

## VERTICAL MACHINING CENTER



OOYA U.S.A., INC.

## The New OOYA "VMC Series" Machining Centers-The Productivity Promoters

Introduction to the Most Modern, Economical Vertical Machining Centers from OOYA



"OOYA" Vertical Machining Centers were first developed early in 1961. They are in operation on production lines of heavy parts, and contribute to dependable high-quality and accuracy. Through technological studies, experience and field data, we have been able to introduce THE NEW VMC SERIES.



- Extra-wide bed construction with 4 hardened and ground slide ways allows greater rigidity for heavy cutting and super precision machining.
- Extended spindle nose with 6-bearing construction allows shorter tools for heavy milling, deep bores and box-type applications.
- The spindle is driven by a 2-step AC motor; sliding gears enable use of full motor
- Spindle oil cooler with refrigeration minimizes thermal distortion.
- 1 to 1 ratio headstock design gives additional strength and stability.
- Extra large ball screws are used for greater rigidity and longer durability.
- Telescoping stainless steel way cover for maximum protection.
- Equipped with double-arm type automatic tool changer. The tool storage magazine indexes the next tool to stand-by position while machining; then the tool change arm exchanges tools and returns the used tool to its designated pocket.

The pendant control swivels and rotates for easy operation.





## **SPECIFICATION**

Item	VMC-1100	VMC-1400	VMC-1685	VMC-2185
■TABLE			I	
Table size overall	1,300×545mm(51.2"×21.5")	1,700×730mm(66.9"×28.7")	1,900×850mm(74.8"×33.5")	2,400×850mm(94.5*×33.5*
Working surface	1,300×460mm(51.2"×18.1")	1,700×650mm(66.9"×25.6")	1,900×760mm(74.8"×30")	2,400×760mm(94.5"×30")
T-slot(widthxnoxpitch)	18mm×3×125mm(0.709*×3×4.92*)	18mm×5×125mm(0.709"×5×4.92")	22mm×5×150mm(0.866"×5×5.91")	22mm×5×150mm(0.866'×5×5.91
Tablie load capacity	1,000kgs(2,200lbs)	2,000kgs(4,400lbs)	2,500kgs(5,500lbs)	3,000kgs(6,600lbs)
MOVEMENT&RANGE				1 3 4 7 9 9 9
X axis travel	1,100mm(43.3")	1,450mm(57")	1,650mm(65")	2,150mm(85")
Y axis travel	560mm(22")	750mm(29.5")	850mm(33.5")	
Z axis travel	70+565mm(2.8"+22.2")	700mm(27.6")	700mm(27.6")	
Spindle nose to table	100-735mm(3.9"-28.9")	200-900mm(7.9"-35.4")	250-950mm(9.8*-37.5")	
Spindle center to column	540mm(21.3")	750mm(29.5*)	850mm(33.5")	
SPINDLE		i i		
Spindle nose	BT-40/CAT-40	BT-50/CAT-50		
Spindle speed	40-4,000 / 70-9,000 rpm	40-4,000rpm		
Change of speeds	Infinitely variable	Infinitely variable(2STEPS)		
FEEDS	the state of the s			
Rapid traverse(X,Y axis)	15,000mm/min(590ipm)	12,000mm/min(472ipm)		
Rapid traverse(Z axis)	12,000mm/min(472ipm)	10,000mm/min(394ipm)		
Feed rates(X,Y,Z axis)	1-4,000mm/min(0.04-157ipm)	1-4,000mm/min(0.04-157ipm)		
■ AUTOMATIC TOOL CHANGER				
Magazine capacity	16(24*)	30(40*)		
Tool selection	Random, bi-direction	Random,bi-direction		
Max.tool dia.	φ 75mm( φ 3*)	φ 125mm( φ 5*)		
Max toll length	300mm(12")	300mm(12")		
Max.tool weight	6kg(13.2lbs)	15kg(33lbs)		
MOTORS				
Feed motors	AC1.8/1.8/1.8KW(AC2.5/2.5/2.5HP)	AC2.8/2.8/3.3KW(AC3.8/3.8/4.5HP)	AC3.3/3.3/3.3KW(AC4.5/4.5/4.5HP)	
Spindle motor(Cont./30min,)	AC5.5/7.5KW(AC7.5/10HP)		AC11/15KW(AC15/20HP)	
Spindle head lubricant	AC0.2KW-4P(AC1/4HP-4P)	AC0.4KW-4P(AC1/2HP-4P)		
Automatic slideway lubricant	AC25W-4P(AC1/20HP-4P)	AC60KW-4P(AC1/12HP-4P)		
Coolant pump	AC0.2KW-4P(AC1/4HP-4P)	AC0.2KW-4P(AC1/4HP-4P)		
Hydraulic unit	AC1.5KW-4P(AC2HP-4P)	AC2.2KW-4P(AC3HP-4P)		
MACHINE SIZE				
Floor area(x,y)	3,150×2,340mm(124"×92.1")	4,400×3,020mm(173.3*×118.9")	4,570×3,285mm(180"×130")	5.710×3.285mm(225"×130")
Net weight	7,000kgs(15,400lbs)	12,000kgs(26,400lbs)	15,500kgs(34,100lbs)	17,000kgs(37,400lbs)



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