

ACER

Technology • Creativity • Reliability
An Unswerving Commitment to Excellence

AGS SERIES High Precision Surface Grinder



ACER

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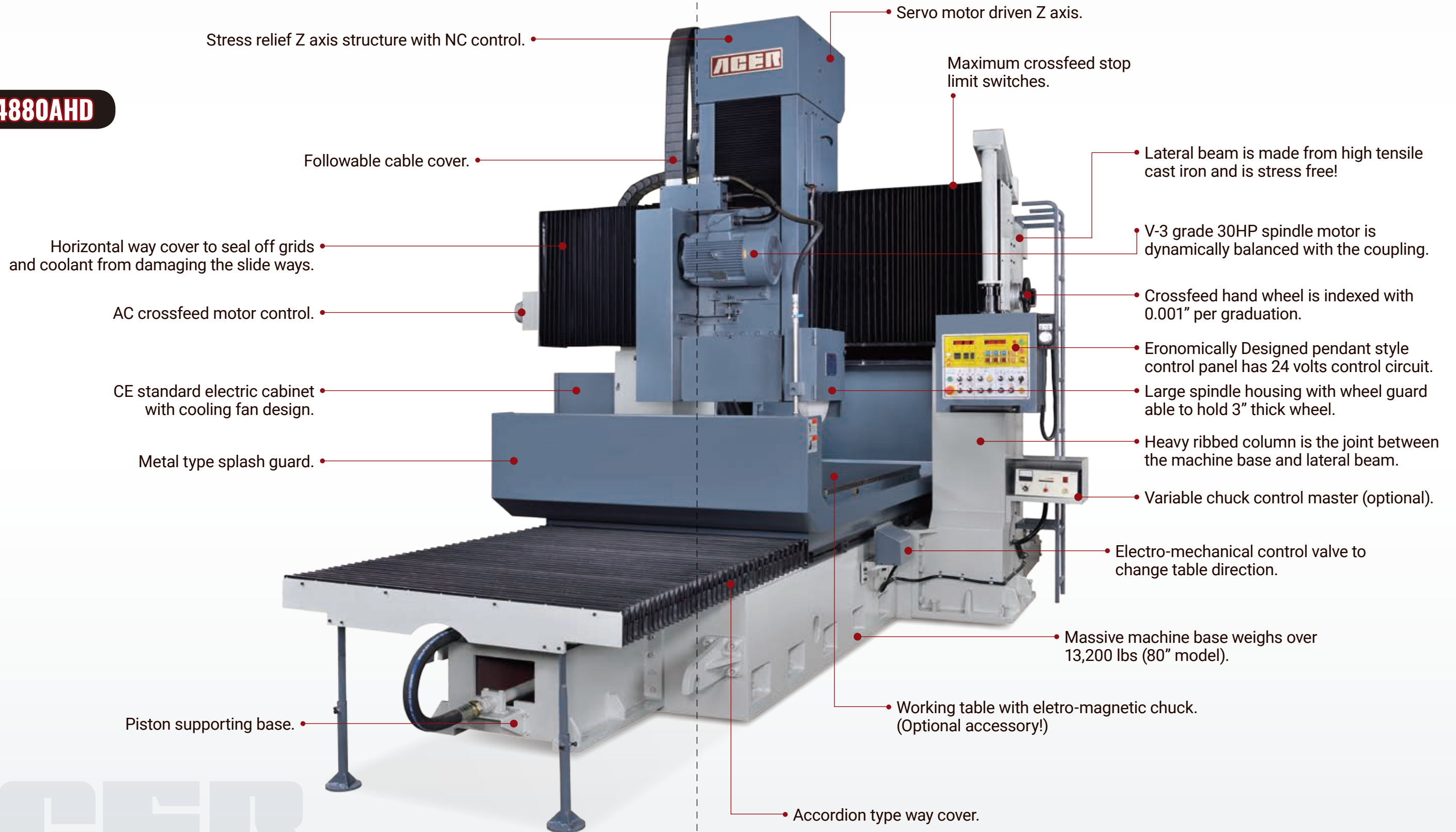
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AGS-4880AHD



Stress relief Z axis structure with NC control.

Servo motor driven Z axis.

Maximum crossfeed stop limit switches.

Followable cable cover.

Lateral beam is made from high tensile cast iron and is stress free!

Horizontal way cover to seal off grids and coolant from damaging the slide ways.

V-3 grade 30HP spindle motor is dynamically balanced with the coupling.

AC crossfeed motor control.

Crossfeed hand wheel is indexed with 0.001" per graduation.

CE standard electric cabinet with cooling fan design.

Ergonomically Designed pendant style control panel has 24 volts control circuit.

Metal type splash guard.

Large spindle housing with wheel guard able to hold 3" thick wheel.

Heavy ribbed column is the joint between the machine base and lateral beam.

Variable chuck control master (optional).

Electro-mechanical control valve to change table direction.

Massive machine base weighs over 13,200 lbs (80" model).

Piston supporting base.

Working table with eletro-magnetic chuck. (Optional accessory!)

Accordion type way cover.

HIGH PRECISION SURFACE GRINDER

AGS T48160PNC



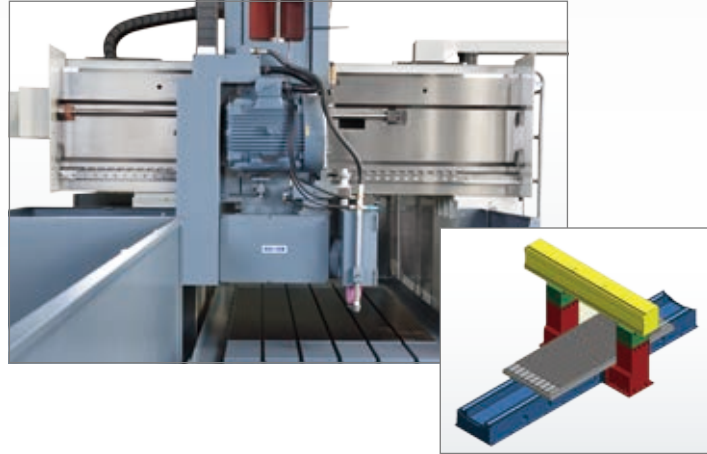
AGS 4880PNC



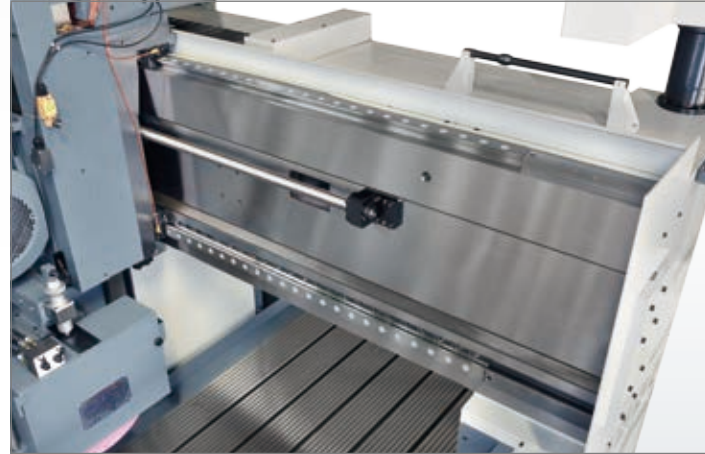
** Picture shown with custom designed splash guard system.*

AGS 4860PNC





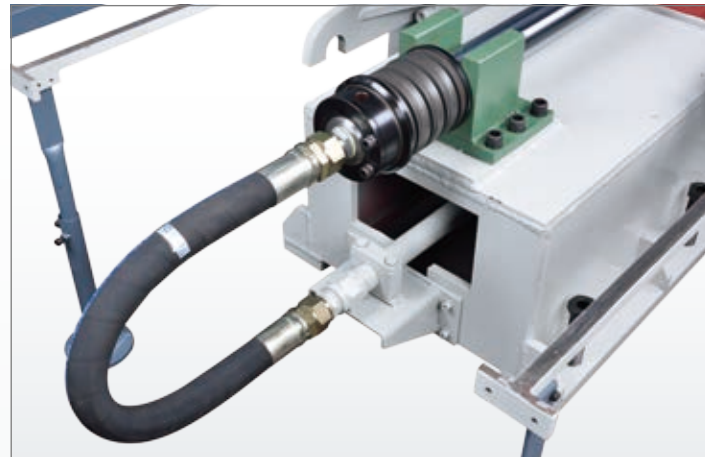
This double column type surface grinder has two columns, a lateral beam and a massive machine base. They are connected together by screws, and their outside appearance looks like a square shape. This design has a fixed height lateral beam. This means the only moving part is the Z axis with the spindle housing assembly. Since there is no lateral head movement and deflection of the lateral beam is eliminated, accurate grinding can be achieved.



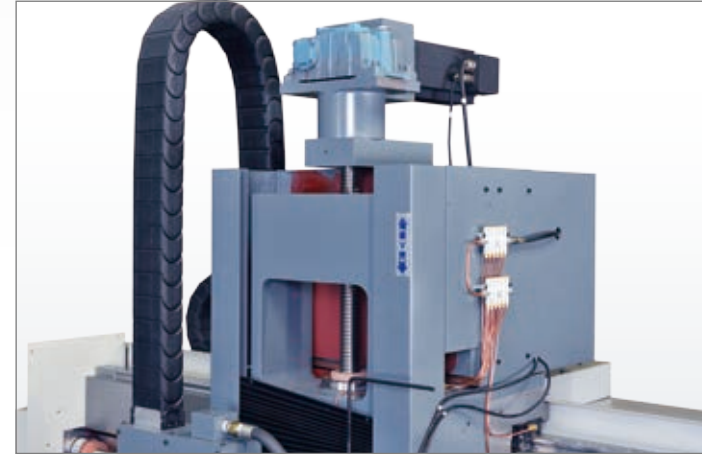
This lateral beam has a high intensive structure, fine ground by a precision grinder, which joins with Japanese made linear guideways for heavy pressure support. Crossfeed movement is driven by a ball screw using an ABB servo motor as the power source. The resulting motion is very smooth and steady given this type of design on the axis. The traversing distance of the crossfeed is controlled by a pre-programmed PLC, and its traversing distance is set by using the switches (touch panel on the PNC model) on the control panel. No manual or mechanical setting is involved.



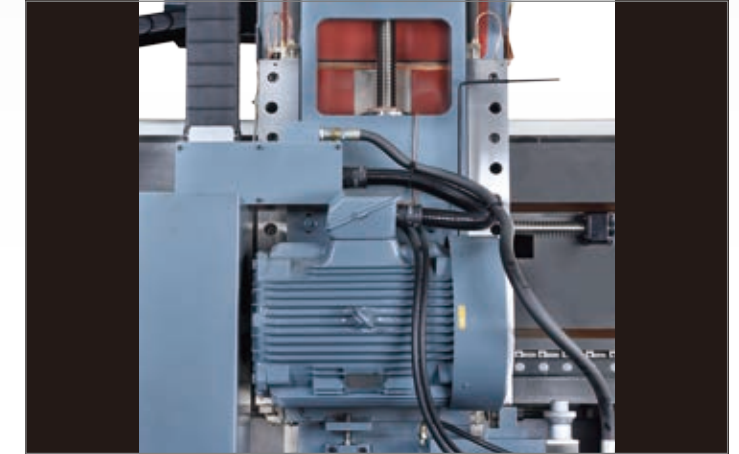
The machine has double-vee slideways, which are precisely ground and scraped to the desired specification. With this design, movement of the table will hold in its linear location whenever it is in motion. This is especially true when using this grinder for side grinding as the grinding table is rock solid and swerves less. The total length of the Vee ways is twice as long as the maximum grinding distance. This design philosophy will prevent radial movement on the table.



The table is driven by a hydraulic system. The cylinder of the system is fixed on the table and the piston is secured on the machine base. With this reversing technology, the table runs smooth and sound. On the ends of the piston, there are sets of German-made cushion springs and rubber couplings to reduce traversing pressure. This design completely eliminates any shocking motion on both table ends.



The Z axis main control element is an ABB servo motor. This motor, coupled with a gear reducing box, can drive the spindle up and down within 2/10,000" of an inch. This axis is one of the axes controlled by the NC system, and it is supported by a high precision ball screw. All movement of the axis can be precisely set and calculated. An individual lubrication pump lubricates the ball screw and the supporting Z axis slideways.



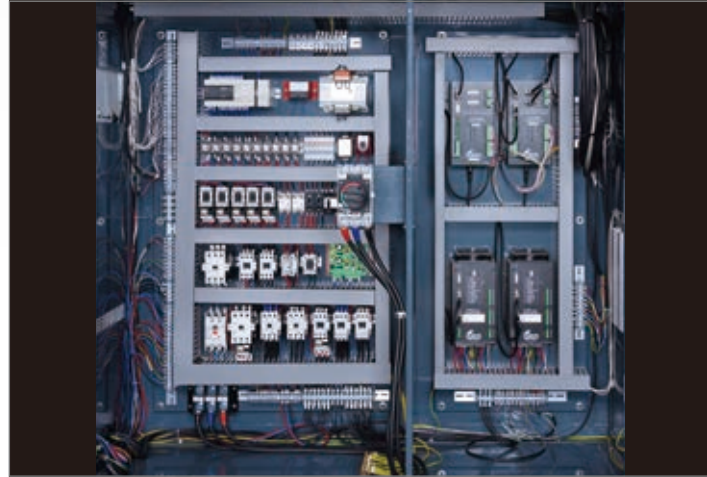
Another feature on the Z axis is its six position adjusting gibs which holds in place the spindle housing. All gibs are coated with German made Guarniflon (Type of Teflon). Movement of the axis is very precise and accurate since the gibs slide against the hardened and ground slideways, and are auto lubricated to reduce friction and loss motion. To adjust the squareness of the spindle, simply adjust the tapered gibs to get the desired result. (Both of the vertical and horizontal grinding head have the same gib adjustment system.)



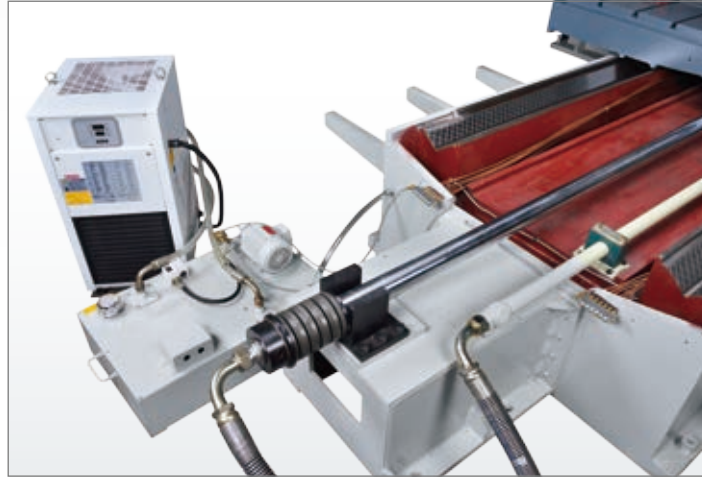
The spindle assembly is the heart of this grinder. It uses three pairs of preload, super precision angular contact ball bearings that are completely sealed with high quality grease. Even under heavy duty grinding, the spindle will remain quiet and maintain high accuracy and low temperature. The typical spindle run-out is under 0.00012".



A common problem with grinders is that the oil of the hydraulic system can heat up and change the table's dynamic structure and hence the grinding accuracy of the machine. ACER double column grinding machine is equipped with an oil cooling regulating system that is able to keep the oil temperature within a specified range. Consequently, the grinder's accuracy is maintained.



The electrical cabinet is separated into two compartments. On the right is the high voltage power control and on the left is the low circuit control voltage. This separation permits easy trouble-shooting on electric issues and troubles. The cooling fans on the left side of the cabinet reduces the inside temperature to keep the electrical control running smoothly and quietly.



The lubrication tank has an automatic circulatory system design. An adjustable flow-rate valve permits suitable lubrication to reach the desired location. Lubrication of the table and base is through oil forced through grooves from the top to the bottom of the slideways. This allows the ways to maintain a film of oil to reduce friction and help the table glide smoothly and firmly. A regulating oil cooling system is also connected. Its sole function is to maintain lubrication oil temperature. A deviation of lubrication oil temperature will reduce the grinder's grinding accuracy.



The AHD Control voltage on the panel is 24 volts. The location of the switches is designed to be clear and convenient for the operator. Micro-computer and machinery power switches are lined up separately. Two different colors are used to identify switches and each switch is engraved with a simple graph to show its function. This allows the operator to learn the operation quickly and easily. The heart of the control is the PLC controller. This controller separates the machinery circuit and microprocessor circuit to prevent circuit noise coming from the power circuit that interrupts the microprocessor control circuit. The functions of the machine are laid-out section by section to make machine operation easy to learn and understand.



PNC control panel use one centralized Numerical Control design. Our PLC base NC system incorporates all common grinding operations on the control panel. The operations are cam cycle, simple to operate, easily accessible and very flexible. NC parameters are set via simple numerical selection on the control panel. Operation of the grinder does not require complex program learning. It is just as easy and agile as operating a smaller machine.

Note *There are different versions of the PNC controller. Photos show three types only!*



All spindle motors used are Japanese made V3 grade high torque motors. These motors are thoroughly tested with dynamic balance inspections. After a long period of operation, they are still capable of maintaining low noise and low vibration with high stability movement to provide an accurate grinding power source.



The Hydraulic system uses a precise electrical circuit to control the proportional hydraulic valve, and it is operated right on the control panel. The operator can adjust the table speed effortlessly and increase working efficiency. The hydraulic tank temperature is controlled by an oil cooling system. The cooling system stabilizes the oil temperature even after long hours of usage. It is guaranteed to assist on grinding accuracy and reduce wear on the hydraulic components within the system.

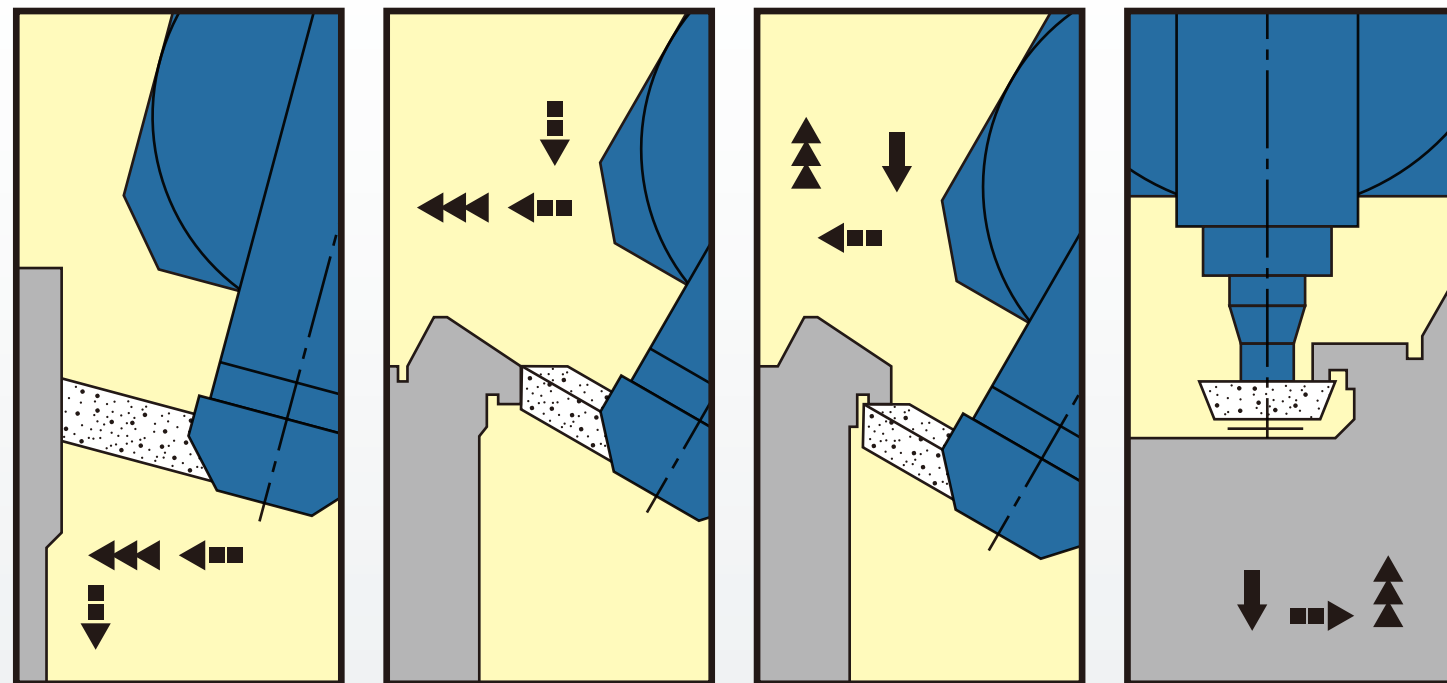
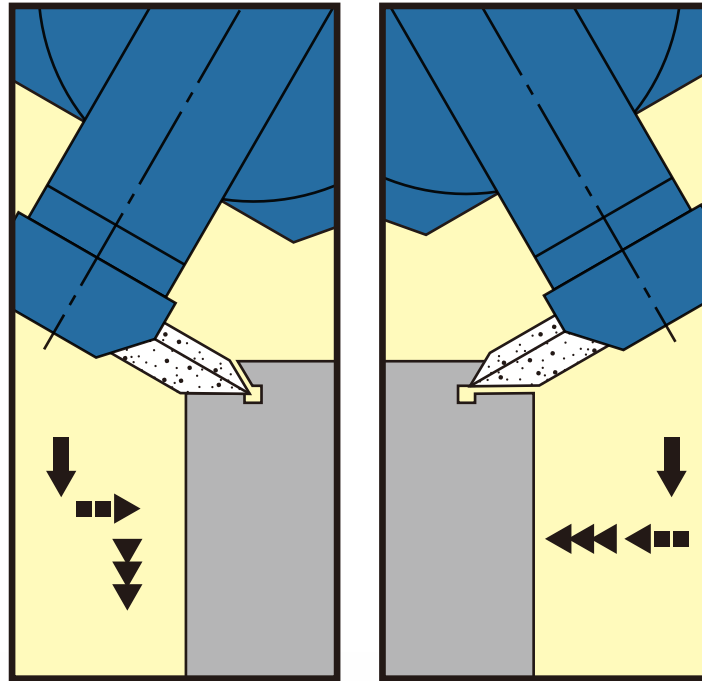
UNIVERSAL (VERTICAL) GRINDING HEAD

Operation Example of the Universal Grinding Head

- Angle swivel of universal grinding head is driven by precisely paired leadscrew and worm gear. It can swiftly turn the wheel head inside $\pm 90^\circ$, which is very convenient for forming grinding processes.
- Vertical feeding collaborates with cross movement of the wheel head to achieve the surface and form grinding.

Please see below drawing displays for vertical grinding applications.

- ← Rapid Wheel Head Travel
- ↔ Automatic Incremental Crossfeed
- ⏏ Automatic Incremental Downfeed



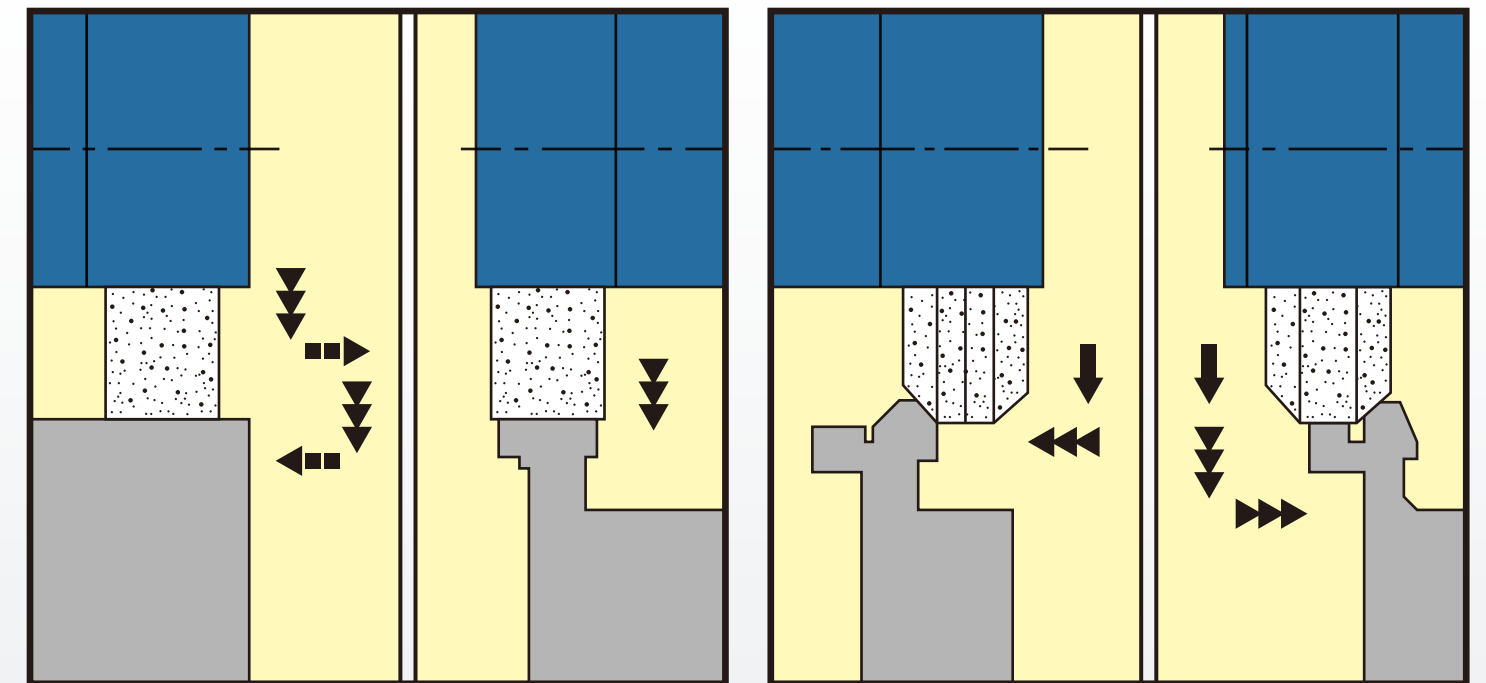
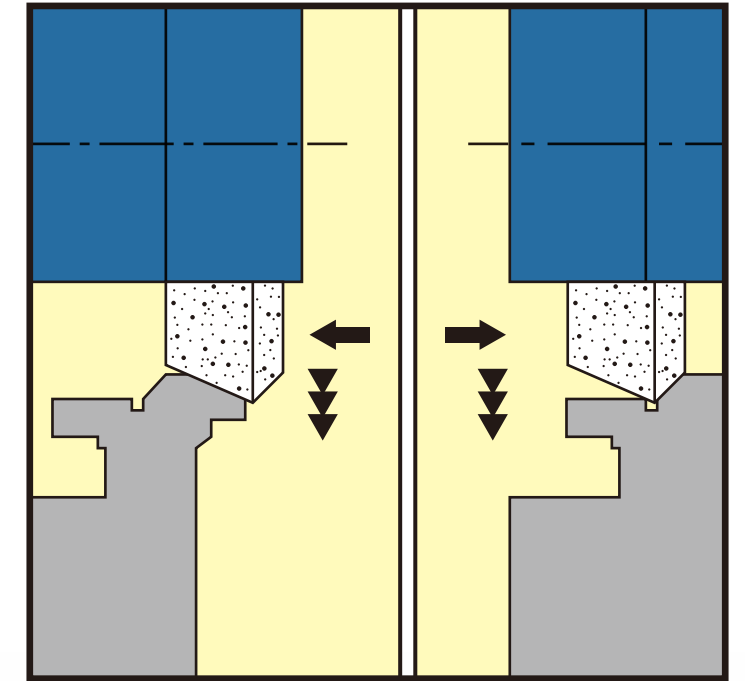
HORIZONTAL GRINDING HEAD

Operation Example of the Horizontal Grinding Head

- Operation of horizontal grinding wheel can work together with special wheel diamond dressers to make surface, slot and different types of form grinding easily.

Please see below drawing displays for horizontal grinding applications.

- ← Rapid Wheel Head Travel
- ↔ Automatic Incremental Crossfeed
- ⏏ Automatic Incremental Downfeed



AGS 2040AHD

Overhead parallel dresser for quick grinding wheel dressing.

V-3 graded 10HP spindle motor.

Pendant type double-joint control panel.

Column traversing type machine.

Coolant flow control valve.

Mechanical downfeed design with handwheel for easy maintenance.

Enlarged hydraulic tank with dual pump design allows for accurate downfeed and smooth table movement. Hydraulic temperature is kept constant by a separated cooling system. This is to ensure oil temperature will not rise more than 20° over ambient temperature.

Reinforced column walls with Meehanite cast iron allow for heavy duty grinding.

Spindle-housing countering balancing design to ensure accurate downfeed increment.

Spindle uses four Class 7 precision angular contact ball bearings. They are sealed and greased for life.

Intermittent lubrication pump for extra Z axis lubrication.

Splash guard attachment.

Electro-magnetic chuck to secure workpiece.

One piece table casting.

Lubrication oil collecting trays for table motion.

Coolant system with magnetic separator and paper filter.

Panel setting crossfeed mechanism allows users to set workpiece length without moving away from control panel.

Downfeed counter maximum at 999 times.

Maximum grinding capacity is 20"x40" or 20"x60" for model AGS 2060AHD.

Proximity sensor switches for reversing table movement.

Recirculating auto-lubrication system ensures all moving parts are properly lubricated.

13 set leveling screws and pads for precision leveling.

One piece base casting for rigidity and stability.

Flow control valve to control table speed.

Crossfeed with ball screw design increases positioning accuracy.

Crossfeed handwheel for manual movement.

HIGH PRECISION SURFACE GRINDER

AGS 2040SD



AGS S2460AHD



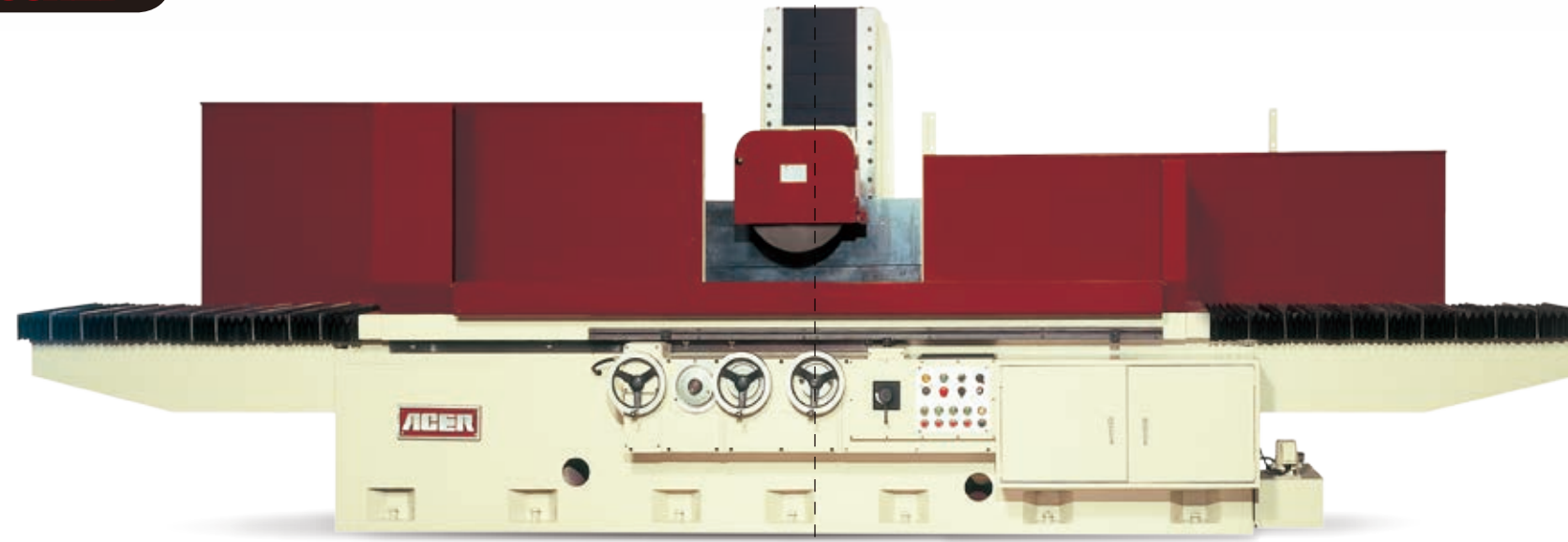
AGS 2060AHD



AGS 2448AHD



AGS 2480AHD



AGS 3488PNC



AGS 3468AHD





Economic Type AHD for All-Purpose Grinding Control Panel Display (For AGS 2040AHD to AGS S2060AHD)

- Hang type control panel with dual rotational hinge allows for easy operation.
- All gears and shafts are heat treated and hardened to ensure long-serving life.
- 10-steps vertical feed micro-adjustment from 0.0002"~0.002". (0.002~0.02mm).
- Number of vertical feed times can be set from 1~999 times.
- Cross feed travel limits can be set and adjusted from control panel.



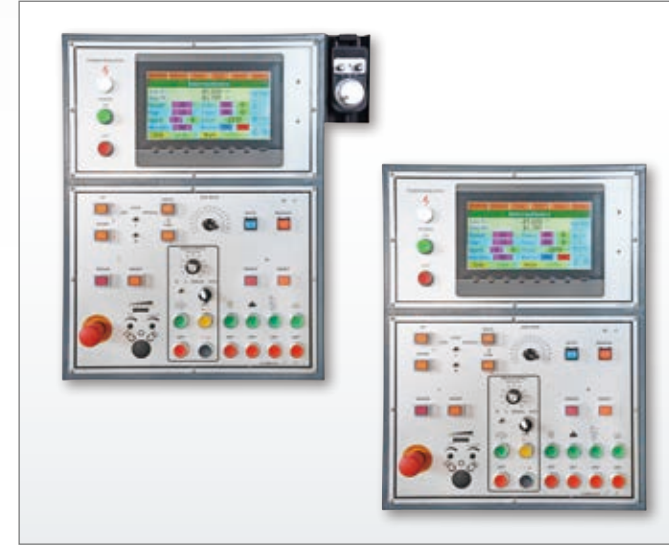
SD Type with High Precision Grinding In mind Control Panel Display (For AGS 2040SD to AGS S2460SD)

- Numerical Control system that utilizes AC servo motor on vertical downfeed.
- LED display on control panel enables accurate grinding wheel positioning.
- Automatic cross feed travel limits can be set via control panel.
- Complete grinding cycle with rough, fine and spark-out programmed.
- Multiple vertical feed modes:
A. Automatic B. Manual C. Micro Pulse Generator.



Sophisticated Type AHD for General Purpose Grinding with Heavy-Cut Control Panel Display (For AGS 2448AHD to AGS 34188AHD)

- Numerical Control system that utilizes AC servo motor on vertical downfeed.
- Encoders are equipped on servo motors and high precision ball-screw ensures superior sensitivity and accuracy of grinding wheel positioning.
- Automatic cross feed travel limits can be set via control panel.
- Multiple vertical feed modes:
A. Automatic B. Manual C. Micro Pulse Generator.



Luxury PNC Type for Heavy Duty and High Precision Grinding Requirement Control Panel Display (For AGS 2448PNC to AGS 34188PNC)

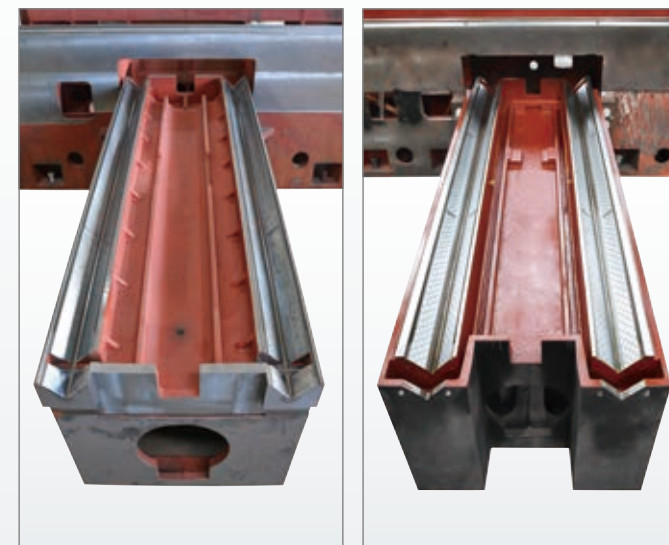
- Numerical Control system that utilizes AC servo motors on both the vertical feed and cross feed.
- The panel uses a 10" industrial grade color LCD touch screen with full water/mist proof protection allows easy operation on various grinding applications.
- Automatic cross feed travel limits can be set via control panel.
- Multiple vertical feed modes:
A. Automatic B. Manual C. Micro Pulse Generator.

Note *MPG is an option. For more explanation, please review double column grinder section.*



Machine Column

- Enhanced box-type double-wall structure ensures machine's rigidity and grinding accuracy. (24" series is an option!)
- Hydraulic weight balancing assists and relieves the unbalancing load on vertical axis' ball screw. It ensures the sensitivity and accuracy of the vertical feed, as well as extending the life-span of the servo motor and its ballscrew.



Machine Base Working Crossfeed Slideway: Double-Vee for AGS 2040AHD to AGS 34188PNC models

- Deploy low friction German made Guarniflon (Type of Teflon) to ensure smooth and stable column movements.
- PLC unit allows swift and precise crossfeed setting.



Table Working Table Slideway: one Vee, one Flat for AGS 2040AHD to AGS S2460SD models

- Utilize low friction German made Guarniflon (Type of Teflon) to ensure smooth and stable saddle movements.
- PLC unit allows swift and precise crossfeed setting.



Table Working Table Slideway: Double-Vee for AGS 2448AHD to AGS 34188PNC models

- Use low friction German made Guarniflon (Type of Teflon) to ensure smooth and stable saddle movements.
- Newly designed hydraulic system with solenoid valve actuation allows for steady and smooth working table movement, with step-less speed adjustment from 16~80ft/min (5~25M/min).
- Proximity sensor switches trigger table reversing to reduce noise compared to full mechanical reversing.

Note *MPG is an option.*



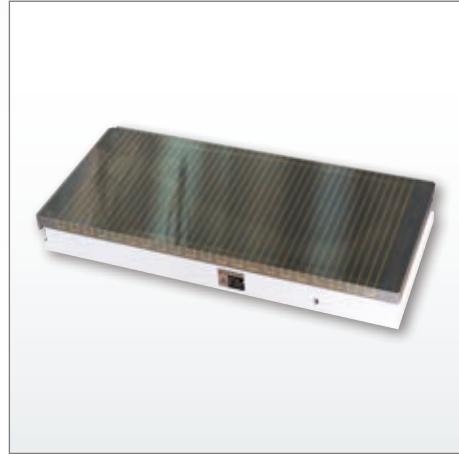
Spindle and Motor Assembly

- High precision in-house assembled cartridge type spindle, that uses 2-pairs of super precision P4 grade angular ball bearings, sealed with permanent lubrication. (24" and up have 3 pairs of super precision angular contact bearings.)
- This structural superiority enables the spindle to grind with low noise, low heat deviation, and higher precision.
- V3 grade motor is integrated with spindle set via couplings for direct transmission, to obtain maximum torque and diminishing vibration.

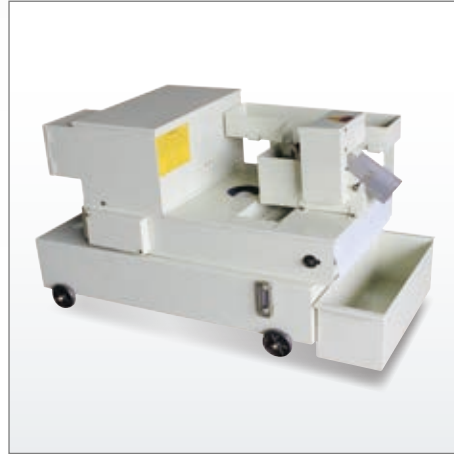


Lubrication System

- Automatic lubrication system circulates the lubrication oil throughout the machine and only needs to be added if the oil level gauge is below the low level line when it is stationary.



Electro-magnetic Chuck



Coolant System with Magnetic Separator and Paper Filter



Coolant System with Magnetic Separator



Punch Former



Precision Vise



Manual Pulse Generator



Hydraulic Parallel Dresser



Micro Adjusting Angle Forming Attachment
Only for Double Column Type!



Auto Locking System for Angular Turning of Vertical Head
Only for Double Column Type!



Spindle Speed Inverter



Roller Type Balancing Stand



Radius and Angle Dresser



Wheel Flange



Overhead Parallel Dresser



Digital Readout System

STANDARD ACCESSORIES | ▶

- Wheel Flange
- Wheel Flange Extractor and Spindle Nut
- Balancing Stand and Arbor
- Grinding Wheel
- Leveling Screws and Pads
- Auto-lubrication System
- Diamond Dresser
- Tool Box with Tools
- Work Light
- Touch-up Paint
- Operational Manual

HIGH PRECISION SURFACE GRINDER



SPECIFICATIONS

Double Column Surface Grinder

| Model | AGS-4860 | AGS-4880 | AGS-48100 | AGS-48120 | AGS-48160 | AGS-T4880 | AGS-T48120 | AGS-T48160 | AGS-T48200 | AGS-T48240 |
|--|---|----------------------------|-----------------------------|-----------------------------|-----------------------------|---|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC |
| Working Surface of Table (W×L) | 1200×1500mm 47.3"×59.1" | 1200×2000mm 47.3"×78.7" | 1200×2500mm 47.3"×98.5" | 1200×3000mm 47.3"×118.2" | 1200×4000mm 47.3"×157.5" | 1200×2000mm 47.3"×78.7" | 1200×3000mm 47.3"×118.2" | 1200×4000mm 47.3"×157.5" | 1200×5000mm 47.3"×196.9" | 1200×6000mm 47.3"×236.3" |
| Max. Grinding Surface (W×L) | 1300×1600mm 51.2"×63" | 1300×2100mm 51.2"×82.7" | 1300×2600mm 51.2"×102.4" | 1300×3100mm 51.2"×122.1" | 1300×4100mm 51.2"×161.5" | 1300×2100mm 51.2"×82.7" | 1300×3100mm 51.2"×122.1" | 1300×4100mm 51.2"×161.5" | 1300×5100mm 51.2"×200.8" | 1300×6100mm 51.2"×240.2" |
| Max. Horizontal Travel of Table | 1700mm 66.9" | 2200mm 86.6" | 2700mm 106.3" | 3200mm 126" | 4200mm 165.4" | 2200mm 86.6" | 3200mm 126" | 4200mm 164.4" | 5200mm 204.8" | 6200mm 244.1" |
| Distance Between Two Columns | 1600mm / 63" | | | | | 1600mm (1900mm Opt.) 63" (74.8" Opt.) | | | | |
| Distance Between Table Surface and Spindle Center (H.AXLE) | 950mm / 37.4" | | | | | 1150mm / 45.3" | | | | |
| Distance Between Table Surface and Wheel Top (V.AXLE) | - | | | | | 750mm / 29.6" | | | | |
| Inclination of Universal Head | - | | | | | ±90° | | | | |
| Table Speed | 5~25 M/min (16~80 fpm) | | | | | 5~25 M/min (16~80 fpm) | | | | |
| Automatic Crossfeed of Spindle Seat (60HZ) | 0~25 (0~1") | | | | | 0~25 (0~1") | | | | |
| Downfeed Handwheel Minimum Scale | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | |
| Crossfeed Handwheel (1 gra) min. Scale (PNC) | AHD: 0.02mm (0.001") PNC: 0.005mm (0.0002") or 0.002mm (0.0001") | | | | | AHD: 0.02mm (0.001") PNC: 0.005mm (0.0002") or 0.002mm (0.0001") | | | | |
| Crossfeed Handwheel (1 rev) Pulse Handle (PNC) | - | | | | | - | | | | |
| Longitudinal Travel Adjustable (from~to) | 200~1700mm 7.9"~66.9" | 200~2200mm 7.9"~86.6" | 200~2700mm 7.9"~106.3" | 200~3200mm 7.9"~126" | 200~4200mm 7.9"~165.4" | 200~2200mm 7.9"~86.6" | 200~3200mm 7.9"~126" | 200~4200mm 7.9"~165.4" | 200~5200mm 7.9"~204.8" | 200~6200mm 7.9"~244.1" |
| Crossfeed Travel Adjustable (from~to) | 50~1400mm 1.97"~55.2" | | | | | 50~1400mm (50~1700mm Opt.) 1.97"~55.2" (1.97"~66.9" Opt.) | | | | |
| Spindle Motor (H.AXLE) | 20HP×4P (30HP×4P Opt.) | | | | | 20HP×4P (30HP×4P Opt.) | | | | |
| Spindle Motor (V.AXLE) | - | | | | | 10HP×4P (15P×4P Opt.) | | | | |
| Hydraulic Pump Motor | 15HP×6P | | | 20HP×6P | | 15HP×6P | 20HP×6P | | 30HP×6P | |
| Crossfeed Motor | AHD: 1/4HP×6P / PNC: AC SERVO | | | | | AHD: 1/4HP×6P / PNC: AC SERVO | | | | |
| Downfeed Motor | AC SERVO | | | | | AC SERVO | | | | |
| Grinding Wheel (OD×T×ID) | 510×50×127mm or 510×75×203.2mm 20"×2"×5" or 20"×3"×8" | | | | | 510×50×127mm or 510×75×203.2mm 20"×2"×5" or 20"×3"×8" | | | | |
| Grinding Wheel (OD×T×ID) (V.AXLE) | - | | | | | 405×50×127mm / 16"×2"×5" | | | | |
| Spindle Speed 60/50HZ (H.AXLE) | 1250 RPM | | | | | 1250 RPM | | | | |
| Spindle Speed 60/50HZ (V.AXLE) | - | | | | | 1750 RPM/60HZ 1450 RPM/50HZ | | | | |
| Flow Rate of Coolant Pump | 90 L/min | | | | | AHD: 90 L/min / PNC: 200 L/min | | | | |
| Max. Load Capacity | 3000 kgs 6600 lbs | 4000 kgs 8800 lbs | 5000 kgs 11000 lbs | 6000 kgs 13200 lbs | 8000 kgs 17600 lbs | 4000 kgs 8800 lbs | 6000 kgs 13200 lbs | 8000 kgs 17600 lbs | 10500 kgs 23100 lbs | 12000 kgs 26400 lbs |
| Net Weight | 20000 kgs 44000 lbs | 23000 kgs 50600 lbs | 26000 kgs 57200 lbs | 29000 kgs 63800 lbs | 35000 kgs 77000 lbs | 25000 kgs 55000 lbs | 31000 kgs 68200 lbs | 36000 kgs 79200 lbs | 42000 kgs 92400 lbs | 48000 kgs 105600 lbs |

We follow a policy of continuous improvement of all our products, and reserve the rights to change specifications, mechanics, or designs at any time without prior notice.

HIGH PRECISION SURFACE GRINDER



SPECIFICATIONS

Double Column Surface Grinder

| Model | AGS-T70120 | AGS-T70160 | AGS-T70200 | AGS-T70240 | AGS-T70280 | AGS-T79160 | AGS-T79200 | AGS-T79240 | AGS-T79280 | AGS-T79320 | AGS-T79360 | AGS-T79400 | AGS-T79440 | AGS-T79480 | |
|--|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--|------------------------------|------------------------------|------------------------------|--|
| | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | PNC | |
| Working Surface of Table (W×L) | 1800×3000mm 70.9"×118.2" | 1800×4000mm 70.9"×157.5" | 1800×5000mm 70.9"×196.9" | 1800×6000mm 70.9"×236.3" | 1800×7000mm 70.9"×275.6" | 2000×4000mm 78.8"×157.5" | 2000×5000mm 78.8"×196.9" | 2000×6000mm 78.8"×236.3" | 2000×7000mm 78.8"×275.6" | 2000×8000mm 78.8"×315" | 2000×9000mm 78.8"×354.4" | 2000×10000mm 78.8"×393.7" | 2000×11000mm 78.8"×433.1" | 2000×12000mm 78.8"×472.5" | |
| Max. Grinding Surface (W×L) | 1900×3100mm 74.8"×122.1" | 1900×4100mm 74.8"×161.5" | 1900×5100mm 74.8"×200.8" | 1900×6100mm 74.8"×240.2" | 1900×7100mm 74.8"×279.6" | 2400×4100mm 94.5"×161.5" | 2400×5100mm 94.5"×200.8" | 2400×6100mm 94.5"×240.2" | 2400×7100mm 94.5"×279.6" | 2400×8100mm 94.5"×318.9" | 2400×9100mm 94.5"×358.3" | 2400×10100mm 94.5"×397.7" | 2400×11100mm 94.5"×437" | 2400×12100mm 94.5"×476.4" | |
| Max. Horizontal Travel of Table | 3200mm 126" | 4200mm 164.4" | 5200mm 204.8" | 6200mm 244.1" | 7200mm 283.5" | 4200mm 164.4" | 5200mm 204.8" | 6200mm 244.1" | 7200mm 283.5" | 8200mm 322.9" | 9200mm 362.2" | 10200mm 401.6" | 11200mm 441" | 12200mm 480.4" | |
| Distance Between Two Columns | 2200mm (2500mm Opt.) 86.6" (98.4" Opt.) | | | | | 2700mm (3100mm / 3500mm Opt.) 106.3" (122" / 137.8" Opt.) | | | | | 2700mm (3100mm / 3500mm Opt.) 106.3" (122" / 137.8" Opt.) | | | | |
| Distance Between Table Surface and Spindle Center (H.AXLE) | 1150mm / 45.3" | | | | | 1200mm / 47.3" | | | | | 1200mm / 47.3" | | | | |
| Distance Between Table Surface and Wheel Top (V.AXLE) | 750mm / 29.6" | | | | | 800mm / 31.5" | | | | | 800mm / 31.5" | | | | |
| Inclination of Universal Head | ±90° | | | | | ±90° | | | | | ±90° | | | | |
| Table Speed | 5~25 M/min (16~80 fpm) | | | | | 5~25 M/min (16~80 fpm) | | | | | 5~25 M/min (16~80 fpm) | | | | |
| Automatic Crossfeed of Spindle Seat (60HZ) | 0~25 (0~1") | | | | | 0~50 (0~2") | | | | | 0~50 (0~2") | | | | |
| Downfeed Handwheel Minimum Scale | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | |
| Crossfeed Handwheel (1 gra) min. Scale (PNC) | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | | 0.005mm (0.0002") or 0.002mm (0.0001") | | | | |
| Crossfeed Handwheel (1 rev) Pulse Handle (PNC) | 0.5 -1-4mm (0.02"-0.04"-0.16") | | | | | 0.5 -1-4mm (0.02"-0.04"-0.16") | | | | | 0.5 -1-4mm (0.02"-0.04"-0.16") | | | | |
| Longitudinal Travel Adjustable (from~to) | 200~3200mm 7.9"~126" | 200~4200mm 7.9"~165.4" | 200~5200mm 7.9"~204.8" | 200~6200mm 7.9"~244.1" | 200~7200mm 7.9"~283.5" | 200~4200mm 7.9"~165.4" | 200~5200mm 7.9"~204.8" | 200~6200mm 7.9"~244.1" | 200~7200mm 7.9"~283.5" | 200~8200mm 7.9"~322.9" | 200~9200mm 7.9"~362.2" | 200~10200mm 7.9"~401.6" | 200~11200mm 7.9"~441" | 200~12200mm 7.9"~480.4" | |
| Crossfeed Travel Adjustable (from~to) | 50~2000mm (50~2300mm Opt.) 1.97"~78.7" (1.97"~90.6" Opt.) | | | | | 50~2500mm (50~2900mm / 50~3300mm Opt.) 1.97"~98.4" (1.97"~114.2" / 1.97"~123" Opt.) | | | | | 50~2500mm (50~2900mm / 50~3300mm Opt.) 1.97"~98.4" (1.97"~114.2" / 1.97"~123" Opt.) | | | | |
| Spindle Motor (H.AXLE) | 20HP×4P (30HP×4P Opt.) | | | | | 30HP×4P | | | | | 30HP×4P | | | | |
| Spindle Motor (V.AXLE) | 10HP×4P (15HP×4P Opt.) | | | | | 10HP×4P (15HP×4P Opt.) | | | | | 10HP×4P (15HP×4P Opt.) | | | | |
| Hydraulic Pump Motor | 20HP×6P | | | 30HP×6P | | | 40HP×6P | | | 30HP+25HP×6P | | | 30HP+25HP×6P | | |
| Crossfeed Motor | AC SERVO | | | | | AC SERVO | | | | | AC SERVO | | | | |
| Downfeed Motor | AC SERVO | | | | | AC SERVO | | | | | AC SERVO | | | | |
| Grinding Wheel (OD×T×ID) | 510×50×127mm or 510×75×203.2mm 20"×2"×5" or 20"×3"×8" | | | | | 610×100×254mm or 610×100×304.8mm 24"×4"×10" or 24"×4"×12" | | | | | 610×100×254mm or 610×100×304.8mm 24"×4"×10" or 24"×4"×12" | | | | |
| Grinding Wheel (OD×T×ID) (V.AXLE) | 405×50×127mm / 16"×2"×5" | | | | | 405×50×127mm / 16"×2"×5" | | | | | 405×50×127mm / 16"×2"×5" | | | | |
| Spindle Speed 60/50HZ (H.AXLE) | 1250 RPM | | | | | 1050 RPM/60HZ 900 RPM/50HZ | | | | | 1050 RPM/60HZ 900 RPM/50HZ | | | | |
| Spindle Speed 60/50HZ (V.AXLE) | 1750 RPM/60HZ 1450 RPM/50HZ | | | | | 1750 RPM/60HZ 1450 RPM/50HZ | | | | | 1750 RPM/60HZ 1450 RPM/50HZ | | | | |
| Flow Rate of Coolant Pump | 200 L/min | | | | | 250 L/min | | | | | 250 L/min | | | | |
| Max. Load Capacity | 9000 kgs 19800 lbs | 11000 kgs 24200 lbs | 13000 kgs 28600 lbs | 15000 kgs 33000 lbs | 17000 kgs 37400 lbs | 24000 kgs 52800 lbs | 25000 kgs 55000 lbs | 26000 kgs 57200 lbs | 29000 kgs 63800 lbs | 31000 kgs 68200 lbs | 33000 kgs 72600 lbs | 35000 kgs 77000 lbs | 37000 kgs 81400 lbs | 40000 kgs 88000 lbs | |
| Net Weight | 33000 kgs 72600 lbs | 41000 kgs 90200 lbs | 48000 kgs 105600 lbs | 57000 kgs 125400 lbs | 65000 kgs 143000 lbs | 72000 kgs 158400 lbs | 78000 kgs 171600 lbs | 89000 kgs 195800 lbs | 101000 kgs 222200 lbs | 112000 kgs 246400 lbs | 128000 kgs 281600 lbs | 150000 kgs 330000 lbs | 162000 kgs 356400 lbs | 180000 kgs 396000 lbs | |

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HIGH PRECISION SURFACE GRINDER



SPECIFICATIONS

Column Type Surface Grinder

| Model | AGS-2040 | AGS-2060 | AGS-S2460 | AGS-2448 | AGS-2460 | AGS-2480 |
|---|--|--|--------------------------------------|---|--|--|
| | AH / AHD / SD | AH / AHD / SD | AH / AHD / SD | AHD / PNC | AHD / PNC | AHD / PNC |
| Working Surface of Table (W×L) | 500×1000mm 19.69"×39.37" | 500×1500mm 19.69"×59.06" | 600×1500mm 23.62"×59.06" | 600×1200mm 23.62"×47.25" | 600×1500mm 23.62"×59.06" | 600×2000mm 23.62"×79" |
| Max. Grinding Surface (W×L) | 500×1000mm 19.69"×39.37" | 500×1500mm 19.69"×59.06" | 600×1500mm 23.62"×59.06" | 600×1200mm 23.62"×47.25" | 600×1500mm 23.62"×59.06" | 600×2000mm 23.62"×79" |
| Max. Horizontal Travel of Table | 1160mm 45.67" | 1650mm 64.96" | | 1350mm 53.15" | 1650mm 64.96" | 2150mm 84.65" |
| Max. Cross Travel of Table | 550mm / 21.65" | | 650mm / 25.59" | 620mm / 24.41" | | |
| Distance Between Table Surface and Spindle Center | 600mm / 23.62" | | | 850mm / 33.46" | | |
| Table Speed | 5~25 M/min (16~80 fpm) | | | 5~25 M/min (16~80 fpm) | | |
| Automatic Crossfeed of Saddle (60HZ) | 0~25mm (0~1") | | | 0~38mm (0~1.5") | | |
| Vertical Handwheel (1 gra) | 0.002mm (0.0001") | | | AHD: 0.002mm (0.0001") / PNC: 0.002mm (0.0001") | | |
| Vertical Handwheel (1 rev) | 0.5mm (0.02") | | | - | | |
| Crossfeed Handwheel (1 gra) | 0.02mm (0.001") | | | AHD : 0.02mm (0.001") / PNC : 0.002mm (0.0001") | | |
| Crossfeed Handwheel (1 rev) | 5mm (0.2") | | | 5mm (0.2") | | |
| Downfeed Mirco Adjustment (1 gra) | 0.005mm (0.0002") | | | - | | |
| Downfeed Mirco Adjustment (1 rev) | 0.05mm (0.02") | | | - | | |
| Longitudinal Travel Adjustable (from~to) | 150~1100mm (6~40") | 150~1600mm (6~60") | | 150~1300mm (6~51.18") | 150~1600mm (6~60") | 150~2100mm (6~82.68") |
| Crossfeed Travel Adjustable (from~to) | 0~510mm (0~21") | | 0~610mm (0~24") | 0~600mm (0~23.6") | | |
| Spindle Motor | 10HP×4P | | | 10HP×6P, Option 15HP×6P | | |
| Hydraulic Pump Motor | 5HP×4P | | | 5HP×6P | 7 1/2HP×6P | |
| Crossfeed Motor | 1/4HP×6P | | | AHD: 1/4HP×6P / PNC: AC SERVO | | |
| Downfeed Motor | AH / AHD: 1/2HP×4P / SD: AC SERVO | | | AC SERVO | | |
| Grinding Wheel (OD×T×ID) | 405×50×127mm (16"×5"×2") | | | 510×50×127mm (20"×5"×2"); Option 510×75×203.2mm (20"×3"×8") | | |
| Spindle Speed 60/50HZ | 1750 RPM/60HZ 1450 RPM/50HZ | | | 1150 RPM/60HZ 960 RPM/50HZ | | |
| Coolant Motor | 1/8HP | | | 1/4HP | | |
| Max. Load Capacity (Addition to Magnetic Chuck) | 1000 kgs 2200 lbs | 1200 kgs 2640 lbs | 1300 kgs 2860 lbs | 1200 kgs 2640 lbs | 1300 kgs 2860 lbs | 1500 kgs 3300 lbs |
| Net Weight | 4500 kgs 9900 lbs | 5000 kgs 11000 lbs | 6000 kgs 13200 lbs | 6500 kgs 14300 lbs | 7500 kgs 16500 lbs | 8500 kgs 18700 lbs |
| Gross Weight | 5000 kgs 11000 lbs | 5500 kgs 12100 lbs | 7000 kgs 15400 lbs | 7700 kgs 16940 lbs | 8700 kgs 19140 lbs | 9900 kgs 21780 lbs |
| Packing Dimensions (L×W×H) | 3370×2280×2220mm 132.7"×89.7"×87.4" | 4580×2280×2220mm 180.4"×89.7"×87.4" | 5180×2280×2220mm 204"×89.7"×87.4" | 4430×2800×2740mm 174.4"×110.3"×107.9" | 5570×2800×2740mm 219.3"×110.3"×107.9" | 7000×2800×2740mm 275.6"×110.3"×107.9" |

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HIGH PRECISION SURFACE GRINDER



SPECIFICATIONS

Column Type Surface Grinder

| Model | AGS-24100 | AGS-24120 | AGS-24140 | AGS-24160 | AGS-3468 | AGS-3488 | AGS-34128 | AGS-34188 |
|---|---|---|---|---|--|--|---|---|
| | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC | AHD / PNC |
| Working Surface of Table (W×L) | 600×2500mm 23.62"×98.43" | 600×3000mm 23.62"×118.11" | 600×3500mm 23.62"×137.80" | 600×4000mm 23.62"×157.48" | 850×1700mm 33.46"×66.93" | 850×2200mm 33.46"×86.61" | 850×3200mm 33.46"×125.98" | 850×4700mm 33.46"×185.04" |
| Max. Grinding Surface (W×L) | 600×2500mm 23.62"×98.43" | 600×3000mm 23.62"×118.11" | 600×3500mm 23.62"×137.80" | 600×4000mm 23.62"×157.48" | 850×1700mm 33.46"×66.93" | 850×2200mm 33.46"×86.61" | 850×3200mm 33.46"×125.98" | 850×4700mm 33.46"×185.04" |
| Max. Horizontal Travel of Table | 2650mm 104.33" | 3150mm 124.02" | 3650mm 143.7" | 4150mm 163.39" | 1850mm 72.83" | 2350mm 92.52" | 3350mm 131.89" | 4850mm 190.94" |
| Max. Cross Travel of Table | 620mm / 24.41" | | | | 870mm / 34.25" | | | |
| Distance Between Table Surface and Spindle Center | 850mm / 33.46" | | | | 950mm / 37.4" | | | |
| Table Speed | 5~25 M/min (16~80 fpm) | | | | 5~25 M/min (16~80 fpm) | | | |
| Automatic Crossfeed of Saddle (60HZ) | 0~38mm (0~1.5") | | | | 0~38mm (0~1.5") | | | |
| Vertical Handwheel (1 gra) | AHD: 0.002mm (0.0001") / PNC: 0.002mm (0.0001") | | | | AHD: 0.002mm (0.0001") / PNC: 0.002mm (0.0001") | | | |
| Vertical Handwheel (1 rev) | - | | | | - | | | |
| Crossfeed Handwheel (1 gra) | AHD: 0.02mm (0.001") / PNC: 0.002mm (0.0001") | | | | AHD: 0.02mm (0.001") / PNC: 0.002mm (0.0001") | | | |
| Crossfeed Handwheel (1 rev) | 5mm (0.2") | | | | 5mm (0.2") | | | |
| Downfeed Mirco Adjustment (1 gra) | - | | | | - | | | |
| Downfeed Mirco Adjustment (1 rev) | - | | | | - | | | |
| Longitudinal Travel Adjustable (from~to) | 150~2600mm (6~102.36") | 150~3100mm (6~122.05") | 150~3600mm (6~141.73") | 150~4100mm (6~161.42") | 150~1800mm (6~70.87") | 150~2300mm (6~90.55") | 150~3300mm (6~129.92") | 150~4800mm (6~188.98") |
| Crossfeed Travel Adjustable (from~to) | 0~600mm (0~23.6") | | | | 0~850mm (0~33.46") | | | |
| Spindle Motor | 10HP×6P, Option 15HP×6P | | | | 15HP×6P | | | |
| Hydraulic Pump Motor | 7 1/2HP×6P | 10HP×6P | | 15HP×6P | 10HP×6P | | 15HP×6P | |
| Crossfeed Motor | AHD: 1/4HP×6P / PNC: AC SERVO | | | | AHD: 1/4HP×6P / PNC: AC SERVO | | | |
| Downfeed Motor | AC SERVO | | | | AC SERVO | | | |
| Grinding Wheel (OD×T×ID) | 510×50×127mm (20"×5"×2"); Option 510×75×203.2mm (20"×3"×8") | | | | 510×50×127mm (20"×5"×2") or 510×75×203.2mm (20"×3"×8") | | | |
| Spindle Speed 60/50HZ | 1150 RPM/60HZ 960 RPM/50HZ | | | | 1150 RPM/60HZ 960 RPM/50HZ | | | |
| Coolant Motor | 1/4HP | | | | 1/4HP | | | |
| Max. Load Capacity (Addition to Magnetic Chuck) | 1600 kgs 3520 lbs | 1800 kgs 3960 lbs | 2000 kgs 4400 lbs | 2200 kgs 4840 lbs | 1800 kgs 3960 lbs | 2000 kgs 4400 lbs | 2400 kgs 5280 lbs | 4000 kgs 8800 lbs |
| Net Weight | 9500 kgs 20900 lbs | 10500 kgs 23100 lbs | 11500 kgs 25300 lbs | 12500 kgs 27500 lbs | 10000 kgs 22000 lbs | 11500 kgs 25300 lbs | 15500 kgs 34100 lbs | 25000 kgs 55000 lbs |
| Gross Weight | 10900 kgs 23980 lbs | 12100 kgs 26620 lbs | 13100 kgs 28820 lbs | 14300 kgs 31460 lbs | 11500 kgs 25300 lbs | 13500 kgs 29700 lbs | 18000 kgs 39600 lbs | 30000 kgs 66000 lbs |
| Packing Dimensions (L×W×H) | 9200×2800×2740mm 362.2"×110.3"×107.9" | 10200×2800×2740mm 401.6"×110.3"×107.9" | 11200×2800×2740mm 440.9"×110.3"×107.9" | 12200×2800×2740mm 480.3"×110.3"×107.9" | 6500×3300×3000mm 255.9"×123"×118.2" | 7600×3300×3000mm 299.3"×123"×118.2" | 10500×3300×3000mm 413.4"×123"×118.2" | 14000×3300×3000mm 551.2"×123"×118.2" |

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