

Eumadon

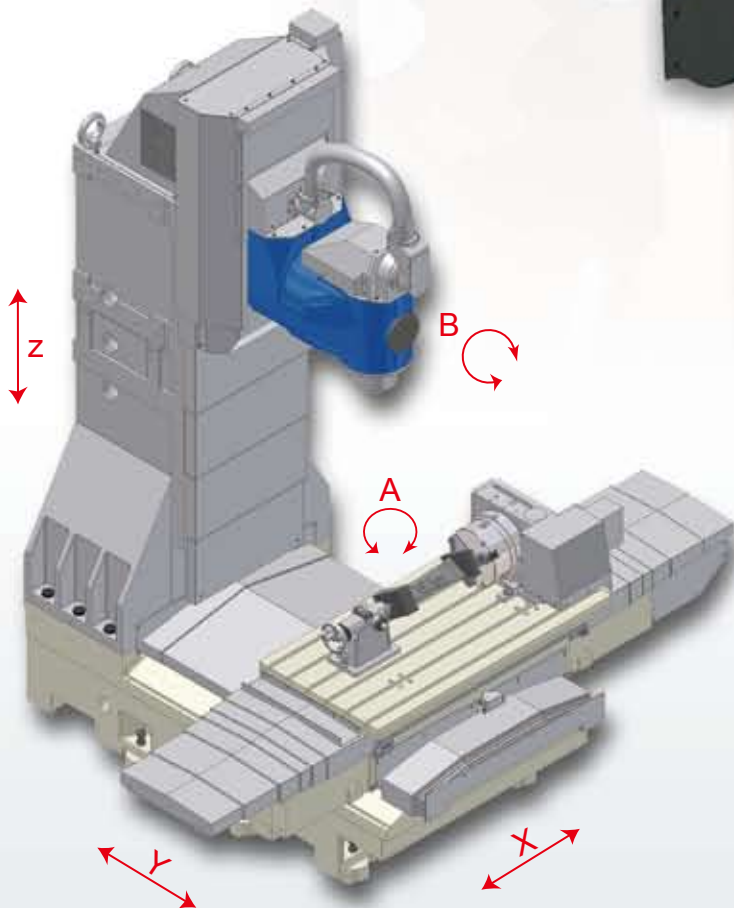
Always A Step Ahead



HSM-5X

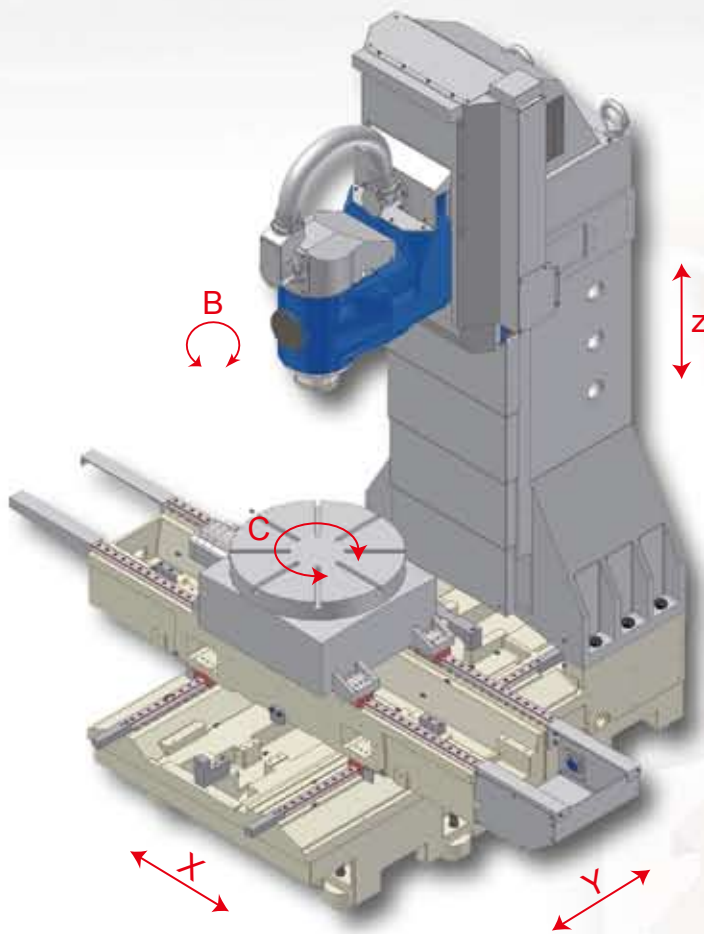
5 AXIS MACHINING CENTER

A PROFESSIONAL CNC MACHINES MANUFACTURER





- ▶ Eumach's newest universal milling center HSM-5X for 5 axis simultaneous operations, besides 3 linear axis, it is with a standard B axis swivel milling head and an add on type A axis rotary table & tail stock.



▶ with standard $\Phi 610\text{mm}$ round rotary table



▶ with optional $\Phi 610\text{mm}$ torque motor rotary table integrated into $1100\text{mm} \times 610\text{mm}$ plain table



- ▶ HSM-5X series is the newest machine with universal applications, a perfect response to the increasing demand for CNC 5 axis & 5 face machining and the orientation of the work-piece in space in relation to the tool axis provides a vast range of applications for the machining of complex parts.



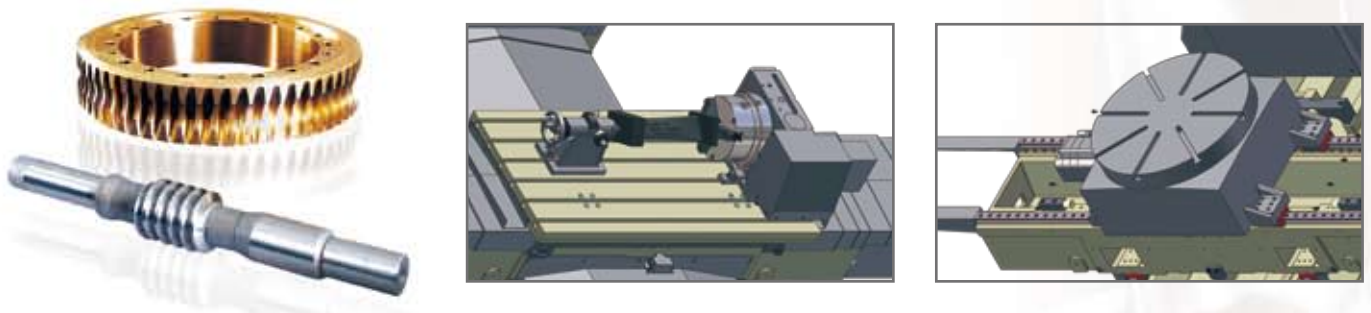
B AXIS INNOVATIVE SWIVEL MILLING HEAD



- ▶ The latest technology torque motor manages the B axis continuous swivel milling head , it guarantees maximum movement dynamic and linearity and thanks to the absence of those traditional mechanical kinematics parts, it results a much higher performance on finishing surface. with a large swivel range for the negative angles up to 30 degree. The direct reading system by a high precision angular encoder is being integrated for maximum precision.

A & C AXIS DURABLE CNC ROTARY TABLES

STANDARD WORM WHEEL TYPE:



OPTIONAL TORQUE MOTOR TYPE:



- ▶ The latest technology torque motor manages the C axis continuous swivel milling head , it guarantees maximum movement dynamic and linearity and thanks to the absence of those traditional mechanical kinematics parts, it results a much higher performance on finishing surface. The direct reading system by a high precision angular encoder is being integrated for maximum precision.

POWERFUL MOTOR SPINDLE



N14D Standard



P18 Optional



C18 / C24 Optional

Models	N14	P18	C18	C24
Max. speed RPM	14000	18000	18000	24000
Rated speed RPM	4000	1000	2000	4500
Spindle taper	BT#40	HSK-A63	HSK-A63	HSK-A63
Housing diameter mm	210	210	180	180
Power S1/S6 KW	29.3 / 35	26 / 32	21 / 27	34 / 43
Torque S1/S6 Nm	70 / 160	124 / 154	100 / 130	72 / 91

LATEST ADVANCED DIGITAL CNC CONTROLS



Heidenhain iTNC-530 / 640 HSCI newest control :

1. MC 7222 1.8GHz more powerful CPU than before
2. 32G SSDR storage media resistance to vibration
3. New HEROS 5 operating interface with PDF viewer
4. TE 730 key board & MB 720 panel & 15" XGA screen



Siemens 840Di Solution Line newest control :

1. NCU 730.2 with PLC 317 - 2DP + 40GB HD
2. PCU 50.3 1.5Ghz , 512Mb, WinXP/Pro interface
3. Shopmill + 3D simulation 1 & HMI Advanced
4. MCP483C panel + OP 015A 15" TFT screen

APPLICATIONS

- ▶ The milling center can be used not only the typical various steam blade industries but also servicing aerospace aviation, automotive, medical and communication etc.



1. FUEL PUMP INDUCER



2. STRIP MILLING OF JET BLADE



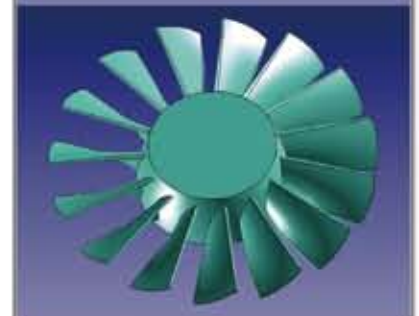
3. HEART VALVE



4. TYRE MOULD



5. STEAM TURBINE BLADE



6. BLISK



7. TURBO CHARGER IMPELLER

SPECIFICATIONS

MODEL	UNIT	HSM-5XA	HSM-5XC
T slotted plain table:			
Size / T slot / maximum load	MM / KG	1200x610 / 18x6X100 / 800	xxx
Spindle to plain table	MM	0 - 940	xxx
Rotary tables:			
Type		Add on main plain table	Integrated built in saddle
Diameter	MM	Φ 255 (320)	Φ 610
Center bore diameter	MM	Φ 40 H7	Φ 50 H7
Center height	MM	160 (210)	xxx
T slots size	MM	12 (14) H7	18 H7
Rotation speed	RPM	16.6	10
Hydraulic pressure	KG/CM ²	50kg/cm ²	
Positioning accuracy		8" with encoder used	
Repeatability		4" with encoder used	
Maximum load	KG	250 (350) with tail stock used	500
Accessories		3 jaws & manual tail stock	None
DISTANCES:			
Spindle to rotary table center	MM	0 - 780	0 - 715
Tail stock height to plain table	MM	160	xxx
Spindle nose to rotary table top	MM	xxx	105 - 715
Maximum load	KG	250 with tail stock	500
TRAVEL:			
X / Y / Z linear axis	MM	1020 / 610 / 810	1020 / 610 / 610
B - rotary head axis	DEG.	+30°-120°	
A or C - rotary table axis	DEG.	0.001° x 360,000	
DISTANCES:			
Spindle to column cover	MM	629	
Spindle to plain table	MM	130 - 940	xxx
Floor to table	MM	882	947
SPINDLE:			
Taper	BT#	40	
Speed	RPM	14000	
Front bearing diameter	MM	§ 70 ceramic bearings	
Motor power & Torque	KW & Nm	29.3 / 35 & 70 / 160	
AXIS MOTORS:			
X / Y / Z axis motor model & static torque	MODEL & NM	1FK7100 / 1FK7100 / 1FK7101 & 18 / 18 / 27	
B axis motor model & max. torque	NM	1320	
A or C axis motor model & static torque	MODEL & NM	1FK7063 & 11	1FK7083 & 16
FEED RATE (X / Y / Z linear axis):			
Rapid feed rate	M / MIN	36 / 36 / 24	
Cutting feed rate	MM / MIN	1 - 20000	
AUTOMATIC TOOL CHANGER:			
Type of ATC		Swing arm with 430mm travel	
Number of ATC	TOOLS	32	
Maximum tool (diameter / length / kg)	MM	125 / 300 / 7	
BALLSCREWS ON 3 AXIS:			
Diameter x pitch (XY/Z)	MM x MM	40 x 16 / 50 x 12	
Precision class	MM / 300MM	C3, 0.008	
COOLANT & LUBRICATION & HYDRAULIC:			
Coolant motor power	KW	0.86	
Coolant tank volume	L	250	
Coolant motor capacity	L / MIN	20	
Lubrication motor / tank volume	WATT / L	25 / 2	
Hydraulic tank capacity & volume	KG/CM ²	50	
ACCURACY:			
Positioning (XYZ linear axis)	MM	JIS 6338: ±0.005MM / 300MM	VDI 3441:P0.012MM
(B & A or C rotary)	SEC.	With Heidenhain RCN2380 8"	
Repeatability (XYZ linear)	MM	JIS 6338: ±0.003MM	VDI 3441:PS0.008MM
(B & A or C rotary)	SEC.	With Heidenhain RCN2380 4"	
Roundness (XYZ linear axis)	MM	JIS 6338: ±0.01MM / 300MM diameter	
MISCELLANEOUS:			
Machine net weight	KG	9000	
Total power requires	KVA	75	



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.A4110203

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