



Technology. Creativity. Reliability
An Unswerving Commitment to Excellence

Precision Automatic/Manual Surface Grinder AGS Series



SUPRA-618II



AGS-1224AHD



AGS-2060AHD

SUPRA-618AH II

HIGH PRECISION CARTRIDGE SPINDLE:

High precision cartridge type spindle is supported by 4 high precision preloaded angular contact ball bearings and is driven by V3 class motor that allows high accurate grinding performance.

HIGH ANTI-WEAR GUIDE WAYS:

The saddle rests on precision hand-scraped double V Turcite-B ways; the table rests on precision ball rolling ways. These guide ways are equipped with an auto lubrication system to resist premature wear and they are hand scraped or hardened & ground to 1/10,000" per 12".

HIGH RIGID CASTING CONSTRUCTION:

Machines are casted with high grade casting iron with heavy walls and reinforced ribs to provide excellent rigidity and damping.

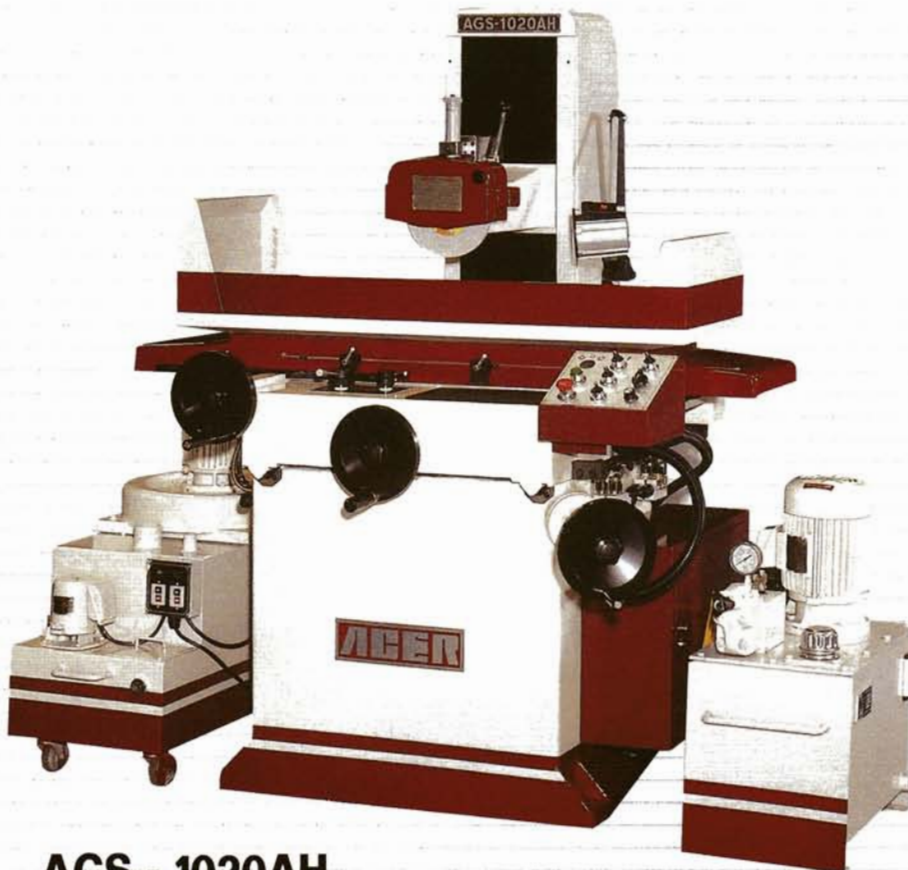
ENLARGED COLUMN AND BASE:

An enlarged column and base creates high stability and rigidity. The height of the column is increased up to 19.3" from table surface to the center line of spindle.

TABLE DRIVE: For handfeed models, the table drive makes use of cable which encloses high tensile steel cores that ensures more smooth table movement and longevity. The table handwheel can be indexed to 9 different positions without backlash for more convenient operation. (618AH II has hydraulic table.)



SUPRA - 618AH II



AGS - 1020AH

AGS-1020AH

1. 2 HP V-3 graded spindle motor.
2. 10" x 20" grinding capacity.
3. Double nut design on crossfeed leadscrew for continuous backlash adjustment. 2 axes automatic movement.
4. Safty 24 volt circuit control.
5. Auto lube system.
6. 22" wide double V crossfeed ways.
7. 2,970 lbs of full Meehanite casting.
8. 19-3/4" from table top to the center of spindle.
9. Package with parallel dresser, dust suction & coolant system, halogen light, and permanent magnetice chuck .

Precision Automatic Surface Grinder

AGS-1020AHD & AGS-1224AHD

1. Reinforced high column & heavy weight Meehanite casting.
2. Direct drive spindle equipped with 4 ABEC-7 angular contact ball bearing .
3. Spindle motor: 2 HP (1020AHD), 5 HP (1224AHD).
4. 1020AHD with 10"x20" grinding capacity: 1224AHD with 12"x24" grinding capacity.
5. 3 axes auto movement, easy to operate & maintain.
6. Auto surface & plunge downfeed .
7. Built-in chuck control for electromagnetic chuck. (1224AHD only)
8. 24 volt circuit control.
9. Double -V crossfeed ways; one V, one flat table ways.



AGS-1020AHD



AGS-1224AHD

10. Auto-lube system.
11. Dual hydraulic pump system: one each for auto incremental downfeed and table longitudinal travel.
12. Large volume hydraulic tank.
13. Rapid power elevation for 1224AHD.
14. Double nut design for crossfeed leadscrew.
15. 19 3/4" \ 23-1/2" from table top to the center of spindle.
16. 4,180 lbs of full Meehanite casting. (1224AHD only)
17. Extra wide saddle at 24-1/2" and 30 1/2" each.
18. Package with parallel dresser, dust suction & coolant system, halogen light and magnetic chuck.

ACER

Precision Automatic Surface Grinder

AGS - 1632AHD

Fully ribbed column ensure the highest rigidity.

Overhead parallel dresser.

Spindle run-out with 0.0001"

Cartridge type spindle with four class 7 high precision angular contact ball bearings

Complete splash guard.

Longitudinal push-in handwheel.

Bearing type directional control arm.

Double-V Turcite-B laminated saddle ways.

Ball screw on crossfeed.

Weight in impressive 6,160 lbs

Crossfeed driven by AC motor and timing belt.

Auto downfeed system increment from 0.0001"~0.001"

Levelling bolts and pads

Upper limit indicator.

Rapid elevation is standard.

Insert type coolant nozzle.

Hologen work light.

Electromagnetic chuck with demagnetizer.

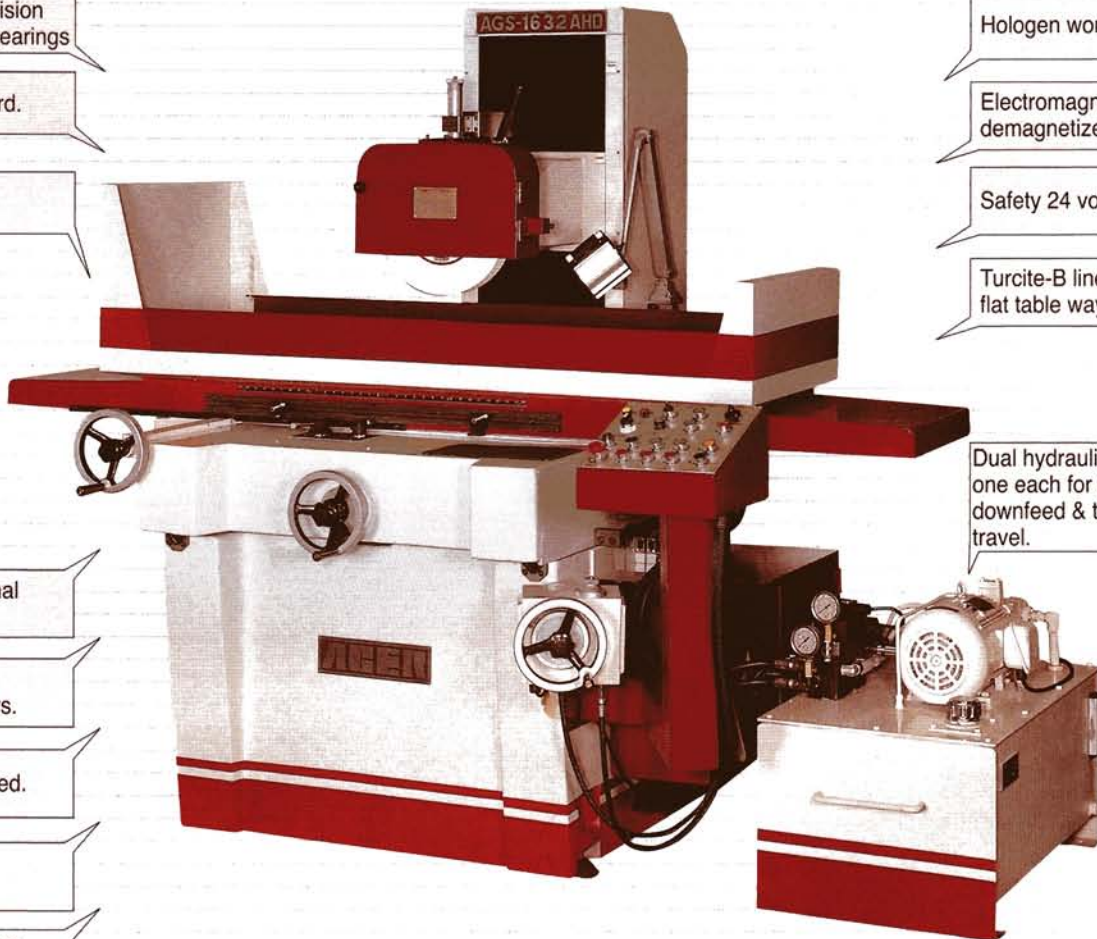
Safety 24 volt control circuit.

Turcite-B lined one V & one flat table way.

Dual hydraulic pump system: one each for auto incremental downfeed & table longitudinal travel.

Enlarged hydraulic tank to cut down thermal effect on hydraulic oil viscosity.

Separate electrical power cabinet, easy maintenance design.



Precision Automatic Surface Grinder

AGS - 2040AHD & AGS - 2060AHD

1. Column type movement machine.
2. One V and one flat table slideways are coated with Turcite-B.
3. Reinforced column with Meehanite cast iron allows for heavy duty grinding.
4. Double-V crossfeed ways are laminated with Turcite-B.
5. Recirculating auto lubrication system ensures all moving parts are properly lubricated.
6. Spindle uses four class 7 high precision angular contact ball bearing. They are sealed and greased for life.
7. Enlarged hydraulic tank with dual pump design allows for accurate downfeed and smooth table movement.

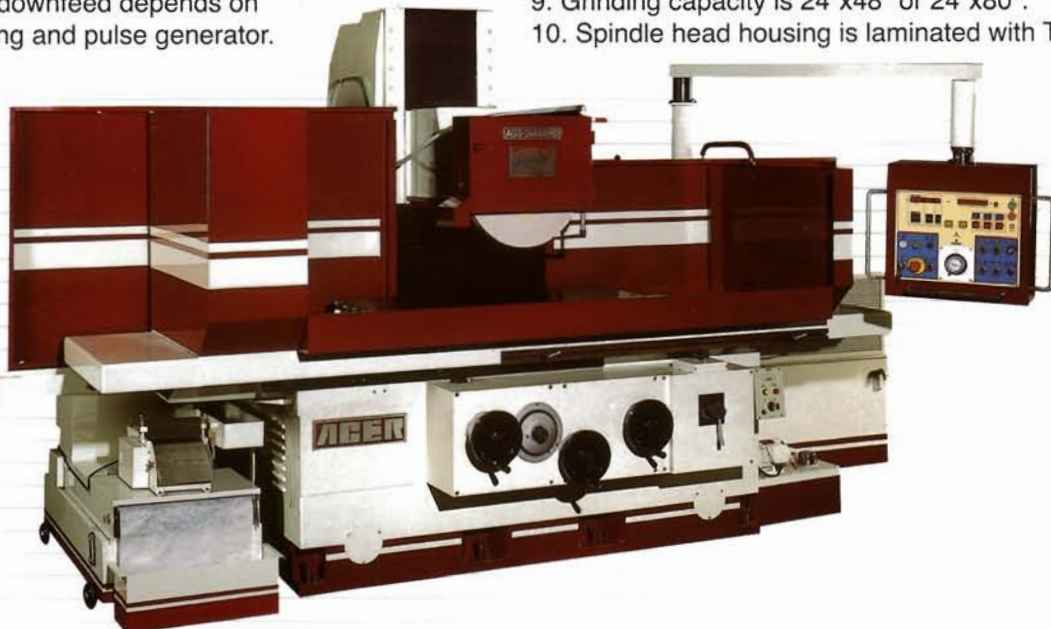


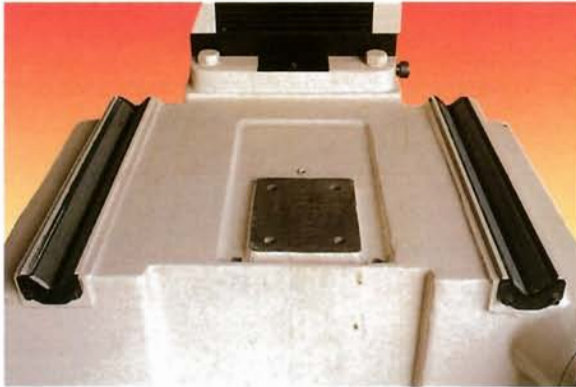
8. Hydraulic temperature is kept constant by a separated cooling system. This is to make sure oil temperature will not rise more than 20° over room temperature.
9. Mechanical downfeed design for easy maintenance.
10. V 3 graded 10 HP spindle motor
11. Maximum grinding capacity is 20"x40" or 20"x60".
12. Front setting crossfeed dials allows users to set work piece distance without moving away from control panel.

AGS - 2248AHD & AGS - 2480AHD

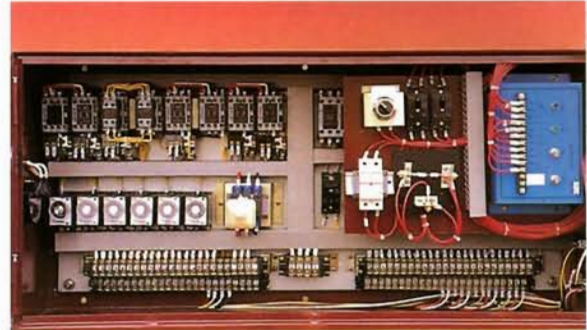
1. Japanese spindle motor 15 HP (20 optional).
2. Spindle center to table top: 33".
3. 3 axes auto movement with Microtend Z axis NC control.
4. Operation of manual downfeed depends on three step micro setting and pulse generator.

5. Hitachi PLC electronic control.
6. Ball screw for crossfeed travel.
7. Crossfeed and table have double "V" slide slideways.
8. Spindle with six close 7 super precision angular contact ball bearings.
9. Grinding capacity is 24"x48" or 24"x80".
10. Spindle head housing is laminated with Turcite B.

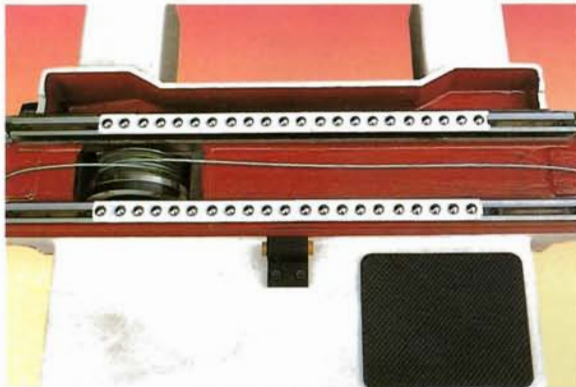




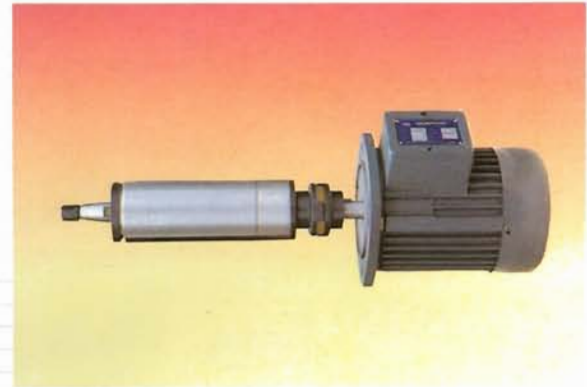
1. Coated with Turcite-B extra wide crossfeed double-V ways are essential for smooth surface grinding.



4. Electric cabinet is systematically laid out. All wires are color coated. Therefore it's most easy to maintain and repair.



2. Carefully selected steel balls (each ball is within 0.03 micron of each other) with retainers roll on hardened and ground slideways. Coupled with cable drive, table movement is smooth and easy.



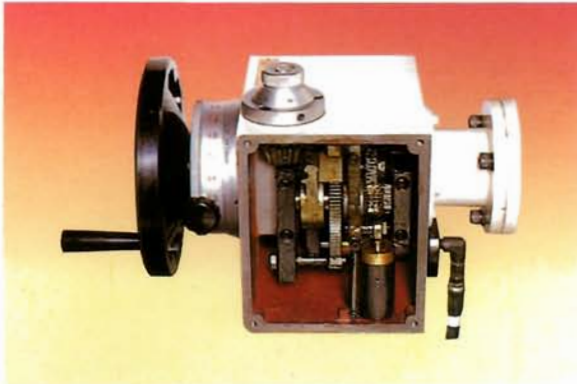
5. Direct drive spindle with V-3 graded motor is a must for heavy and precision grinding.



3. 24 volt control panel is laid out section by section. Easy for users to understand.



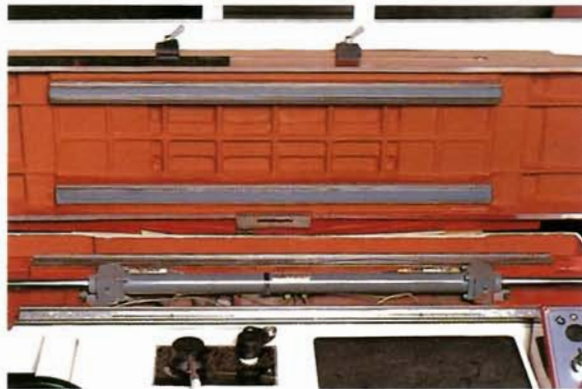
6. All AHD type hydraulic tank have dual pump design. It allows for accurate downfeed and smooth table movement.



7. Mechanical (paw type) downfeed system provides accurate downfeed from 0.0001" to 0.001" increment. Increment can be changed during grinding. This system is designed with simple operation and easy maintenance in mind.



10. Fully ribbed and reinforced column ensures the highest rigidity during heavy grinding.



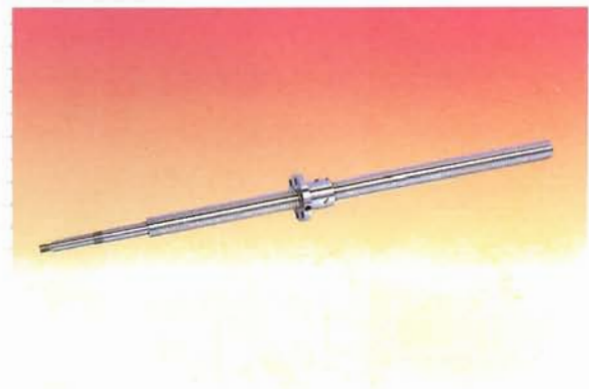
8. Longitudinal table slide way is one V and a flat (2448AHD have a double V design). They are laminated with "Turcite B" to obtain anti-friction movement.



11. Front mount flange type spindle on 2400 series allows for heavy duty grinding. Six super precision angular contact ball bearing is a standard feature.



9. Recirculating auto lubrication system for all contacting surfaces and leadscrews. (Column type machine only).



11. For model 1632 and above, all crossfeeds have installed with ball screw. Thus no backlash is detected on this axis.

Specifications

ITEMS		MODEL	SUPRA-618 II	SUPRA-618AH II	AGS-1020 AH,AHD	AGS-1224 AHD	AGS-1632 AHD	AGS-2040 AHD	AGS-2060 AHD	AGS-2448 AHD	AGS-2480 AHD
Working surface of table (W x L)		6" x 8"	9" x 20"		11" x 23"		16" x 32"	20" x 40"	20" x 60"	24" x 48"	24" x 79"
Max. grinding (W x L)											
Max. table travel		18-29/32"		20-1/2"	24-1/2"	33-1/16"	44"	64"	52"	83"	
Max. crossfeed travel		6-22/23"		11"	14"	18"	22"		24-1/2"		
Distance between table surface and spindle center		19-5/16"		19-1/4"	23-1/2"	25"	23-5/8"		33"		
Variable table speed by oil cylinder		-	60 Hz, 16-80 ft/min		16~80 fpm						
Automatic crossfeed carriage movement		-	0.07"~0.4"		0~1"						
Downfeed handwheel dial	Per graduation	0.0001"		0.0005"		0.00025"		0.0001"		-	
	Per revolution	0.05"		0.1"		0.05"		0.02"		-	
Crossfeed handwheel dial	Per graduation	0.0005"		0.001"							
	Per revolution	0.2"		0.2"							
Auto downfeed micro adjustment dial	Per graduation	-		0.0001"			0.0002"		0.0001"		
	Per revolution	-		0.01"			0.02"		-		
Longitudinal travel from-to (AH,AHD)		20-3/4"		6~20"	6~24"	6~32"	6~40"	6~60"	6~48"	6~79"	
Crossfeed travel from-to (AH,AHD)		7-3/32"		0~10"	0~13"	0~19"	0~21"		0~24-1/4"		
Spindle motor		3 HP		2HP x 2P	5HP x 4P	7.5HP x 4P	10HP x 4P		15HP x 6P (20HP Opti0nal)		
Hydraulic pump motor		-	1 HP x 6P	2HP x 4P		3HP x 6P	5HP x 6P			7.5HP x 6P	
Auto crossfeed motor		-	1/2 HP x 6P	1/5HP x 6P			1/4HP x 6P				
Auto downfeed motor		-		-		-	-		400W DC servo motor		
Grinding wheel (O.D. x T x I.D.)		8" x 3/4" ~ (1") x 1~1/4"		8"x1-1/4"x1/2"(3/4)	14"x5"x1-1/4"(1/2)	14" x 5" x 2"	16" x 5" x 2"		20" x 5" x 2"		
Rotation speed of spindle (Horizontal)		3,450rpm / 60Hz		3,500rpm / 60HZ	1,750rpm / 60HZ				1,150rpm / 60HZ		
Flow rate of coolant pump		-		40L / min							
Max. load capacity in addition to magnetic chuck (lbs)		-		700	1,000	1,300	2,200	2,500	2,645	3,300	
Machine weight (lbs)	Net	1,690	1,950	2,970	4,180	6,160	11,000	12,100	15,070	18,700	
	Gross	1,910	2,100	3,510	4,840	7,260	13,200	14,300	16,500	21,340	
Packing dimension (LxWxH)		58"x44"x77"		67"x82"x83"	67"x84"x89"	107"x88"x90"	148"x88"x88"	183"x88"x88"	138"x119"x103"	323"x119"x103"	

Note: The manufacture reserves the right to modify the design, specifications, mechanisms, etc. to improve the performances of machine without notice.
All the specifications shown above are for reference only.

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