



Leaders in Superabrasive Finishing Systems

CH-1000 Horizontal Honing Machine



- **Failsafe interlocks and guarding in automatic mode virtually eliminate potential for accidents**
- **Push button, closed door, hands-free operation**
- **Full CE Certification**

Innovative Long Bore Precision Honing for Straight and Tapered Bores

The Engis CH-1000 honing machine is designed specifically to hone straight and tapered bores at lengths up to 47.2" (1200mm) achieving tolerances and geometries to below 2 μ for diameters up to 2" (50mm).

This technically-advanced machine features a unique step-back "back taper" honing program which produces a controlled taper in the bore over a specified angle and length.

Innovative design, flexible, efficient in operation:

- Electronic control system with Siemens digital HMI touchpad numeric control
- Repeatable full and short stroke to 0.1mm
- Fully adjustable spindle and stroking speeds
- Precision stock removal
- Submicron adjustment
- Quick change tooling (optional)
- Online diagnostics (via internet)
- Reduced maintenance
- Extended tool life

Customized tooling and abrasives are also available to further expand the flexibility of the Engis CH-1000 Horizontal Honing Machines.

ENGIS OFFERS COMPLETE SOLUTIONS:

- Engis is the only company with a complete range of bore honing solutions: *Single-Pass, Multi-Stroke and Helical Laps*.
- Process development labs and decades of applications experience.
- Dedicated engineering teams for designing systems, tools and fixtures.
- A global presence – worldwide installation and post-sale support.

Ideal for:

- *Long bore honing to 47.2" (1200mm)**
- *Straight or tapered bores*
- *Tolerances and geometries to below 2 μ*
- *Diameters to 2" (50mm)**
- *Reliable honing of barrel and choke forms in sporting gun barrels*
- *Aerospace components*

**Subject to honing application*

ENGIS CORPORATION

Leaders in Superabrasive Finishing Systems
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PRECISION BORE HONING





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CH-1000 Horizontal Honing Machine



Quick-change tooling allows roughing and finishing operations to be carried out with minimum set-up, providing potential cost savings.

SPECIFICATIONS:	
Diameter range:	.2" – 2" (5mm – 50mm)
Maximum stroke length:	Fully adjustable .12" – 47.2" (3mm – 200mm)
Stroking motor speed /power:	Fully adjustable 1 – 25/min / 12.0Nm
Spindle speed / power:	Fully adjustable 300 – 2500 rpm / 3kW
Motor protection category:	IP54
Standard electrical supply:	480V 3 Phase 60 Hz
Control voltage:	24V DC
Conformity:	CE Approved conforms to machine directive 2006/42/EC
Net weight:	3307lbs (1500kg)
Gross weight:	3638lbs (1650kg)
Machine dimensions:	137.8" (W) x 42.5" (D) x 72" (H) 3500mm (W) x 1080mm (D) x 1830mm (H)

Electronic Control System with Siemens Digital HMI

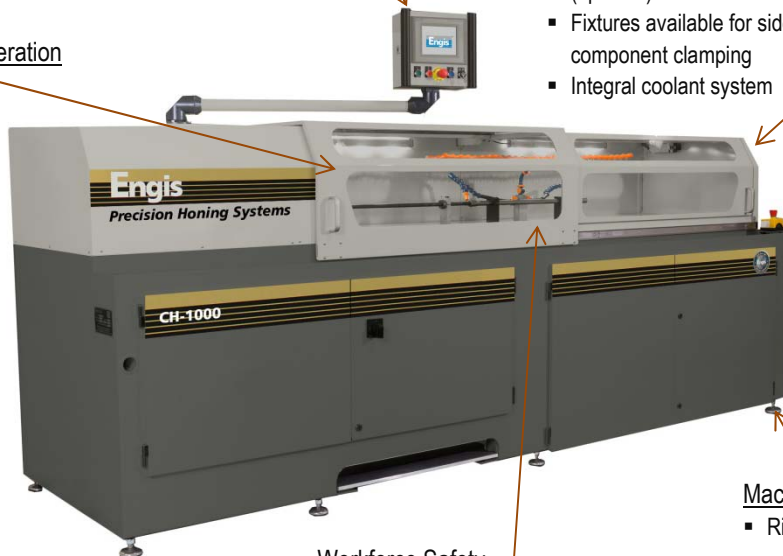
- Touchscreen, conversation programming
- Tolerance accuracy to 0.000079" (0.002mm) with sub-micron adjustment
- Download programs to memory storage via USB port
- Remote access for assistance, immediate diagnosis, rapid support

Specialized Features

- Long stroking by precision recirculation ball screw
- Multi-plane spindle nose assembly allows for component centerline deviation
- Single or twin universal floating joints for tool and driveshaft
- Multi-stone and single-stone tools as required (optional)
- Fixtures available for side and or custom component clamping
- Integral coolant system

Innovative in Design, Flexible in Operation

- Fully programmable stroking length, frequency and speed
- Automatic pre-programmed short stroking
- Fully adjustable stroke length .12" – 47.2" (3 – 1200mm)
- Incremental feed adjustment from 0.1 – 30 microns/second



Workforce Safety

- Failsafe interlocking guard system
- Closed door, push-button operation

Machine Stability

- Rigid machine base and module plate

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