

## PALMARY PRODUCTS

- Centerless Grinder
- Cylindrical Grinder
- Internal Grinder
- Vertical Grinder
- Surface Grinder
- Special Purpose Grinder



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# **FIRMUS** SERIES

## **CNC BEARING TYPE CENTERLESS GRINDER**

**FIRMUS**  
PCB-6040

**PALMARY MACHINERY CO., LTD.**

# Persistent in Rigidity

## Super rigid structure, stable without deformation

Double support grinding wheel spindle design features high speed operation to boost grinding performance. Computer numerical control from 1 ~ 6 axes satisfy requests for customized specification. Fitted with wider wheel, suitable for efficient mass production.



PCB-6050 (Roller dresser type)

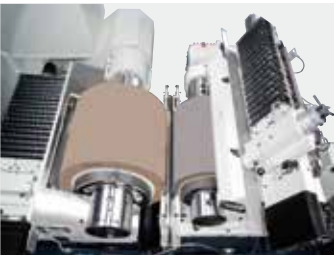


PCB-6040 (Roller dresser type)

### Grinding Wheel Side



● The double support bearing type spindles offer even grinding force on the contact surface. During grinding the stress is even on two ends to avoid taper shaped work pieces.



● Double support bearing type grinding wheel spindle and regulating wheel spindle can support big and wide grinding wheel. The grinding wheel cover is lifted type. (PCB-6050/6060 only)



● Diamond roller dressing device can be attached to the double support wheel unit, features stable dressing, reducing dress worn out. (Opt.)



● The oil mist lubrication is arranged for grinding wheel spindle lubrication, also help to clean and constant temperature control.

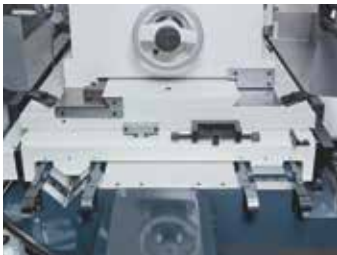
### Regulating Wheel Side



● Instead of using hydraulic driving system, the regulating wheel is driven by linear motor. This improves dressing speed and stability.



● Adjustable R.W. worm shaft eliminates the gap, increases transmission efficiency and lifetime.

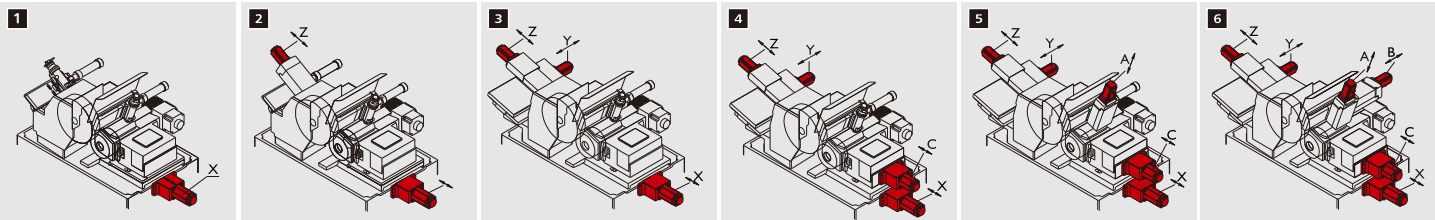


● The one "V" & one flat feeding slide design reinforces the feeding stability. The entire feeding slide is hand scrapped to reduce friction and to increase accuracy of jog movement.



● Double flat slide construction and the feedback from linear scale accomplish high accuracy in-feed. Standard load is with high precision reducer. (PCB-6050/6060 only)

### Axial Combination:



Specification		Model	PCB-6030	PCB-6040	PCB-6050	PCB-6060
Capacity	Max. workpiece O.D.	Ø150 mm				
Grinding Wheel	Wheel size (O.D. x W x I.D.)	Ø610x305xØ304.8mm	Ø610x405xØ304.8mm	Ø610x510xØ355.6mm	Ø610x610xØ355.6mm	
	Wheel speed	3000 m/min				
	Drive motor	30HPx4P (22.kW)	40HPx4P (30kW)	50HPx4P (37.5kW)	50HPx4P (37.5kW)	
	Dressing Device	Single point type dressing device / Roller type dressing device (Special Type, Opt.)				
Regulating Wheel	Wheel size (O.D. x W x I.D.)	Ø355x305xØ203.2mm	Ø355x405xØ203.2mm	Ø405x510xØ254mm	Ø405x610xØ254mm	
	Wheel speed	10~300 r.p.m.				
	Drive motor	5 kw Servo Motor				
Feeding Device	R.W. lower slide infeed	CNC 1 Axis Control (with optical scale's feedback)				
Drive Motor	Coolant pump	1 HP x 2P (0.18kW)				
	R. W. Dressing	RK5913ACE				
Controller		FANUC				
Dimension	L x W x H	3015 x 2205 x 2045			3770 x 2720 x 2045	
	Net weight	6800 kg	7000 kg	12800 kg	13000 kg	
Special Features		CNC 1 – 6 Axes control • Various Automation Devices • Various Automatic Loading / Unloading Devices				
		Various Cooling Devices • Work Rest for Large Dia. or Extra Long Workpieces				

1 ~ 6 axes CNC control available upon request.  
\* The mentioned specifications & dimensions are subject to change without notice.