

# Eumach

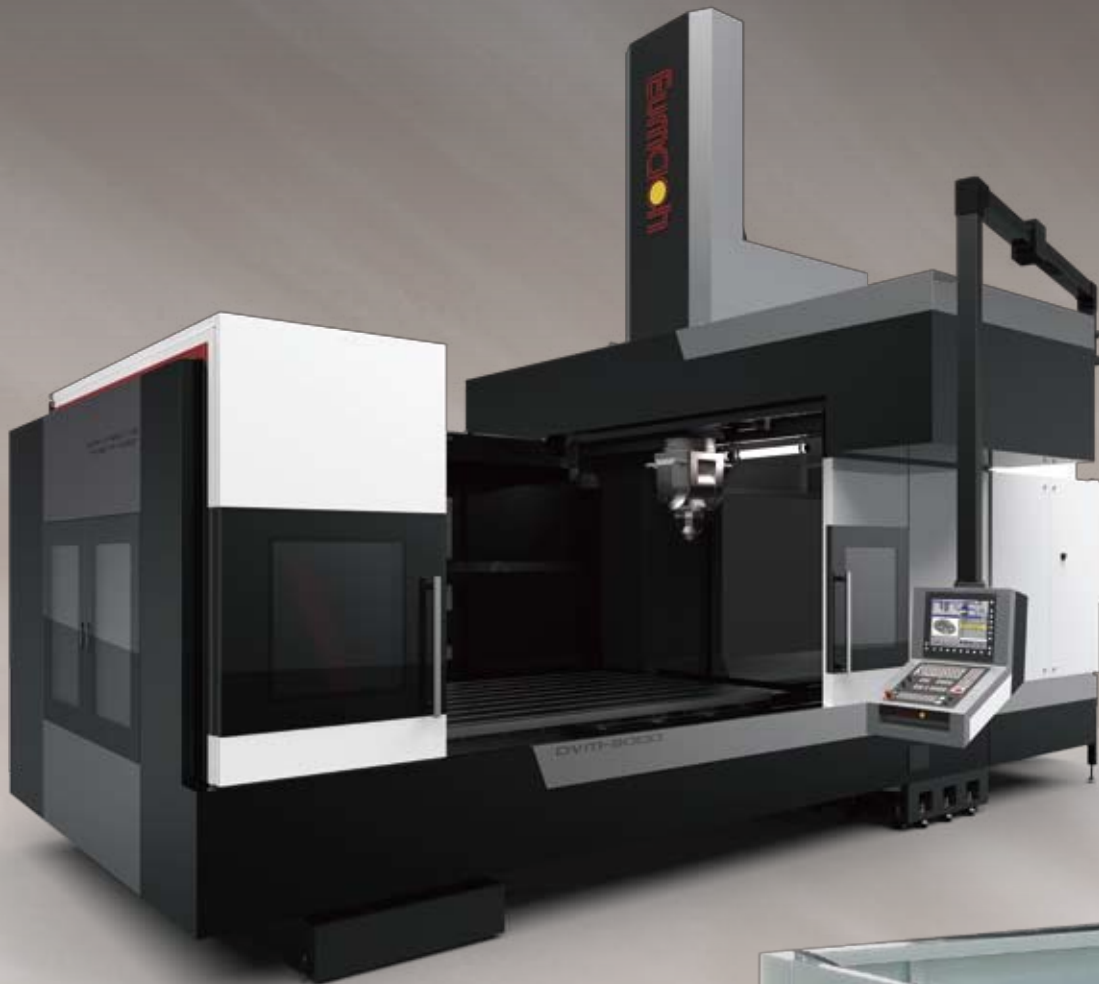
*Always A Step Ahead*



**DVM-2017 ~ 6035**

**DOUBLE COLUMN MACHINE CENTER  
3 AXIS ~ 5 AXIS SIMULTANEOUS**

**A PROFESSIONAL CNC MACHINES MANUFACTURER**



● THE LATEST INNOVATIVE DESIGN NOT ONLY FOR MOULD & DIE APPLICATIONS BUT ALSO FOR AEROSPACE, CONSTRUCTION, TEXTILE MACHINERY INDUSTRIES AND GENERAL MACHINING; WITH HIGH EFFICIENCY, HIGH ACCURACY AND HIGH POWER CHARACTERISTICS COMBINED WITH A LARGE WORK ENVELOPE.



- **LARGE CAPABILITY: TABLE SIZE FROM 2M X 1.7M UP TO 6M X 3.1M, TABLE LOAD FROM 8 TONS UP TO 30 TONS.**
- **HIGH RIGIDITY SPINDLE HEAD: STANDARD 380MM X 380MM OR OPTIONAL SECTION POWERFUL SQUARE RAM SPINDLE HEAD PROVIDES SUPERIOR CUTTING POWER.**
- **OPTIONAL ATC & MILLING HEADS : AUTOMATIC TOOL CHANGER 24 UP TO 180 TOOLS; MILLING HEAD CAN BE CHANGED WITH VARIOUS MILLING HEADS.**

# ***OUTSTANDING DESIGN MACHINE FRAME***



- **SPINDLE HEAD IS MADE OF SPECIAL CASTING, BY A 380MM X 380MM SECTION SQUARE RAM, SURROUNDED BY 8 SIDES SADDLE WHICH HAS BEEN ATTACHED “RULON” ANTI-FRICTION MATERIAL AND PRECISION HAND SCRAPED TO GET THE BEST CONTACT SURFACE.**

***WITH MAXIMUM RIGIDITY & DYNAMICS***



- THE SUPERIOR DESIGNED BEAM & COLUMNS WHICH PROVIDES HIGHEST RIGIDITY DURING HEAVY CUTTING AND IS THE BASIS OF EXCELLENT MACHINING RESULTS.

# GERMAN MADE HIGH QUALITY ROLLER GUIDE WAYS:

## X AXIS

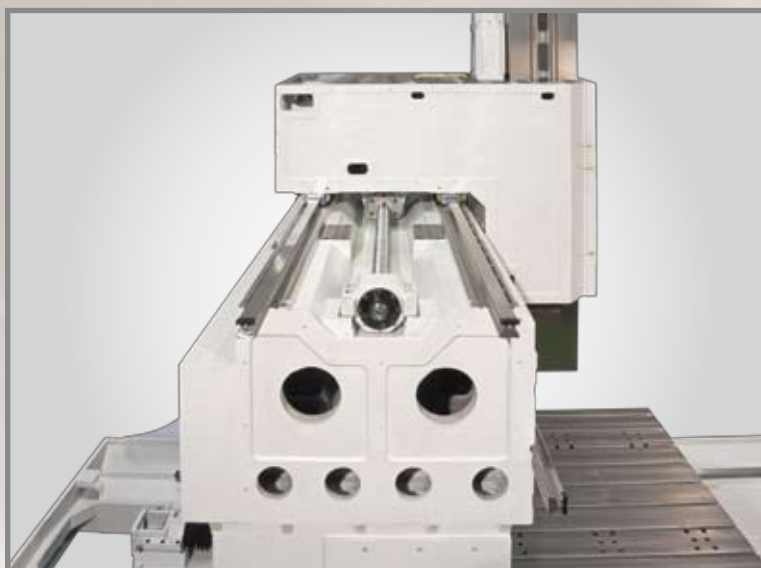


▲ DVM-2017/3017 ARE WITH 2 SETS GERMAN MADE ROLLER GUIDE WAYS.



▲ OTHER WIDER BIGGER MODELS ARE ALL WITH 4 GUIDE WAYS.

## Y AXIS



▲ ALL THE DVM SERIES FAMILIES Y AXIS IS WITH 3 SLIDWAYS, TWO ON TOP AND ONE IN FRONT SIDE, MADE OF HEAVY DUTY ROLLER GUIDE, NOT ONLY PROVIDES ACCURACY BUT THE RIGIDITY TO SUPPORT SLIDING SADDLE EVEN AT VERY HIGH SPEED MOVEMENT.

## Z AXIS



◀ SPECIAL CASTING MADE 380MM X 380MM SECTION RAM SPINDLE HEAD ABSOLUTELY PROVIDES SUPERIOR STURDY CUTTING CAPABILITY THAN COMPETITORS.

▶ OPTIONAL PATENTED 420MM X 420MM SECTION RAM WITH EITHER 4 PIECES GERMAN MADE ROLLER GUIDE WAYS ( TAIWAN PATENT NO. M328340 ) OR BOX TYPE HARDENED GROUND GUIDE WAYS ARE AVAILABLE FOR 1100MM OR 1300MM Z AXIS TRAVEL.



# **UNIQUE INNOVATIVE DESIGN TO SUIT TODAY'S HIGH SPEED CUTTING DEMAND**

## **STANDARD:**

- ▶ A STURDY & COMPACT SPINDLE SYSTEM BY USING DIRECT COUPLING SPINDLE, NOT LIKE COMPETITOR'S IN-DIRECT SYSTEM TO HAVE BACKLASH, NOISE AND THERMAL DEFORMATION. STANDARD LONG NOSE SPINDLE DESIGN TO ALLOW COMPLETELY ACCESS TO THE WORK PIECE EVEN IS A HOLLOW SHAPED. STANDARD SPINDLE OIL COOLER 6000RPM & BT#50 TAPER.



## **OPTIONAL:**

- ▶ AN OPTIONAL 10000RPM, BT#50 BUILT IN MOTOR SPINDLE BY USING CERAMIC BEARINGS FOR HIGH SPEED CUTTING APPLICATIONS MAXIMUM TORQUE & POWER IS 420Nm & 30KW. (ONLY FOR MACHINE WITH FANUC CONTROL) ALSO HAS 12000RPM OR HSK-A100 MOTOR SPINDLES AVAIL ABLE.



## **OPTIONAL:**

- ▶ ANOTHER OPTIONAL SPINDLE IS BEING DESIGNED & PROVED ONLY FOR THOSE TOUGH MATERIALS SUCH AS TITANIUM AND INCONEL ALLOY ETC., SPINDLE POWER IS 63KW/73KW, TORQUE IS 1243NM/1966NM WITH HSK-A100 TAPER AND 6000RPM.



## **OPTIONAL 2 AXES SIMULTANEOUS MILLING HEADS :**



COMPACT BUT LARGE ENVELOPE INTERIOR SPACE PROVIDES EASE OF OPERATOR'S HANDLING BUCKY WORKPIECE, MAXIMUM LOADING UP TO 30 TONS ( DVM-5035 ) STILL WITHIN BEST DYNAMIC ACCURACY, DUE TO VERY WELL DESIGN ON MACHINE BASE AND 4 SLIDE WAYS STRUCTURE.





FORK TYPE



UNIVERSAL TYPE



- MACHINE WITH GERMAN MADE 2 AXES ( A & C ) FORK TYPE MILLING HEADS, MAIN SPINDLE SPECIFICATIONS AVAILABLE ARE :
  - HSK-A100/10000RPM/34&42KW/160&200Nm
  - HSK-A63/18000RPM/21&27KW/100&130Nm
  - HSK-A63/24000RPM/34&42KW/76&91Nm

# OPTIONAL 2 AXES ORTHOGONAL TYPE INDEXING MILLING HEAD :

## ● HEAD SPINDLE SPECIFICATIONS AVAILABLE ARE :

ORT-1 : 1 ° / 360 X 360 POSITIONS / BT#50 / 3500RPM  
ORT-2.5 : 2.5 ° / 144 X 144 POSITIONS / BT#50 / 3500RPM

## SPINDLE MOTOR POWER TORQUE S1 :

22KW & 560NM WITH FANUC CONTROL,  
17KW & 648NM FOR OTHER CONTROLS.



# OPTIONAL 2 AXES UNIVERSAL TYPE INDEXING MILLING HEAD :

## ● HEAD SPINDLE SPECIFICATIONS AVAILABLE ARE :

VH-1 : 1° / 360 X 360 POSITIONS / BT#50 / 3500RPM  
VH-2.5: 2.5° / 144 X 144 POSITIONS / BT#50 / 3500RPM

## SPINDLE MOTOR POWER TORQUE S1 :

22KW & 560NM WITH FANUC CONTROL,  
17KW & 648NM FOR OTHER CONTROLS.



# OTHER MILLING HEAD ATTACHMENT (OPT.):

Manual clamping to spindle :

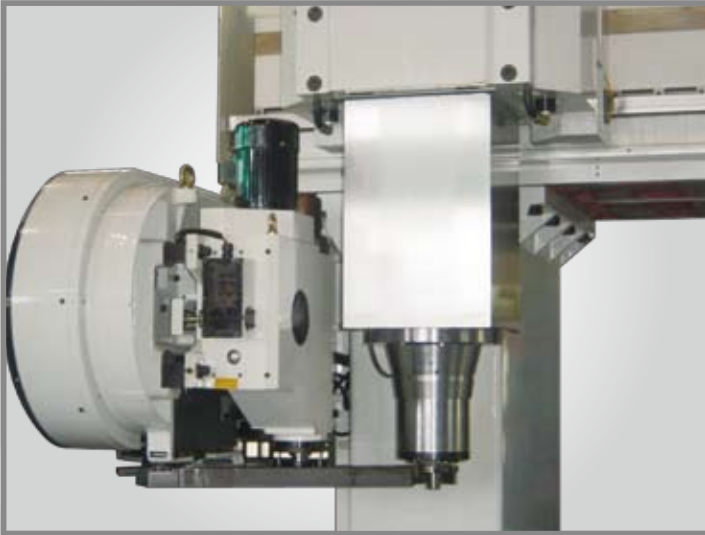


Automatic spindle picking up :



NO	Angle heads	Head clamp	Tool clamp	Max. RPM	C axis index
1	90 °	Manual	Manual	2000	0
2	90 °	Manual	Automatic	3500	Manual
3	30 ° 45 ° 72 °	Manual	Automatic	3500	Manual
4	ET500	Manual	Automatic	3500	Manual
5	90 °	Manual	Automatic	3500	Manual
6	universal	Manual	Automatic	3500	Manual
7	90 ° -AHC	Automatic	Automatic	3500	5 °
8	ORT-AHC	Automatic	Automatic	3500	1 °
9	ET500-AHC	Automatic	Automatic	3500	0

## ***AUTOMATIC TOOL CHANGER (OPT.):***



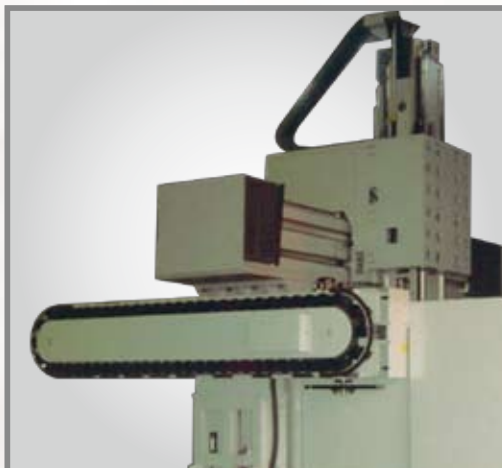
- ▶ MECHANICAL STAND ALONE TOOL MAGAZINE, DRIVEN BY ELECTRIC MOTOR OR SERVO MOTOR FOR LONG TERM STABILITY. TOOLS NUMBER AVAILABLE ARE 24 / 40 / 60 / 120 / 180.



**24 ATC**



**32 / 40 ATC**



**60 ATC**



**180 ATC**

# SPECIFICATIONS

MODEL	UNIT	DVM-2017	DVM-3017	DVM-2021	DVM-3021	DVM-3025	DVM-4021	
<b>TRAVEL:</b>								
X AXIS	mm	2200	3200	2150	3200			
Y AXIS	mm	1750		2200		2600	2200	
Z AXIS	mm							
<b>DISTANCES:</b>								
BETWEEN TWO COLUMNS	mm	1750		2130		2530	2130	
SPINDLE TO TABLE TOP	mm							1.STANDARD LO 2.OPTIONAL SH
TABLE TOP TO FLOOR	mm							
<b>TABLE:</b>								
OVERALL SIZE	mm	2000×1600	3000×1600	2000×1700	3000×1700	3000×2100	4000×1700	
T SLOTS	mm							
MAXIMUM LOADING	kgs	6000	8000	8000	11000	14000	13000	
X AXIS SLIDEWAY		2 ROLLER BEARING						
<b>SPINDLE &amp; RAM</b>								
TRANSMISSION	TYPE							
TAPER								
SPEED	RPM							
RAM SECTION	mm							
	TYPE	BOX WAY 8 S						
MOTOR FANUC / MITSUBISHI	KW							
HEIDENHAIN / SIEMENS	KW							
<b>FEEDRATE: X &amp; Y / Z</b>								
CUTTING FEEDRATE	mm/min							
RAPID FEEDRATE	mm/min	15 / 15 / 10 (15)					10 / 15	
MINIMUM SETTING	mm							
<b>AUTOMATIC TOOL CHANGER (OPTION)</b>								
NO. OF ATC	PCS							
MAX. TOOL(DIA/LENGTH)	mm							
MAX. TOOL WEIGHT	kgs							
TOOL TO TOOL	sec							
<b>COOLANT &amp; LUBRICATION:</b>								
COOLANT TANK VOLUME	liter							
HYDRAULIC TANK VOLUME	liter							
LUBRICATION TANK VOLUME	liter							
	liter	600	800	880	800			
<b>ACCURACY:</b>								
POSITIONING	mm	0.02						
REPEATABILITY	mm	0.015						
ROUNDNESS	mm							
<b>MISCELLANEOUS:</b>								
POWER REQUIRED	KVA							
PNEUMATIC REQUIRED	Kg/cm <sup>2</sup>							
MACHINE NET WEIGHT	kgs	22000	26000	24000	28000	30000	35000	

( ) OPTION

## STANDARD FEATURES & ACCESSORIES

1. GLAZED WINDOW TYPE SPLASH GUARD
2. PROGRAMMABLE COOLANT SYSTEM
3. AUTOMATIC LUBRICATION SYSTEM
4. SPINDLE AIR BLAST SYSTEM
5. WORKING LAMP
6. ALARM LAMP FOR ABNORMAL SITUATION
7. M.P.G.
8. INDICATION LAMP FOR DWELL & END OF JOB

MODEL ILLUSTRATION: EX. **DVM-2021**  2 COLUMN DISTANCE TABLE LENGTH

DVM-4025	DVM-4030	DVM-4035	DVM-5021	DVM-5025	DVM-5030	DVM-5035	DVM-6030	DVM-6035
4200			5200				6200	
2600	3100	3600	2200	2600	3100	3600	3100	3600
700 (900, 1100, 1300)								
2530	3030	3530	2130	2530	3030	3530	3030	3530
LONG NOSE 130-830 (130-1030, 130-1230, 130-1430)								
SHORT NOSE 240-940 (240-1140, 240-1340, 240-1540)								
915								
4000×2100	4000×2600	4000×3100	5000×1700	5000×2100	5000×2600	5000×3100	6000×2600	6000×3100
22								
16000	20000	24000	15000	18000	21000	25000	23000	28000
2 ROLLER BEARING + 2 LINEAR BEARING								
DIRECT COUPLING								
BT-50 (DIN,69817) (CAT-50)								
40-6000								
380×380 (420×420)								
SURFACE CONTACTED ( 4 ROLLER GUIDE WAYS )								
22 / 26								
25 (S6-40%)								
1-8000								
/ 10 (15)	10 (12) / 10 (12) / 10 (12)							
0.001								
( 24, 40, 60, 120, 180 )								
Ø110 or Ø200 350L								
15								
8								
26								
120								
6								
880	980	1080	800	880	980	1080	980	1080
0.025								
0.02								
0.02mm / Ø300mm								
60								
5								
38000	42000	44000	44000	49000	53000	56000	70000	75000

- 9.LEVELLING BOLTS & PADS
- 10.BT#50 LONG NOSE SPINDLE
- 11.RS-232 TERMINAL INTERFACE PORT
- 12.MACHINE & CONTROL MANUALS

- 13.TOOLBOX WITH SPANNERS & WRENCHES
- 14.SCREW TYPE & CHAIN TYPE CHIP CONVEYORS
- 15.FANUC Oi-MD CONTROL



# EUMACH FAMILIES



◦ **VMC-2150**  
Vertical machine center  
400MM ~ 3200MM X axis travel



◦ **TVMC-2000 / 3000**  
Moving column machine center  
2320MM & 3320MM X axis travel



◦ **LBM-1500**  
High speed bridge type machine center  
1100MM ~ 2200MM X axis travel



◦ **MH-500**  
Horizontal machine center  
720MM x 650MM x 650MM travel



◦ **EBM-2150**  
5 Face machine center  
1400MM ~ 3200MM X axis travel



◦ **MB-1500**  
Moving column horizontal machine center  
1100MM ~ 2200MM X axis travel



◦ **UMC-1600**  
5 Axes Simultaneous Milling Center  
1620mm x 1260mm x 1050mm



◦ **FBE-1500**  
Universal milling machine  
1500MM ~ 4000MM X axis travel



◦ **FBM-10040**  
Floor type milling center  
4M~20M X axis travel



**Co.,LTD.**

★ Specifications subject to change without notice.  
Catalogue No.A5120303

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