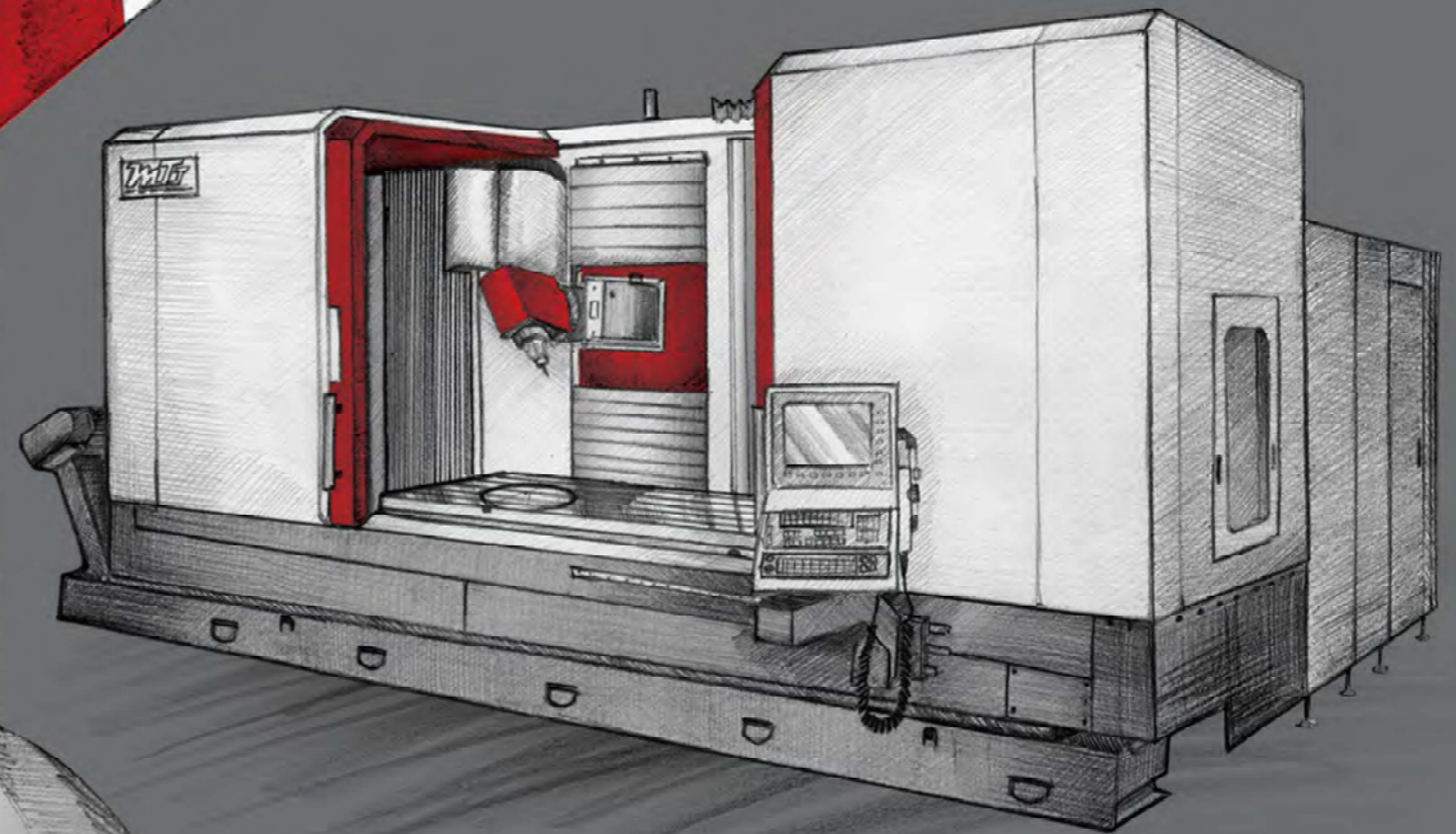


SOLUTION OF WORLDWIDE SALES NETWORK



HORNET
Series

Moving Column Type 5-axis Machining Center
(Swivel head B-axis & rotary table C-axis)

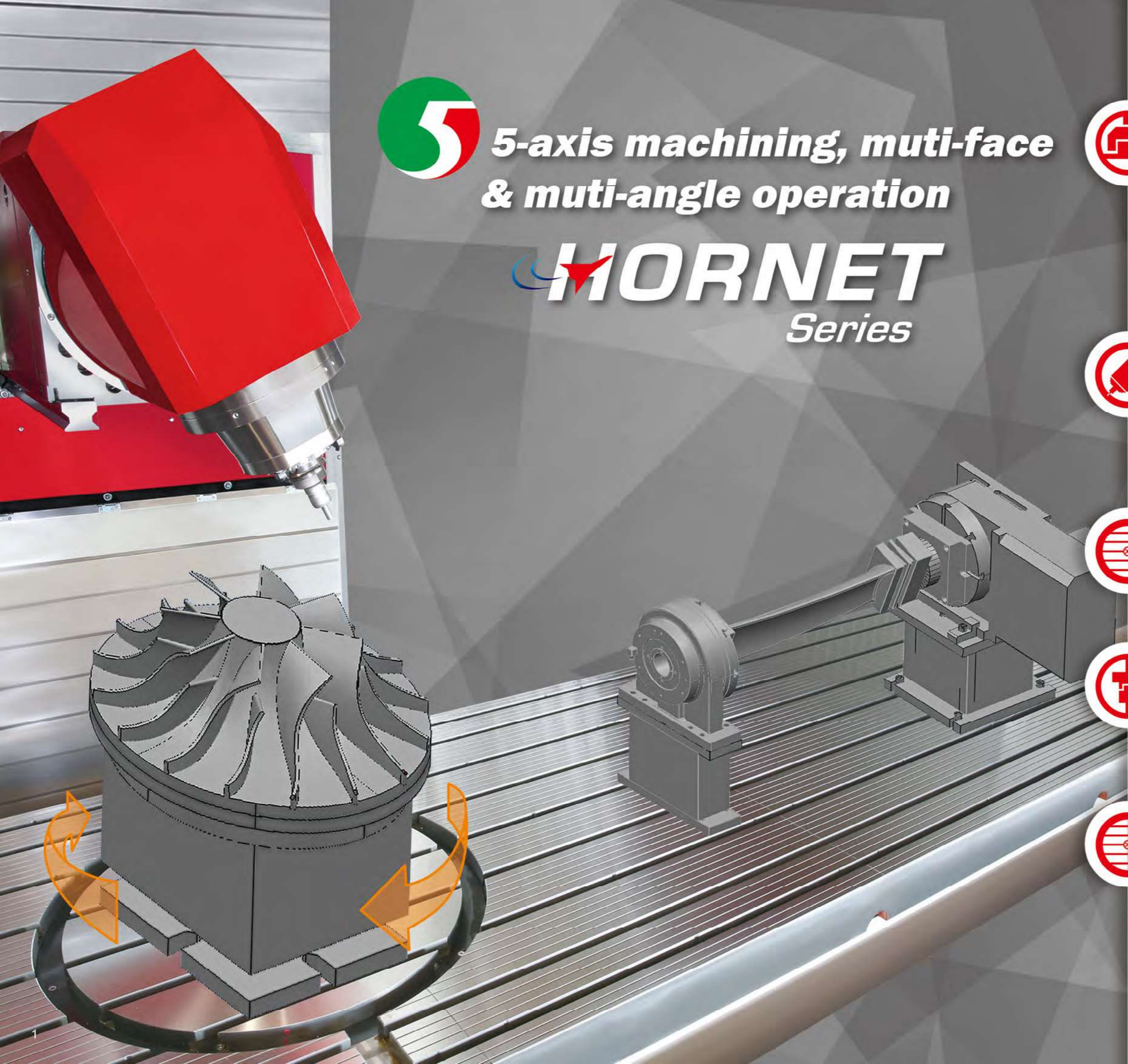


Twinhorn

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**5-axis machining, multi-face
& multi-angle operation**

HORNET
Series

Structural Characteristic



High Rigidity Structure

HORNET Series machine is optimized for structural rigidity and high dynamic performance.

The Z-axis wagon adopts box frame structure and wide span roller rails, which ensures proper stability and excellent accuracy under high speed or heavy duty cuttings.



Swivel Head (B-axis)

B-axis swivel head with C-axis rotary table enables single set-up for irregular curved surface or complex angle machining tasks, dramatically enhances the productivity.



Rotary Table (C-axis)

Maximum workpiece diameter of 640 mm and maximum loading capacity up to 1000 kg.



Transmission System

DD motor powered rotary axes provides excellent accuracy and high speed without backlash.

Linear axes rapid speed up to 30 m/min.



Dual Working Area

Dual-working-area concept allows flexible utilizations of working space. The set-up of the other work-piece can be done at one area while is on duty, and achieves maximum productivity.

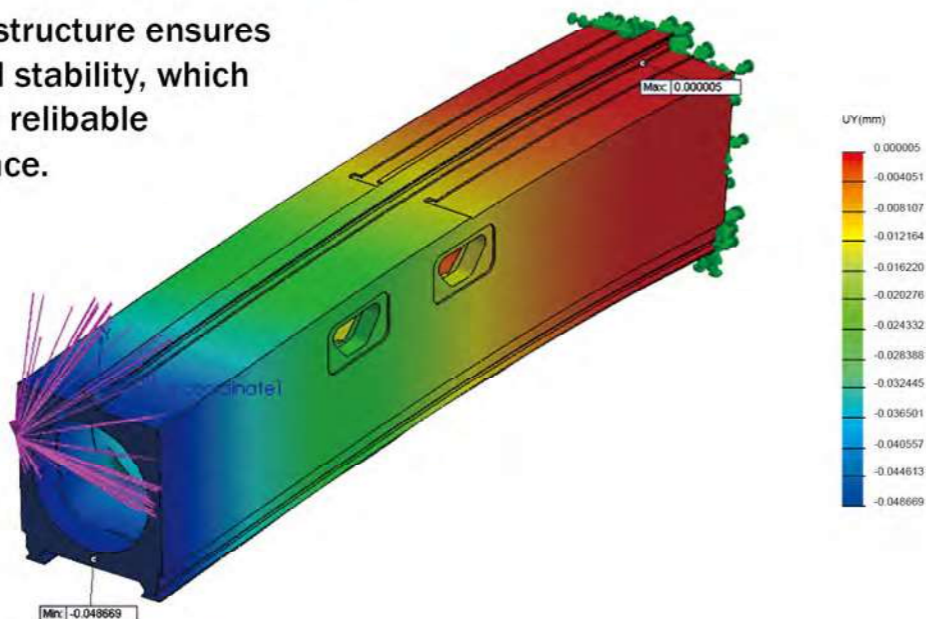


HORNET

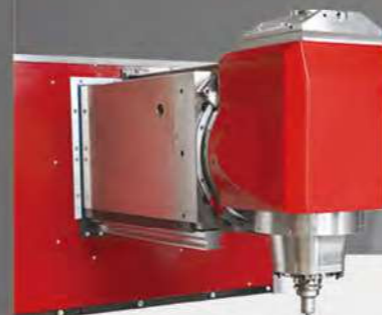
Swivel Head Rotary Table

Finite Element Analysis (FEA)

FEA proven machine structure ensures excellent rigidity and stability, which enables accurate and reliable machining performance.

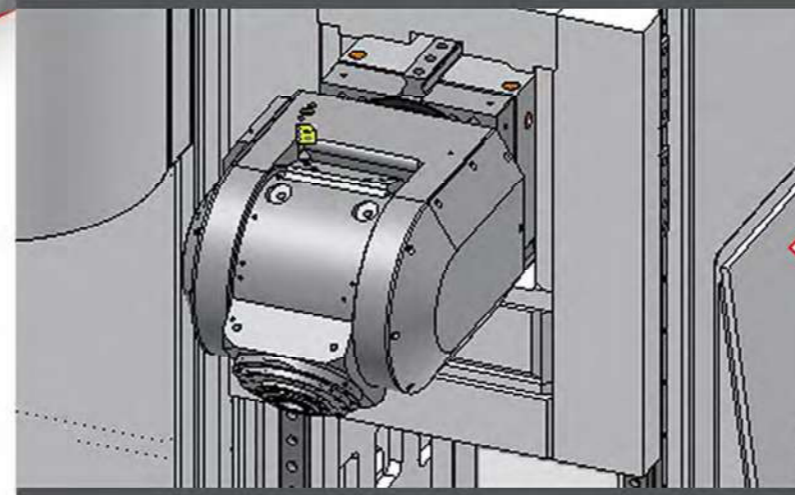
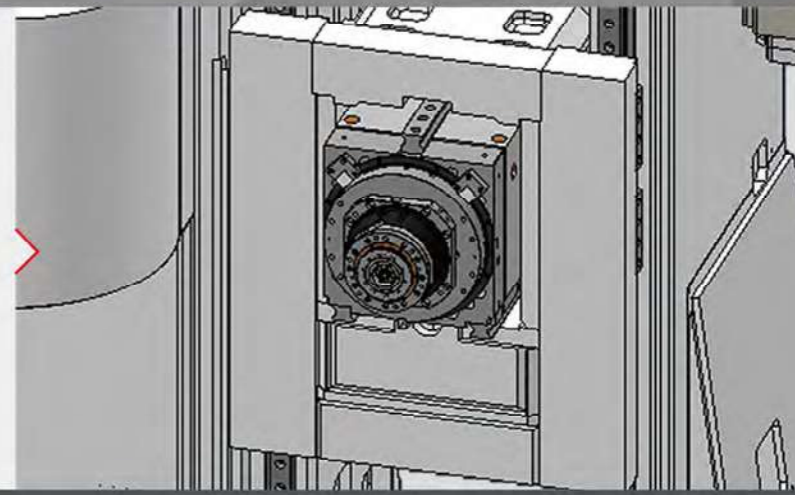


VARIOUS HEAD SELECTION



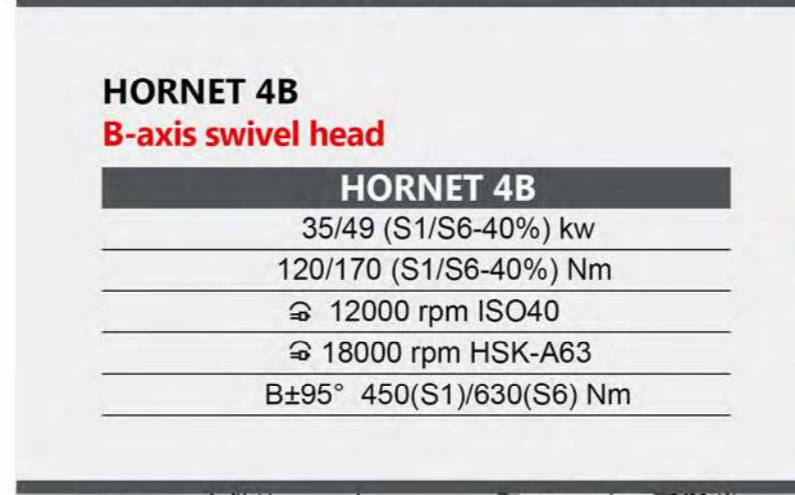
HORNET 3 horizontal spindle

HORNET 3
35/49 (S1/S6-40%) kw
120/170 (S1/S6-40%) Nm
⌀ 12000 rpm ISO40
⌀ 18000 rpm HSK-A63



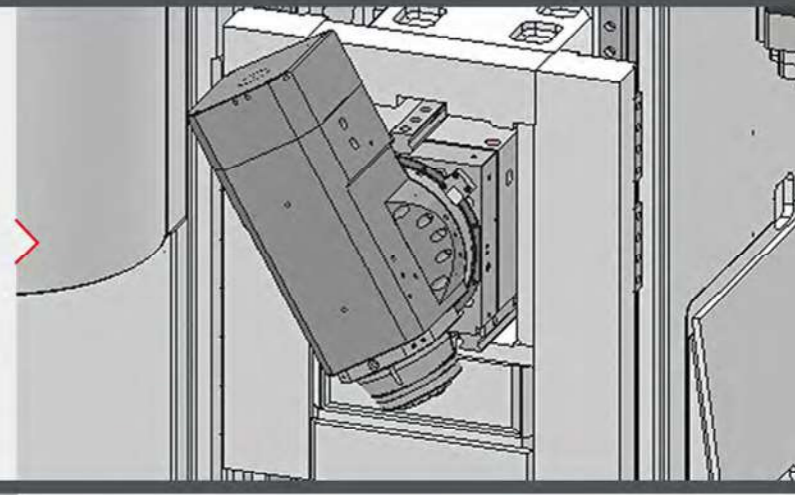
HORNET 4A A-axis tilting head

HORNET 4A
35/49 (S1/S6-40%) kw
120/170 (S1/S6-40%) Nm
⌀ 18000 rpm HSK-A63
A+95°/-120° 420/600 Nm



HORNET 4B B-axis swivel head

HORNET 4B
35/49 (S1/S6-40%) kw
120/170 (S1/S6-40%) Nm
⌀ 12000 rpm ISO40
⌀ 18000 rpm HSK-A63
B±95° 450(S1)/630(S6) Nm



HORNET 5 A & B axes simultaneous moving head

HORNET 5
35/49 (S1/S6-40%) kw
120/170 (S1/S6-40%) Nm
⌀ 18000 rpm HSK-A63
B±95° 450(S1)/630(S6) Nm
A+95°/-120° 450(S1)/700(S6) Nm

APPLICATION SAMPLE PARTS



MACHINE SPECIFICATION

Stroke	
X-axis	3000 mm
Y-axis	1000 mm
Z-axis	1000 mm
Table	
Table size	3280×1065 mm
maximum loading capacity (per square meter)	2500 kg/m ²
Distance from spindle nose vertical to table surface	100 - 1100 mm
T-slot (number x size x pitch)	7x18 mmx130 mm+2x18 mmx90 mm
Swivel head (B-axis)	
Swivel angle	±95°
B-axis speed	120°/sec
Positioning accuracy	0.001°
Maximum rotating torque	450 (S1) / 630 (S6) Nm
Clamping torque	2000 Nm
Built-in spindle	
Spindle taper	HSK-A63
Motor power	35/49 (S1/S6-40%) kw
Speed	10000 rpm
Maximum torque	120/170 (S1/S6-40%) Nm
Rapid feedrate	
X/Y/Z rapid	30 m/min
Cutting speed	1-10000 mm/min
Diameter & pitch of ballscrews	X/Y/Z : 63/50/50 , P20/20/20
Rotary table	
Diameter of rotary table	640 mm
Diameter of center hole	60 mm
Maximum loading capacity	1000 kg
Rotating angle	Continuous
Maximum rotating speed	130 rpm
Positioning accuracy	±0.0015°
Rotating torque	530/980 Nm (normal/peak)
Clamping torque	2500 Nm
ATC	
Number of tools	32 Tool ATC
Max. tool diameter (w./w.o. adjacent tool)	80 / 120 mm
Max. tool length	300 mm
Max. tool weight	8 kg
Tool change time	T-T 10 sec
Others	
Machine dimension (WxDxH)	7650x4150x3320 mm
Machine weight	25000 kg

Standard Accessories

- 32 Tool ATC
- 3-axis optical scale
- Spindle oil cooler
- Coolant system
- Automatic lubrication system
- Electric control box with airconditioner
- Working lamp
- Maintenance tools
- Warning lamp
- Leveling pads and bolts
- M30 Automatic power off
- Operation manual
- Chain type chip conveyor with cart

Optional Accessories

- 4th Axis rotary table
- Coolant through spindle
- 40/48 Tool ATC
- Spindle speed 12000/15000 18000 rpm
- Automatic tool length measuring system
- Automatic workpiece measuring system

Controller

SIEMENS
HEIDENHAIN
FAGOR
FANUC
MITSUBISHI

* The company reserves the right to change the mechanical specifications, accessories and appearance without prior notice.