

OCD

MODEL	OCD-45(65)150	OCD-45(65)220	OCD-45(65)300	OCD-45(65)400
<b>Capacity</b>	Swing over table Distance between centers 1500 mm 2200 mm 3000 mm 4000 mm Max. grinding diameter $\varnothing 420 / \varnothing 620$ mm Max. workpiece load 800 kg by between centers / 2000 kg by heavy steady rest			
<b>Grinding Wheel</b>	O.D. x width x I.D. $\varnothing 610 \times 50 \sim 125 \times 203.2$ mm Speed 33 M/s			
<b>X-axis Wheel Head</b>	Max. movable distance 350 mm Feed rate 0.001~2000 mm/min Rapid feed rate 4000 mm/min			
<b>Z-axis Table</b>	Max. movable distance 1970 mm 2750 mm 3620 mm 4620 mm Feed rate 0.001~2000 mm/min Rapid feed rate 4000 mm/min			
<b>Workhead</b>	Center MT. 5 Speed (variable speed) 0~250 r.p.m.			
<b>Tailstock</b>	Center MT. 5 Moveable mode of centers Manual / Hydraulic type (opt.) Max. distance of centers 60 mm			
<b>Controller</b>	Brand FANUC Wheel spindle 11 kW (15 HP)			
<b>Motor</b>	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)			
<b>Machine Weight</b>	Net weight 12000 kg 14000 kg 16000 kg 18000 kg			

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

STANDARD ACCESSORIES

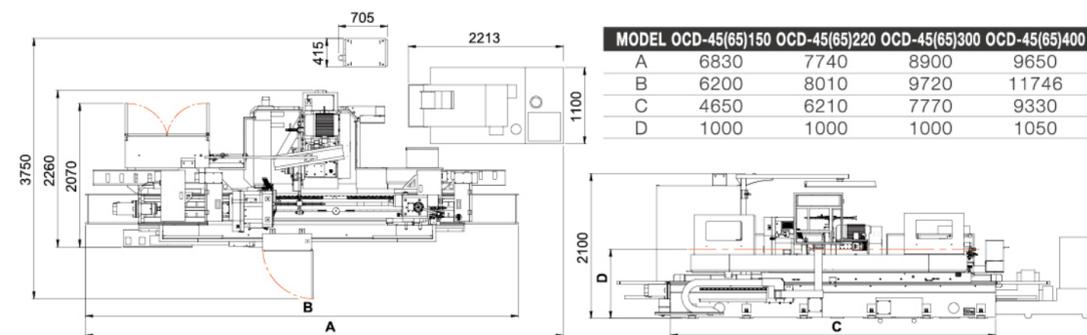
- CNC controller x 1
- Linear scale (for X axis) x 1
- Grinding wheel and grinding wheel flange x 1
- Diamond tool holder (tailstock mounted type) x 1
- Grinding wheel soft starter x 1
- Hydraulic Tailstock x 1
- Semi-enclosed splash guard x 1
- Hydraulic system x 1
- Coolant system x 1
- Work lamp x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

OPTIONAL ACCESSORIES

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



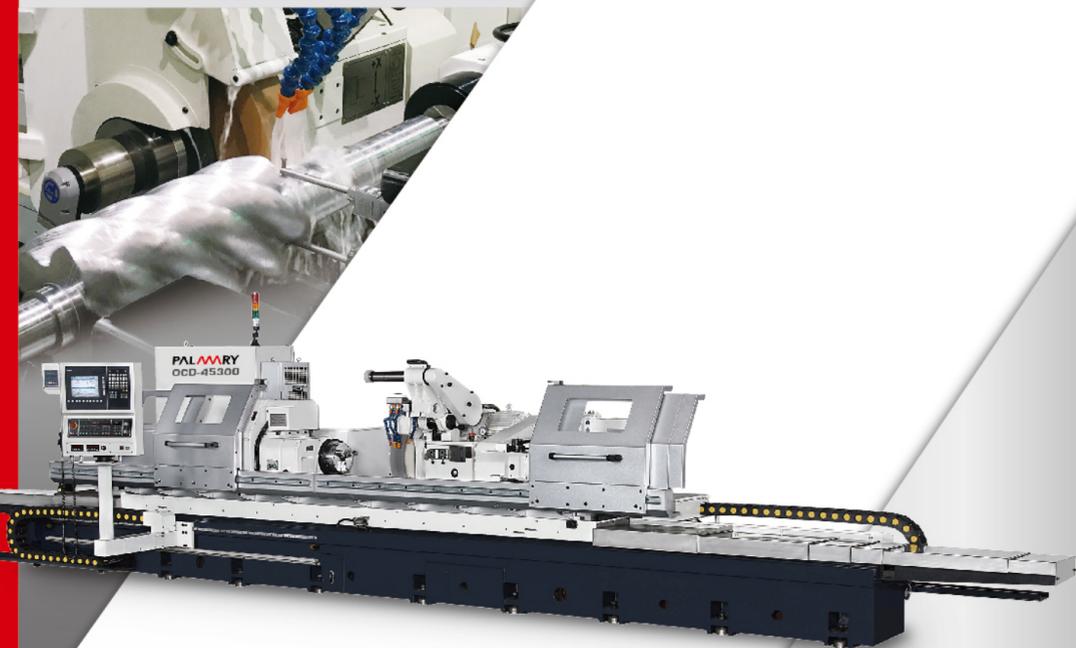
PALMARY PRODUCTS

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

www.palmary.com

CNC CYLINDRICAL GRINDER HEAVY DUTY

OCD series



**PALMARY**

PALMARY MACHINERY CO., LTD.

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2006N2

**PALMARY**

PALMARY MACHINERY CO., LTD.

**FEATURES**

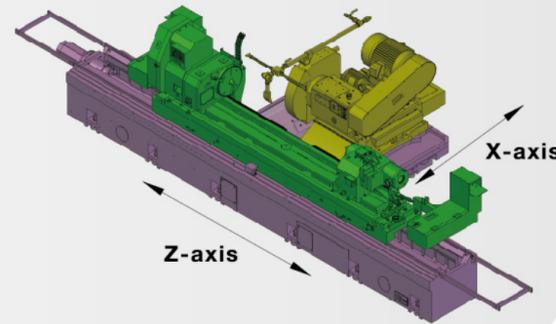
- Newly developed EXTOMAX breaks through the original limited design of medium- and small-sized machine tools.
- Re-enforced structure, low gravity and high rigidity machine base, made of Meehanite cast iron through annealing and aging treatment, incorporated into a no-deformation and precise machine 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.

**APPLICATION**

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

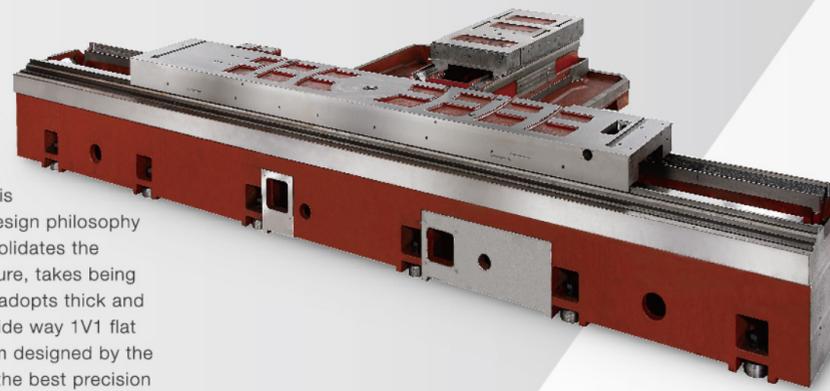
The machine's design structure is different from the light weight design philosophy in the past; it substantially consolidates the rigidity of body and parts structure, takes being more stable as the appeal, and adopts thick and solid sliding seat mechanism, slide way 1V1 flat structure, and lubrication system designed by the hydrostatic principle, providing the best precision and stability of moving when doing grinding.

**AXIAL VIEW**



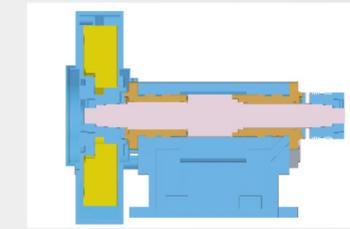
**LASER ALIGNMENT**

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



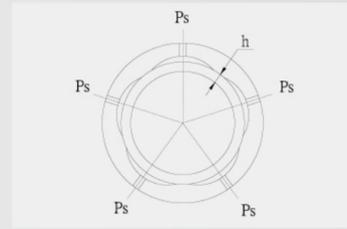
**RIGID SPINDLE HEAD**

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 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.



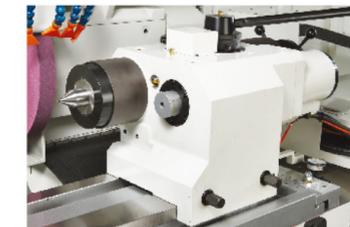
**SPECIAL HYDRO-STATIC BEARING**

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.



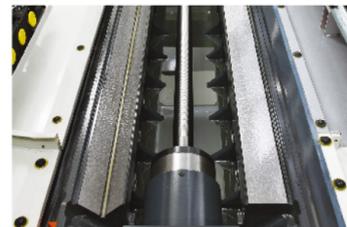
**CNC CONTROLLER**

( 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 and fast workpiece clamping and unclamping.



**ADVANCED HYDRO-STATIC LUBRICATION SYSTEM**

The slideways of the table and of the wheel head are lubrication by an 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.

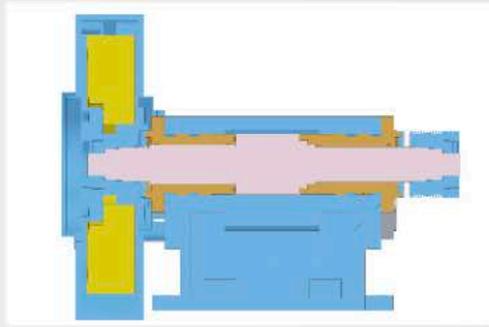


[ OCD-45300 ]



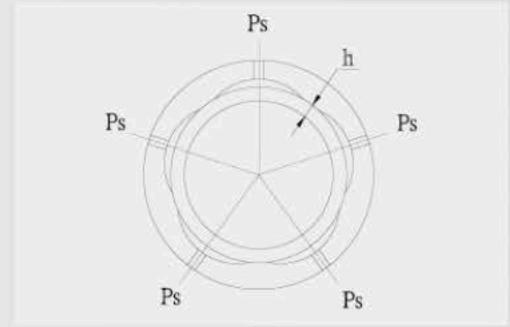
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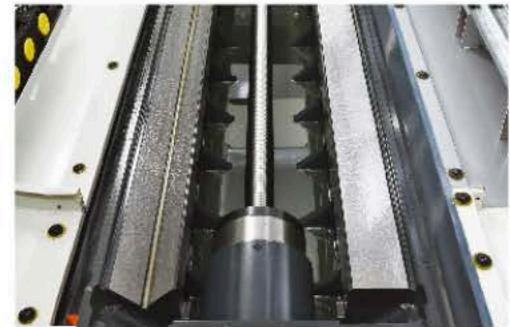
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## OCD

MODEL	OCD-45(65)150	OCD-45(65)220	OCD-45(65)300	OCD-45(65)400	
<b>Capacity</b>	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			
<b>Grinding Wheel</b>	O.D. x width x I.D.	Ø610 x 50 ~ 125 x 203.2 mm			
	Speed	33 M/s			
<b>X-axis Wheel Head</b>	Max. movable distance	350 mm			
	Feed rate	0.001~2000 mm/min			
	Rapid feed rate	4000 mm/min			
<b>Z-axis Table</b>	Max. movable distance	1970 mm	2750 mm	3620 mm	4620 mm
	Feed rate	0.001~2000 mm/min			
	Rapid feed rate	4000 mm/min			
<b>Workhead</b>	Center	MT. 5			
	Speed (variable speed)	0~250 r.p.m.			
<b>Tailstock</b>	Center	MT. 5			
	Moveable mode of centers	Manual / Hydraulic type (opt.)			
	Max. distance of centers	60 mm			
<b>Controller</b>	Brand	FANUC			
	Wheel spindle	11 kW (15 HP)			
<b>Motor</b>	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)			
	Net weight	12000 kg	14000 kg	16000 kg	18000 kg

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### STANDARD ACCESSORIES

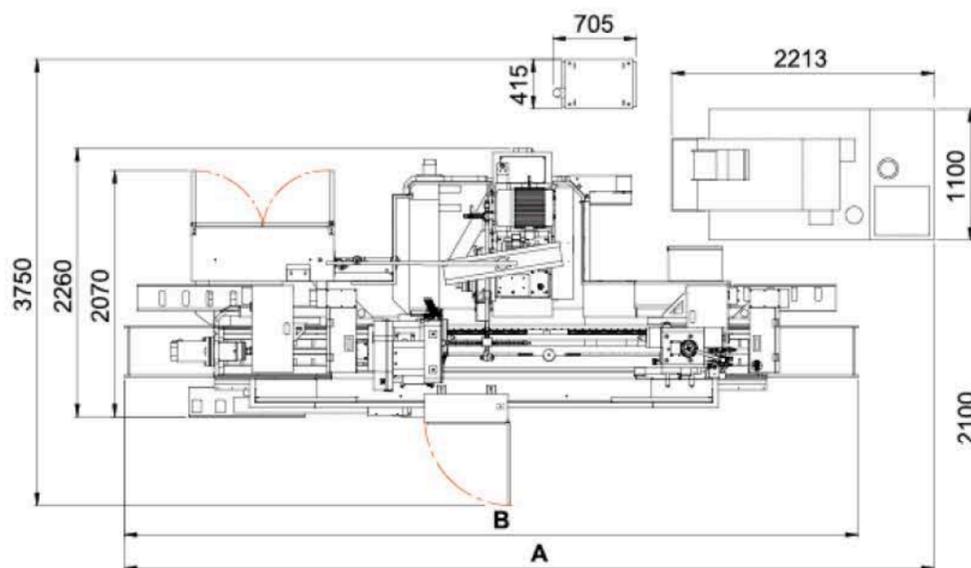
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- Internal grinding attachment
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### MACHINE DIMENSIONS

(unit: mm)



MODEL	OCD-45(65)150	OCD-45(65)220	OCD-45(65)300	OCD-45(65)400
A	6830	7740	8900	9650
B	6200	8010	9720	11746
C	4650	6210	7770	9330
D	1000	1000	1000	1050

