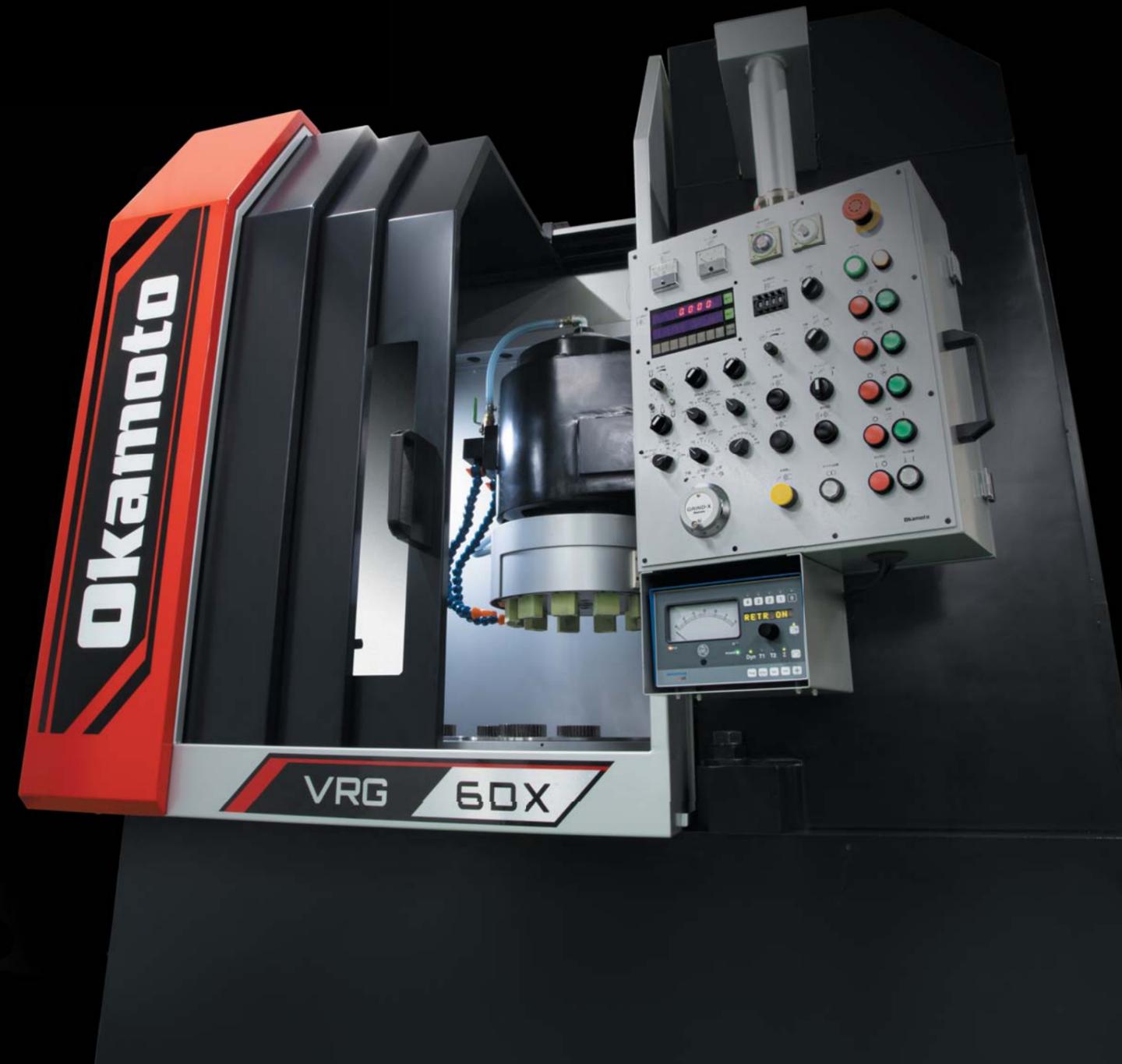


Precision Vertical Rotary Grinding Machine VRG-DX Series



株式会社 岡本工作機械製作所

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JQA-QMA10960
安中工場



この印刷物は環境に配慮した紙と植物油インクを使用しています

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注意

- 当社製品をご使用の際は、付属の取扱説明書に記載されている安全に関わる危険・警告・注意書及び実機に取付けられている同表示をよくお読みください。
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- 改良等により仕様その他を予告なく変更することがあります。

User friendly, high rigidity , highly productive vertical grinder VRG-DX Series

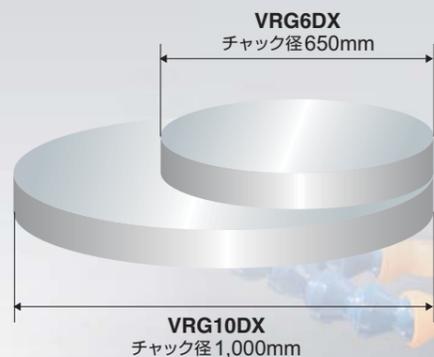
NEW MODEL

A unique control system that turns grinding into an easy technique 。

OKAMOTO's vertical axis rotary grinder is simple and easy to use !

- High-efficiency and high-rigidity rotary grinder equipped with vertical grinding .
- 3-point support column structure for easy adjustment**
The combination of our own highly rigid column and bed allows us to maintain high precision for a long period of time after the machine is installed.
- OKAMOTO FX Controller is intuitive and allows easy operation to eliminate errors.
- Fully Closed Cover for safety and regulatory factory requirement
- Ideal for processing brittle materials such as glass/ceramics as well as metals.

Lineup	Chuck Size
VRG6DX	φ 650 mm
VRG10DX	φ 1,000 mm



VRG6DX

Series Name
Chuck Size
Vertical Axis
Vertical Rotary Grinding Machine



VRG6DX

In-house developed FX Controller for easy operation



Grinding amount setting

Equipped with an automatic grinding cycle as standard. Rough and fine finishing plus spark-out, and retract functions enable mass production capability.

Interlock function

The fully closed cover is equipped with an interlock function as standard. In view of safety and the factory environment, the machining cycle cannot be performed while the cover is open.

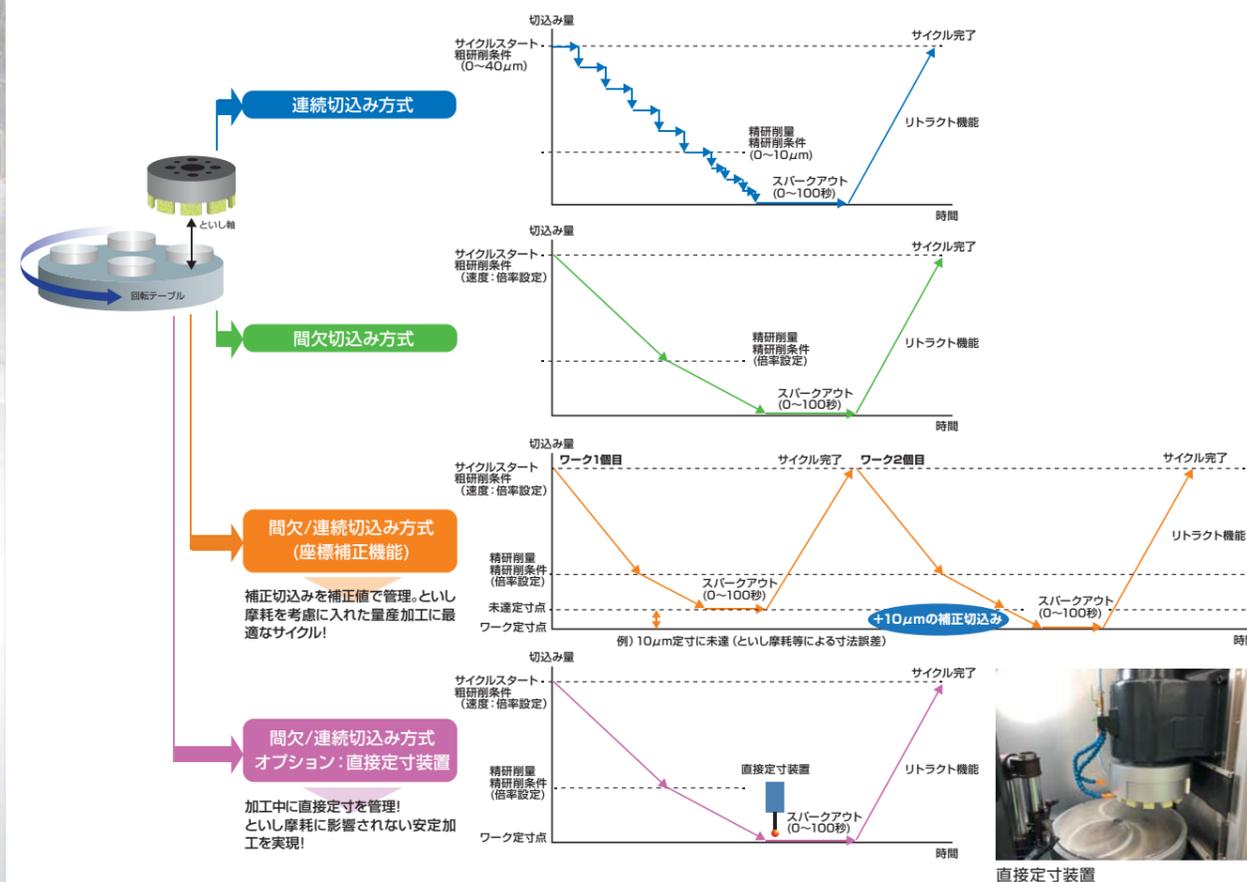
Vertical cutting feed and current position display

Achieves a vertical minimum depth of cut of 1 μm accuracy. The feed amount is changed by the magnification, and the current position is displayed on an easy-to-understand LED 。

Down-feed grinding method

Equipped with continuous mode and intermittent mode for plunge grinding. Please select according to the work to be processed and the application.

The down-feed grinding method is significantly different in processing efficiency compared to a normal square slide grinder.



Simple structure and operability that makes use of the vertical axis. It achieves high efficiency and high productivity.

Machine layout designed for easy operation and access

A fully closed cover slide is adopted as standard in consideration of safety and the factory environment.



Coolant Tank is located at the back for easy maintenance.



easy-to-replace segmented wheel. Achieves high-precision machining in the order of 1 μm.



Uses our original FX controller. Minimal intuitive operation prevents mistakes.



Process of brittle material workpieces such as ceramics and quartz glass with a diamond wheel.



Adopting a 3-point support column structure, Accuracy adjustment and surface quality adjustment are easily possible.



Rotary Pattern



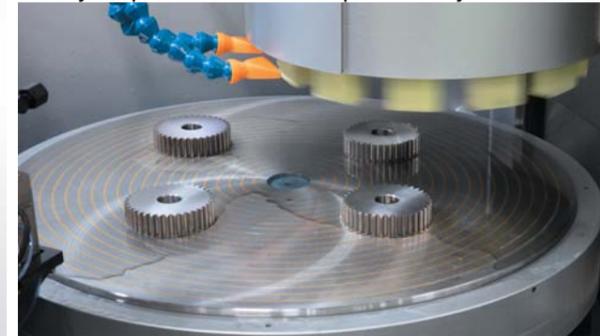
Cross hatch pattern



Equipped with a rotary table foot switch as standard. Significantly improved setup and operability.

VRG6DX

Achieves high-efficiency machining with a vertical axis wheel. Greatly responds to needs for productivity.



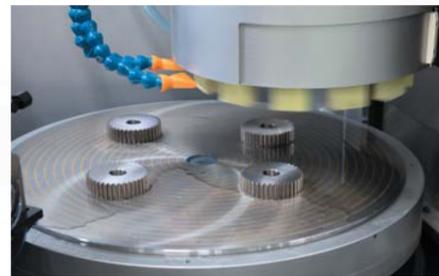
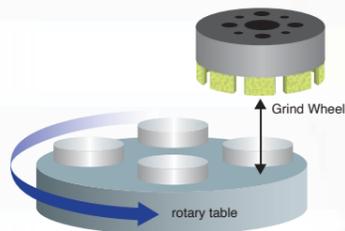
Lineup of 2 types of rotary grinders. The optimum series can be selected according to the processing application!



Vertical axis & rotary table VRG series

VRG6DX

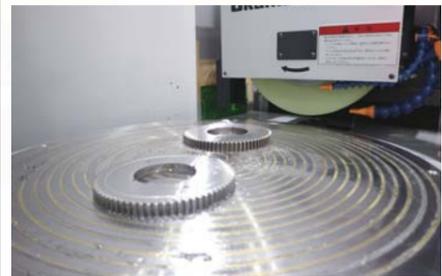
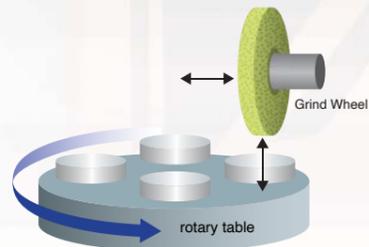
Processing methods
Down feed Grind



Horizontal axis & rotary table PRG series

PRG8DXNC

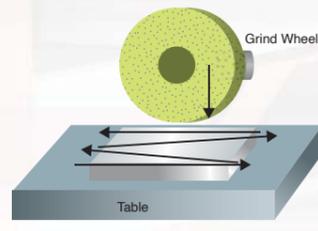
Processing methods
Plunge or traverse Grind



Horizontal Axis & Square Table PSG Series

PSG63GX

Processing methods
Plunge or traverse Grind



	Vertical axis & rotary table	Horizontal axis & rotary table	Horizontal axis & table
Grinding wheel work area	Big	General	General
Spindle Motor	VRG6DX: 11kw VRG10DX: 37kw	PRG6DXNC: 11kw	PSG63GX: 3.7kw
Productivity	Maximum	Big	Normal
Processing load	Big	Small	Small
Surface pattern	Rotary or ross-hatch pattern	Rotary Pattern	Grind pattern
Generally recommended Target work	Round surface grinding large workpiece size, large surface area		Square surface grind High geometric tolerance Item that require form grind

*Results will vary depending on the workpiece, grinding wheel used, and target value.

Specifications

Items		Unit	VRG6DX	VRG10DX
Table	Total Table Size OD	mm	φ800	φ1,200
	Electromagnetic Chuck OD	mm	φ650	φ1,000
	Rotation Speed	rpm	1~30	1~26
	Distance from wheel to chuck	mm	290 (If chuck self-grind : 400)	
	Total allowable weight of workpieces (incl chuck)	kg	250	500
Up / Down Feed	UP and DOWN Stroke	mm	300	400
	Max Axis Feed Speed	mm/min	300	
	Minimum Infeed Setting Amount	mm	0.001	
	Continuous Infeed Speed	mm/min	0.06-2.4 at 100% Override	
Grind Wheel	Wheel Diameter	mm	φ350	φ550
	Grind Teeth(Segment) Length x Thk x Width	mm	49.5×25×125	
	Maximum number of grind teeth/segment	本	12	18
	Grind Wheel Rotation	rpm	1,000/1,200 (50/60Hz)	590/710(50/60Hz)
Motors	Table Horsepower	kW	1.5	3.5
	Spindle Horsepower	kW	11	37
Body	Power Supply	-	3Phase AC200V	
	Power Requirement	kVA	20	Optional
	Machine Weight	kg	4,000	6,500
	Machine Dimension	mm	1,770×1,320×2,597	2,810×1,825×3,324
	Floor Space incl Coolant Sytems and work area	mm	2,315×2,065×2,597	3,310×2,600×3,324

Specifications is subjected to change without prior notice due to improvements

Standard Accessories

Item
Standard Grinding Wheel
Wheel Adaptor
Electromagnetic Chuck , Controller
Fully Closed Cover
LED Worklight
Door/Cover Interlock
Leveling Plate / Bolts
Foot Switch For Table Rotation
Necessary Tools
Centre Coolant

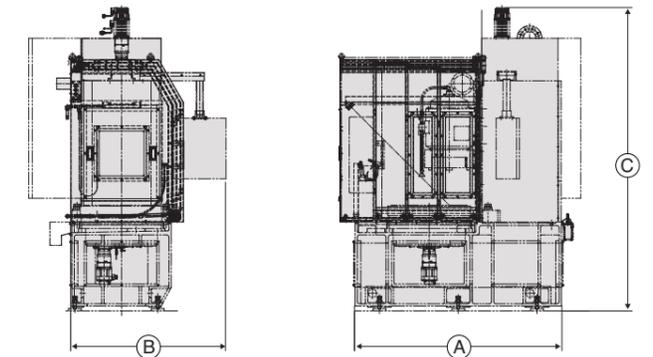
Optional Accesories

Item
Coolant Tank
Mist Collector
In Process Gauge/ Probe
Signal Tower
Deburring Device
Custom Colour

Dimension

	VRG6DX	VRG10DX
Length 間口 ①	1,770	2,810
Width 奥行 ②	1,320	1,825
Height 高さ ③	2,597	3,324

Does not include coolant tank



Material Handling

Glass / Quartz
Sapphire
SiC
Mold
Steel
Oil & Gas pressure Valves
Bearings

