a wide range of machine tools to meet any manufacturing challenge. We pride ourselves on our slogan "Cost Effective Engineered Solutions, Guaranteed!". Anyone can sell a machine, but we sell affordable solutions. Absolute Machine Tools has stable, long-term relationships with all of our machine tool OEMs. We have represented most of our manufacturers for 25 to 30 years and everyone benefits from that stability. We support our customers with a $10 million spare parts inventory, excellent services and unsurpassed application engineering. We are committed to help our customers remain competitive in today's tough global environment.

Compact Horizontals

Ultrasonic

Milling

Vertical and Horizontal Turning

Why Attend Oktoberfest?

Plus
German-Style
Food & Beer!

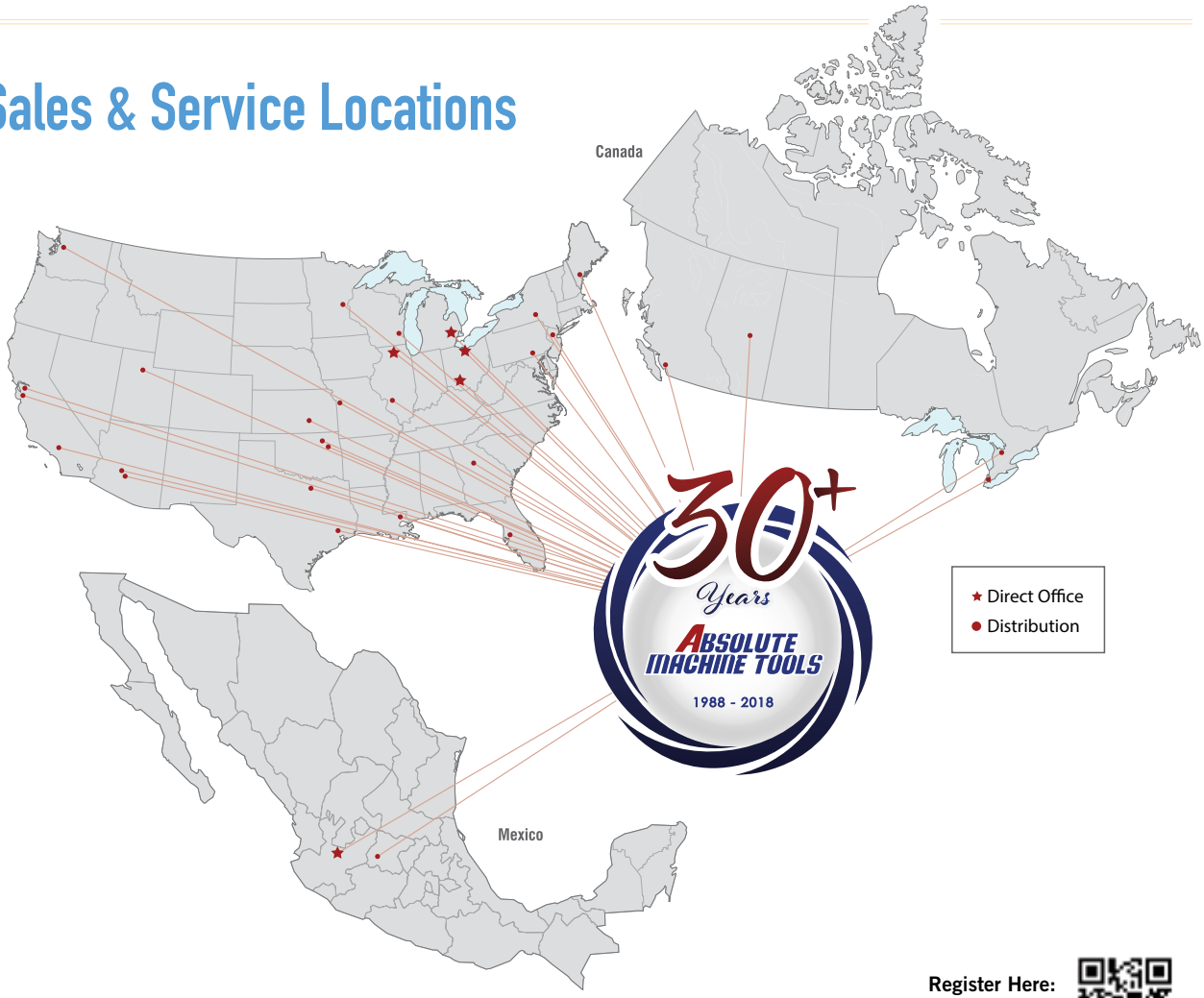
Food & Spirits provided by Hammann's Catering, Fairfield, OH and Hofbrauhaus, Newport, KY

Technologies To Be Shown:

- Easy to Implement, Low-Cost Cobots
- Floor-type Robots
- Integrated & Supplemental Automation
- Ultrasonic Cutting Technologies in Advanced Materials
- Machine Monitoring Software Demonstrations from Top Control Manufacturers
- Communications Protocol Software
- Bar Feeding & Loading Systems
- Gantry Loading Systems
- New Tooling Technologies & Factory Representatives
- Independent Twin Spindle Horizontals
- New e-Spindle Technology for Instant Advanced Correction Processes
- Machine Tool Builder Representatives
- Advanced CAD/CAM Software
- Part Probing/Tool Setting Representatives

Absolute Applications Engineers will be Available to Answer Your Questions and Discuss Manufacturing Processes

Sales & Service Locations



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Why should you come to the Absolute Oktoberfest?

See inside back cover for more info!

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Headquarters, Lorain, OH

Technical Center, Mason, OH

Technical Center, Livonia, MI

Technical Center, Rockford, IL

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