

# Conventional Surface Grinders

## HFS 104 NC



### SKU : 122425

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.)	40 in x 16 in
Workpiece weights incl. magnetic clamping plate (max.)	1496 lbs
Spindle axis-to-table surface distance	25.2 in
Dimensions magnetic clamping plate	39 in x 16 in
T-slots, width	0.6 in
Number of T-slots	3 positions
Division (electronic hand-wheel) Y-axis	0,00004 / 0,0002 / 0,0004 in

### TRAVELS

Travel X-axis	44.1 in
Travel Z-axis	17 in

### HEADSTOCK

Spindle speed	500 rpm - 2300 rpm
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### RAPID FEED

Rapid feed Y-/Z-axis	0 in/min - 47 in/min
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### FEED

Feed per rotation (electronic hand-wheel) - Y-axis	0,004 / 0,02 / 0,04 in
Feed per rotation (electronic hand-wheel) - Z-axis	0,04 / 0,2 / 0,4 in
Feed speed - X axis (hydraulic)	min, 118 / max, 984 fpm
Feed speed Z-axis	0 in/min - 47.244 in/min
Autom. feed - Micro-feed Y-axis	0.0000394 in - 0.0003937 in
Autom. feed - Coarse feed Y-axis	0.0001969 in - 0.0015748 in
Automatic Z-axis feed	0 in - 0.98 in

### DRIVE CAPACITY

Motor rating main drive	7.4 Hp
Motor rating hydraulic pump	3 Hp
Motor rating coolant pump	0.2 Hp
Z and y axis servo motor	0,7 / 0,7 Hp

### MEASURES AND WEIGHTS

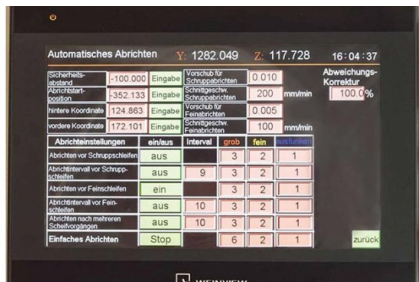
Grinding wheel dimensions	15.75 in x 5 in x 1.57 in
Overall dimensions (length x width x height)	150 in x 79 in x 99 in
Weight	6710 lbs



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

## PRODUCT DETAILS

- This machine is designed for continuous operation at high machining speeds and features quiet operation, maximum accuracy and minimal heat-buildup for guaranteed optimum work results
- Dual guides for linear table motion
- Grinding spindle head and Z-axis run in precision linear guides on 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 grind spindle head features a heavy, solid design and runs on high-precision, maintenance-free preloaded angular ball bearings
- External hydraulic unit and large oil cooler ensures thermal stability
- Automatic central lubrication system

## 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