### **SPECIFICATIONS**

OCD					
MODEL		OCD-45(65)150	OCD-45(65)220	OCD-45(65)300	OCD-45(65)400
Capacity	Swing over table	Ø450 / Ø650 mm			
	Distance between centers	1500 mm	2200 mm	3000 mm	4000 mm
	Max. grinding diameter	Ø420 / Ø620 mm			
	Max. workpiece load	800 kg by between centers / 2000 kg by heavy steady rest			
Grinding	O.D. x width x I.D.	Ø610 x 50 ~ 125 x 203.2 mm			
Wheel	Speed	33 M/s			
X-axis Wheel Head	Max. movable distance	350 mm			
	Feed rate	0.001~2000 mm/min			
	Rapid feed rate	4000 mm/min			
Z-axis Table	Max. movable distance	1970 mm	2750 mm	3620 mm	4620 mm
	Feed rate	0.001~2000 mm/min			
	Rapid feed rate	4000 mm/min			
Workhead	Center	MT. 5			
	Speed (variable speed)	0~250 r.p.m.			
Tailstock	Center	MT. 5			
	Moveable mode of centers	Manual / Hydraulic type (opt.)			
	Max. distance of centers	60 mm			
Controller	Brand	FANUC			
Motor	Wheel spindle	11 kW (15 HP)			
	Workhead spindle	2.9 / 5.5 kW (servo motor)			
	X-axis wheelhead	2.8 kW (servo motor)			
	Z-axis table	4.4 kW (servo motor)			
Machine Weight	Net weight	12000 kg	14000 kg	16000 kg	18000 kg

• The mentioned specifications & dimensions are subject to change without notice.

#### STANDARD ACCESSORIES

- CNC controller x 1
- Linear scale (for X axis) x 1
- Grinding wheel and grinding wheel flange x 1
- Diamond tool holder (tailstock mounted type) x 1
- Grinding wheel soft starter x 1
- Hydraulic Tailstock x 1
- Semi-enclosed splash guard x 1
- Hydraulic system x 1
- Coolant system x 1
- Work lamp x 1
- Carbide tipped work centers x 2
- Tools and tool box x 1

### Internal grinding attachment

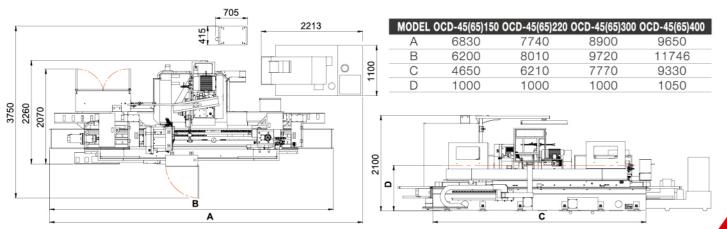
- Heavy type 2-point steady rest (2 pcs/set)

OPTIONAL ACCESSORIES

- Live work center
- Adjustable 3-jaw scroll chuck
- Adjustable 4-jaw scroll chuck
- Spare grinding wheel flange
- Auto. grinding wheel balancer
- Vibration meter for manual G.W. balancing
- Wheel balancing stand and arbor
- Gap control
- Touch probe gauge
- Magnetic coolant separator
- Paper filter

#### MACHINE DIMENSIONS

(unit: mm)



#### PALMARY PRODUCTS

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

# **PALAMRY**

### PALMARY MACHINERY CO., LTD.

No. 77, Gongye Rd., Dali Dist., Taichung City 41280, Taiwan. Tel: +886-4-2492-9799 Fax: +886-4-2492-9499 E-mail: palmary@grinding.com.tw www.palmary.com





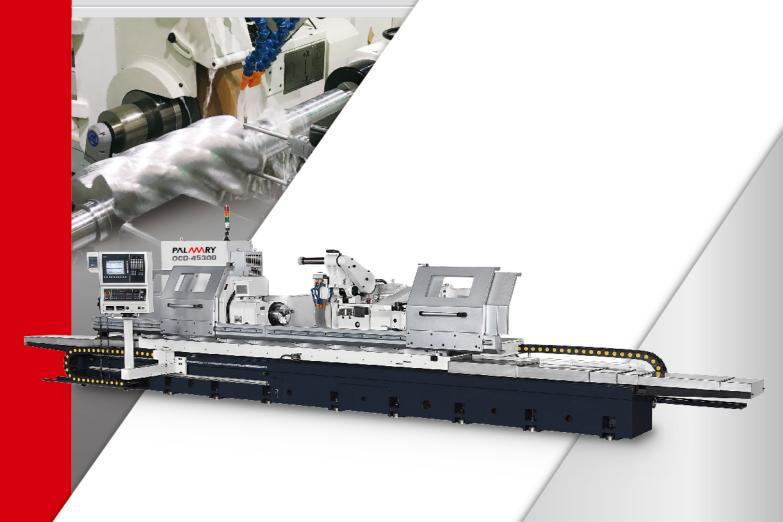




www.palmary.com

# CNC CYLINDRICAL GRINDER **HEAVY DUTY**

**OCD** series



**PALAMRY** 

PALMARY MACHINERY CO., LTD.

## OCD series

#### **FEATURES**

- Newly developed EXTOMAX breaks through the original limited design of medium- and small-sized
- Re-enforced structure, low gravity and high rigidity machine base, made of Meehanite cast iron through annealing and aging treatment, incorporated into a no-deformation and precise machine body.
- Longitudinal and traverse sliding tables, with enlarged overall stride and rail way width, precision scrapping made on both horizontal and vertical sides, coupling with hydrostatic structure, light and steady movement of sliding table, repeated precision reaching up to  $\mu$  level.
- Grinding wheel spindle designed with hydrostatic bearing, free of metal friction and thermal deformation, allowing smooth within the oil film operation of spindle.
- Workhead and tailstock are specially designed for heavy duty work, high rigidity structure design which increasing overall loading capacity. Workhead is driven by servo motor, providing step-less variable speed change. Supported by precision bevel bearing, attains vibration free transmission ability. Tailstock equipped with hydraulic and stopper for easy operation, horizontal air bearing designed for easy displacement, reducing friction and increasing longevity.

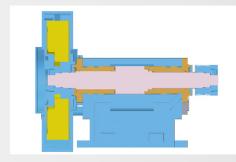
The machine's design structure is different from the light weight design philosophy in the past; it substantially consolidates the rigidity of body and parts structure, takes being solid sliding seat mechanism, slide way 1V1 flat

**AXIAL VIEW** 

## more stable as the appeal, and adopts thick and structure, and lubrication system designed by the hydrostatic principle, providing the best precision and stability of moving when doing grinding.

### RIGID SPINDLE HEAD The rigid constructed spindle head

employs high precision bearings assuring max. spindle stability it guarantees outstanding accuracy for external, internal and end face grinding.



### PRECISION WHEEL HEAD

Wheel spindle with Hydro-static bearing **BEARING** Absolutely no metal-to-metal contact. The grinding wheel spindle is precision machined from high quality alloy steel and normalized, tempered, carburized ad sub-zero treated, precision ground. No deformation, maximum wear resistance and lifetime accuracy are assured.



### SPECIAL HYDRO-STATIC

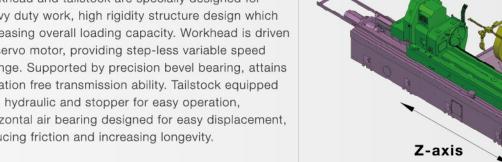
The wheel spindle runs by using a special hydro-static bearing and is especially ideal for precision grinding work. It feature high speed, no friction between metals, no heat generation, deformation-free, extra high accuracy and continual use.

### APPLICATION

- Oversized gear shaft
- Oversized motor shaft
- Oversized printing shaft Rubber rolling shaft
- Rolling shaft
- Oversized roller etc.

PAL MARY

OCD-45300



### LASER ALIGNMENT

X-axis

The slide way adopts scraping technics processing, inherits traditional techniques, cooperates with precise measuring equipment, and ensures the smoothness and straightness on the slide way with rigorous demand.



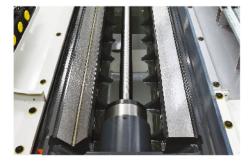
### **CNC CONTROLLER**

( Could choose FANUC, SIEMENS, MITSUBISHI)



### **TAILSTOCK**

The rigid tailstock is locked on the slide firmly. The tailstock quill movement is driven by hydraulic power for convenient wheel head are lubrication by an and fast workpiece clamping and unclamping.



### **ADVANCED HYDRO-STATIC** LUBRICATION SYSTEM

The slideways of the table and of the advanced automatic hydro-statical lubrication system. This provides various features such as extremely smooth movement, added feeding accuracy and superior frinding accuracy.



### **ROTARY-TYPE MANUAL** INTERNAL GRINDING ATTACHMENT (optional)

- Easy to change over from O.D. grinding to I.D. grinding. The attachment is fixed by the rotary support for convenient workpiece loading.
- To position the internal grinding attachment, simply turn it downward and fix it in the grinding position.
- Allows for external and internal grinding operations in one process.
- Tapered workpieces can be ground by swiveling on the workhead and table.

OCD-45300]

......

......