CHEVALIER®

Grinding / Turning / Milling

FSG • SP Series

HIGH PRECISION SURFACE GRINDER

612SP • 618SP • 818SP
FSG-618M • FSG-2A618
FSG-2A818 • 3A818
FSG-2A1224 • 3A1224

CHEVALIER
Grinding / Turning / Milling

612/618/818 SP

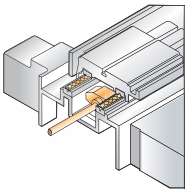
SUPER PRECISION SURFACE AND FORM GRINDER

MACHINE FEATURES

- Table traverses on linear ball bearings and D2 (SKD11) hardened and ground guideways.
- Reinforced ribbed column with hardened and ground guideway system.
- Elevating and crossfeed leadscrews are hardened and ground.
- Saddle travels on Turcite-B coated and hand-scraped Double-V guideways.
- Vertical handwheel at waist level.
- 0.001mm (0.000050") vertical micro-feed device.
- Permanently lubricated and sealed cartridge-type spindle uses two pairs of Class 7(P4) angular contact ball bearings.
- 2HP dynamically balanced spindle motor.
- Automatic lubrication system.
- Meehanite castings.
- A mirror surface can be accomplished on these machines accurately and efficiently due to machine construction features and the specially designed V3 grade spindle motor that provide excellent rigidity and stability.

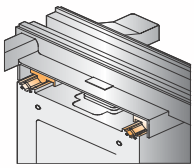
Table Guideways

- Table is driven by steel wire and traverses on hardened and ground guideways with steel ball bearings which have been accurately sieved. This provides smooth, accurate, and efficient table movement.



Durable Slideways

- Machine-base slideways are laminated with Turcite-B and precisely hand-scraped, low-friction slideways incorporated with an automatic intermittent lubrication system to ensure high accuracy and longer life of sildeways.



Automatic Lubrication

- The lubrication system provides lube oil to saddle, column ways, crossfeed and elevating leadscrews. This system minimizes the wear due to negligent operation, ensuring the machine accuracy and extending the life of machine. (3cc / 30 min).

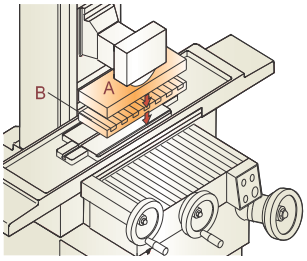
1. Column slideways
2. Elevating leadscrew
3. Lubricator
4. Oil Distributor
5. Machine base Double-V slideways
6. Crossfeed leadscrew
7. Table guideways with ball bearings are lubricated by grease.

Feed Loop
Return Loop
Grease Lubrication

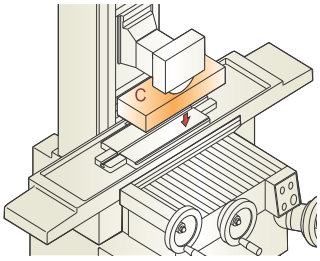
818SP

Note: Machine shown with optional accessories

PERMISSIBLE LOAD OF MACHINE



Grinding with
Electromagnetic Chuck



Grinding without
Electromagnetic Chuck

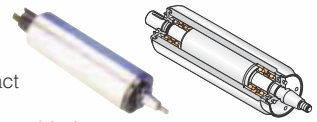
The total suggested maximum workloads of table are shown as follows:

A=Workpiece B=Magnetic Chuck C=A+B

Kg (lbs.)

MODEL	612SP	618SP	818SP
A	130 (286)	180 (396)	215 (474)
B	20 (44)	30 (66)	35 (77)
C	150 (330)	210 (462)	250 (551)

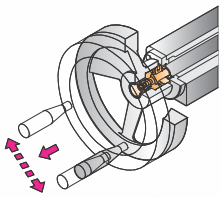
High Precision Cartridge Type Spindle



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

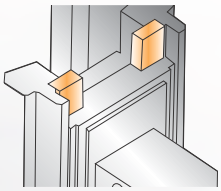
Indexing Table Handwheel

- The table handwheel can be indexed to a comfortable position to enhance the ease of table traverse.



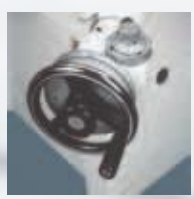
Wheelhead and Column

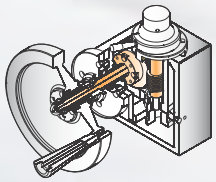
- The column casting is cross-ribbed for extra rigidity. The elevating guideways of wheelhead and column are hardened and ground. The sliding surfaces of the wheelhead are laminated with Turcite-B, providing accuracy of downfeed and machine longevity.



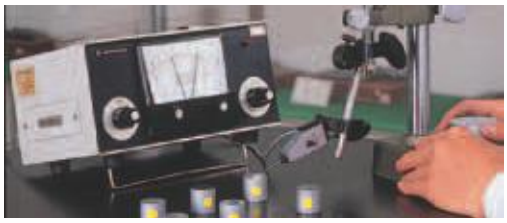
Elevating Micro-Feed Device

- The micro-feed device utilizes a worm and worm gear for vertical feeds in increments of 1 μm (0.000050"). The micro-feed device is engaged by turning the lever clockwise, which also locks the handwheel to prevent any danger caused by accidentally touching the handwheel. Operation of the handwheel can be resumed by turning the lever counter-clockwise.





TYPICAL ACCURACY



Parallelism of upper and lower sides of the workpiece within 0.002mm (0.0001")

Conditions:

- Material: SAE1045 (S45C), HRC45
- Workpiece Size: Ø25.4 x 25.4mm (1" x 1")
- Grinding Wheel: 38A46H (or equivalent)
- Dressing Speed: 0.04~0.12inch/sec. (1~3 mm/sec.)
- Specification of Dressing Diamond: 0.5~1.0 carat
- Dressing Depth: 0.003~0.006mm (0.0001"~0.0002")
- Table Speed: 10~20 m/mm (33~66 fpm)
- Grinding Depth per Stroke: 0.001~0.005mm (0.000050"~0.0002")
- Room Temperature: 20~25℃ (68~77˚F)
- Grinding Wheel Size: Ø203 x 12.7 x Ø31.74mm (Ø8"x 1/2" x Ø1 1/4")

Surface finish better than (or equal to) Rmax 0.3S (3 micro inch AA) Conditions:

- Material: D2 (SKD11), HRC60
- Workpiece Size: 100mm x 100mm (3.93" x 3.93")
- Grinding Wheel: ELBE 89A60-2I11V26 (or equivalent)
- Dressing Speed: 16 mm/sec. (0.629"/sec.)
- Specification Of Dressing Diamond: 0.5~1.0 carat
- Dressing Depth: 0.01mm (0.0004")
- Table Speed: 24.38 m/min (80 fpm)
- Grinding Depth Per Stroke: 0.001mm (0.000050")
- Crossfeed: 0.4mm (0.016")
- Room Temperature: 20~25℃ (68~77˚F)
- Grinding Wheel Size: Ø203 x 12.7 x Ø31.74mm (Ø8" x 1/2" x Ø1 1/4")

CHEVALIER
Grinding / Turning / Milling

FSG-618M/2A618

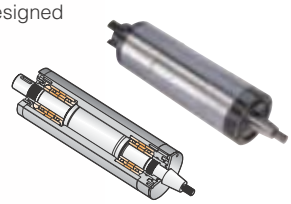
HIGH PRECISION SURFACE GRINDER

MACHINE FEATURES

- This high-precision surface grinder has been specially developed to help manufactures with a wide range of needs.
- The tool cabinet in the machine base is specially designed for operator's convenience (618M).
- The interlock between electrical cabinet door and power supply is established to ensure safe operation.
- The maximum distance from the table surface to the spindle centerline is 450mm (177"), which provides more clearance for grinding.
- The manual grinders feature a spring-loaded-type table travel-stops that dampen the over travel caused by abnormal operations.
- The optimum span of double-V crossfeed guideways is designed based on bending moment, kinematics and supporting force.
- All essential castings are high-grade Meehanite cast iron which the stress-relieved has been done through annealing to eliminate internal stress.
- With the impressive stiffness and stability of its castings, this machine is suitable for both precision surface grinding and form grinding.
- This grinder is offered with one-year warranty for mechanical and electrical parts.

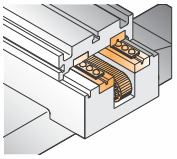
High Precision Cartridge Type Spindle

- The spindle is supported by four pieces of Class 7 (P4) super-precision angular contact ball bearings, which have been accurately measured, selected and pre-loaded. Then it's assembled in a temperature controlled room to ensure better grinding accuracy and surface finish. The labyrinth seal type structure is designed to offer better water resistance, enhancing the longevity of the spindle bearings.



Continuous-Loop-Type Table Transmission Mechanism

- A continuous-loop wire reinforced-cog timing belt drives the table. This system ensures slip-free and smooth transmission of table, enabling at least three-times longer life of a continuous-cog timing belt compared to that of the wire type or reciprocating timing belt type. The table traverses on hardened and ground guideways with steel ball bearings providing smooth, accurate and efficient table movement (618M).

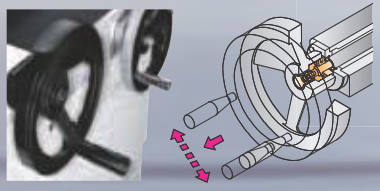


FSG-618M

Note: Machine shown with optional accessories

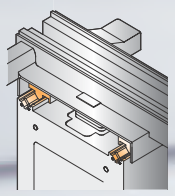
Indexable-Table Handwheel

- The table handwheel can be indexed to a comfortable position to enhance the ease of table traverse. (618M only)

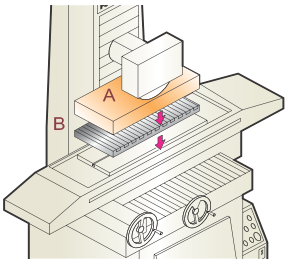


Durable Slideways

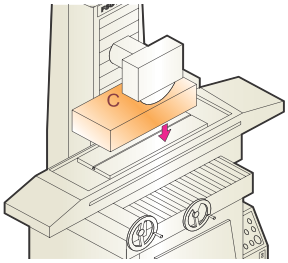
- Machine base slideways are laminated with Turcite-B and precisely hand scraped. The low-friction slideways incorporated with automatic forced lubrication system ensures high-accuracy and longer way life.



PERMISSIBLE LOAD OF MACHINE



Grinding with
Electromagnetic Chuck



Grinding without
Electromagnetic Chuck

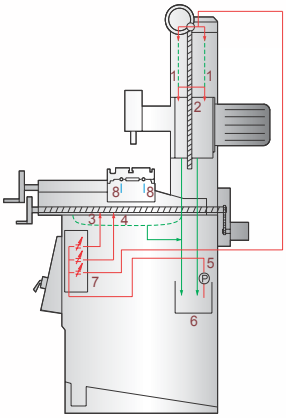
The total suggested maximum workloads of table are shown as follows:

A=Workpiece B=Magnetic Chuck C=A+B

Kg (lbs.)

MODEL	FSG-618	FSG-2A618
A	180 (396)	
B	30 (66)	
C	210 (462)	

Automatic Lubrication



Feed Loop
Return Loop
Grease Lubrication

1. Column slideways
2. .Elevating leadscrew
3. Crossfeed leadscrew
4. Machine base Double-V slideways
5. Solenoid pump
6. Lubricator
7. Flow divider
8. Table guideways with ball bearings lubricated by grease

FSG-2A618

Note: Machine shown with optional accessories

Table-Reversing Mechanism (2A618)

- By using proximity switches, operator can easily set a suitable table stroke for each workpiece to save grinding time and to obtain higher grinding efficiency. The proximity switches have been properly covered for operator's safety (2A618).

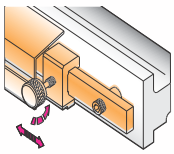
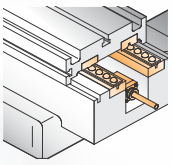
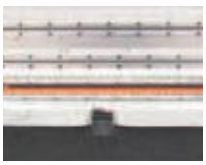


Table Guide Ways (2A618)

- The table transverse features hardened and ground guidways with steel ball bearings, which have been accurately sieved, for smooth, accurate and efficient table movement. (2A618)





FSG-2A818/3A818
AUTOMATIC SURFACE GRINDER

MACHINE FEATURES

This series has been specially developed and recently improved to continuously offer reliable high-performance precision surface grinders. The high-precision FSG-3A series surface grinder has recently improved the control panel with easy to read LED numerals. Chevalier offers a one year limited-warranty that includes parts for mechanical and electrical components.

The Double-V crossfeed guideway span has been designed by applying kinematics to calibrate for minimum bending moments, thus achieving maximum support capability for table and workpiece.

All essential castings are made of a high-grade cast iron that is stress relieved by annealing, ensuring the greatest stability and rigidity with low-stress.

An interlock is placed between the electrical cabinet door and the power supply as an added safety feature. The maximum distance from table surface to spindle centerline is 450mm (177"), which provides more clearance for grinding.

High Precision Cartridge Type Spindle

- The spindle is supported by four pieces of Class 7(P4) super-precision angular contact ball bearings. The bearing are accurately measured, selected and preloaded, then assembled to offer superior water resistance, increasing the life of the spindle bearings in the temperature-controlled rooms. This ensures better 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, the operator can easily set a suitable table stroke for each workpiece to save grinding time and obtain higher grinding efficiency. The proximity switches have been properly covered for the safety of operator.

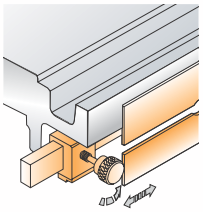
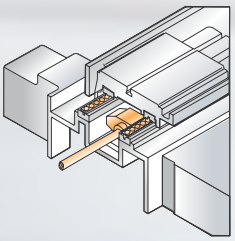


Table Guideways

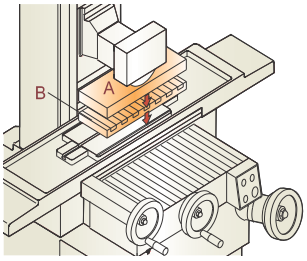
- The table traverses on hardened and round guideways with accurately sieved steel ball bearings, providing smooth, accurate and efficient table movement.



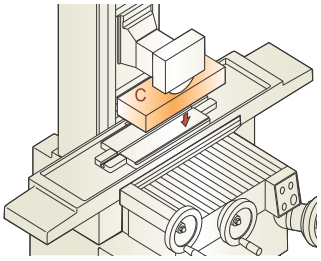
FSG-2A818

Note: Machine shown with optional accessories
Longitudinal table movement is driven by hydraulic unit. Cross movement is driven by AC motor.

PERMISSIBLE LOAD OF MACHINE



Grinding with
Electromagnetic Chuck



Grinding without
Electromagnetic Chuck

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

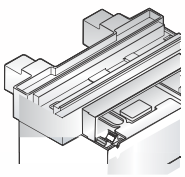
A=Workpiece B=Magnetic Chuck C=A+B

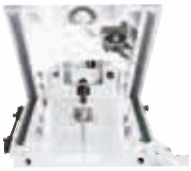
Kg (lbs.)

MODEL	FSG-2A818	FSG-3A818
A	215 (474)	
B	35 (77)	
C	250 (551)	

Durable Slideways

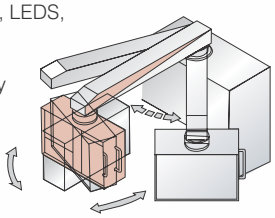
- Machine-base slideways are laminated with Turcite-B and precisely hand-scraped, low-friction slideways incorporated with an automatic intermittent lubrication system to ensure high accuracy and longer life of slideways.





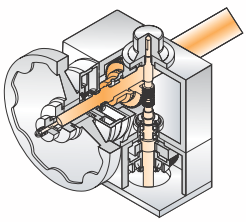
Control Station (FSG-3A818)

- The control station can be easily adjusted to a comfortable position for the operator's convenience. All switches, indicators, lamps, LEDS, and displays are ergonomically designed for easy operation.



Elevating Micro-Feed Device (FSG-3A818)

- The elevating system is equipped with a precision 0002mm (00001") graduated micro-feed device, consisting of a worm and wormgear for precise manual positioning of the Y-axis.



FSG-3A818

Note: Machine shown with optional accessories
Longitudinal table movement is driven by hydraulic unit. Cross movement is driven by AC motor. Vertical feed is driven by AC motor and equipped with automatic downfeed device and manual micro downfeed device.

FSG-2A1224/3A1224

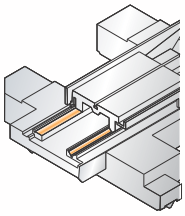
AUTOMATIC SURFACE GRINDER

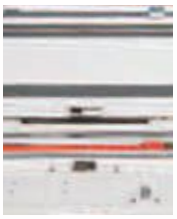
MACHINE FEATURES

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.



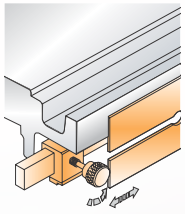


High-Precision-Type Spindle

- 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.



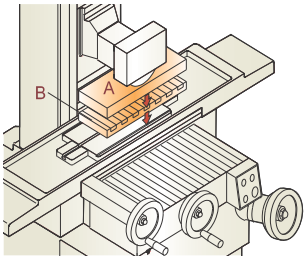
Durable Slideways

- 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.

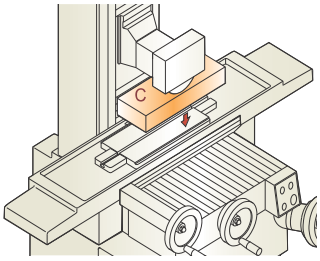
FSG-2A1224

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:

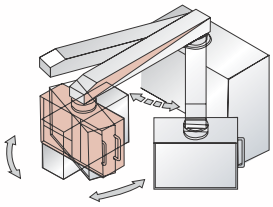
A=Workpiece B=Magnetic Chuck C=A+B

Kg (lbs.)

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

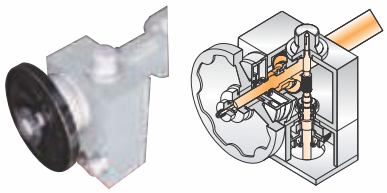
Control Station (3A Series)

- 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 μm (000001") or 5 μm (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

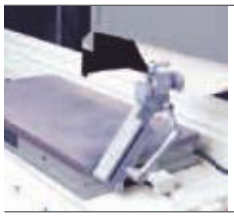
OPTIONAL ACCESSORIES

HALOGEN LAMP
B01-0101 (618M / 2A618, 612SP / 618SP / 818SP)
B01-0601 (3A818)
B01-0901 (2A818)
(12V / 20W)

MACHINE LAMP
B01-0903 (2A, 3A1224)
(12V / 50W)

DIAMOND DRESSER
B03-0101 (618M / 2A618)
0.1 Carat
B03-0401 (2A, 3A1224)
1.0 Carat

DIAMOND DRESSER
B03-0601 (2A, 3A818, 612SP / 618SP / 818SP)
0.5 Carat



SINGLE FACE DRESSER
B13-0301 (2A, 3A1224)

WHEEL FLANGE
B05-0101
(618M / 2A618, 612SP / 618SP / 818SP, 2A, 3A818)
Suitable for Ø203 x Ø31.75 x 12.7~19mm (8" x 1 1/4" x 1/2"~3/4") grinding wheel

WHEEL FLANGE
B05-0401 (2A, 3A1224)
Suitable for Ø355 x Ø127 x 50mm (13.97" x 5" x 1.97") grinding wheel

PUNCH FORMER
B07-01011 All series
Diameter of the punch: 4~25mm (0.16" ~1")
Length of the punch: over 22mm (7/8")

PERMANENT MAGNETIC CHUCK
B09-0102 (618M / 2A618)
150 x 450mm (5 7/8" x 17 3/4")
B09-0103 (2A, 3A818, 818SP)
200 x 450mm (7 7/8" x 17 3/4")
B09-0101 (612SP)
B09-0602 (612SP)(fine pole)
150 x 300mm (5 7/8" x 11 7/8")
B09-0102 (618SP)
B09-0110 (618SP) (fine pole)
150 x 450mm (5 7/8" x 17 3/4")
B09-0103 (818SP)
B09-0604 (818SP) (fine pole)
200 x 450mm (7 7/8" x 17 3/4")

INCLINABLE MAGNETIC CHUCK
B09-0104 (612SP)
100 x 175mm (3 15/16" x 6 7/8")
B09-0105 (618M / 2A618, 618SP / 818SP, 2A, 3A818)
150 x 300mm (5 7/8" x 11 7/8")

ELECTROMAGNETIC CHUCK
B09-0605 (612SP)
B09-0608 (612SP) (fine pole)
150 x 300mm (5 7/8" x 11 7/8")
B09-0106 (618M / 2A618, 618SP)
150 x 450mm (5 7/8" x 17 3/4")
B09-06071 110V (2A, 3A818)
200 x 450mm (7 7/8" x 17 3/4")
* To order **B23-0701**(2A) or **B23-0602** (3A) chuck control is required.
B09-0609 (618SP) (fine pole)
150 x 450mm (5 7/8" x 17 3/4")
B09-0607 (818SP)
B09-0610 (818SP) (fine pole)
200 x 450mm (7 7/8" x 17 3/4")
* To order **B23-0901** control is required.
B09-04011(2A, 3A1224)
300mm x 600mm (11 3/4" x 23 5/8")
* To order **B23-0701**(2A) or **B23-0602** (3A) chuck control is required.

INCLINABLE ELECTROMAGNETIC CHUCK
B09-0601 (618M / 2A618)
150 x 450mm (5 7/8" x 17 3/4")
B09-1101 (612SP)
100 x 175mm (3 15/16" x 6 7/8")
B09-0107 (618SP / 818SP)
150 x 300mm (5 7/8" x 11 3/4")
B09-09011 100V (2A, 3A818)
200 x 300mm (7 7/8" x 11 3/4")
* To order **B23-0701**(2A) or **B23-0602** (3A) chuck control is required.

PRECISION VISE All Series
B11-0101 50 x 76mm (2" x 3")
B11-0102 63 x 100mm (2 31/64" x 3 15/16")
B11-0103 76 x 100mm (3" x 3 15/16")
B11-0104 89 x 127mm (3 1/2" x 5")
B11-0105 100 x 127mm (3 15/16" x 5")

PARALLEL DRESSING ATTACHMENT (MANUAL)
B13-0301 (618M / 2A618)
B13-1101 (612SP / 618SP / 818SP)
B13-0603 (2A, 3A818)
Suitable for: 203mm (8") grinding wheel
B13-0902 (2A, 3A1224)MAX. OD: 355mm (13.97")
MIN. OD: 235mm (9.25")

PARALLEL DRESSING ATTACHMENT (HYDRAULIC)
• **B13-04011**(2A, 3A1224)
MAX. OD: 355mm (13.97")
MIN. OD: 235mm (9.25")

PARALLEL DRESSING ATTACHMENT
(Hydraulic Crossfeed, Manual Downfeed)
B13-0601 (2A, 3A818)
Suitable for 203mm (8") grinding wheel

RAPID ELEVATION WITH MICRO DOWNFEED DEVICE (Standard on 3A series)

• **B39-0901** (2A818 / 1224)
Motor: 0.19Kw (1/4 HP)
Micro feed: Per revolution 0.2mm (0.01")
Per graduation 0.002mm (0.0001")

MICRO CROSSFEED DEVICE

• **B39-1101** (612SP / 618SP / 818SP)
Per revolution 0.1mm (0.005")
Per graduation 0.001mm (0.00005")

RAPID ELEVATION DEVICE

• **B39-1102** (612SP / 618SP / 818SP)
Motor: 0.19kw (1/4HP)
Speed: 175mm/min. (8.75ipm) - 60Hz
Speed: 145mm/min. (7.25ipm) - 50Hz

ELBE GRINDING WHEEL

(For Mirror Surface Grinding)
5915-44211002
(81A46-3K9V26) (612SP / 618SP / 818SP)
5915-44211005
(81A46-3I12V26) (612SP / 618SP / 818SP)

SINGLE SIDE WATER BAFFLE

B19-0906 (2A, 3A818)
Double Side Water Baffle
B19-0910 (Double Side) (2A, 3A1224)

SPLASH GUARD

(With Nozzle For Coolant System)
B19-0102 (618M / 2A618)
B19-0909 (2A, 3A818)
B19-1101 (612SP)
B19-1102 (618SP / 818SP)
B19-0907 (2A, 3A1224)

BALANCING STAND WITH BUBBLE

B15-0102 (612SP / 618SP / 818SP /2A, 3A1224)
Suitable for 230mm (9") grinding wheel

BALANCING STAND

(ROLLER TYPE) All Series
B15-0601
Suitable for : 203~355mm (8"~13.98") grinding wheel

BALANCING STAND WITH LEVELLING BUBBLE

B15-0301 (2A, 3A1224)
MAX. OD: 355mm (13.98")
MAX. WIDTH: 50mm (1.97")

UNIVERSAL WHEEL GUARD FOR SIDE FORMING

B41-0106 (618M / 2A618)
B41-1101 (612SP / 618SP / 818SP)
B41-0901 (2A, 3A818)
Suitable for: 203mm (8") grinding wheel

MICRO DOWNFEED DEVICE

(Standard on 3A series)
B39-0902 (2A818 / 1224)
Micro feed:Per revolution 0.2mm (0.01")
Per graduation 0.002mm (0.0001")

CHUCK CONTROLLER

(With variable holding power and auto demangetizer)
B23-0106 (618M / 2A618, 612SP / 618SP / 818SP)
Input: 110VAC
Output: 0~90VDC

CHUCK ONTROLLER

B23-0401 (3A818 / 1224 CE machines and all 2A818 / 1224 machines) (2A1224)
Input: 135VAC
Output: 115VDC

CHUCK CONTROLLER

B23-0602 (3A818 / 3A1224)
Input Voltage: 135V AC
Output Voltage: 110V DC
With variable holding power control and auto. demagnetizer (For CE machines, please choose **B23-0401**).

COOLANT SYSTEM

B17-0110 Volume: 42L
Pump: 1/8HP
Coolant Capacity: 20L/min.
Space: 530 x 360mm (20.87" x 14 1/4")
Height: 500mm (19 7/8")

COOLANT SYSTEM WITH DOUBLE FILTER

B17-0901
Volume: 95L; Pump:1/8 HP
Coolant Capacity: 20L/min.
Space: 660 x 480mm (26" x 18.9")
Height: 610mm (24")

COOLANT SYSTEM WITH MANUAL PAPER FEEDING DEVICE (With 1 roll of paper)

B17-0107 (2A, 3A1224)
Volume:85L; Pump:1/8 HP; Coolant Capacity: 20L/min.
Space: 550 x 1,000mm (21 21/32" x 39 3/8")
Height: 775mm (30 1/2")

OPTIONAL ACCESSORIES

COOLANT SYSTEM WITH AUTO PAPER FEEDING DEVICE

(With 1 roll of paper)
B17-0301 (2A, 3A1224)
Volume: 120 L
Paper feeding motor: 25W
Pump: 1/8HP
Space: 1,450 x 620mm (57" x 24 3/8")
Height: 760mm (29.9")

COOLANT SYSTEM WITH AUTO PAPER FEEDING DEVICE AND MAGNETIC SEPARATOR

(With 1 roll of paper)
B17-0302
Volume: 120L
Paper feeding motor: 25W
Pump: 1/8HP
Coolant Capacity: 20L/min.
Separator Capacity: 40L/min.
Space: 1,450 x 620mm (57" x 24 3/8")
Height: 760mm (29.9")

COOLANT SYSTEM WITH MAGNETIC SEPARATOR

B17-0105
Volume: 50L
Pump: 1/8HP
Coolant Capacity: 20L/min.
Separator Capacity: 20L/min.
Space: 655 x 520mm (25 3/4" x 20 1/2")
Height: 730mm (28 3/4")

COMBINATION COOLANT AND DUST EXHAUST UNIT WITH MAGNETIC SEPARATOR

B17-0106
Volume: 34L
Pump: 1/8HP
Coolant Capacity: 20L/min.
Separator Capacity: 20L/min.
Space: 628 x 790mm (24 3/4" x 31 1/16")
Height: 680mm (26 3/4")

COMBINATION COOLANT AND DUST EXHAUST UNIT WITH MAGNETICSEPARATOR

B17-0101
Volume: 34L
Pump: 1/8HP
Coolant Capacity: 20L/min.
Space: 398 x 798mm (15 3/4" x 31 27/64")
Height: 680mm (26 3/4")

DUST COLLECTOR

B17-0102
Suction Motor: 1/2HP, 2P
Space: 470 x 500mm (18 1/2" x 19 11/16")
Height: 585mm (23")

DIMENSIONAL DRAWINGS

Unit : mm (")

MODEL	FSG-2A1224 / 3A1224
A	2,670 (105 12")
B	920 (36 1/4")
C	2,050 (80.71")
D	1,810 (71 1/4")
E	50 (1.97")
F	402 (15 7/8")
G	14 (9/16")
H	305 (12")
I	385 (15 1/8")
J	387 (15 1/4")
K	MAX. : 600 (23.6")
L	355 (13.98")
M	83 (3 1/4")

Unit : mm (")

MODEL	FSG-2A818 / FSG-3A818
A	2,200 (86.6")
B	690 (27 1/8")
C	1,950 (76.77")
D	12.7 (1/2")
E	305 (12")
F	12 (15/32")
G	206 (8 1/8")
H	274 (10 3/4")
I	271 (10 5/8")
J	450 (17.7")
K	203 (8")
L	54 (2 1/8")

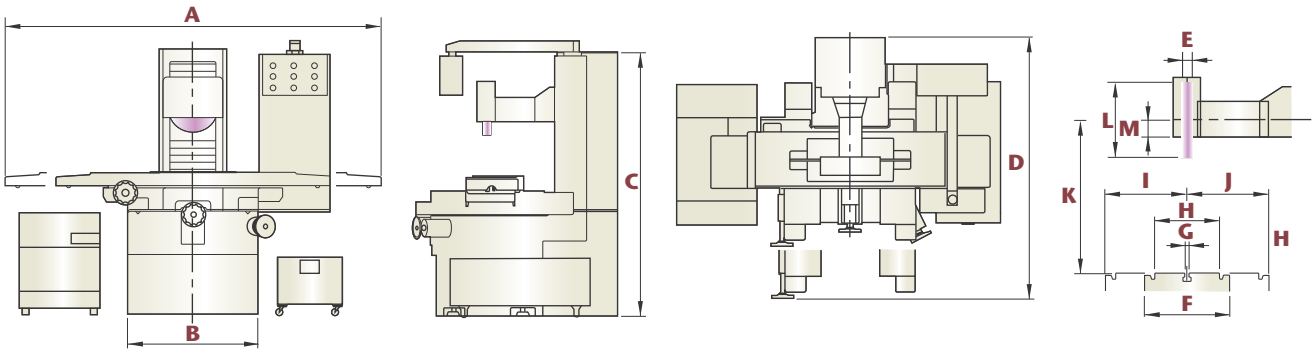
Unit : mm (")

MODEL	FSG-618M / FSG-2A618	
A	1900 (74.8")	
B	690 (27 5/32")	
C	2,130 (83.86")	
D	1,400 (55.12")	1,600 (62.99")
E	12.7 (1/2")	
F	200 (7 7/8")	
G	11 (7/16")	
H	146 (5 3/4")	
I	197 (7 3/4")	
J	183 (7.2")	
K	450 (17.7")	
L	203 (7.99")	
M	50 (1.97")	

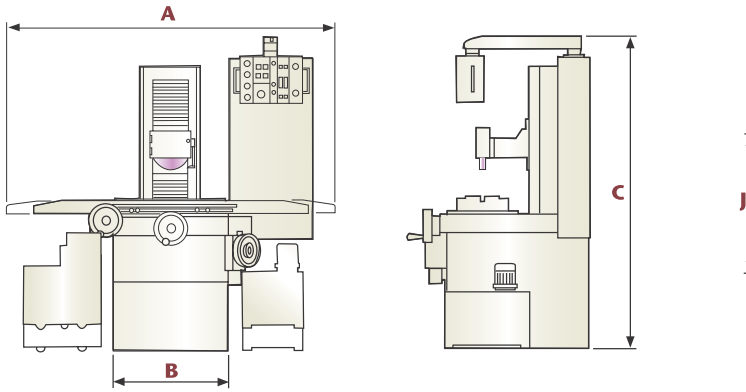
Unit : mm (")

MODEL	612SP	618SP	818SP
A	2040 (80.3")	1750 (68.89")	
B	685 (26.97")		
C	2134 (84")	1870 (73 3/4")	
D	1360 (53 1/2")		
E	12.7 (1/2")		
F	267 (10 1/2")		
G	11 (0.433")		
H	152 (5.98")		200 (7.87")
I	225 (8 7/8")		254 (10")
J	244 (9 5/8")		242 (9 1/2")
K	500 (19.69")		
L	203 (7.99")		
M	50 (1.96")		

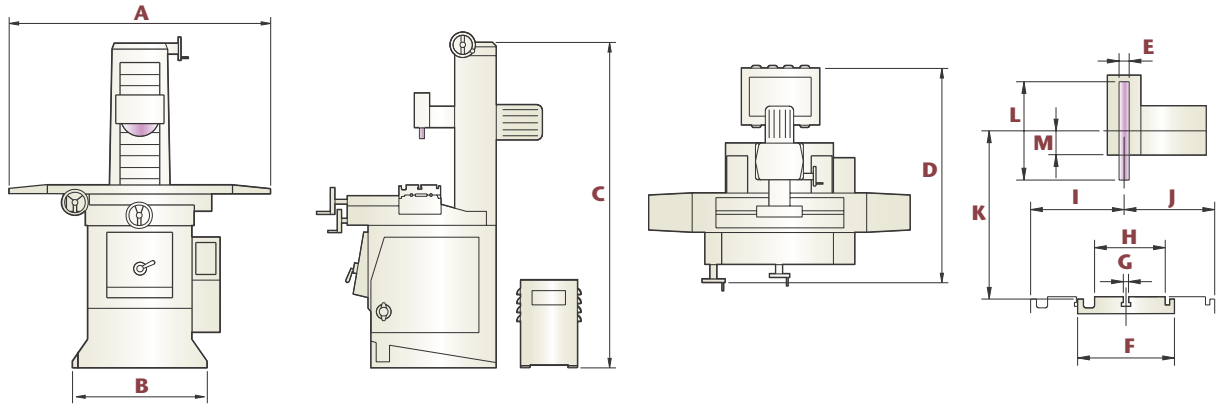
FSG-2A1224 / 3A1224



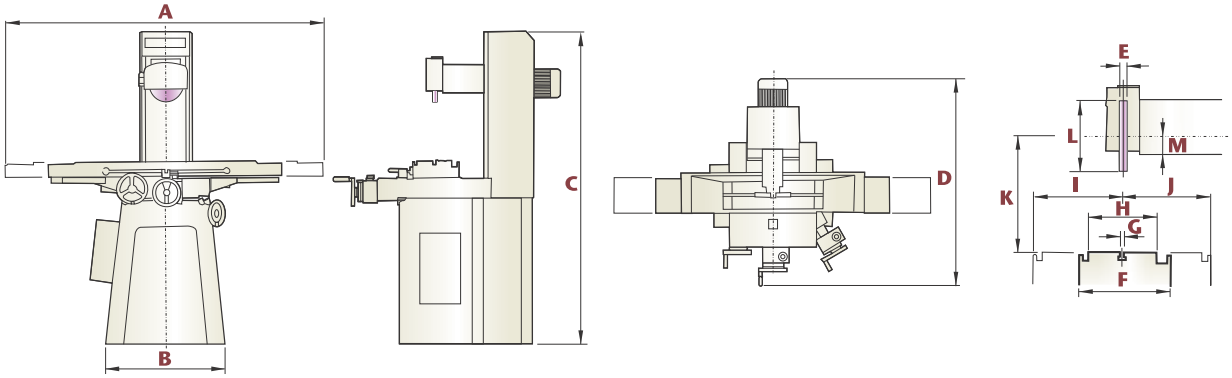
FSG-2A818 / 3A818



FSG-618M / 2A618



FSG-612SP / 618SP / 818SP



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 (")	460 (18")	
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 (38)
	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 (")	0.005 (0.0001")	
	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)	770 (1,694)
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.

Unit : mm (")

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 (38)		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")		
0.005 (0.0001")		0.005 (0.0001")		0.005 (0.0001")		
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")		

Grinding Machines | Grinding Machines | Turning Machines | Milling Machines

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