Synergies of Pre and Finish Machining on one Machine
MAG offers the manufacturing process for machining high precision bores including honing. Our differentiating technology is the combination of fine boring and honing on one machining center. The traditional process, using a stand-alone special purpose honing machine, is no longer necessary. By combining boring and honing into one set-up, MAG is able to optimize stock removal and process steps to significantly reduce cycle time.

State-of the Art Honing Technology
Newly developed electro-mechanical and hydraulic feed devices are built into the machining center. Process control of the honing solution is guaranteed by a pneumatic measuring unit. The technology of the honing process, including all control and closed-loop mechanism, is applied to conventional machining centers.

Process Reliability and Supreme Machining Accuracy
Stringent quality parameters like size, form, positional tolerance, and surface finish are all achievable, with high process reliability, for today’s generation of engine technology.

Your Benefit
- Cost efficient solution compared to a separate honing machine
- Less honing operations due to improved pre-machining
- Less honing time due to reduction of stock and stock variation in the pre-machining process
- One partner for the whole production line (coordination, delivery time, commissioning, acceptance procedures etc.)
- Elimination of bottleneck honing machine due to parallel processing on machining centers
- Expandable honing tools integrated in the standard tool magazine
- Automatic tool change
- Easy modification to process other workpiece types

Cylinder form measurement
Roundness measurement
Surface reading of a honed cylinder bore
Fax-film of a diamond honed surface
Honoring with Electro-Mechanical Expansion of the Honing Tools
Honoring with expandable tools, like in conventional honing machines, is realized by the newly developed CORCOM draw-bar spindle.

Technical Data of the Draw-Bar Spindle
- Synchronous motorspindle HSK 100
- 5000 1/min
- 28 kW and 150 Nm
- Integrated feed device (torque motor and ball-screw drive)
- High dynamic feed system
- Integrated channels for air gauging
- Integrated feed force measurement
- Inner coolant supply through the draw bar

Our Development and Support for You
- Planning and execution of trials and tests
- Machining of prototypes and small batches in house
- Process and machine optimization
- Support from experienced honing experts
- Complete process design
- Turnkey implementation of agile manufacturing systems for your serial production
MAG is a leading machine tool and systems company serving the durable goods industry worldwide with complete manufacturing solutions. With a strong foundation based upon renowned brands such as Cincinnati, Cross Hüller, Fadal, Giddings & Lewis, Hüller Hille, Witzig & Frank, Hessapp, Ex-Cell-O, Honsberg and Boehringer, MAG is recognized as the preeminent provider of tailored production solutions based on state-of-the-art technology. Key industrial markets served include aerospace, automotive and truck, heavy equipment, oil and gas, rail, solar energy, wind turbine production and general machining.

With manufacturing and support operations strategically located worldwide, MAG offers comprehensive lines of equipment and technologies including process development, automated assembly, turning, milling, automotive powertrain production, composites processing, maintenance, automation and software, and core components.

Europe
MAG IAS GmbH
Standort Eislingen
Salacher Straße 93
73054 Eislingen/Fils
Germany
tel +49 71 61 805-0
fax +49 71 61 805-223

Americas
MAG Americas
Olympic Corporate Center I
3940 Olympic Boulevard, Suite 500
Erlanger, KY 41018
USA
tel +1 859 354 4600
fax +1 859 669 1897

Solutions & Applications
- Turning
- Milling
- Powertrain
- Composites
- Process Technology
- Maintenance
- Automation & Software
- Core Components