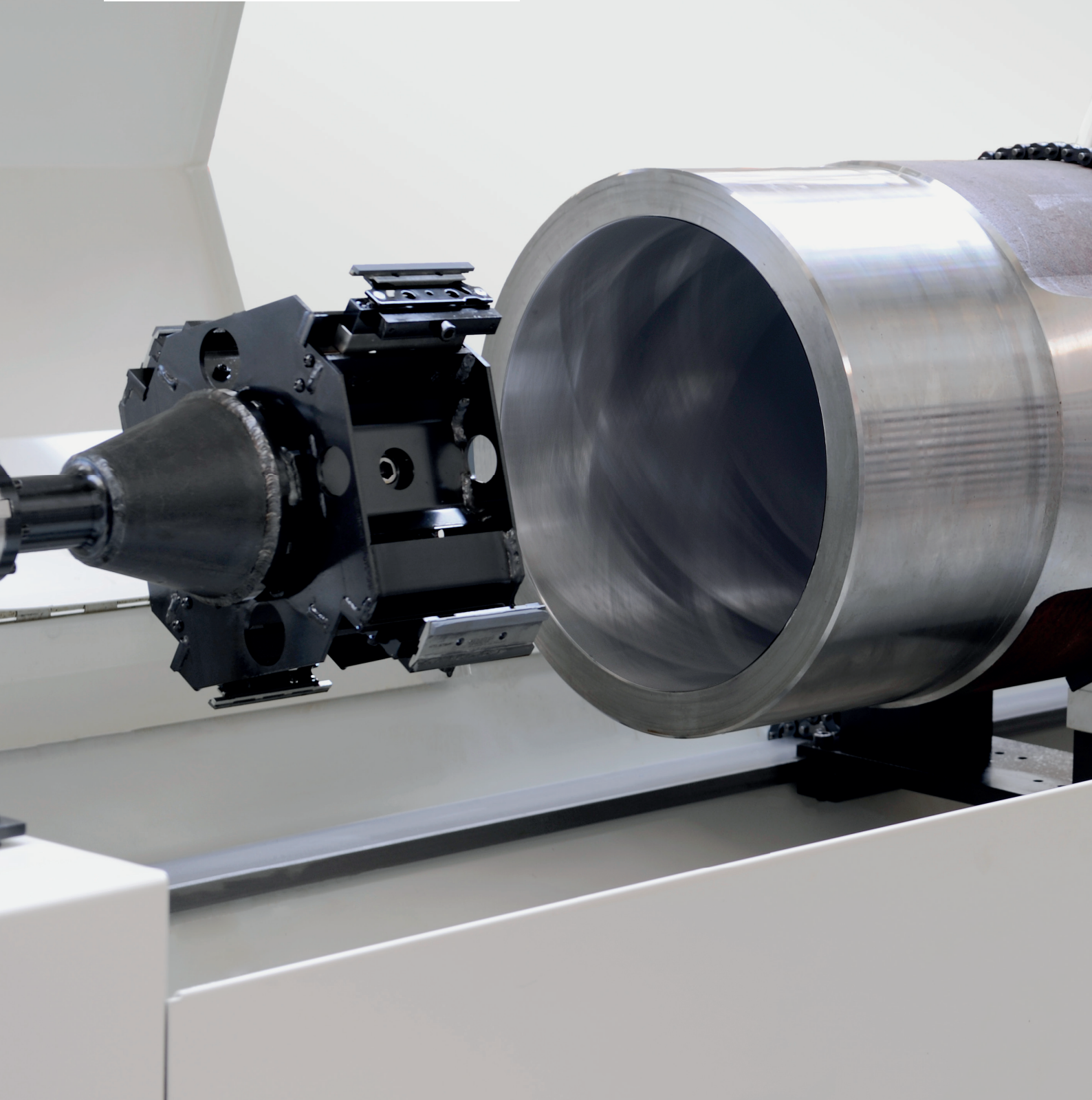




HTH-S SERIES

Production Tube Hone



Built for highest production flexibility

Cylinder liners, hydraulic liners, extrusion cylinders, aircraft and compressor components

The Sunnen HTH-S series

The HTH-S series has now more power and an easy set-up control with wide 10.4" colour touch screen panel. With the 7.5 kW spindle drive system and the 4-step gearbox the HTH-S ensure maximum power in the whole diameter range (up to 800 cm³/h). In addition the system works with a belt driven tool drive which guarantees smooth working conditions and shock protection for the gear box. It is the first system of its kind which offers high flexibility on a production level. Together with the Sunnen tools, abrasives and coolant oils all the HTH-S systems are working at their top performance and will meet customized production demands.

As an **all-inclusive supplier**, Sunnen takes full responsibility for the entire process.

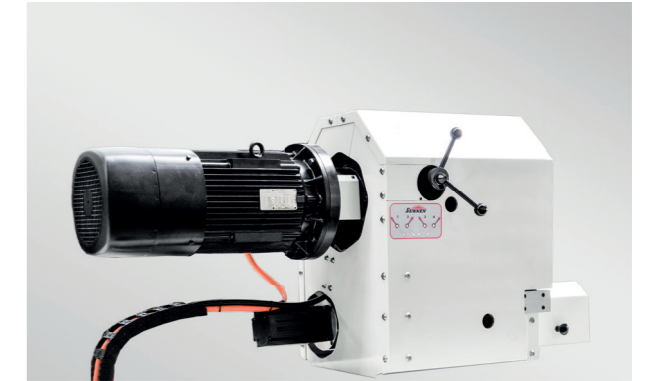


Simple touch control with clear, self-explanatory screen. The ideal system for optimized process control for job-shop repair machines. No programming skills required. A new setup is quickly performed step by step. The system recommends all necessary cycle parameters. These parameters can be stored also.

Easy to operate - The 100% control of the process ensures optimal stock removal and protection of the tool. The system indicates high and low spots, additionally a self correction mode is available. For best stock removal and optimum stone wear the tool expansion is controlled continuously and avoids overloading of the tooling for maximum protection.



The **slide disengagement function** allows quick removal of the tool from the bore by simply pushing the slide back.



The **4-step gear box** ensures optimum torque output over the whole diameter range.



KEY FACTS

Flexible production honing

- Diameter up to 800 mm
- Stroke length up to 12'000 mm
- Stock removal rate up to 800 cm³/h

PRECISION PERFORMANCE

Reliable accuracy and consistency

- Repeatable full and short stroke within 0.1 mm
- Automatic bore geometry correction
- Sizerock and stone wear compensation
- Dwell, oscillation feature and sparkout function
- 100% process control with tool overload protection

EASY OPERATION

Reduced cost per bore

- Short setup and changeover time
- Program memory for over 100 setups
- Variable stroke speed during cycle
- Easy to maintain

Technical specifications

CAPACITY

Stock removal power	up to 800 cm ³ /h
Inside diameter	25 - 800 mm
Outside diameter	60 - 400 mm (optional up to 1'400 mm)
Stroke length	2'000 / 3'000 / 4'000 / 6'000 / 8'000 / 10'000 / 12'000 mm

DIMENSIONS

Length	6'200 - 27'200 mm
Width	1'200 - 1'500 mm
Weight	2'600 - 7'800 kg

SPINDLE DRIVE SYSTEM

Motor (AC)	7.5 kW
Speed range (Infinitely variable)	15 - 430 RPM

STROKE SYSTEM

Motor (Servo)	5.2 kW
Speed range (Infinitely variable)	0.1 - 40 m/min

TOOL FEED SYSTEM

Motor (Servo)	3.5 kW
Motion	Rotary tool feed system with overlap gear

COMPUTER CONTROL

SIEMENS S7-1500 touch panel, screen size 7"

WORK HOLDING FIXTURE

Universal V-type chain fixture (30 - 400 mm)

SUPPLY REQUIREMENTS

Electrical system	400 - 460 VAC, 50/60 Hz
Pneumatics	6 bar

COOLANT SYSTEM

Capacity	300 l, 38 l/min (up to 4 m) 500 l, 50 l/min (6 to 12 m)
Magnetic separator	70% cleaning rate

SAFETY FEATURES

CE / Front: Light curtain, Back/Sides: Fence with door (optional)

PAINT

Grey RAL 9002 / Black RAL 9005

OPTIONAL FEATURES

- Universal V-Type chain fixture (350 - 600 mm)
- Universal scissor fixture (70 - 1'400 mm)
- Steady rest for 2 to 4 meter machines
- In-process gaging system for inside diameter 25 - 230 mm
- Filter unit for non ferrous application or very fine surface finish requirements
- Coolant oil chiller unit
- Air-condition for electrical enclosure

