

Conventional Surface Grinders

HFS 160 NC

SKU : 122430

The HFS NC series is a solution for automatic and semi-automatic surface and flute grinding. This machine offers advantages in terms of precision and efficiency thanks to grinding cycles that can be easily programmed via the touchscreen and the automatic grinding wheel dressing mode. This can be inserted into the machining cycles and compensates dimensions and speed fully automatically. The option of switching between semi-automatic and automatic operation also extends the range of applications from repair workshops and training to series production.

- Automatic grinding wheel dressing cycle
- Magnetic table and built-in demagnetization feature
- Vertical axis with ball screw and servo motor for high precision
- Easy auto-mode programming
- Extensive standard equipment package



TECHNICAL SPECS

WORKING AREA

Grinding area (max.)	1700 mm x 400 mm
Workpiece weights incl. magnetic clamping plate (max.)	850 kg
Spindle axis-to-table surface distance	640 mm
Dimensions magnetic clamping plate	1600 mm x 400 mm
T-slots, width	14 mm
Number of T-slots	3 positions
Division (electronic hand-wheel) Y-axis	0,001 / 0,005 / 0,01 mm

TRAVELS

Travel X-axis	1780 mm
Travel Z-axis	430 mm

HEADSTOCK

Spindle speed	500 1/min - 2300 1/min
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RAPID FEED

Rapid feed Y-/Z-axis	0 mm/min - 1200 mm/min
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FEED

Feed per rotation (electronic hand-wheel) - Y-axis	0,1 / 0,5 / 1,0 mm
Feed per rotation (electronic hand-wheel) - Z-axis	1,0 / 5,0 / 10 mm
Feed speed - X axis (hydraulic)	min. 3 / max. 25 m/min
Feed speed Z-axis	0 mm/min - 1200 mm/min
Autom. feed - Micro-feed Y-axis	0.001 mm - 0.01 mm
Autom. feed - Coarse feed Y-axis	0.005 mm - 0.04 mm
Automatic Z-axis feed	0.1 mm - 25 mm

DRIVE CAPACITY

Motor rating main drive	5.5 kW
Motor rating hydraulic pump	2.2 kW
Motor rating coolant pump	0.18 kW
Z and y axis servo motor	0,55 / 1 kW

MEASURES AND WEIGHTS

Grinding wheel dimensions	400 mm x 127 mm x 40 mm
Overall dimensions (length x width x height)	6.5 m x 3 m x 2.5 m
Weight	5400 kg



External hydraulic unit and oil cooler ensure thermal stability during continuous operation



Touchscreen display for easy programming of grinding cycles



Dressing mode for grinding wheels with automatic dimension and speed (rpm) compensation ensures constant grinding rate and can be entered while in auto mode

PRODUCT DETAILS

- Designed for continuous operation at maximum speed, very quiet operation, maximum accuracy and minimal heat accumulation ensure optimum machining results
- Dual guides for linear table motion
- Spindle head and Z-axis move on precision linear guides with preloaded ball screws
- Servo drives on Y- and Z-axis and hydraulic linear table movement can be adjusted via an infinitely variable electronic proportional valve for precise and consistent feed
- 3-step electronic hand-wheel allows for precise positioning of the Y- and Z-axis
- The heavy-duty, rigid grinding spindle head features maintenance-free preloaded high-precision angular ball bearings
- External hydraulic unit and large oil cooler ensures thermal stability
- Automatic central lubrication system
- All models of this series, except HFS 160 NC, feature a fully enclosed workspace

STANDARD EQUIPMENT

- Magnetic clamping plate
- Coolant system with magnetic separator
- Central lubrication
- Hydraulic oil cooler
- Grinding wheel flange
- Diamond dresser with holder
- Balancing station
- Setup feet
- Tool box
- Operator manual