

Surface Grinding Machine

HFS F NC

Easy programming of grinding precision for large and heavy workpieces



- SIEMENS touchscreen
- · easy programming
- · hydraulic table feed
- extensive standard equipment

- The massive, heavily ribbed cross-bed machine frame with traversing column and horizontal spindle is extremely rigid even under heaviest workpiece loads
- The large work area allows machining of single workpieces with large surface areas or machining of several workpieces in one setup
- The workspace is protected by an easily accessible enclosure
- A high-performance cooling system is included in the standard equipment of this series

Control

- Grinding cycles for automatic face and groove grinding are accessible and editable via touchscreen
- Preloaded ball screws and powerful servo-motors on Y and X ensure high precision and repeatability during grinding wheel feeds

- An electronic hand-wheel for Y- and Z-axis simplifies setup and manual positioning of the grinding spindle
- If set to Auto mode, the user-defined roughing and finishing parameters, number of spark-out strokes, and return to zero are automatically processed

Grinding spindle

- · Large grinding spindle, dynamically balanced, completely sealed with permanent lubrication
- Preloaded precision-bearings ensure maximum grinding performance and high reliability over many production hours



The workspace is protected by an easily accessible enclosure

Hydraulics

- Extremely quiet operation and minimal heat build-up for optimum work results under continuous operating conditions
- The hydraulic linear table feed is infinitely variable, maintains a constant speed with smooth travel direction reversals
- · External hydraulic unit with oil cooler unit ensures perfect temperature stability

Magnetic clamping plate

- Large magnetic chucks for torsion-free clamping across the entire work surface are included in the standard equipment
- The modern control also ensures reliable operation with firm holding forces and high-grade degaussing

Standard Equipment

2-axis position indicator, electronic handwheel for Y- / Z-axis, grinding wheel flange, workspace enclosure, coolant system, diamond dresser stand (without diamond), balancing station, balancing shaft, work lamp, magnetic clamping plate, adjustment screws, operating tools, operator manual, Siemens PLC-control with Touchscreen, grinding wheel

Options	Part No.		
Coolant system with magnetic separator and paper filter	253467		
Parallel grinding wheel dresser for HFS F NC	253468		
Magnetic separator without reservoir for HFS F NC	253469		

Specifications HFS F NC		50100	50160	60160	60200	80160	80220	80300
Working area								
Table dimensions	mm	500x1.000	500x1.600	600x1.600	600x2.200	800x1.600	800x2.200	800x3.000
Spindle center-table surface distance	mm	600	600	600	600	920	900	900
Table load capacity (max.)	kg	700	900	1.300	1.690	2.000	2.400	3.500
Magnetic chuck height	mm	110	110	110	110	110	110	110
Travels								
Travel X-axis	mm	1.000	1.600	1.600	2.200	1.600	2.200	3.000
Travel Y-axis	mm	500	500	630	630	810	810	810
Feed								
Hydr. feed X-axis	m/min	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25	5 - 25
Feed Y-axis	mm/min	50 - 500	50 - 500	50 - 500	50 - 500	50 - 2.000	50 - 2.000	50 - 2.000
Feed depth, Y-axis	mm	0,005 - 0,05	0,005 - 0,05	0,005 - 0,05	0,005 - 0,05	0,005 - 0,05	0,005 - 0,05	0,005 - 0,05
Feed Z-axis	mm/min	50 - 600	50 - 600	50 - 600	50 - 600	50 - 2.000	50 - 2.000	50 - 2.000
Automatic Z-axis feed	mm/min	0 - 30	0 - 30	0 - 30	0 - 30	0 - 30	0 - 30	0 - 30
Grinding wheel								
Grinding wheels dimensions	mm	355x40	355x40	355x40	355x40	500x75	500x75	500x75
		x127	x127	x127	x127	x305	x305	x305
Speed	1/min	1.450	1.450	1.450	1.450	960	960	960
Drive capacity								
Motor rating main drive	kW	7,5	7,5	7,5	7,5	18,5	18,5	18,5
Hydraulic motor rating	kW	3	3	5,5	5,5	7,5	7,5	7,5
Y-axis servo motor	kW	0,5	0,5	0,5	0,5	3	3	3
Z-axis servo motor	kW	2	2	2	2	3	3	3
Measures and weights								
Overall dimensions	m	4,5x2,65	6,01x2,5	5,5x2,75	6,5x2,75	4,8x4	6x4	8,2x4
(length x width x height)		x2,7	x2,7	x2,7	x2,7	x2,6	x2,6	x2,6
Weight	kg	5.500	6.000	7.000	8.000	10.500	12.500	14.000
Part No.		124934	124935	124936	124937	124938	124939	124940