



# Surface-grinding machine

## F-Grind Advance

High quality NC-controlled surface grinder. 8x17" to 27x78"

### Surface

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 to increase service life, and ensure 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
- Automatic down feed, AD-5
- Auto crossing stroke adjustment
- Criss cross grinding cycle
- Automatic dressing unit including automatic compensation
- Electrical handwheel (MPG)
- Stepless adjustable grinding spindle speed
- Partial guarding
- Balancing stand
- Balancing arbor
- Work light
- Coolant system with paper filter
- Leveling pads
- Tool kit
- Operation manual
- Grinding wheel flange (standard)

Specifications		F-Grind Advance						
		2045	2550	3060	4080	50100	60100	70100
		8" x 17"	10" x 19"	11" x 23"	15" x 31"	20" x 40"	24" x 40"	28" x 40"
Table dimensions (W/L)	mm	200x450 (7.8x17")	250x500 (9.8x19")	300x600 (11x23")	400x800 (15x31")	500x1000 (20x40")	600x1000 (24x40")	700x1000 (28x40")
Distance spindle center-table	mm	500 (19")		500 (19")	500 (19")	600 (24")		
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		750		1.5 K		
Z-axis motor	W	1K		1K		1K		
Vertical feed: 1 revolution	mm	(x1) 0.1, (x5) 0.5, (x10) 1		(x1) 0.1, (x5) 0.5, (x10) 1		(x1) 0.1, (x5) 0.5, (x10) 1		
Vertical feed: 1 scale division	mm	(x1) 0.001, (x5) 0.005, (x10) 0.01		(x1) 0.001, (x5) 0.005, (x10) 0.01		(x1) 0.001, (x5) 0.005, (x10) 0.01		
Grinding wheel dimensions	mm	180x13x31.75 (7x0.5x1.2")		355x38x127 (13x1.4x5")	405x50x127 (15x1.9x5")	405x50x127 (15x1.9x5")		
Spindle speed	rpm	2900		1450		1450		
Spindle motor power	kW	1.4 (2 Hp)		3.67 (5 Hp)		7.35 (10 Hp)		
Hydraulic motor power	kW	0.75 (1 Hp)		1.4 (2 Hp)		3.67 (5 Hp)		
Weight	kg	1950 (4,290 lbs)	2000 (4,400 lbs)	2500 (5,500 lbs)	3700 (8,140 lbs)	6870 (15,100 lbs)	7170 (15,577 lbs)	7470 (16,450 lbs)
Dimension (L/W/H)	mm	2680x2350x 2000 (105x92x78")	2680x2350x 2000 (105x92x78")	3000x2350x 2460 (118x92x96")	3300x2650x 2540 (205x145x80")	5200x3700x 2040 (205x145x80")	5200x3750x 2040 (205x148x80")	5200x3850x 2040 (205x152x80")
Item No.		<b>3100080</b>	<b>3100081</b>	<b>3100082</b>	<b>3100083</b>	<b>3100100</b>	<b>3100101</b>	<b>3100102</b>

\*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 axes 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 axes 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
- Automatic demagnetizing
- Coolant system with paper filter and magnetic separator
- Extra grinding wheel
- Complete housing

*Advance NC-touch control*

Specifications		F-Grind Advance					
		50150 20" x 60"	60150 24" x 60"	70150 28" x 60"	50200 20" x 80"	60200 24" x 80"	70200 28" x 80"
Table dimensions (W/L)	mm	500x1500 (20x60")	600x1500 (24x60")	700x1500 (28x60")	500x2000 (20x80")	600x2000 (24x80")	700x2000 (28x80")
Distance spindle center-table	mm	600 (24")			600 (24")		
Rapid traverse	m/min	5-25 (197-984"/min)			5-25 (197-984"/min)		
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: 1 revolution	mm	(x1) 0.1, (x5) 0.5, (x10) 1			(x1) 0.1, (x5) 0.5, (x10) 1		
Vertical feed: 1 scale division	mm	(x1) 0.001, (x5) 0.005, (x10) 0.01			(x1) 0.001, (x5) 0.005, (x10) 0.01		
Grinding wheel dimensions	mm	405x50x127 (17x1.9x5")			405x50x127 (17x1.9x5")		
Spindle speed	rpm	1450			1450		
Spindle motor power	kW	7.35 (10 Hp)			7.35 (10 Hp)		
Hydraulic motor power	kW	3.67 (5 Hp)			3.67 (5 Hp)		
Weight	kg	7870 (17,314 lbs)	8170 (17,974 lbs)	8470 (18,634 lbs)	9070 (19,954 lbs)	9370 (20,614 lbs)	9670 (21,274 lbs)
Dimension (L/W/H)	mm	6200x3700x2040 (244x145x80")	6200x3750x2040 (244x148x80")	6200x3800x2040 (244x152x80")	7200x3700x2040 (284x145x80")	7200x3750x2040 (284x148x80")	7200x3850x2040 (284x152x80")
Item No.		<b>3100103</b>	<b>3100104</b>	<b>3100105</b>	<b>3100106</b>	<b>3100107</b>	<b>3100108</b>

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