

# Eumach

*Always A Step Ahead*



**HSM-250U / 400U**

EMC / CE / ISO 9002 CERTIFIED

**5 AXES**

**A PROFESSIONAL CNC MACHINES MANUFACTURER**

# **THE MOST EFFICIENT & INTELLIGENT MACHINING PERFORMANCE MACHINING, INCREASE PROD**



## **● 5 AXIS MACHINING:**

Outstanding precision, productivity and reliability make Eumach 5 axis machining centers ideal solution for high speed 5 axis machining applications, such as aluminum, titanium and special alloys has been increasing rapidly in demand for aerospace, medical optical and automotive industries etc. For more than last 12 year, Eumach has been developing groundbreaking solutions to the challenges of this growing market, from the smallest 255mm diameter table up to 1650mm diameter or by using 2 axis milling heads on large size double column machines, the following benefits from these solutions bring are significant:

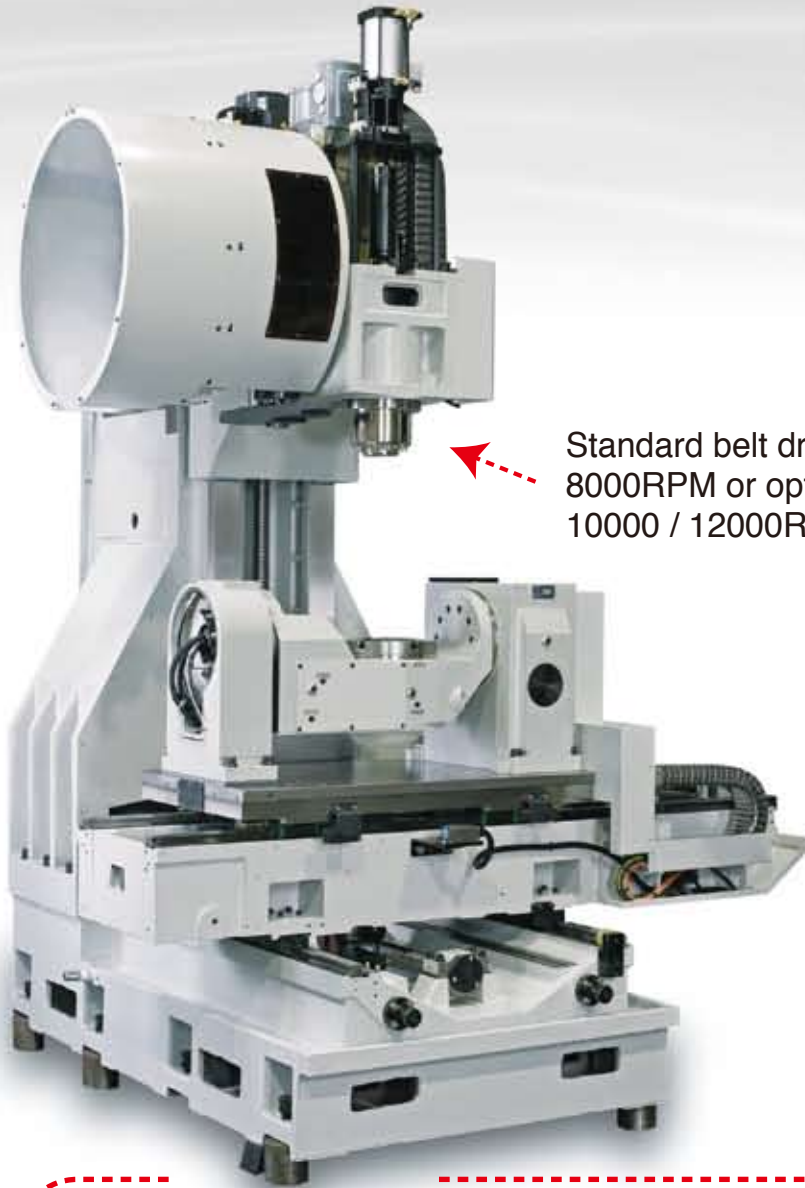


# **ING CONCEPT FOR MULTI-SIDED HIGH ACTIVITY, FLEXIBILITY AND REPEATABILITY**

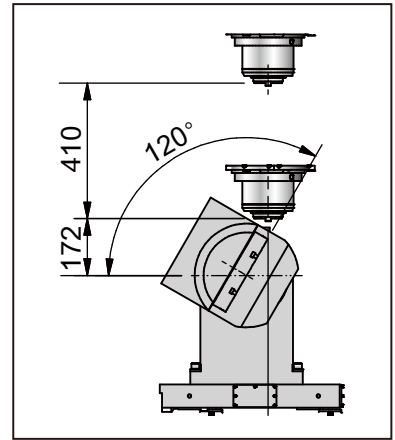
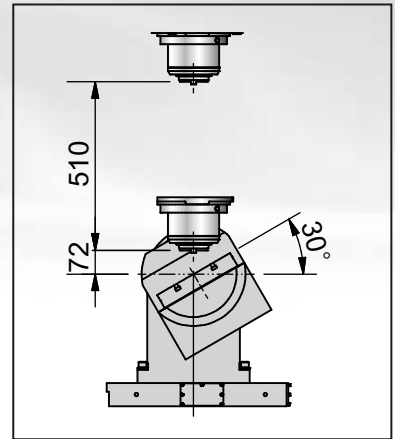
- Fewer settings:  
maximum number of tasks achieved in a single operation
- Less handling:  
minimal risk of collision damage
- High flexibility:  
machining centers with 24 or 32 tools automatic tool changer
- Reduced cycle time:  
using high speed cutting function from the latest advanced CNC controls
- Reduced lead times:  
less operations
- Common platform:  
suitable for different parts
- Low cost of ownership:  
maximum cost-benefit ratio through entire lifecycle



# ROBUST RUGGED FRAMES

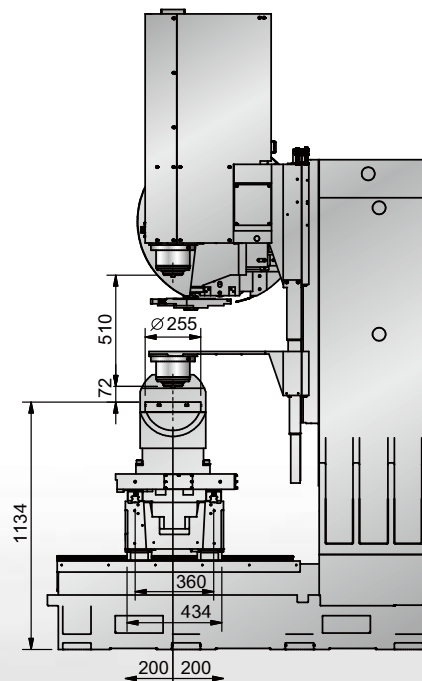
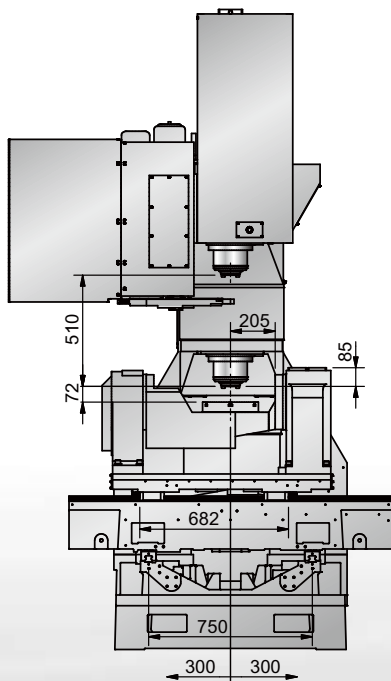


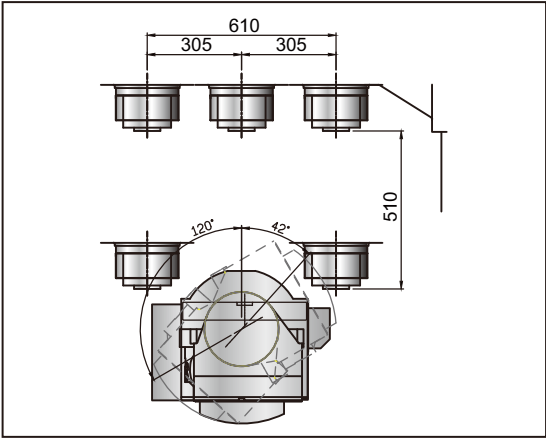
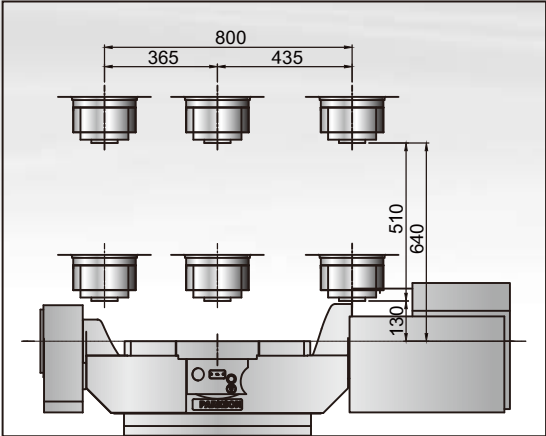
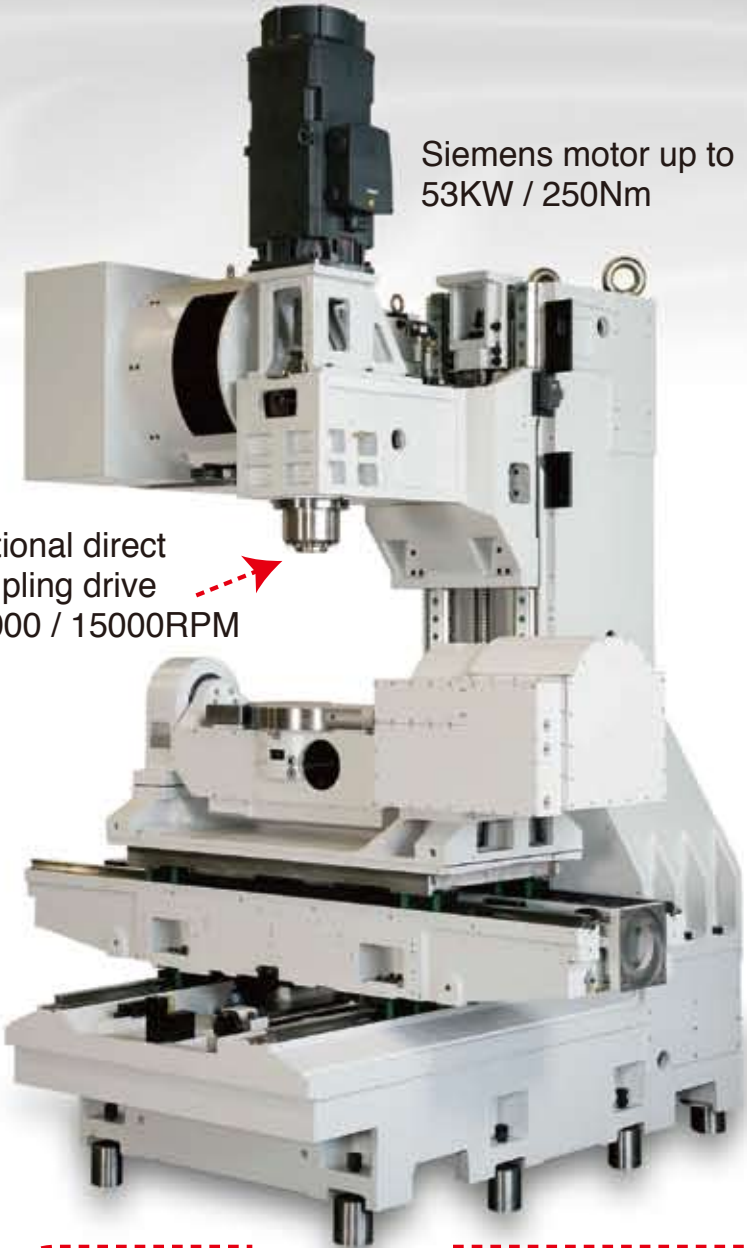
Standard belt drive  
8000RPM or optional  
10000 / 12000RPM



Work envelope

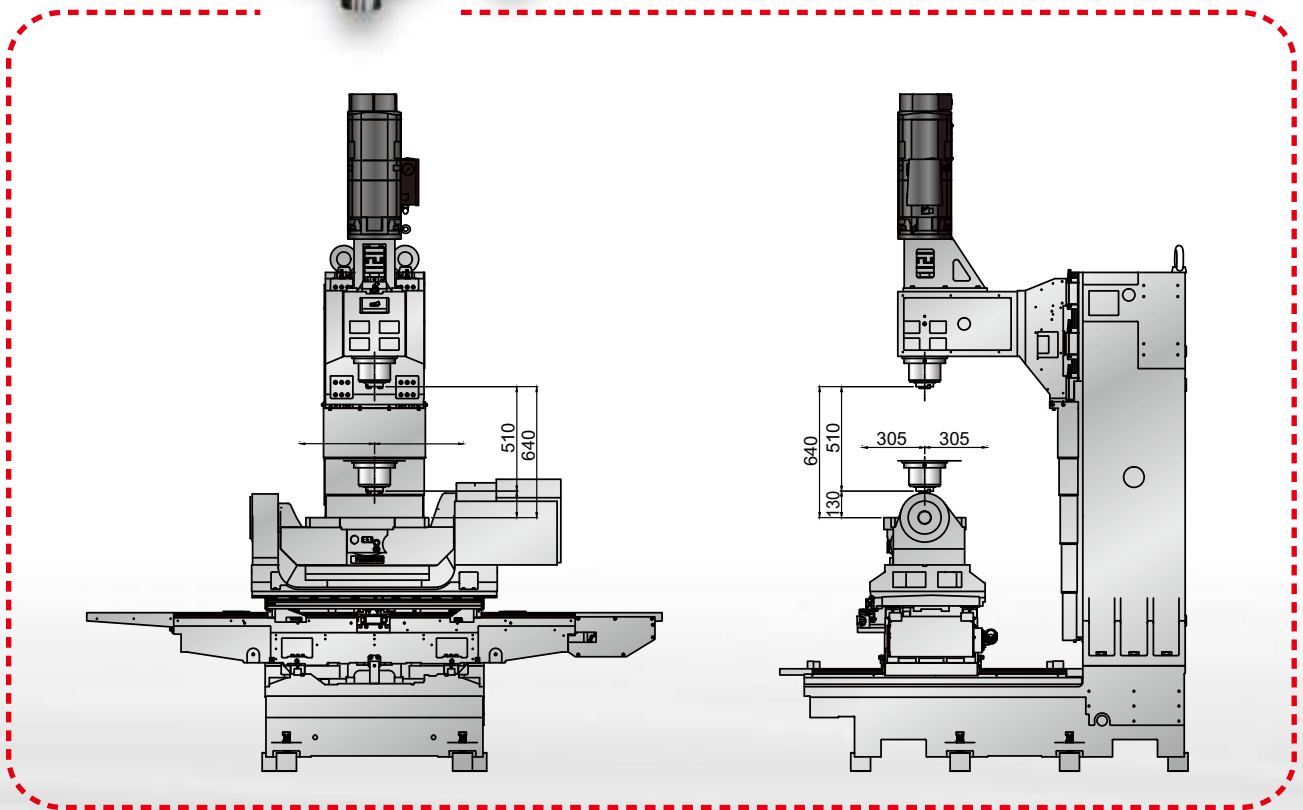
## HSM-250U





Work envelope

**HSM-400U**



## VARIOUS SPINDLE:

- Standard belt drive 8,000 RPM.
- Mounted  $\phi$  70mm class P4 high precision bearings assuring maximum stability during cutting with minimum thermal deformation.
- Higher spindle speed of 10,000 /12,000 RPM are optional.

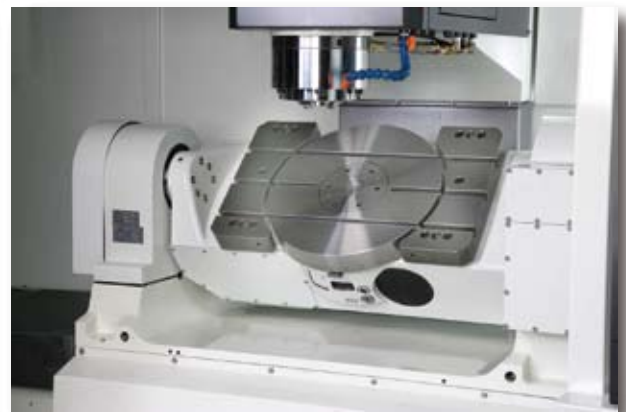


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- Direct coupling : 10000 RPM, 12000 RPM, 15000 RPM, 20000 RPM.



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- Motot spindles : gurantee minimum vibrations and best final performance.
  - CHOICES:  
Tool holder : ISO 30/40 TO HSK-E40/A63  
Motot power : 7.6KW TO 35KW  
Speed RPM : 14000 RPM TO 30000 RPM

## TILT ROTARY TABLE:



**Overall size**

**Top plate**

**B(tilt)/C(rotary) angle**

**Maximum load ( 0° / tilt )**

**HSM-250U**

$\phi$  255mm

$\phi$  255mm

-30° ~120° / 360°

100kg / 50kg

**HSM-400U**

600mm x 365mm

$\phi$  400mm + 2 extensions

-42° ~120° / 360°

200kg / 100kg

# HSM-U SERIES 5 AXIS VERTICAL MACHINING CENTERS

Unit : MM

MODEL	HSM-250U	HSM-400U
<b>TILTING ROTARY TABLE :</b>		
Over all size	$\phi$ 255 ( $\phi$ 350 )	600 X 365 ( $\phi$ 500 )
Top plate diameter	$\phi$ 255 ( $\phi$ 350 )	$\phi$ 400+2 extension ( $\phi$ 500 )
Dia. Of central bore	$\phi$ 50H7	
T slots	12H7	
Max. load (0° /tilting) Kg	100 / 50	200 / 100
<b>TRAVEL :</b>		
X / Y / Z axis	610 / 400 / 510	800 / 610 / 510
B (tilt) / C (rotary) axis	-30° ~ 120° / 360°	-42° ~ 120° / 360°
<b>DISTANCES :</b>		
Spindle to column ways	520	645
Spindle to table top	72 ~ 582	130 ~ 640
Floor to table top no pad	1134	1168
<b>SPINDLE :</b>		
Taper	BT#40 (CAT / SK40 / HSK-A63 / E50)	
Transmission	Belt ( DD / motor spindle )	
Speed RPM	8000 (12000 / 15000 / 18000 / 24000 / 30000)	
Front bearing dia.	70	
Motor Kw	7.5 / 11 ( ~22 / 26 )	
<b>AXIS MOTORS X / Y / Z / B / C : ( based on Fanuc motors )</b>		
Motor torque Nm	12 / 12 / 22 / 8 / 4	22 / 22 / 30 / 22 / 8
Motor power Kw	3 / 3 / 4 / 1.6 / 1.4	4 / 4 / 7 / 4 / 1.6
Cutting feed M	8	
Rapid feed M	30 / 30 / 24	
<b>ATC ARM TYPE :</b>		
No. of tools Pcs	24 (32, 40)	
Max. tool dia./ length	125 / 250	
Max. tool weight Kg	7	
Tool to tool sec.	3	
<b>BALLSCREWS :</b>		
$\phi$ x pitch ( XY/Z axis )	40 X 12 / 50 X 12	
Precision class ( C3 )	0.008MM / 300MM	
<b>COOLANT &amp; LUBE :</b>		
Coolant motor Kw	1.27	
Coolant tank volume L	150	250
Coolant motor capacity	20L / MIN	
Lube motor Watt	25	
Lube tank volume L	2	
<b>ACCURACY :</b>		
XYZ positioning	JIS 6338 : $\pm$ 0.005 / 300, VDI 3441: P0.01	
XYZ repeatability	JIS 6338 : $\pm$ 0.003MM, VDI 3441: PS0.008	
B/C positioning arc.sec	15 / 45	
B/C repeatability arc.sec	$\pm$ 4 / $\pm$ 3	
<b>MISCELLANEOUS :</b>		
Net weight kg	5500	7800
Power required KVA	25	40
Pneumatic required	7KG / CM2	
Machine frame used	HSM-800	HSM-1000L
CNC CONTROL :	Fanuc 0i-MD / 31i-MB5, Heidenhain iTNC-530 / 640, Siemens 828D / 840D-SL	

○ Note : (        ) for options



## 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



◦ **DVM-4025**  
5 Face & double column machine center



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



◦ **UMC-1000**  
5 Axis machine center  
1000MM x 800MM x 700MM travel

**Eumach Co.,LTD.**

★ Specifications subject to change without notice.  
Catalogue No.A4010304

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