

Surface-grinding machine

F-Grind Advance

High quality NC-controlled surface grinding machine with automatic dressing



T e c h n i c a l D a t a s h e e t



The precision-ground guideways, coated with TURCITE B, have a low-friction surface.

Stick-slip is reduced drastically between the two precision surfaces.

Furthermore, the surfaces allow for very quiet motion and are highly resistant against wear.
Lubrication

The spindles have special sealed bearings and are lubricated for the service life, that ensuring minimal servicing.

The guideways are automatically supplied with oil straight after activation of the hydraulic system. Lack of oil is thus never a problem.
In addition, an automatic alarm system warns the operator in case of a low oil level.

Basic machine parts annealed for stress relief:

The frame, the table, the support, the column, and all other main machine castings are quenched and tempered twice. This minimizes all metallurgical stresses.

Standard configuration:

- ✓ NC control
- ✓ LCD Touch Screen
- ✓ Auto down Feed AD-5
- ✓ Auto crossing stroke adjustment
- ✓ Criss cross grinding cycle
- ✓ Autom. dressing unit incl. autom. compensation
- ✓ Electronic handwheel
- ✓ Stepless adjustable grinding wheel speed
- ✓ Semi-cover
- ✓ Balancing stand
- ✓ Balancing arbor
- ✓ Working light
- ✓ Coolant system with paper filter
- ✓ Leveling pads
- ✓ Service tools
- ✓ Operation manual
- ✓ Grinding wheel flange (standard)

Technical specification		F-Grind Advance						
		2045	2550	3060	4080	50100	60100	70100
Table dimensions	mm	200x450 (7.8"x17")	250x500 (9.8"x19")	300x600 (11"x23")	400x800 (15"x31")	500x1000 (19"x39")	600x1000 (23"x39")	700x1000 (27"x39")
Distance spindle center-table	mm	500 (19")		500 (19")	500 (19")	600 (23")		
Rapid traverse	m/min	5-25 (197-984"/min)		5-25 (197-984"/min)		5-25 (197-984"/min)		
Rapid Z-axis	mm/min	900 (35")		900 (35")		900 (35")		
Feed	mm/min	450 (17")		450 (17")		300 (11")		
Feed motor	W	750 (AC servomotor)		750 (AC servomotor)		1.5 K (AC servomotor)		
Z-axis motor	W	1K (AC servomotor)		1K (AC servomotor)		1K (AC servomotor)		
Vertical feed by MPG	1 scale division	mm (x1) 0.1, (x) 0.5, (x10) 1		mm (x1) 0.1, (x) 0.5, (x10) 1		mm (x1) 0.1, (5x) 0.5, (x10) 1		
	1 resolution	mm (x1) 0.001, (x) 0.005, (x10) 0.01		mm (x1) 0.001, (x) 0.005, (x10) 0.01		mm (x1) 0.001, (5x) 0.005, (x10) 0.01		
Grinding wheel dimensions	mm	180x13x31.75 (7"x0.5"x1.2")		355x38x127 (13"x1.4"x5")	405x50x127 (15"x1.9"x5")	405x50x127 (15"x1.9"x5")		
Spindle speed	rpm	2900		1450		1450		
Spindle motor power	kW	1.4 (1.8 Hp)		3.67 (4.9 Hp)		7.35 (9.8 Hp)		
Hydraulic motor power	kW	0.75 (1 Hp)		1.4 (0.5 Hp)		3.67 (4.9 Hp)		
Weight	kg	1950 (4290 lbs)	2000 (4400 lbs)	2500 (5500 lbs)	3700 (8140 lbs)	6870 (15114 lbs)	7170 (15774 lbs)	7470 (16434 lbs)
Dimension (LxWxH)	mm	2680x2350x 2000 (105x92x78")	2680x2350x 2000 (105x92x78")	3000x2350x 2460 (118x92x96")	3300x2650x 2540 (129x104x100")	4800x2500x 2040 (188x98x80")	4800x2600x 2040 (188x102x80")	4800x2700x 2040 (188x106x80")
Item-No.		3100080	3100081	3100082	3100083	3100100	3100101	3100102

*The above specifications are subject to change without prior notice, no liability for printing mistakes. Machine may be shown with optional equipment.

- Heavy gray cast iron frame optimized by FEA analysis
- X- and Z-axis are laminated with Turcite B
- Precision cartridge spindle with high rigidity
- Precision grinding spindle with class P4 bearing ensures quiet and vibration-free spindle travel of 2 µm
- X-axis feed controlled by steplessly adjustable proportional valve
- Y- and Z-axis driven by digital AC servo motors
- Partial housing for reduction of spray
- Manual axis feed joystick option
- Steplessly controllable spindle speed through inverter technology
- Automatic dressing unit with integrated compensation for a significant increase in productivity
- Accuracy according to DIN 8632
- Including automatic grinding cycles (flat, cross, groove, spark-out, dressing)
- The current axis position can be read at any time off the clear 8" touchscreen display
- Optional automatic balancing device available to reduce downtime
- Optional parallel dressing unit with automatic compensation



Optional configuration:

- Magnetic chuck
- Coolant system with magnetic separator and filter (paper filter)
- Automatic demagnetizing
- Grinding wheel (extra)
- Full-cover housing

Advance NC-touch Steuerung

Technical specification		F-Grind Advance						
		50150	60150	70150	50200	60200	70200	
Table dimensions	mm	500x1500 (19"x59")	600x1500 (23"x59")	700x1500 (27"x59")	500x2000 (19"x78")	600x2000 (23"x78")	700x2000 (27"x78")	
Distance spindle center-table	mm		600 (23")			600 (23")		
Rapid traverse	m/min		5-25			5-25		
Rapid Z-axis	mm/min		900 (35")			900 (35")		
Feed	mm/min		300 (11")			300 (11")		
Feed motor	W		1.5K (AC servomotor)			1.5K (AC servomotor)		
Z-axis motor	W		1K (AC servomotor)			1K (AC servomotor)		
Vertical feed by MPG	1 scale division	mm	(x1) 0.1, (5x) 0.5, (x10) 1			(x1) 0.1, (5x) 0.5, (x10) 1		
	1 resolution	mm	(x1) 0.001, (5x) 0.005, (x10) 0.01			(x1) 0.001, (5x) 0.005, (x10) 0.01		
Grinding wheel dimensions	mm		405x50x127 (17"x1.9"x5")			405x50x127 (17"x1.9"x5")		
Spindle speed	rpm		1450			1450		
Spindle motor power	kW		7.35 (9.8 Hp)			7.35 (9.8 Hp)		
Hydraulic motor power	kW		3.67 (4.9 Hp)			3.67 (4.9 Hp)		
Weight	kg	7870(17314 lbs)	8170(17974 lbs)	8470(18634 lbs)	9070(19954 lbs)	9370(20614 lbs)	9670(21274 lbs)	
Dimension (LxWxH)	mm	5000x2500x 2040 (196"x98"x 80")	5000x2600x 2040 (196"x102"x80")	5000x2700x 2040 (196"x106"x80")	6200x2500x 2040 (244"x98"x80")	6200x2600x 2040 (244"x102"x80")	6200x2700x 2040 (244"x106"x80")	
Item-No.		3100103	3100104	3100105	3100106	3100107	3100108	

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