

專注航太・品質・創造未來
Aiming At Aerospace Solutions

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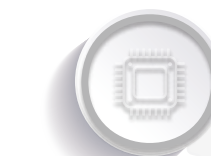
MEMBER OF
TT GROUP
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Brand story

APEC takes "Aiming at aerospace solutions" as the core spirit of the brand and provides great application support and customized solutions to high-end aerospace users. In summary, APEC is the system provider who provides factory planning, and Turnkey solutions. With customer driven innovation, APEC is the best strategic partners of our customers.

**TIMS**

Production management
Intelligent monitoring
RFID tool management
Workpiece management
Order management

**TLM**

Machine status
Utilization analysis
Alarm history
Operation history
Program upload/download

**AGA key components**

- Spindle
- Milling Head
- Trunnion Table



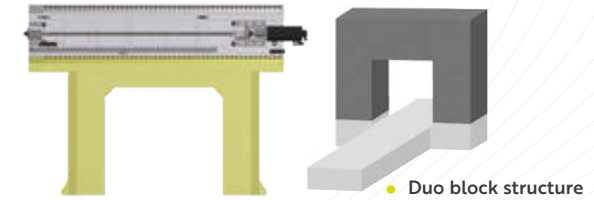
Aerospace Gebert APEC is a brand which provide key components of aerospace processing. It is developed by APEC and Dr.Gebert's team from Germany.AGA provides the brilliant components such as high power high speed Spindle, Milling Head and Trunnion Table which are especially designed for APEC machines. The after-sales services could then be offered more efficient and accurate.



MT15 AERO Series

5-Axis High Speed Double Column Machining Center

- **Duo block structure design**
Machine rigidity and working stability could be enhanced via duo block structure design.



- **Larger machining area**
Despite the smallest footprint in its class, this compact model features a wide machining area and complete functions.
- **Suitable workpieces**

Wing structure



Wing rib(S/M)

Fuselage structure



Spar



Cross beam



Pylon



Machine configuration for aerospace machining

Cross beam flushing system

High pressure pump with groups of powerful nozzles can quickly remove the chips.

Complex chip removal system

Large water tank equipped provides stable coolant fluid and helps removing chip efficiently.

Fully enclosed splash guard

Lower noise and prevent spreading of chips and coolant liquid.

Special spindle for aluminium alloy processing

High speed and power spindle with the best material removal rate.

Unequal thickness of Ram

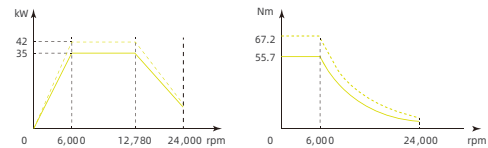
Special structure design of ram helps remain light and rigidity.

High dynamics

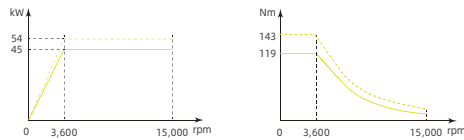
3-axis with high acceleration and deceleration, especially suitable for multiple bulkheads of aluminium alloy material processing.

24,000rpm				15,000rpm			
Spindle taper		HSK-63A		Spindle taper		HSK-100A	
Lubrication		Oil air		Lubrication		Oil air	
Power(kW)	S1	35	60	Power(kW)	S1	45	
	S6	42	75		S6	54	
Torque(Nm)	S1	55.7	48.2	Torque(Nm)	S1	119	
	S6	67.2	60.5		S6	143	

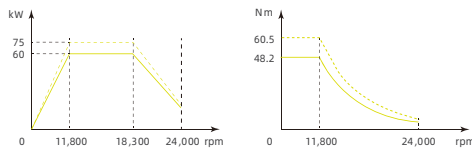
24,000rpm, HSK63A



15,000rpm, HSK100A



24,000rpm, HSK63A



Mono Support Milling Head
(Std.)



Fork Type Milling Head

Spindle Taper	HSK63A/HSK100A	HSK63A/HSK100A
Swivel/Rotation Torque	A=529/869Nm C=783/1,300Nm	B=1,192/1,980Nm C=1,050/1,740Nm
Swivel/Rotation Speed	A=C=30(cont)rpm A=C=60(max)rpm	B=C=30(cont)rpm B=C=60(max)rpm
Swivel/Rotation Angle	A=±125° C=±360°	HSK63A:B=±120° C=±360° HSK100A:B=±115° C=±360°
Clamping Torque	A=4,000Nm C=4,000Nm	B=4,000Nm C=4,000Nm

Specification	Unit	MT15	
Travel		MT1520-5S	MT1530-5S
X-axis	mm	2,000	3,000
Y-axis	mm	2,000	
Z-axis	mm	850(1,000 opt)	
Distance from spindle end to table	mm	-100~750	
Table			
T-slot size	mm	20x125	
Length	mm	2,100	3,100
Width	mm	1,200	
Max. table load	tons.	3	5
Feedrate			
Rapid traverse	m/min	X/Y/Z=30	
X.Y.Z axis acceleration	m/sec ²	5	
Accuracy			
Positioning(VDI3441)	mm	X=0.030 , Y=0.010 , Z=0.008	
Repeatability(VDI3441)	mm	X=0.025 , Y=0.008 , Z=0.005	
Spindle(Standard)			
Spindle taper		HSK63A	
Spindle speed	rpm	24,000	
Spindle power(S1/S6)	kW	35/42	
Spindle torque(S1/S6)	Nm	56/67	
Automatic tool changer			
Tool shank	pcs	32T	
Max. tool length	mm	300	
Max. tool diameter with adjacent tool	mm	Ø75	
Max. tool diameter without adjacent tool	mm	Ø130	
Max. tool weight	kg	8	
Others			
Machine weight	tons.	20	24

● Standard accessories ○ Optional accessories

Item	Specification		Item	Specification	
Controller	HEIDENHAIN TNC640 MPG HR510	●	Smart factory	TIMSystem	○
	HEIDENHAIN TNC640 MPG HR520	○		TLMsystem	○
	HEIDENHAIN TNC640 MPG HR550	○		Security door interlocks	●
	SIEMENS 840D MIT version	○	Others	Air dryer	●
	SIEMENS SINUMERIK 840D HT2	○		Isolation transformer	●
	AGA HSK63A 24,000rpm 35/42 kw	●		Spindle oil/air lubrication system	●
Spindle	AGA HSK100A 15,000rpm 45/54 kw	○		Oil mist collecting system	●
	AGA HSK63A 24,000rpm 60/75 kw	○		5 axis with Heidenhain optical scale	●
	XYZ with high speed ball screw driving	●		Waterproof working lamps	●
Drive System	XYZ with high speed ball screw driving	●		Fully enclosure Splash Guard	●
	32T	●		Automatic Kinematics measuring and calibration system	○
	40T	○		Stabilizer	○
Automatic tool changer	60T	○			
	Coolant around spindle	●			
	Coolant through spindle 20bar	●			
Cutting coolant	Coolant through spindle 70bar	○			
	Chiller for spindle	●			
	Air conditioner for electrical cabinet	●			
System coolant	Complex chip conveyer	●			
	Enlarged coolant tank	●			
Chip removal system					
Workpiece measurement system	BLUM workpiece measurement system(TC60-RC66)	○			
	Renishaw workpiece measurement system(RMP600)	○			
Tool measurement system	BLUM tool measurement system(NT-A4)	○			
	Renishaw tool measurement system(NC4-F230)	○			

- Please contact with our sales if you have special requirement.
- All specifications and design are subject to change without notice.