

GRINTIMATE PRECISION INDUSTRY CO.,LTD

GRINTIMATE

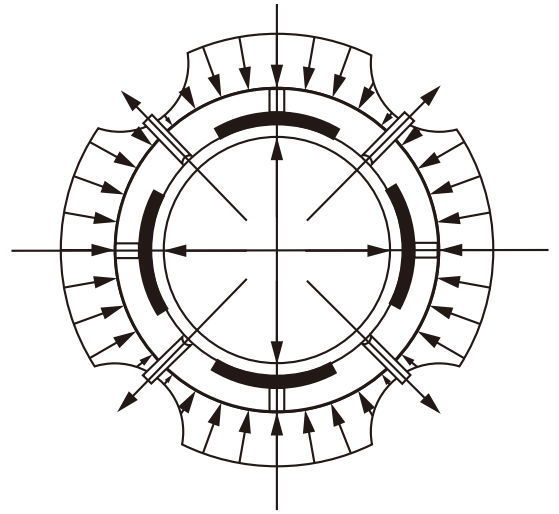
The Ultimate BEST Grinder !



Ultra-High Performance Hydrostatic Cylindrical Grinder
CDC / CAC series

The Principle of Hydrostatic

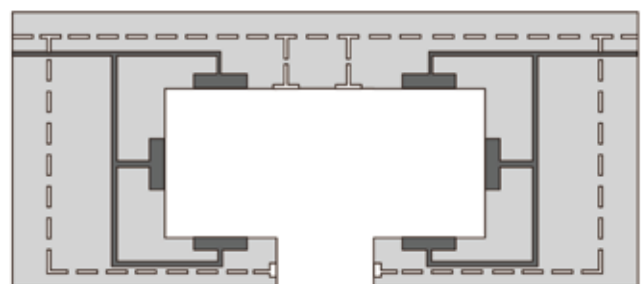
- ▶ No matter at zero speed (stationary state), starting or rotating, the rotating part (mandrel) is suspended in the middle of cavity, which shows non-contact, and frictionless that are able to enhance a durable service life.
- ▶ The hydrostatic oil film has an error averaging effect, the spindle rotating accuracy can easily reach to $1\mu\text{m}$ which also enhance the accuracy precision during grinding.
- ▶ The design of self-compensation restrictor, which generated incompressible oil film in the cavity, providing the spindle with excellent damping capability, the high rigidity of both axial and radial, high loading capacity and heavy cutting efficiency.



Hydrostatic Spindle



Hydrostatic Guideway

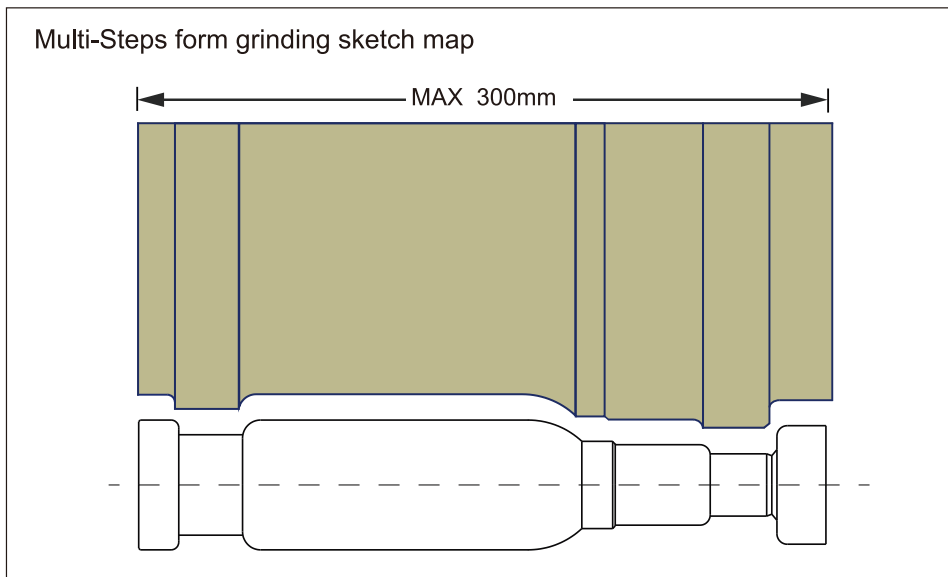


The Principle of Hydrostatic Guideway

- ▶ High supporting pressure of oil film which provide the stability of guideway.
- ▶ No stick-slip, low friction and high damping.
- ▶ Perfect for high precision positioning and sub-micron feeding.
- ▶ High loading capacity reduces the damages to the ball screw and prolongs service life twofold of ball screw.

Hydrostatic Cylindrical Grinder Specialized for Transmission Shaft (CTS-Series)

MODEL	CTS-100
Distance Between Centers	650 mm
Swing Over Table	400 mm
Max. Load Held Between Centers	35 KG
Max. Grinding Diameter	380 mm
Diameter × Width × Bore	Ø455 x (0-300) x Ø254 mm
Wheel Speed	0-2000 R.P.M
Wheel Max. Linear Velocity	48 m/sec
Wheel Spindle Motor	11 kW(15 HP)
Workhead Spindle Speed	20-600 R.P.M (Double-sided synchronous drive)
Tailstock Stroke	25 mm



- ▶ Equipped with diamond roller dresser.
- ▶ The grinding wheel can be widened to 300mm with one-feeding grinding.
- ▶ Equipped with the advanced patented hydrostatic spindle technology.
- ▶ Equipped with hydrostatic guideway, easy to reach 0.1µm feeding.
- ▶ Headstock and tailstock both work with double-sided synchronous.

Standard Grinding Wheel /
Specialized Grinding Wheel
(Max.300mm/15-Steps)

Process monitoring system /
Gap control & Crash detection
(optional)

Servomotor
Headstock

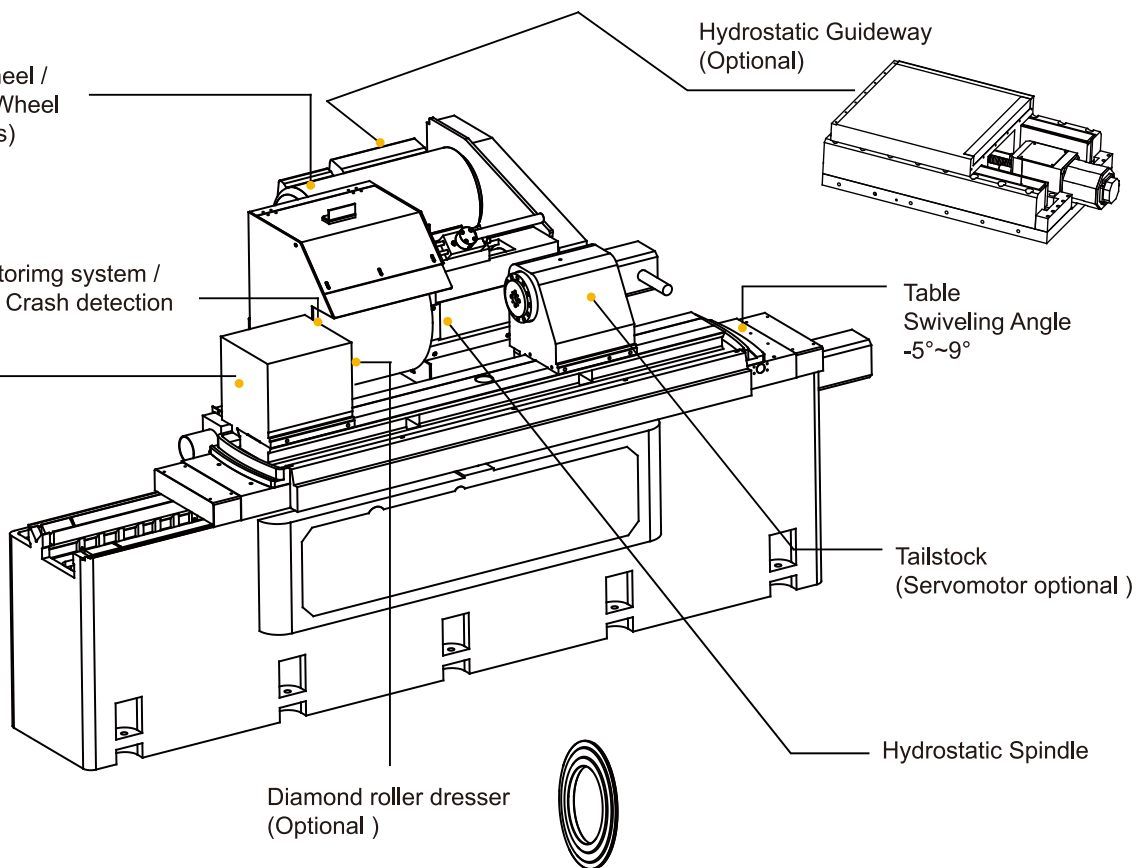
Hydrostatic Guideway
(Optional)

Table
Swiveling Angle
-5°~9°

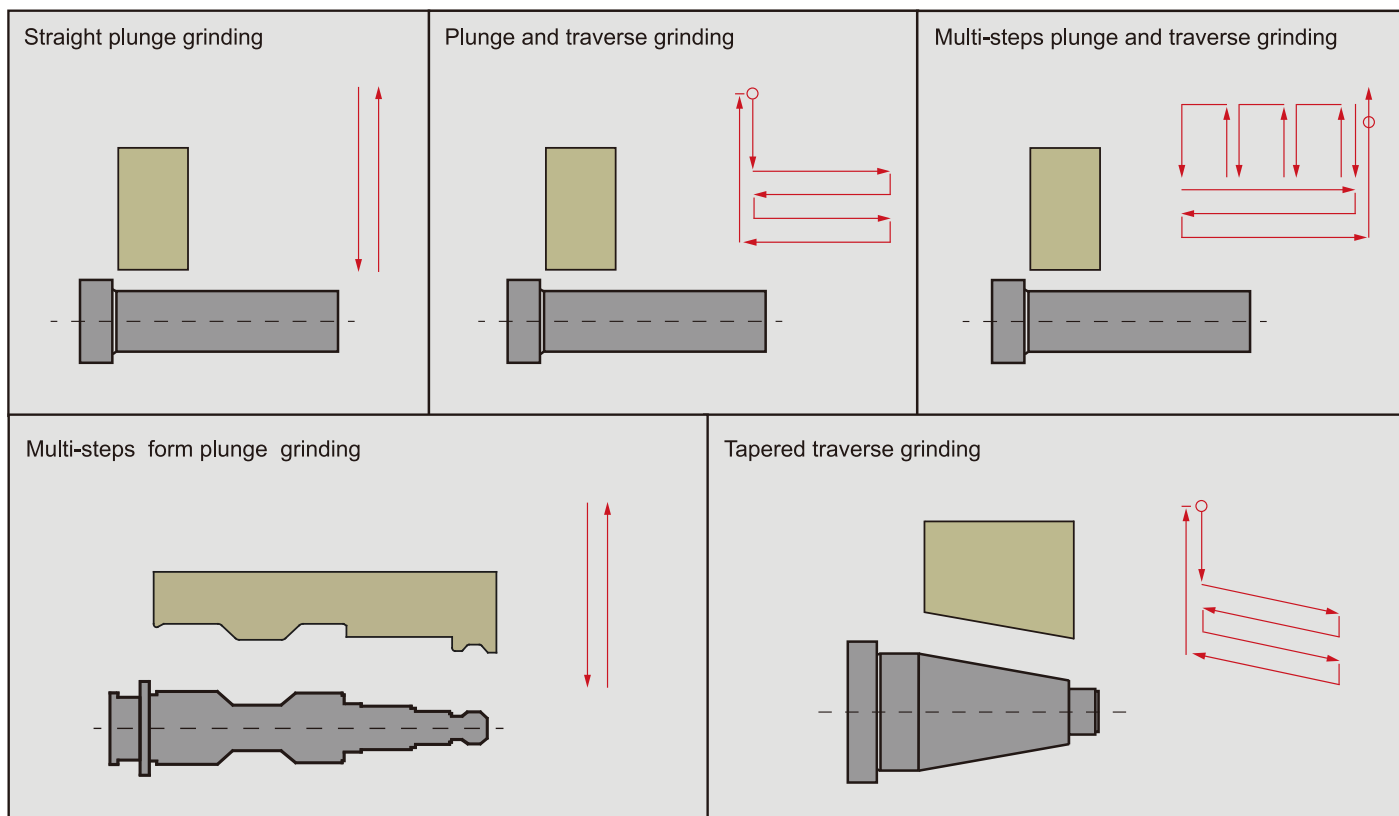
Tailstock
(Servomotor optional)

Diamond roller dresser
(Optional)

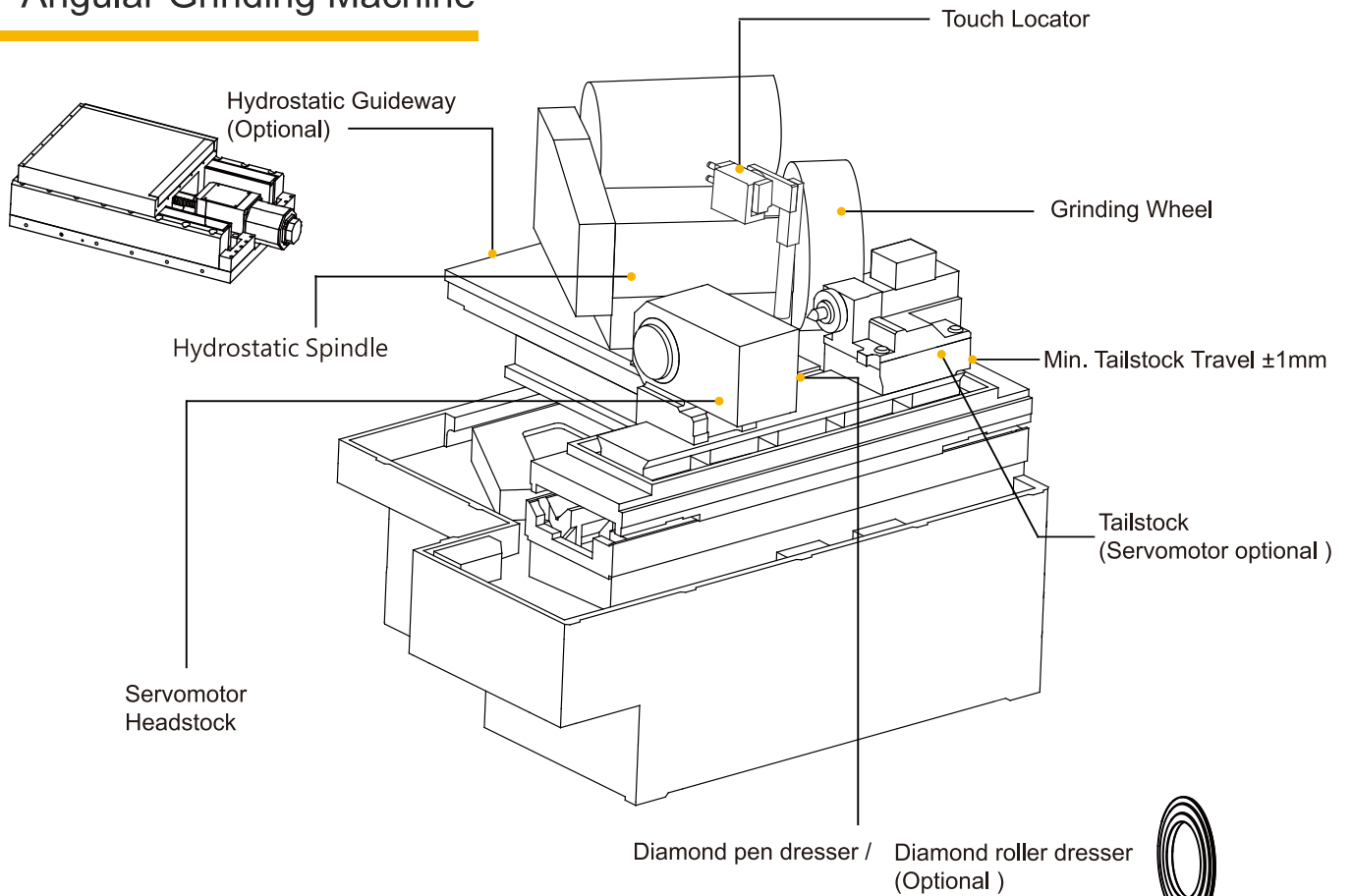
Hydrostatic Spindle



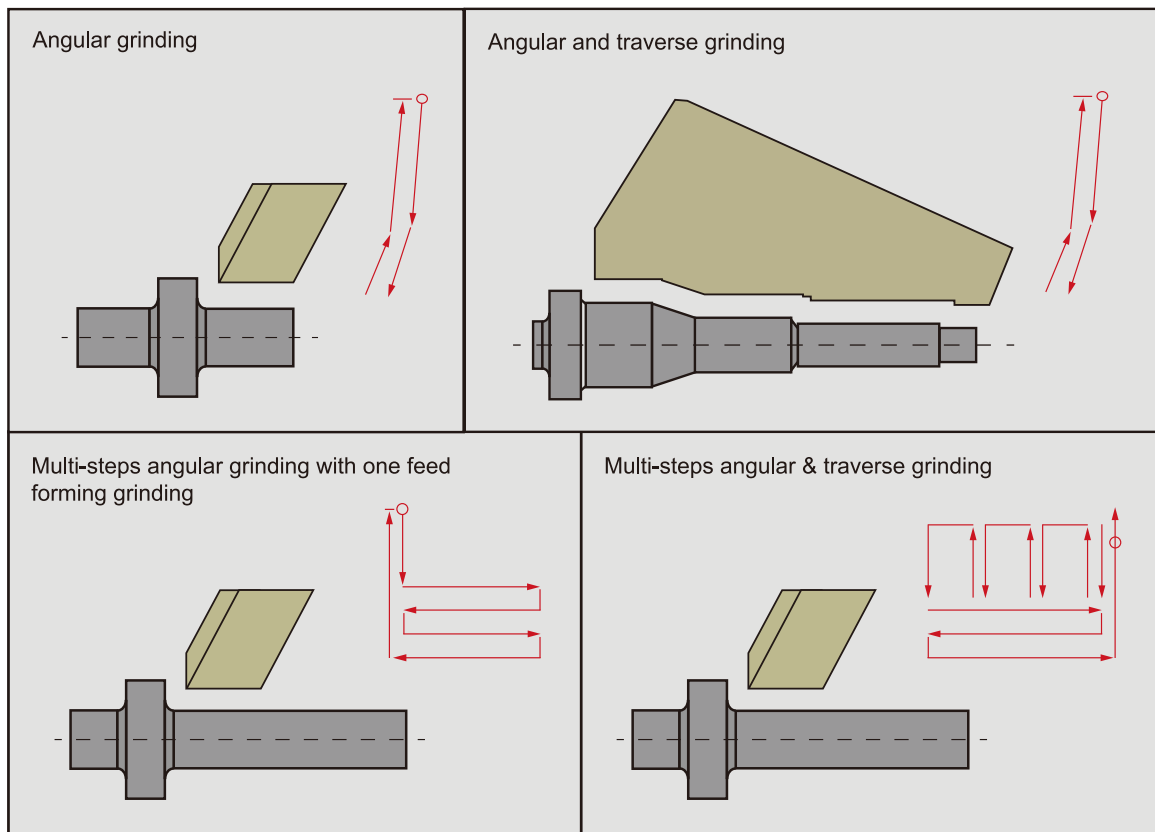
►► Plunge grinding process



Hydrostatic Cylindrical Angular Grinding Machine



▶▶ Angular grinding process



►► Specification Table

MODEL	CDC-030/CDC-055	CAC-030/CAC-055	CDC-065	CDC-100
Distance Between Centers	300 /550 mm	300/550 mm	650 mm	1000 mm
Swing Over Table	350 mm	350 mm	400 mm	400 mm
Max. Load Held Between Centers	150 KG	150 KG	150 KG	150 KG
Max. Grinding Diameter	330 mm	330 mm	380 mm	380 mm
Diameter x Width x Bore	Ø510 x 50 x Ø254 mm	Ø610 x 150 x Ø254 mm	Ø455 x 50 x Ø152.4 mm	Ø455 x 50 x Ø152.4 mm
Wheel Speed	0-2000 R.P.M	0-2000 R.P.M	0-2000 R.P.M	0-2000 R.P.M
Max. Peripheral Speed	53 m/sec	63 m/sec	47 m/sec	47 m/sec
Wheel Spindle Motor	7.5 kW/11 kW (10 HP/15 HP)	7.5 kW/11 kW (10 HP/15 HP)	7.5 kW/11 kW (10 HP/15 HP)	7.5 kW/11 kW (10 HP/15 HP)
Workhead Spindle Speed	25-500 R.P.M	25-500 R.P.M	25-500 R.P.M	25-500 R.P.M
Tailstock Stroke	50 mm	50 mm	25 mm	25 mm
Table Swiveling Angle	—	—	-5°~ 9°	-5°~ 9°
Min. Tailstock Travel	±1mm	±1mm	—	—

* Specifications are subjected to change without notice.

Workpiece after ground



Hydrostatic Cylindrical Angular Grinding Machine

Horizontal Hydrostatic Rotary Surface Grinder

Y/Z-axis is standard with THK /NSK/SCHNEEBERGER linear guideway.

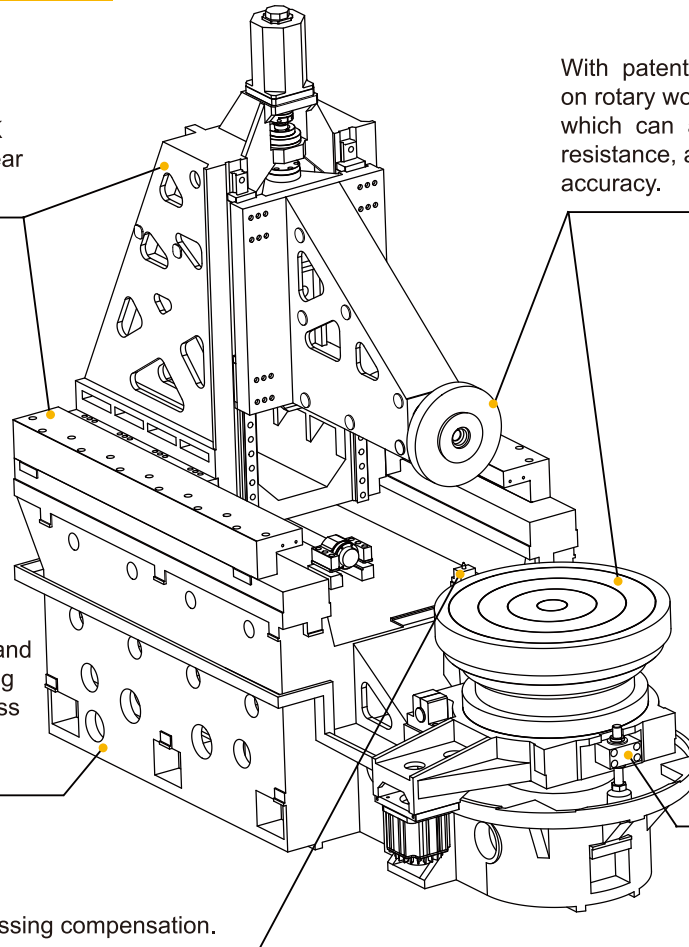
Hydrostatic guideway is optional.

Our products are 100% designed and manufactured in Taiwan. All casting components are processed of stress relieving to ensure the machine stability.

Automatic dressing compensation.

With patented hydrostatic technology design on rotary worktable and grind wheel spindle which can achieve the maximum wear resistance, a long service life and high accuracy.

Worktable can be pivoted $\pm 2^\circ$ for calibration.

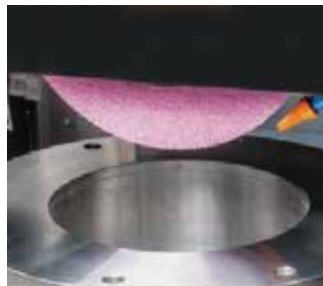
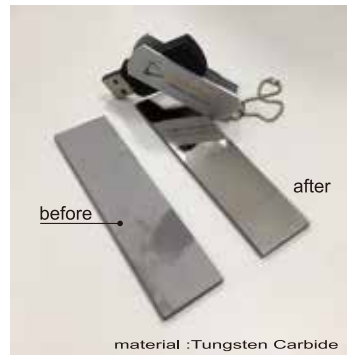


Rotary Surface Grinder Features

- ▶ The independent but fully hydrostatic axial and radial movement mechanisms enable our hydrostatic rotary worktables to remain stable and vibrate very little, even under the stress of eccentric and high centrifugal forces.
- ▶ Non-friction design of our worktable, rotation accuracy within $1\mu\text{m}$.
- ▶ Its static stiffness of at least $400\text{ kgf}/\mu\text{m}$ makes it ideal for heavy cutting.
- ▶ Diameter $\text{Ø}600\text{ mm}$ rotary worktable maintains a load capacity of $10,000\text{ KG}$.
- ▶ Mitsubishi/Fanuc controller available, with human-machine interface (HMI) which features fast communication and convenient control for user-friendly operation.



Workpiece after ground



- ▶ Fragile, High precision requirement materials are suitable on our grinder, such as wafer, ceramics, etc.

▶▶ Specification Table

MODEL	GRC-060	GRC-080
Rotary Table Diameter	Ø600 mm	Ø800 mm
Spindle Center to Tabel Surface	450 mm	450 mm
Angle of Inclination for Worktable	±2 deg	±2 deg
Diameter x Width x Bore	Ø355 x 38 x Ø127 mm	Ø355 x 50 x Ø127 mm
Wheel Spindle Motor	7.5KW/10HP	7.5KW/10HP
Weight	4500kg	5000kg

* Specifications are subjected to change without notice.



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