

Okamoto

Precision Surface Grinding Machine
PSG/ACC-GX Series



Most Popular Standard Surface Grinding Machine The DX Series is succeeded by the GX Series.

Precision Surface Grinding Machine

PSG/ACC-GX Series

- Rock-Solid Construction
- Servo driven Vertical feed



Lineup PSG/ACC Series

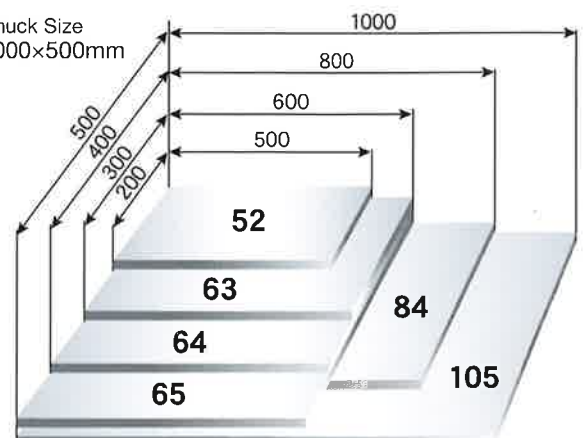
	Chuck Size (mm)
52GX	500 × 200
63GX	600 × 300
64GX	600 × 400
65GX	600 × 500
84GX	800 × 400
105GX	1000 × 500

PSG/ACC 105 GX

Precision
Surface
Grinding
Machine

Chuck Size
1000x500mm

■ Working Size by Electro-magnetic chuck

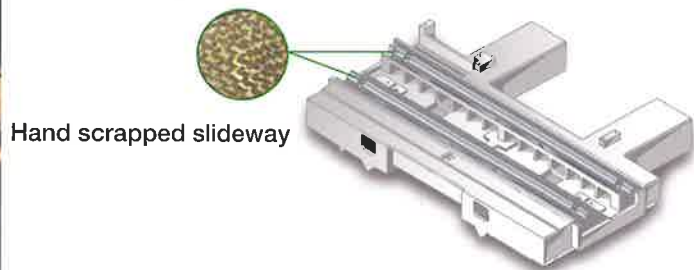


Line in the World PSG/ACC-DX Series.

CONSTRUCTION

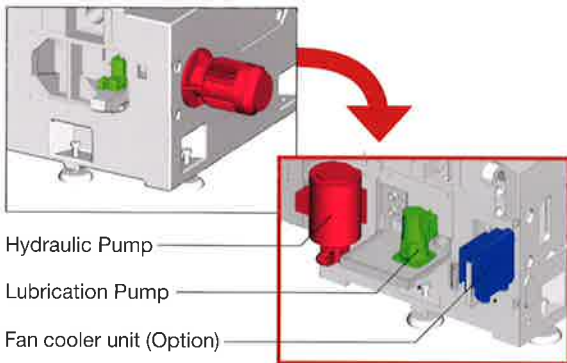
Superior machine structure

Double V Table Ways on both the Longitudinal and Crossfeed axes assures optimum performance and long term grinding accuracy



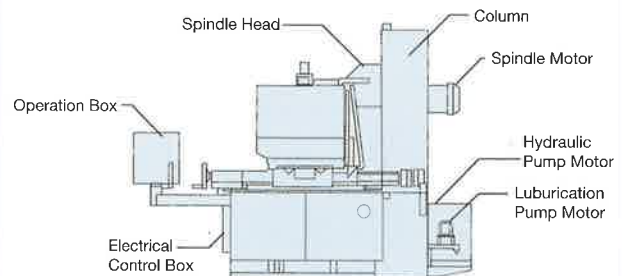
Hydraulic and Lubrication Components have been re-located to outside of the machine

- Separate Hydraulic Oil and Lubrication Oil tanks



Saddle Moving type Grinder allows more space saving

- Ergonomic design for smooth operation.



Grinding Wheel Guard using Stainless Steel material

- Splash cover also available in Stainless Steel (OPTION) to prevent rusting.



Allows for less operator involvement by using the Hydraulic type Overhead Dresser with auto dress and compensation plus retract function.

- Automatic Dress Cycle can set up Dress Interval Amount, No. of Dress and Dress wear Compensation Amount.

Overhead type Dresser Unit



Achieved 0.1 μ m infeed using our own develop

OPERATION Easy Operation

- The control has convenient features like manual interruption, Quick Set-Up, precision positioning. Convenient and dependable with long term Reliability.



Operation Panel

●Mode selection switch

Selectable for Data input, Automatic sizing Mode, Manual Operation Mode, Rapid feed Mode.

●Setup Stock removal Amount

Total stock removal can be set to a min. 0.1 μ m. Coarse feed rate & Fine feed rate changeover select by switch 12 step amount 1 to 30 μ m for Coarse infeed, 11 step amount 0.1 to 10 μ m for Fine infeed.

●Vertical infeed

12 step amount between 1 and 30 μ m to be pre-set for Coarse grinding, 11 step amount between 0.1 and 10 μ m to be pre-set for fine grinding.

●Vertical & Cross position display

Under stock removal mode, total grinding amount to be pre-set on the digital display at 0.1 μ m increment. Crossfeed digital display is an Option.

●Vertical feed handle (M.P.G.)

Manual down feed handle. Under Manual mode, pulse generator dial conducts manual down feed at graduation either 0.1 μ m, 1 μ m or 10 μ m.

●Incremental

Manual down feed at pre-set increment works any time by pressing the feed button even during automatic grinding cycle.

●Table Stop

Simply press the button which makes the table stop at right end of set stroke, eliminating lever operation of table speed control.

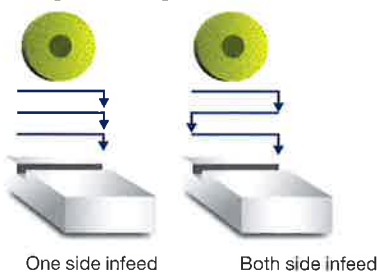
●Self diagnostic function

LED alarm number display.

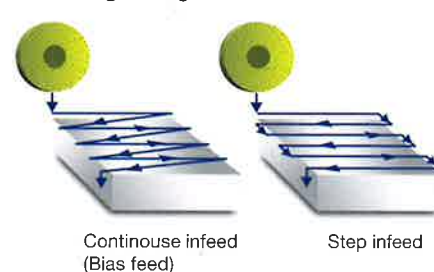
●Grinding Mode

3 mode can be selected. One side infeed for Plunge, Both side infeed for Plunge, and Traverse.

Plunge Grinding



Traverse grinding



d control system

Hydraulic Operation Panel

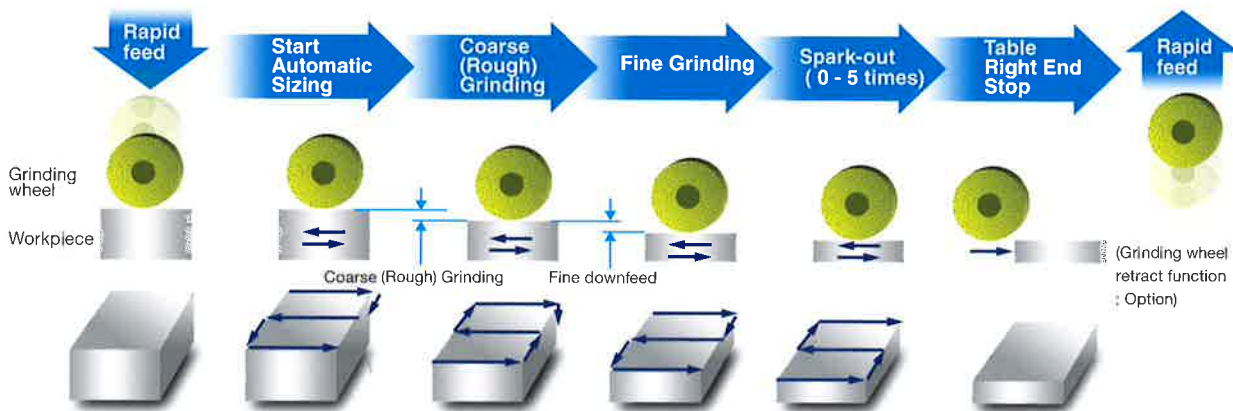
- **Table Speed Control Lever**
Variable up to max. 25m/min.



- **Crossfeed Control Lever**
Easily able to switch cross feed mode, Step or Bias for cross feed.

- **Step feed Control Knob**
Step feed adjustable in the range of 0.5 - 20mm.

Automatic Grinding Cycle



Optional Accessories



Coolant and Dust Suction System with Magnetic Dust Separator



Digital scale for Cross axis



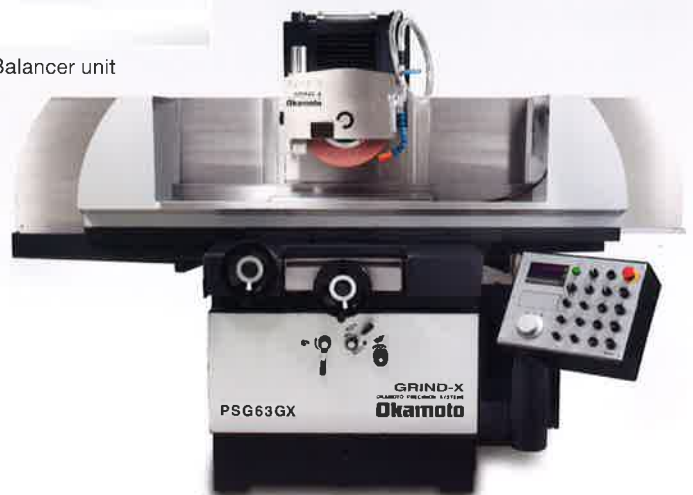
Micro-Balancer unit



Vertical type Rotary Dresser Unit



Special Jigs for warped work-pieces

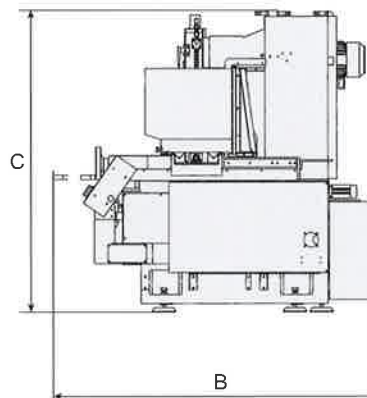
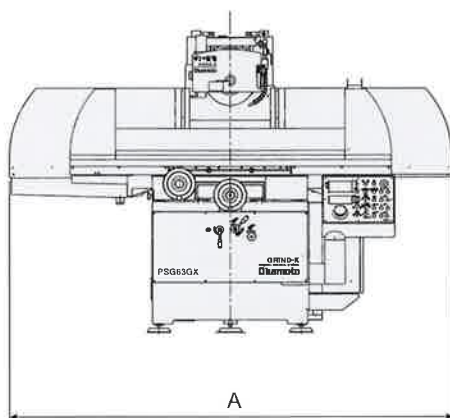


Specifications

Item		Unit	52GX	63GX	64GX	65GX	84GX	105GX		
Capacity	Table working capacity (Length×Width)	mm	550×200	605×300	605×400	650×500	850×400	1016×500		
	Max. Table Travel (Manual : Longitudinal×Cross)		650×230	750×340	750×440	750×540	950×440	1150×540		
	Distance from Top of the Table to Bottom of the Wheel		50/60Hz ϕ 205mm	47.5~397.5						
			ϕ 355mm wheel (50Hz)	-			22.5~322.5			22.5~522.5
			ϕ 305mm wheel (60Hz)	-			47.5~347.5			47.5~547.5
	Standard chuck size (L×W×H)			500×200×75	600×300×85	600×400×85	600×500×100	800×400×85	1000×500×100	
Table Load Capacity including Chuck	kg	200	420			700				
Table	Longitudinal Feed Rate (Average)	m/min	0.3~25				3~25			
	Hand feed per Revolution	mm	47							
	Manual Feed		Hand feed per Revolution	5.0						
			Graduation of Handwheel	0.02						
	Automatic Feed		Intermittent Feed	0.5~12	0.5~20					
		Continuous Feed Rate	m/min	0.1~1.0				0.2~1.0		
Vertical Feed	Auto. Downfeed (Traverse & Plunge Cycle)	mm	0.0001~0.03 (15 Positions)							
	Manual Down Feed		Hand Feed per Revolution (x0.1/x1/x10)	0.01/0.1/1.0						
			Hand Feed per Graduation (x0.1/x1/x10)	0.0001/0.001/0.01						
	No. of Spark-Out	Times	0~5							
	Feed Rate	mm/min	600							
Grinding Wheel	Diameter (50/60 Hz)×Width×Bore	mm	ϕ 205×19× ϕ 50.8	ϕ 355/ ϕ 305×38× ϕ 127						
	Speed (50/60 Hz)	min ⁻¹	3000/3600	1500/1800						
Motors	Grinding Wheel Spindle	kW/P	1.5/2	3.7/4						
	Hydraulic Oil Pump		0.75/4	1.5/4	2.2/4					
	Vertical Rapid Feed & Downfeed	kW	0.4 (AC Servo Motor)			0.75 (AC Servo Motor)				
Power supply	Power supply		200V, 3-phase (50/60Hz), 220V, 3-phase (60Hz)							
	Required Power Consumption including Coolant and Magnetic chuck	kVA	5	10			11			
Floor Space	Width×Depth×Height	mm	2430×2000×1850	2740×2250×1850	2740×2450×1850	2740×2600×2120	3330×2450×2120	4330×2600×2120		
Weight	Net Weight	kg	2100	2800	3000	3500	3900	4600		

* Floor Space does not include Coolant tank

External View



	A	B	C
52GX	2430	2000	1850
63GX		2250	
64GX	2740	2450	2120
65GX		2600	
84GX	3330	2450	
105GX	4330	2600	

Standard Accessories

Sample Grinding Wheel (WA46H8V8J)	Splash Cover	Automatic sizing Device
Wheel adapter	Automatic Demagnetizing Controller, Chuck Power adjustable type	Plunge cut Device (Single Side or Both side downfeed)
Table Dresser with a Diamond tool		
Necessary Tools with Tool Box	Electro-Magnetic Chuck Optional	Automatic Rough & Fine Feed Change over Device
Leveling Bolts and Plates	Spark-Out Counter (0 - 5 times)	

Optional Accessories

Item	Specification	52GX	63GX	64GX	65GX	84GX	105GX
1) Coolant and Dust Suction System with Magnetic Dust Separator	Tank Capacity	40 l		○			-
	Coolant pump motor	60W/2P					
	Dust Suction motor	400W/2P					
	Magnetic Separator	20 l/min					
2) Coolant and Dust Suction System with Magnetic Dust Separator	Tank Capacity	120 l		-			○
	Coolant pump motor	60W/2P					
	Dust Suction motor	400W/2P					
	Magnetic Separator	40 l/min					
3) Coolant system with Magnetic Dust Separator with Automatic type Paperfilter	Tank Capacity	120 l		-			○
	Magnetic Separator	20 l/min					
	Paperfilter Mesh	500mm×100mm					
4) Manual type Overhead Dresser	Max. stroke	35mm		○			-
	Max. Wheel Width	25mm					
5) Hydraulic type Overhead Dresser	Max. stroke	35mm		○			-
	Max. Wheel Width	25mm					
6) Manual type Overhead Dresser	Max. stroke	60mm		-	○		-
	Max. Wheel Width	50mm					
7) Hydraulic type Overhead Dresser	Max. stroke	70mm		-			○
	Max. Wheel Width	50mm					
8) Hydraulic type Overhead Dresser (with dress compensation function)	No. of Dress	0~9 times					○
	Wheel wear compensation amount	0~50μm					
	Dress Interval amount	0~990μm					
9) Hydraulic type Overhead Dresser (with Retract Function)	Retract amount	0~9.999μm					○
10) Oil Mist collector	With Mounting Base						○
11) Digital scale for Cross axis	Display unit	0.001mm					○
12) Digital scale for Cross axis display unit built into operation panel	Display unit	0.001mm					○
13) Microfeeder for Cross axis	Worm Wheel type (Graduation)	0.001mm					○
14) Hydraulic cooling type Electro-Magnetic Chuck							○
15) Electro-Permanent Chuck with Chuck controller							○
16) Hydraulic Oil Temperature control unit							○
17) Oil Cooling type Spindle Head	Necessary for [Cooling Pump] [Oil Temperature Control unit]						○
18) Spindle Inverter unit							○
19) Spindle Motor Power Up	Please contact Sales						○
20) Higher Column Specification	Extend Vertical Stroke 200mm	-		○			-
21) Spare Wheel adapter	Max. wheel width	25mm		○			-
	Wheel adapter Diameter	φ111					
22) Spare Wheel adapter	Max. wheel width	38mm		-			○
	Wheel adapter Diameter	φ175					
23) Micro-Balancer unit	Auto measure and Conversation type manual correction						○
24) Spare wheel adapter for Micro-Balancer unit	Exclusive Balance Piece for Micro-Balancer						○
25) Static type Wheel balancer unit BW-260 with an Arbor	Max. Wheel Diameter xWidth	φ260×75mm		○			-
26) Balance Arbor for BW-260 unit	Length	178mm		○			-
	Diameter for Both End x Length	φ15×15mm					
27) Static type Wheel balancer unit BW-360 with an Arbor	Max. Wheel Diameter xWidth	φ360×75mm		-			○
28) Balance Arbor for BW-360 unit	Length	178mm		-			○
	Diameter for Both End x Length	φ15×15mm					
29) Work light	LED						○
30) Hydraulic & Lubrication Oil	Please use only Recommend Oil	4	6	8			9
31) Special Color Painting	Color sample required						○
32) Vertical type Rotary Dresser Unit	Spindle inverter unit is required						○
33) Special Jigs for warped workpieces							○

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JQA-QMA10960



When and before using our products, you are requested to well go through the articles on danger, warning and attention for the sake of safety described in operation manual attached to the machine and also in the warning plates mounted on the machine.

*Specifications subject to change without notice.

*When a product manufactured at our factory comes under the Foreign Exchange And Foreign Trade Control Law and is exported or carried overseas, it is necessary to receive permission or approval of the Japanese Government.