

FSG-2A1224/3A1224

AUTOMATIC SURFACE GRINDER

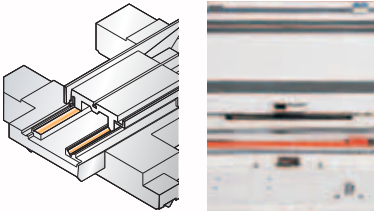
MACHINE FEATURES

This series has been specially developed and improved in recent years in order to continuously offer you reliable high performance precision surface grinders. And as a guarantee of that reliability we offer one year limited-warranty including parts for mechanical and electrical components. The Double-V crossfeed guideway span has been designed applying kinematics to calibrate minimum bending movements to achieve

maximum support capability for table and workpiece. All of high-grade cast iron that is stress-relieved by annealing to ensure superior stability and rigidity. An interlock has been placed between the electrical cabinet door and power supply as an added safety feature. The maximum distance from table surface to spindle centerline is 630mm(24.8") which provides more space for grinding.

Longitudinal Slideways

- The longitudinal slideways are laminated with Turcite-B and precisely hand scraped. The low-friction slideways incorporated with automatic forced lubrication system ensures high accuracy and longer way life.



High-Precision-Type Spindle

- The spindle is supported by four pieces of Class 7(P4) super-precision angular-contact ball bearing. The bearings have been accurately measured, selected and preloaded and then assembled to ensure superior water resistance, longevity grinding accuracy and surface finish. The labyrinth seal type structure is designed to offer superior water resistance, increasing the life of the spindle bearings.

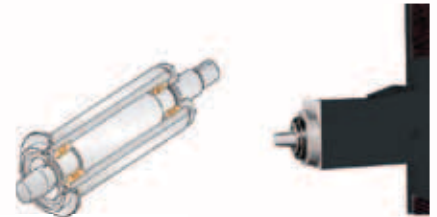
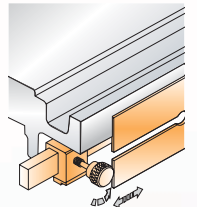


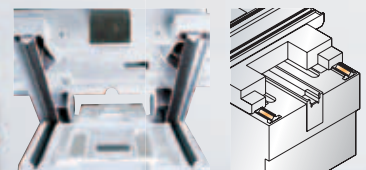
Table Reversing Mechanism

- By using proximity switches, operator can easily set suitable table stroke for each workpiece to save grinding time and obtain higher grinding efficiency. The proximity switches are properly covered for operator's safety.



Durable Slideways

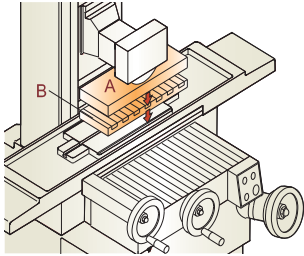
- Machine base slideways are laminated with Turcite-B and precisely hand-scraped. The low-friction slideways incorporated with automatic forced lubrication system ensures high accuracy and longer life of slideways.



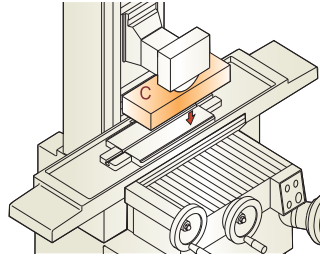
FSG-2A1224

Note: Machine shown with optional accessories

PERMISSIBLE LOAD OF MACHINE



Grinding with
Electromagnetic Chuck



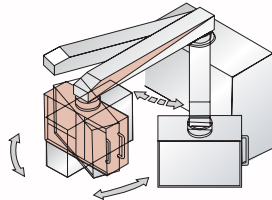
Grinding without
Electromagnetic Chuck

The total suggested maximum workloads of table are shown as follows:

MODEL	Kg (lbs.)	
	FSG-2A1224	FSG-3A1224
A	314 (691)	
B	106 (233)	
C	420 (924)	

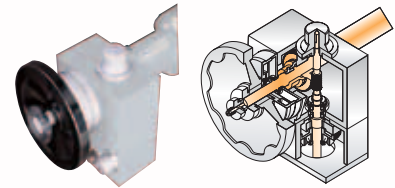
Control Station (3A Series)

- The control station can be adjusted to a comfortable position for operator. All switches, indicators, lamps, LEDs, and displays are designed as ergonomic concept for easy operation.



Elevating Micro-Feed Device (3A Series)

- The stepping downfeed device is very convenient for rough- and fine-grinding. By pushing down the step-feed button, the infeed wheelhead will be $25 \mu\text{m}$ (00001") or $5 \mu\text{m}$ (00002") selected by a selector at the top of this device. At the upper position there is an adjustable handle for approaching and rough-grinding.



FSG-3A1224

Note: Machine shown with optional accessories

SPECIFICATION

Description		Unit	FSG-618M	FSG-2A618	
Table size		mm (")	150 x 460 (5 7/8" x 18.1")		
Max. grinding length	Longitudinal	mm (")	462 (18.18")		
Max. grinding width	Crosswise	mm (")	152 (6")		
Max. distance from table surface to spindle centerline		mm (")	450 (17 3/4")		
Standard magnetic chuck size		mm (")	150 x 450 (5 7/8" x 17 3/4")		
Longitudinal movement of table	Travel, hydraulic	mm (")	N/A	500 (19 3/4")	
	Max. travel, manual	mm (")	482 (18.98")	510 (20")	
	Table speed, variable	m/mm (fpm)	N/A	5~25 (16~82)	
Cross movement of table	Rapid travel, approx.	mm/min (ipm)	N/A	960 (48)	
	Auto increment	mm (")	N/A	0.4~6 (0.016"~0.24")	
	Max. auto travel	mm (")	N/A	171 (6 3/4")	
	Max. manual travel	mm (")	180 (7")		
	Handwheel per revolution	mm (")	3 (0.12")		
	Handwheel per graduation	mm (")	0.01 (0.0005")	0.01(0.0005")	
	Micro Feed	mm (")	N/A		
Wheelhead vertical infeed	Automatic infeed	mm (")	N/A		
	Handwheel per revolution	mm (")	2 (0.08")		
	Handwheel per graduation	mm (")	0.01 (0.0005")		
	Micro feed	Rapid travel, approx.	mm/min (ipm)	N/A	
		Per revolution feed	mm (")	1 (0.04")	
Per graduation		mm (")	N/A		
Grinding spindle drive	Speed	Hz / rpm	60 / 3,450, 50 / 2,850		
	Power rating	Kw (HP)	1.5 (2)		
Hydraulic drive	Standard accessory/ Power rating	Kw (HP)	N/A	0.75 (1)	
Crossfeed drive	Standard accessory/ Power rating	W (HP)	N/A	40 (0.05)	
Elevating drive	Standard accessory/ Power rating	Kw (HP)	N/A		
Standard grinding wheel	Diameter	mm (")	Ø203 (8")		
	Width	mm (")	12.7 (1/2")		
	Bore	mm (")	Ø31.75 (1 1/4")		
Floor space (L x W x H)	Total space required	mm (")	1,900 x 1,400 x 2,130 (74.8" x 55" x 83.86")	1 900 x 1,600 x 2 ,130 (74.8" x 63" x 83.86")	
Net weight	Approx. Based on 3A	Kg (lbs.)	680 (1,496)	800 (1,760)	
Rated power	approx.	Kw (HP)	1.65 (2.2)	2.5 (3.3)	
Packing dimensions (L x W x H)		mm (")	1,120 x 1,016 x 2,159 (44" x 40" x 85")	1,550 x 1,120 x 2,133 (61" x 44" x 83.98")	

※ All content is for reference only and may be subject to change without prior notice or obligation.

	FSG-2A818	FSG-3A818	FSG-2A1224	FSG-3A1224	612SP	618SP	818SP
	203 x 457 (8" x 18")		305 x 610 (12" x 24")		152 x 330 (6" x 13")	152 x 480 (6" x 18.89")	203 x 480 (8" x 18.89")
	457 (18")		610 (24")		355 (14")	500 (19 3/4")	
	203 (7 7/8")		305 (12")		203 (8")		230 (9")
	450 (17 3/4")		630 (24.8")		500 (19 3/4")		
	200 x 450 (7 7/8" x 17 3/4")		300 x 600 (11 3/4" x 23 5/8")		150 x 300 (5 7/8" x 11-3/4")	150 x 450 (5 7/8" x 17 3/4")	200 x 450 (7 7/8" x 17 3/4")
	500 (19 3/4")		650 (25 5/8")		N/A		
	530 (20.87")		700 (27 1/2")		360 (14 1/8")	510 (20")	
	5~25 (16~82)		5~25 (16~82)		N/A		
	960 (48)		1,100 (56)		N/A		
	0.4~6 (0.016~0.24")		1~12 (0.04~0.47")		N/A		
	230 (9")		360 (14 1/8")		N/A		
	240 (9 1/2")		370 (14 1/2")		203 (8")	230 (9")	
	4 (0.16")		4 (0.16")		5 (0.2")		
	0.02 (0.001")		0.02 (0.001")		0.02 (0.001")		
	N/A		N/A		Opt. 0.001 (0.000050)		
	N/A	0.002~0.04 (0.0001"~0.002")	N/A	0.002~0.04 (0.0001"~0.002")	N/A		
	2 (0.08")		2 (0.08")		1(0.04")		
	0.01 (0.0005")		0.01 (0.0005")		0.005 (0.0002")		
	OPT.	330 (13) (3A only)	OPT.	330 (13)	330 (13) (opt.)		
	OPT.	0.2(0.01")(3A only)	OPT.	0.2 (0.01")	0.02 (0.001")		
	OPT.	0.002 (0.0001") (3A only)	OPT.	0.002 (0.0001")	0.001 (0.00005")		
	60 / 3,450, 50 / 2,850		60 / 1,750, 50 / 1,450		60/3,450, 50/2,850		
	1.5 (2)		3.7 (5)		1.5 (2)		
	0.75 (1)		1.5 (2)		N/A		
	40 (0.05)		40 (0.05)		N/A		
	0.19 (0.25) (2A opt.)		0.19 (0.25) (2A opt.) Standard Accessory		0.19 (0.25) (opt.)		
	Ø203 (8")		Ø355 (14")		Ø203 (8")		
	12.7 (1/2")		50 (1.97")		Opt. 12.7 (1/2"), Max. 25.4 (1")		
	Ø31.75 (1 1/4")		Ø127 (5")		Ø31.75 (1 1/4")		
	2,200 x 1,575 x 1,950 (86.6" x 62" x 76.78")		2,670 x 1,810 x 2,050 (105.12" x 71.26" x 80.7")		2,040 x 1,360 x 2,134 (80.3" x 53 1/2" x 84")	1,750 x 1,360 x 1,870 (68.89" x 53 1/2" x 73 3/4")	
	1,320 (2,907)		2,100 (4,620)		900 (1,980)	950 (2,090)	1,050 (2,310)
	3.7 (5)		7.5 (10)		1.65 (2.2)		
	1,854 x 1,549 x 2,210 (73" x 61" x 87")		2,743 x 1,905 x 2,235 (108" x 75" x 88")		1,473 x 1,232 x 2,134 (58" x 48.5" x 84")		