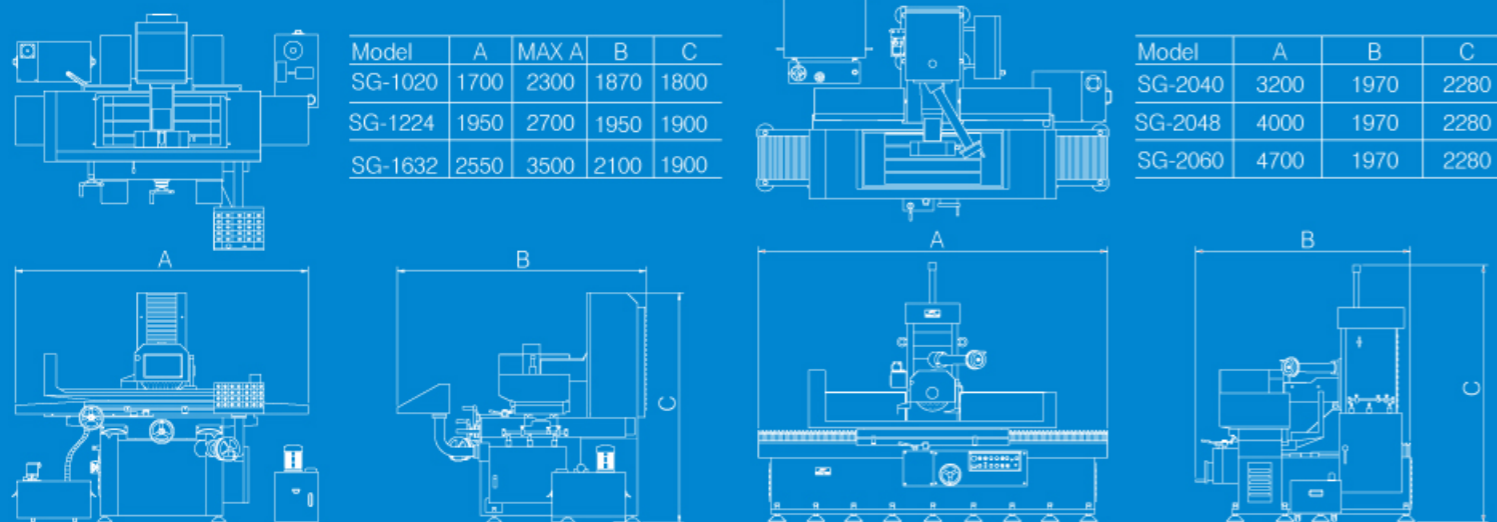


Specification:

Model	SG-1020 (2A & 3A)	SG-1224 (2A & 3A)	SG-1632 (2A & 3A)
Cross and Long. axis travel	11" x 24"	13" x 28"	18" x 35"
Grinding surface of table	10" x 20"	12" x 24"	16" x 32"
Hydraulic table speed	40~1000 in / min	40~1000 in / min	40~1000 in / min
Table top to spindle center line	19.2"	19.2"	23.6"
Intermittent cross feed (approx)	0.1 ~ 0.4 in / feed	0.1 ~ 0.4 in / feed	0.1 ~ 0.4 in / feed
Continuous cross feed (approx)	40 in / min	40 in / min	40 in / min
Cross handwheel-per rev	0.1"	0.1"	0.1"
Cross handwheel-per division	0.0005"	0.0005"	0.0005"
Rapid vertical traverse (approx)	9.4 in / min	9.4 in / min	9.4 in / min
Auto downfeed (CII control) 3 axis auto	0.0001" ~ 0.01"	0.0001" ~ 0.01"	0.0001" ~ 0.01"
Vertical handwheel-per rev	0.05"	0.05"	0.05"
Vertical handwheel-per div	0.0001"	0.0001"	0.0001"
Wheel dimension (OD x W x ID)	14" x 1" x 5" (opt 7" x 1/2" 1 1/4")	14" x 1" x 5"	14" x 1" x 5"
Spindle speed (60Hz)	1800 rpm (opt 3600 w / 7")	1800 rpm	1800 rpm
Spindle motor	3 HP	5 HP	7.5 HP
Machine net weight	2970 lbs.	3660 lbs.	6160 lbs.
Machine gross weight	3750 lbs.	4600 lbs.	7500 lbs.
Packing dimensions (L x W x H)	70" x 59" x 77"	91" x 61" x 77"	91" x 75" x 83"



Machine floor plan:



SG series

PRECISION SURFACE GRINDERS
2 and 3 AXIS AUTOMATIC



SUPERTEC MACHINERY INC.

6435 Alondra Blvd., Paramount CA 90723

TEL : (562) 220-1675

FAX: (562) 220-1677

E-mail: info@supertecusa.com

<http://www.supertecusa.com>

www.supertecusa.com

137011000411E

Supertec's new **SG series** of precision surface grinders incorporates the latest in machine tool design, combining state of the art electronic with heavy duty reinforced Meehanite castings to maximize machine accuracy and repeatability.

Some of the more popular features of the saddle type design are:

- ▶ Double "V" ways on longitudinal and cross ways
- ▶ 3 HP spindle motor (SG-1020) 2 or 3 axes
- ▶ 5 HP spindle motor (SG-1224) 2 or 3 axes
- ▶ 7.5 HP spindle motor (SG-1632)
- ▶ Auto downfeed driven by AC servo motor with rapid up/down on 3 axes
- ▶ Auto lube system
- ▶ Extra low noise & low temperature growth on hydraulic system & spindle assembly
- ▶ Twice annealed casting for greater stability
- ▶ Low-friction coated surfaces—slideways are hand scraped & coated with Turcite-B
- ▶ Spindle run-out 0.0001" TIR
- ▶ Hardened and ground box ways on vertical travel

Some of the more popular features of the column type design are:

- ▶ Here are some of the more popular features of the column type design:
- ▶ 10 HP spindle motor (15 HP opt.)
- ▶ Extra wide machine base eliminates table over hang
- ▶ Dual hydraulic cylinders on table for smoother reversal movement of table
- ▶ Double "V" way on cross and longitudinal axes
- ▶ PLC control with AC servo motor (3 axes)
- ▶ Manual pulse generator (MPG) for vertical movement (wheelhead)
- ▶ Hardened and ground box ways on vertical (wheel head) travel



SG-2A-1020 / SG-3A-1020

3 HP spindle motor
10" x 20" grinding area
14" x 1" x 5" grinding wheel
AC servo motor on downfeed
Auto lube system

SG-2A-1224 / SG-3A-1224

5 HP spindle motor
12" x 24" grinding area
14" x 1" x 5" grinding wheel
AC servo motor on downfeed
Auto lube system

SG-2A-1632 / SG-3A-1632

7.5 HP spindle motor
16" x 32" / 16" x 40" grinding area
14" x 1.5" x 5" grinding wheel
AC servo motor on downfeed
Auto lube system

SG-2A-2040 / SG-3A-2040

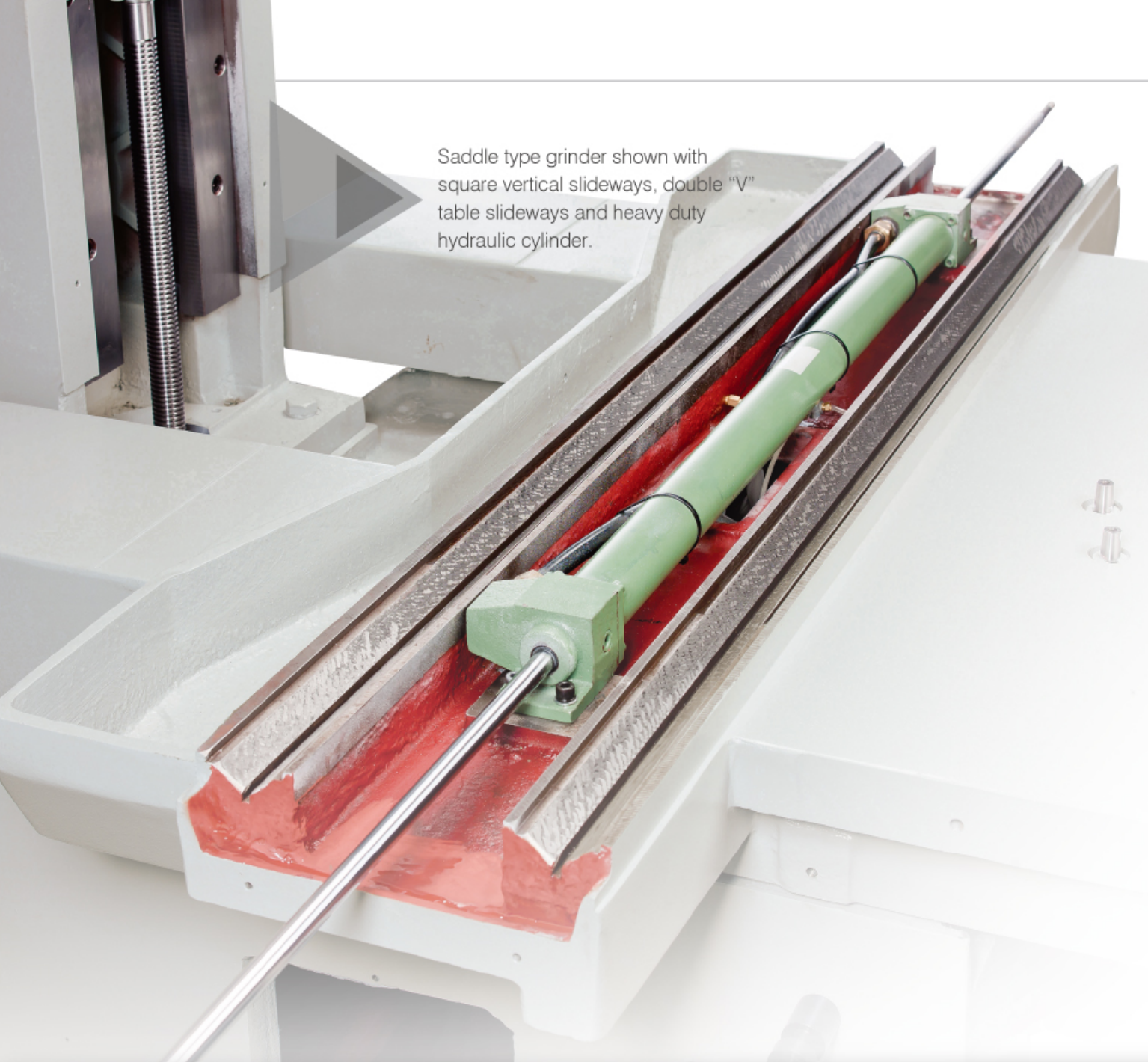
10 HP spindle motor (15 HP opt.)
20" x 40" grinding area
14" x 2" x 5" grinding wheel
PLC touch screen control (3 axes)
No table over hang
Auto lube system

SG-2A-2048 / SG-3A-2048

10 HP spindle motor (15 HP opt.)
20" x 48" grinding area
14" x 2" x 5" grinding wheel
PLC touch screen control (3 axes)
No table over hang
Auto lube system

SG-2A-2060 / SG-3A-2060

10 HP spindle motor (15 HP opt.)
20" x 60" grinding area
14" x 2" x 5" grinding wheel
PLC touch screen control (3 axes)
No table over hang
Auto lube system



Saddle type grinder shown with square vertical slideways, double "V" table slideways and heavy duty hydraulic cylinder.

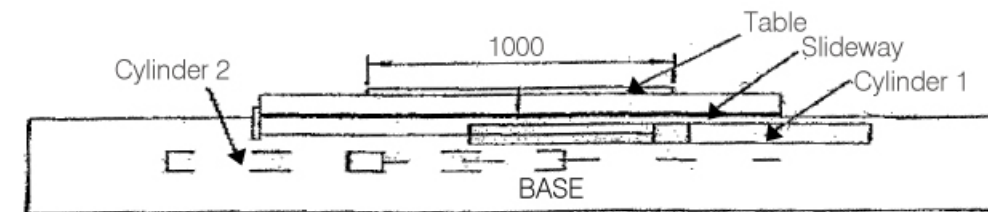


The extra large spindle casting allows for heavy duty grinding without deflection or thermal growth. A double seal design restricts coolant and dust from getting in between the spindle and housing.

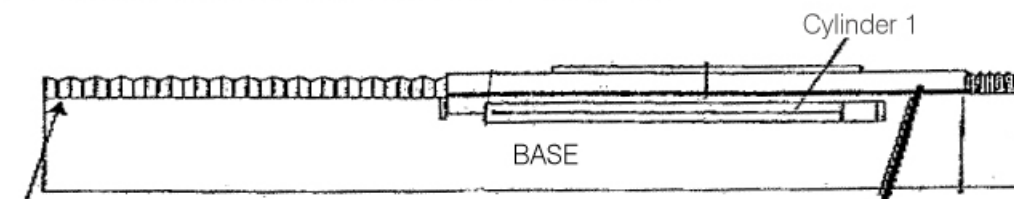


Hardened and ground square ways on the column of all models provide superior rigidity and repeatability on downfeed movements.

Zero Table Float Design on Column Type Surface Grinders



The dual hydraulic cylinder design of the column style grinder eliminates table floating, while reversing direction, thus improving machine accuracy and longevity.



Telescopic way covers prevent grinding dust and debris from getting into the longitudinal slideways.

An extended machine base on the column type grinder eliminates table overhang and prevents coolant from falling onto the floor.

Double "V" slideways on the table provide greater rigidity and more accurate longitudinal table movement.

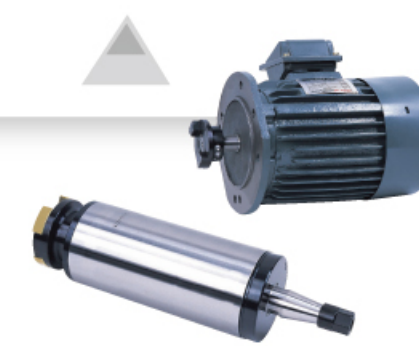
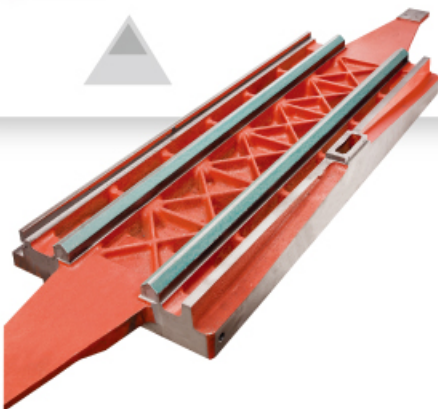
Precision ground and Turcite "B" coated. Extra wide double "V" ways on the cross slide to increase machine rigidity and grinding accuracy.

Column type base utilizes double "V" slideways on the table that are hand scraped and Turcite "B" coated for greater rigidity and smoother movement.

A stand alone hydraulic unit reduces thermal growth and machine vibration, resulting in more accurate parts and a better finish.

A direct drive spindle motor and cartridge type spindle with 4 class 7 spindle bearings are utilized for maximum rigidity and grinding accuracy.

The state of the art electrical components are arranged in the ergonomically laid out electric cabinet for easy maintenance.

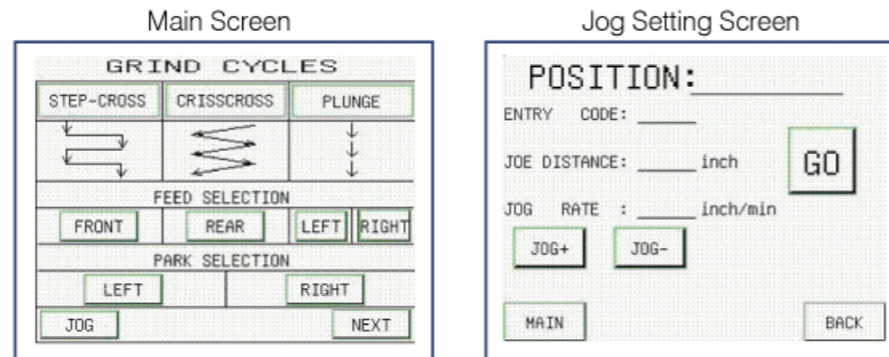


MACHINE CONSTRUCTION

Mitsubishi PLC control uses menu-driven LCD touch screen technology for simple operations. (3A Models only)

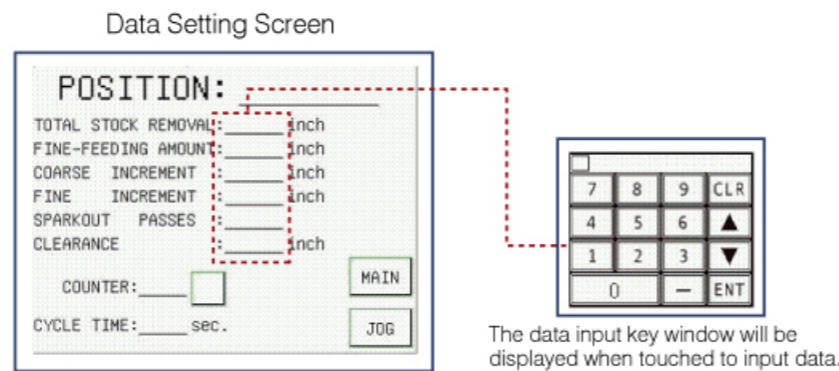
Step 1

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



Step 2

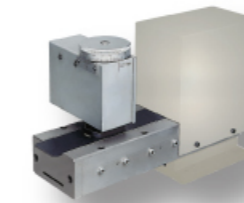
Fill in the blanks to set total stock removal, total fine grinding amount, rough increment, fine increment, spark-out passes & reset height, and press cycle start to complete automatic grinding cycle.



Optional Accessories



Electro Magnetic Chuck



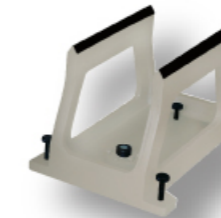
Auto-Parallel Dressing Attachment
2 Axes Full Auto
(Electrical Cross + Step Control Down)



Cross Micrometer Attachment
1 division on cross handwheel: 0.002mm
1 revolution on cross handwheel: 0.04mm

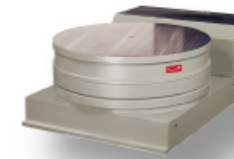


Inclinable Electro Magnetic Chuck



Level Type Wheel Balancer

Vertical Micrometer Attachment
1 division on vertical handwheel: 0.001mm
1 revolution on vertical handwheel: 0.01mm
For SG-1020 / 1224 / 1632



Round Electro Magnetic Chuck



Parallel Dressing Attachment

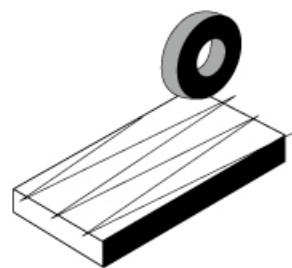


Wheel Flange

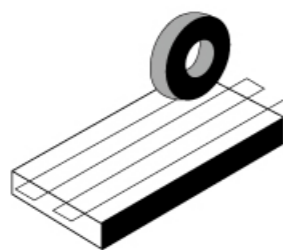
Standing Modes

The Finest Solution

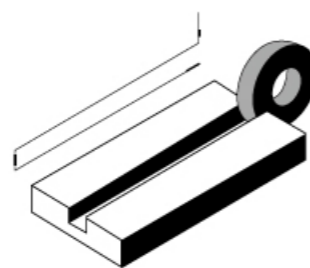
1. Semi-automatic mode



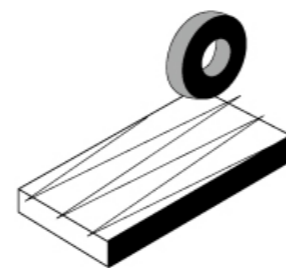
2. Surface mode



3. Plunge mode



4. Crisscross mode



Dust-Suction Cooling System



Automatic Paper Strip Filter
with/without Magnetic Separator



1. 1.7" Wheelhead
2. Wheel Balancer
3. Wheel Balancing Arbor
4. Wheel Flange
5. Table-mounted Diamond Dresser
6. Tools
7. Tool Box

For Manual Models



Cooling System



Cooling System with
Magnetic Separator



Punch Former



Radius and Angle Dresser