Production Tube Hone

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.

Built for highest production flexibility

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

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**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 continously and avoids overloading of the tooling for maximum protection.

**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
- Sizelock 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 cm³/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)
- **Magnetic separator**: 500 l, 50 l/min (6 to 12 m)
- **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

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