



**SUPERTEC<sup>®</sup>** *Since 1954*



**⚠ WARNING**  
DANGER: Grinding wheel may shatter if used incorrectly. See instructions for proper use.  
1. Do not use damaged wheels.  
2. Do not use wheels on the wrong machine.  
3. Do not use wheels on the wrong speed.  
4. Do not use wheels on the wrong diameter.

STP - 618M • 1A618 • 2A618 • 618CII • 618CXII  
PRECISION SURFACE & FORM GRINDER

**The Finest  
Solution**

Affordable and easy to operate, the Supertec 618 series of surface grinders are designed and built for accuracy, durability and smooth performance. Available in 5 different models, these machines offer many features and solutions to increase your productivity.

STP-618M	Hand Feed Surface Grinder
STP-1A618	Hydraulic Table Travel Grinder
STP-2A618	Hydraulic Table and Cross Feed Grinder
STP-618CII	Hydraulic Table, Cross and Down Feed Grinder
STP-618CXII	Hydraulic Table, Cross and Down Feed Grinder, and Slicer

### Stringent Quality Control to Supertec Specifications:

Work table flatness: 0.00012"

Parallelism of longitudinal movement: 0.0001"/18"

Parallelism of cross movement: 0.000080"/6"

Run-out of wheel taper: 0.000060"



STP-618CII



STP-618M

(Machines shown with optional accessories)



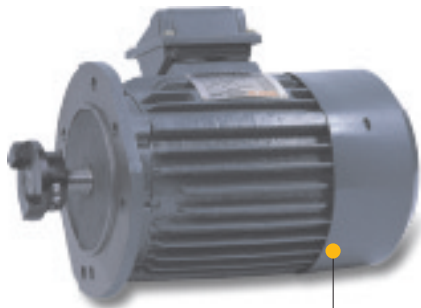
STP-2A618

# The Finest Solution

# FEATURES

## Precision Cartridge Spindle for High Accuracy

High rigidity spindle with four preloaded class 7(P4) bearings and run-out of spindle taper less than 0.000060" T.I.R. provides quiet, vibration free operation for better workpiece accuracy and surface finish. The cartridge type spindle is interchangeable for easy maintenance and field replacement. Spindle bearings are grease sealed for life.

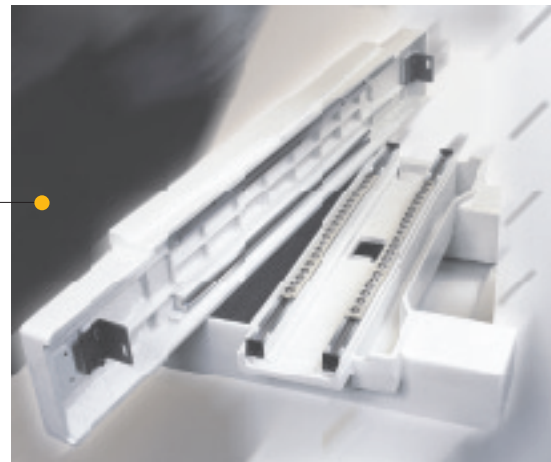


## Powerful 3HP Low Vibration Spindle Motor

3 HP V3 grade spindle motor assembly is dynamically balanced for low vibration and powerful output to achieve precision work standards and better grinding capability.

## Smooth Ball Ways

The ball way table travels on hardened and ground guideways to ensure smooth, easy movement of table for better quality surface finish and longer way life.



## Hand Scraped Double V Base and Saddle Ways

Cross way surfaces are hand scraped and Turcite coated for absolute flatness and high wear resistance. Thus, It assures a smoother saddle movement for higher accuracy and longer life.



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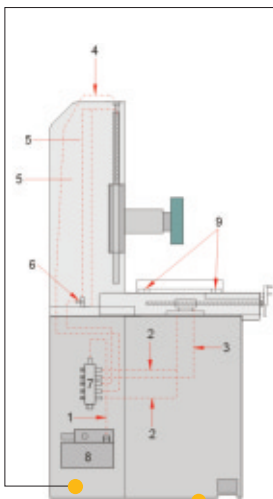
# FEATURES

## Rugged Construction

All castings are heat tempered and stress relieved twice during the manufacturing process to assure stability of the machine structure and resist deflection under load.

Massive one-piece cast column is heavily ribbed for rigidity.

Hardened & ground tool steel column ways with cast spindle slide is precision fit for smooth gravity downfeed .



1.	Inlet Pipe
2.	Machine Base Double V Slideways
3.	Crossfeed Leadscrew
4.	Elevating leadscrew
5.	Column Slideways
6.	Flow Divider
7.	Oil Distributor
8.	Lubricator
9.	Table Guideways With Ball Bearing are Lubricated by Grease



## Auto Lubrication System w/Waste Reservoir

The lubrication system continuously floods the saddle, the column ways, and the leadscrews with non-recirculated filtered lube oil for better performance and less maintenance.



## Table Reversal Mechanism

The table reversal is hydraulically powered and actuated by non-contact proximity switches. Table speed and stroke are infinitely variable and can be easily adjusted for ease of operation and higher grinding efficiency. (except 618M)



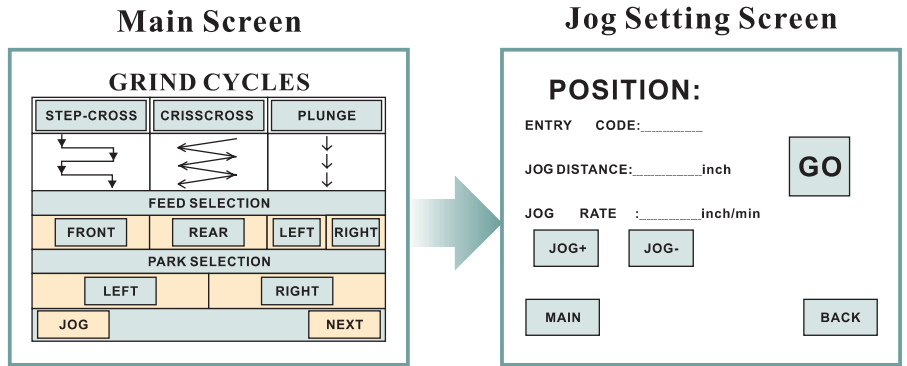
## 0.000050" Micro Downfeed and Crossfeed

Optional down feed and cross feed micrometer attachments are calibrated to 0.000050". Finer adjustment by engaging worm gear allows higher grinding tolerance with ease. (standard on CII/CXII)

Mitsubishi PLC control uses a menu-driven LCD touch screen technology for simple operation. (CII and CXII Models only)

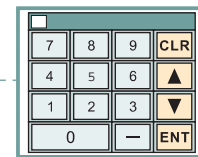
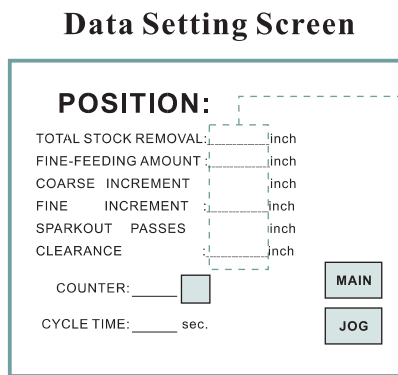
### Step 1

Choose the following functions:  
Grinding Mode Selection  
Down Feed Selection  
Table Parking Selection  
Jog Setting or Next Screen



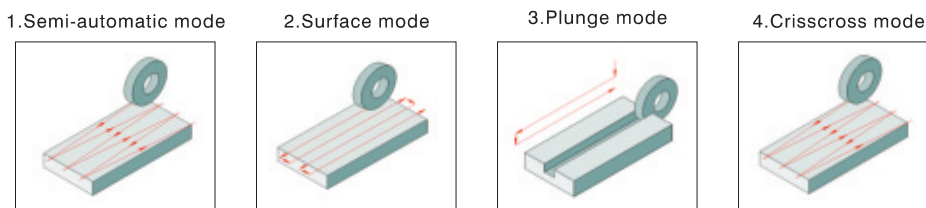
### Step 2

Fill in the blanks to set total stock removal, total fine grinding amount, rough increment, fine increment, spark-out passes, & reset height, and press cycle start to complete automatic grinding cycle.

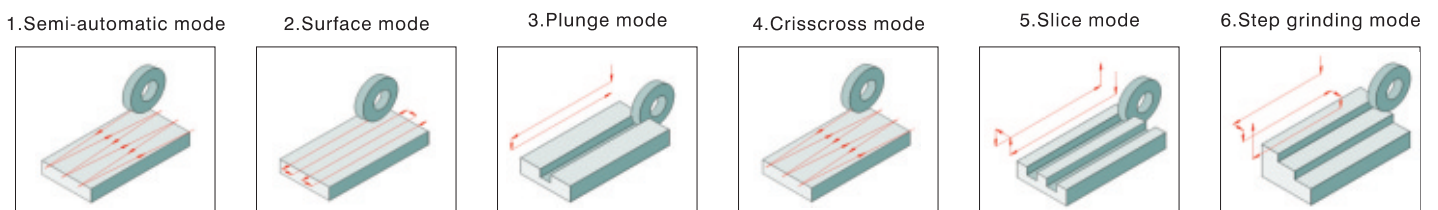


The data input key window will be displayed when touch to input data

### CII Grinding Mode



### CXII Grinding Mode



The Finest Solution

## STANDARD ACCESSORIES

Quantity	Description	Quantity	Description
1 pc	Grinding Wheel	1 set	Dust Guard
1 set	Wheel Flange	1 set	Diamond Dresser
1 set	Wheel Extractor	1 set	Balancing Arbor
1 set	Bolts and Pads	1 set	Touch-up Paint
1 set	Splash Guard (Except 618M)	1 set	Tool Box With Tools
1 set	Operator's Manual & Parts List	1 set	0.000050" Micro Downfeed (CII / CXII only)

# The Finest Solution

## OPTIONAL ACCESSORIES

### MAGNETIC CHUCKS AND CONTROL

Electromagnetic Chuck	6" x 18"
Auto. Demagnetizer (*)	
Permanent Magnetic Chuck	6" x 18"

### COOLANT SYSTEMS AND DUST COLLECTOR

Coolant System (+)	40L
Coolant System W/Magnetic Separator & Paper Filter (+)	20L/min, 80L
Combination Coolant & Dust Collector (+)	50L
Dust Collector	
Splash Guard	

### SONY DIGITAL READOUT SYSTEM

One Axis Digital Readout (*)	Elevating
Two Axis Digital Readout (*)	X & Y Axis

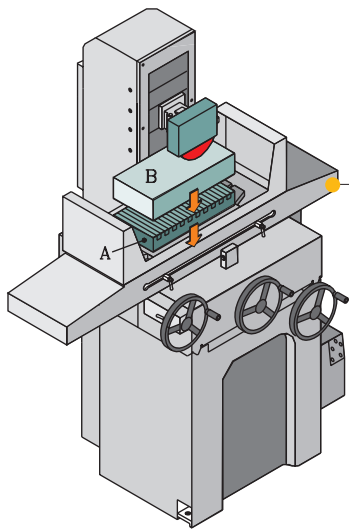
### OTHER ACCESSORIES

Manual Parallel Dressing Attachment (*)	
Balancing Stand	
Spare Grinding Wheel	8"X <sup>1</sup> / <sub>2</sub> " X1 <sup>1</sup> / <sub>4</sub> "
Spare Wheel Flange	
Micro Downfeed 0.000050"(*)	
Micro Crossfeed 0.000050"(*)	
Universal Wheel Guard	

\*Factory installation required

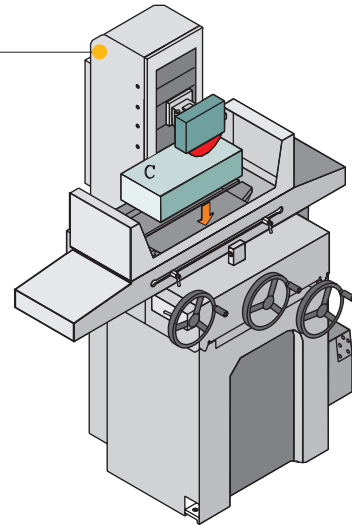
+Must order splash guard when ordering any coolant system (618M only)

## PERMISSIBLE LOADS



Grinding With Magnetic Chuck

Grinding Without Magnetic Chuck

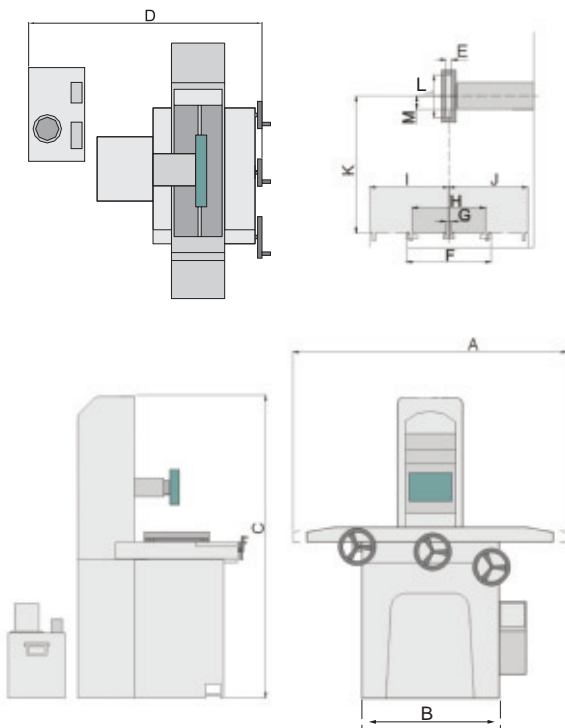


The total suggested maximum loads of working table are shown as follows:

A=Magnetic chuck      B=Workpiece      C=A+B

MODEL	STP-618M	STP-1A618 STP-2A618	STP-618CII STP-618CXII
A lbs(kg)		66(30)	
B lbs(kg)		396(180)	
C lbs(kg)		462(210)	

## DIMENSIONAL DRAWINGS



MODEL	STP-618M	STP-1A618 STP-2A618	STP-618CII STP-618CXII
A		54-3/8" (1380mm)	
B		24-3/8" (620mm)	
C		68-1/2" (1740mm)	
D		63" (1600mm)	
E		1/2" (12.7mm)	
F		8-5/8" (219mm)	
G		1/2" (12.7mm)	
H		6" (152.4mm)	
I		8" (205mm)	
J		7" (180mm)	
K		19-1/4" (490mm)	
L		8" (203mm)	
M		2" (50.8mm)	

# SPECIFICATIONS

DESCRIPTION		MODEL	STP-618M	STP-1A618	STP-2A618	STP-618CII	STP-618CXII
<b>General Capacity</b>	Table Size	6" x 18" (150 x 450mm)					
	Max. Grinding Length	19" (480mm)					
	Max. Grinding Width	6" (170mm)					
	Distance from Table Surface to Spindle Centerline	19.3" (490mm)					
	Standard Magnetic Chuck Size	6" x 18" (150 x 450mm)					
<b>Longitudinal Movement</b>	Manual Travel	20.9" (530mm)					
	Hydraulic Travel	-	20" (510mm)				
	Table Speed (infinitely variable)	-	16-82 fpm (5-52m/min)				
<b>Cross Movement</b>	Manual Travel	7" (180mm)					
	Rapid Travel, approx.	-	38ipm(960mm/min)				
	Automatic Traverse Travel	-	6-3/4"(170mm)				
	Automatic Traverse Increment	-	0.02-0.24"(0.4-6mm)				0.0001-0.002" (0.001-0.05mm)
	Handwheel per Graduation	0.001" (0.02mm)					
	Handwheel per Revolution	0.2" (5mm)					
<b>Vertical Downfeed</b>	Rapid Travel, approx.	-				4ipm (100mm/min)	
	Automatic Traverse Increment	-				0.0001-0.002" (0.001-0.05mm)	
	Handwheel per Graduation	0.0001" (0.005mm) 0.000050"(0.0001mm)-Option				0.000050"(0.0001mm) micro downfeed	
	Handwheel per Revolution	0.050" (1mm)				0.050" (0.1mm) micro downfeed	
<b>Grinding Wheel</b>	Wheel Size (OD x W x B)	ø8" x 1/2" x ø1-1/4" (ø203 x 12.7 x ø31.75mm)					
	Speed (50Hz/60Hz)	2850rpm/3450rpm					
<b>Motor</b>	Spindle Motor	3HP (2.3kw)					
	Crossfeed Motor	-	25w			1/2HP (0.4kw)	
	Elevating Motor	-				1/2HP (0.4kw)	
	Hydraulic Motor	-				1HP (0.75kw)	
<b>Floor Space</b>	Total Space Required (L x W x H)	76" x 43" x 69" (1950 x 1100 x 1770mm)			76" x 59" x 69" (1950 x 1500 x 1770mm)		
	<b>Weight</b>	Net, approx.	1588lbs (722kgs)			1775lbs (807kgs)	
Gross, approx.		1808lbs (822kgs)			1995lbs (907kgs)		
<b>Total Rated Power, approx.</b>		3HP (2.3kw)	4HP (3kw)	4.1HP (3.1kw)	4.6HP (3.5kw)	5HP (3.8kw)	
<b>Packing Dimension (L x W x H)</b>		58" x 44" x 76" (148 x 110 x 194cm)				61" x 49"x 76" (155 x 124 x 194cm)	

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