

NC Surface Grinders

HFS 52 • 73 • 104 • 160 NC

Automatic and semi-automatic grinding with dressing cycle



- 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
- Grinding spindle head and Z-axis run in precision linear guides on preloaded
- Servo drives on Y and Z-axes 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 Y and Z-axes
- External hydraulic unit and oil cooler ensure thermal stability during continuous operation

## **NC Control**

- Intuitive dialog-guided programming for automatic and semi-automatic grinding and dressing of grinding wheels, optimized for surface grinding
- Programming of grinding cycles via touchscreen
- · Easy adjustment of important parameters and feed rates during machining
- · Automatic function monitoring and error messages on the display

## Standard Equipment:

Magnetic clamping plate, coolant system with magnetic separator, central lubrication, hydraulic oil cooler, grinding wheel with flange, diamond dresser with holder, balancing station, setup feet, tool box, operator manual

Options	Part No.:	
Coolant system with filter and magnetic separator	251573	



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

Specifications HFS NC		52	73	104	160
Work Area					
Grinding capacity (max.)	mm	520x200	720x300	1,020x400	1,700x400
Workpiece weight, including magnetic clamping plate (max.)	kg	210	400	680	850
Spindle axis-to-table distance	mm	470	640	640	640
Dimensions of the magnetic clamping plate	mm	500x200	700x300	1,000x400	1,600x400
T-slots, width	mm	14	14	14	14
T-slots, qty	pcs.	1	1	3	3
Division (electronic hand-wheel) Y-axis	mm	0.001 / 0.005 / 0.01			
Travels		0.01	0.01	0.01	0.01
X axis travel	mm	560	800	1,120	1,780
Z axis travel	mm	230	330	430	430
Main Spindle					
Spindle speed	rpm	500 - 3,500	500 - 2,300	500 - 2,300	500 - 2,300
Feed					
Feed per rotation (electronic hand-wheel) - Y-axis	mm	0.1 / 0.5 / 1.0	0.1 / 0.5 / 1.0	0.1 / 0.5 / 1.0	0.1 / 0.5 / 1.0
Feed per rotation (electronic hand-wheel) - Z-axis	mm	1.0 / 5.0 / 10	1.0 / 5.0 / 10	1.0 / 5.0 / 10	1.0 / 5.0 / 10
X-axis feed rate (hydraulic)	m/min	min. 3 / max. 25	min. 3 / max. 25	min. 3 / max. 25	min. 3 / max. 2
Z-axis feed rate	mm/min	0 - 1,200	0 - 1,200	0 - 1,200	0 - 1,200
Automatic feed - Y-axis fine feed	mm	0.0001 - 0.01	0.0001 - 0.01	0.0001 - 0.01	0.0001 - 0.01
Automatic feed - Y-axis coarse feed	mm	0.005 - 0.04	0.005 - 0.04	0.005 - 0.04	0.005 - 0.04
Automatic Z-axis feed	mm	0.1 - 15	0.1 - 25	0.1 - 25	0.1 - 25
Rapid feed					
Rapid feed Y / Z-axis	mm/min	(10) 0 - 1,200	(10) 0 - 1,200	(10) 0 - 1,200	(10) 0 - 1,200
Drive Capacity					
Main motor rating	kW	3.7	3.7	5.5	5.5
Hydraulic pump motor rating	kW	1.5	1.5	2.2	2.2
Coolant pump motor rating	kW	0.09	0.18	0.18	0.18
Z and Y axis servo motor	kW	0.55 / 0.55	0.55 / 0.55	0.55 / 0.55	0.55 / 1
Dimensions/Weight					
Grinding wheel dimensions	mm	255x50.8x25	400x127x40	400x127x40	400x127x40
Dimensions (length x width x height)	m	2.4x1.75x2.4	2.9x1.9x2.5	3.8x2x2.5	6.5x3x2.5
Weight	kg	2,050	2,500	3,050	5,400
Part No.		122415	122420	122425	122430