

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

Fig. incl. optional accessories

- 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

- Superior quiet operation and low heat build-up ensure optimum work results in continuous operations
- The hydraulic linear table feed is infinitely variable, maintains a constant speed with smooth travel direction reversals
- The external hydraulics unit with oil cooler 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 hand-wheel Y- / Z-axis, grinding wheel flange, workspace enclosure, coolant system, grinding wheel dresser (without dressing diamond), balancing station, balancing shaft, LED work lamp, magnetic clamping plate, adjustment screws, operating tools, operator manual, Siemens PLC 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	in	20x39	20x63	24x63	24x87	31x63	31x87	31x118
Spindle center-table surface distance	in	24	24	24	24	36	35	35
Table load capacity (max.)	lbs	1,540	1,980	2,860	3,718	4,400	5,280	7,700
Magnetic chuck height	in	4	4	4	4	4	4	4
Travels								
Travel X-axis	in	39.4	63	63	86.6	63	86.6	118.1
Travel Y-axis	in	20	20	25	25	32	32	32
Feed	-							
Hydr. feed X-axis	fpm	16.35 -	16.35 -	16.35 -	16.35 -	16.35 -	16.35 -	16.35 -
		81.75	81.75	81.75	81.75	81.75	81.75	81.75
Feed Y-axis	in/min	2 - 20	2 - 20	2 - 20	2 - 20	2 - 79	2 - 79	2 - 79
Feed depth, Y-axis	in	0.0002 - 0.002	0.0002 - 0.002	0.0002 - 0.002	0.0002 - 0.002	0.0002 - 0.002	0.0002 - 0.002	0.0002 - 0.002
Feed Z-axis	in/min	2 - 24	2 - 24	2 - 24	2 - 24	2 - 79	2 - 79	2 - 79
Automatic Z-axis feed	in/min	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Grinding wheel								
Grinding wheels dimensions	in	14x2x5	14x2x5	14x2x5	14x2x5	20x3x12	20x3x12	20x3x12
Speed	rpm	1,450	1,450	1,450	1,450	960	960	960
Drive Capacity								
Motor rating main drive	Нр	10.1	10.1	10.1	10.1	24.8	24.8	24.8
Hydraulic motor rating	Нр	4	4	7.4	7.4	10.1	10.1	10.1
Y-axis servo motor	Нр	1	1	1	1	4	4	4
Z-axis servo motor	Нр	3	3	3	3	4	4	4
Measures and Weights								
Overall dimensions	in	178x105	236x99	217x109	256x109	189x158	237x158	323x158
(length x width x height)	w	x107	x107	x107	x107	x103	x103	x103
Weight	lbs	12,100	13,200	15,400	17,600	23,100	27,500	30,800
Part No.		124934	124935	124936	124937	124938	124939	124940