HTD-W SERIES
Heavy Duty Tube Hone
The series of the most successful tube hone system which runs at over 50 customers world-wide got a heavy duty extension. For highest demands, the leading tube hone system of Sunnen now provides a unique stock removal of 2'500 cm³/h and more. Two systems are available, the HTD-X300W and the HTD-X400W. Together with the state-of-the-art touch screen control and the enormous power, rough cold drawn tubes can be honed directly without expensive bore drilling. The combination of the HTD system with Sunnen tooling, abrasives and coolant oil, guarantees optimum performance and perfect results.

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

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

The Sunnen HTD-W series

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Intuitive touch control with clear, self-explanatory screen. It is the ideal system for optimized process control and fits in all production industries. No programming skills required. A new set-up can be made within 2 minutes, step-by-step. The system recommends the required tool, sets the spindle speed and all necessary cycle parameters. All parameters can be stored.

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 and corrects the geometry without operator intervention. For best stock removal and optimum stone wear the tool expansion is controlled continuously and avoids overloading of the tooling for maximum protection.

The rotation device prevents axis misalignment and guarantees a better bore geometry. The steady rests (standard from 6 m) are easily to set up.

Flexible fixture systems can be equipped according to tube shapes and customer needs. Special fixtures are our strength.

KEY FACTS
- Heavy duty honing
- Diameter up to 700 mm
- Bore length up to 14'000 mm
- Stock removal rate up to 2'500 cm³/h
- Direct cross-grinding of rough parts / bores

PRECISION PERFORMANCE
- Reliable accuracy and consistency
- Repeatable full and short stroke within 0.1 mm
- Automatic bore geometry correction
- Size lock 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 900 setups
- Variable stroke speed during cycle
- Easy to maintain
Technical specifications

CAPACITY
Stock removal power
Inside diameter
Outside diameter
Bore length
HTD-X300W
up to 2'000 cm³/h
40 - 500 mm
see chapter „WORK HOLDING FIXTURE“ below
4'000 / 6'000 / 8'000 / 10'000 / 12'000 / 14'000 mm
HTD-X400W
up to 2'500 cm³/h
100 - 700 mm

DIMENSIONS
Length
Width
Weight
13'400 - 33'400 mm
1'700 mm
8'000 - 17'000 kg

SPINDLE DRIVE SYSTEM
Motor (AC)
Speed range (Infinitely variable)
Quick coupling system
22 kW
10 - 280 RPM
CAMLOCK size no 6

STROKE SYSTEM
Motor (Servo) / Gearbox
Speed range (Infinitely variable)
14 kW
0.1 - 40 m/min

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

COMPUTER CONTROL
IPC, Windows® EMBEDDED control system, screen size 15"

WORK HOLDING FIXTURE
Option 1
Universal V-type chain fixture (40 - 600 mm, 6'000 kg)
Option 2
Universal V-type chain fixture (50 - 810 mm, 8'000 kg)
Option 3
Universal V-type chain fixture (60 - 1'000 mm, 8'000 kg)

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

COOLANT SYSTEM
Option 1
Coolant tank with chiller and magnetic separator (70% cleaning rate)
Capacity of 600 l, 65 l/min
Option 2
Centrifugal filter unit with integrated oil chiller or customer solution

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

PAINT
Silver Grey RAL 9006 / Dark Blue RAL 5002

OPTIONAL FEATURES
Special fixtures on request
Part rotation device (50 - 525 mm)
In-process gaging system for inside diameter 25 - 230 mm
Double stage tool option (roughing / finishing)
Taper bore option