



**HTB-S SERIES**

**Small Production Tube Hone**



Built for job shops

## Hydraulic cylinders, aircraft and compressor components

### The Sunnen HTB-S series

The HTB-S series is the ideal system when flexibility for repair work and small production is required. The job shop system with the 3.5 kW spindle drive ensures maximum power up to diameter (ID) 400 mm with 400 cm<sup>3</sup>/h stock removal.

Together with the Sunnen tools, abrasives and coolant oils, all the HTB-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 **manual tool support** is standard, an automatic version can be selected as an option.



#### KEY FACTS

Flexible low production honing

- Diameter up to 550 mm
- Stroke length up to 10'000 mm
- Stock removal rate up to 400 cm<sup>3</sup>/h

#### PRECISION PERFORMANCE

Reliable accuracy and consistency

- Repeatable full and short stroke within 0.1 mm
- Dwell and oscillation feature
- Sparkout function

#### 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 400 cm <sup>3</sup> /h
Inside diameter	25 - 400 mm (optional up to 550 mm)
Outside diameter	30 - 400 mm (optional up to 600 mm)
Stroke length	2'000 / 3'000 / 4'000 / 6'000 / 8'000 / 10'000 mm

## DIMENSIONS

Length	6'200 - 23'200 mm
Width	1'200 - 1'500 mm
Weight	2'200 - 5'800 kg

## SPINDLE DRIVE SYSTEM

Motor (AC)	3.5 kW
Speed range (Infinitely variable)	30 - 400 RPM (optional 15 - 200 RPM)

## STROKE SYSTEM

Motor (Servo)	5.2 kW
Speed range (Infinitely variable)	1 - 40 m/min

## TOOL FEED SYSTEM

Motor (Servo)	0.3 kW
Motion	Sunnen MPS-Automatic

## 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 10 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)
- Automatic tool support
- Steady rests 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

