Maple
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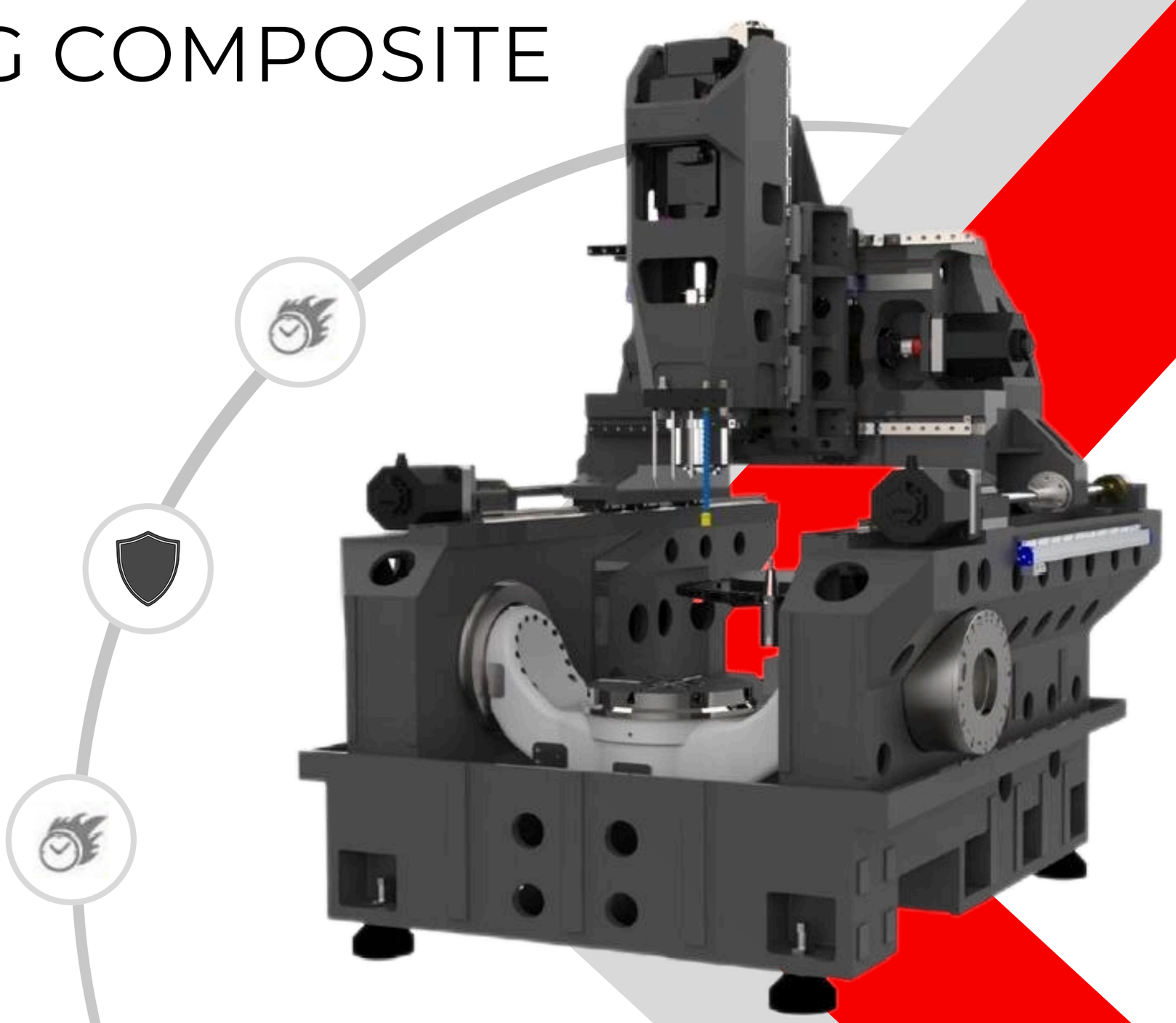
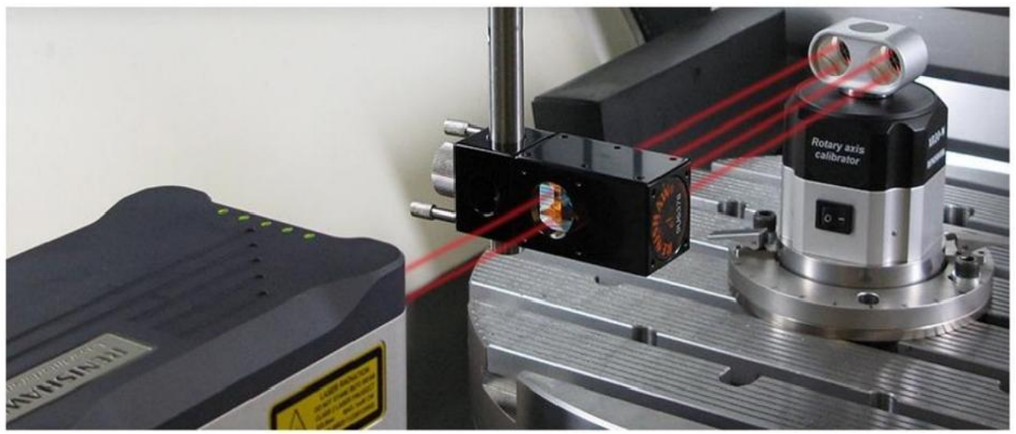
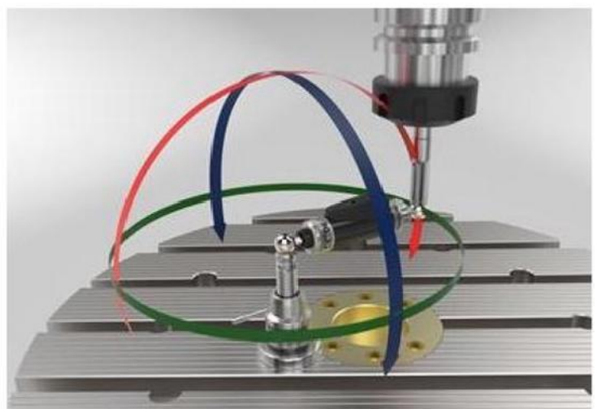
FIVE AXIS MACHINING CENTER AND MILLING COMPOSITE





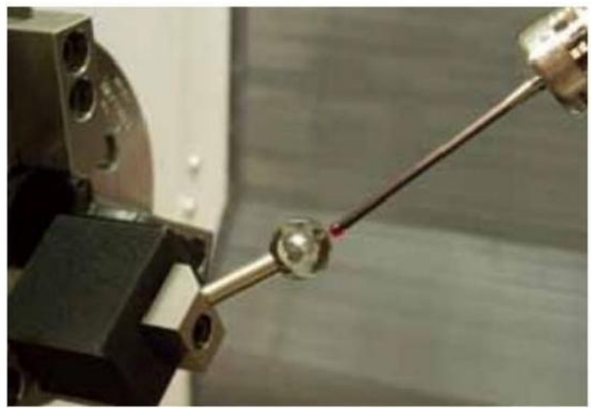
Renishaw XR20 Laser Calibration System

Designed for detecting linear and rotary axis movements of machine tools.



Renishaw QC 20 Ballbar System

Used for detecting error-compensating movements of machine tools.



Renishaw Check-Up

Enables fast and automated performance checks for multi-axis machine tools.

Coordinate Measuring Machine (CMM)

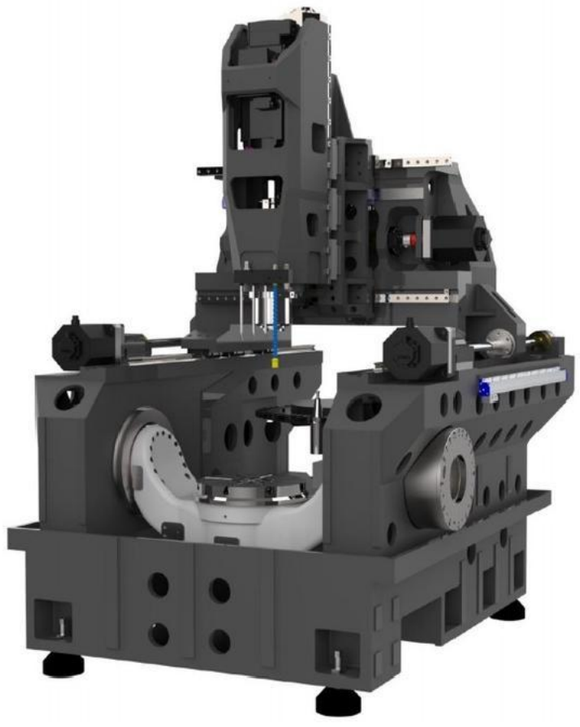
Spindle Dynamic Balancer

Track Alignment Tester

Technical Core

Core Technology 1

Development and Application of Five-Axis,Multi-Axis, and Multi-Tasking CNC Machine Tools.



Core Technology 2

Development of CNC System Functions.

HEIDENHAIN SYNTEC
FANUC MITSUBISHI SIEMENS

Core Technology 3

CONTENTS

MMT400

Introduction:

- HT300 Cast Iron Bed
- A2-6 Turning Electric Spindle
- Precision Cam Swivel Head
- 8-Position Servo Turret
- Automatic Lubrication System
- Hydraulic System
- Automatic Chip Removal System
- Syntec 220TB-5 CNC System
- Taiwan Hiwin P-class Roller Linear Guideway
- Taiwan Hiwin C-class Ball Screws
- BT40/10000 RPM Milling Electric Spindle
- Spindle Oil Cooling System
- Cooling Air Conditioning
- 8-Inch Three-Jaw Hydraulic Chuck
- BT40-24T Rotary ATC

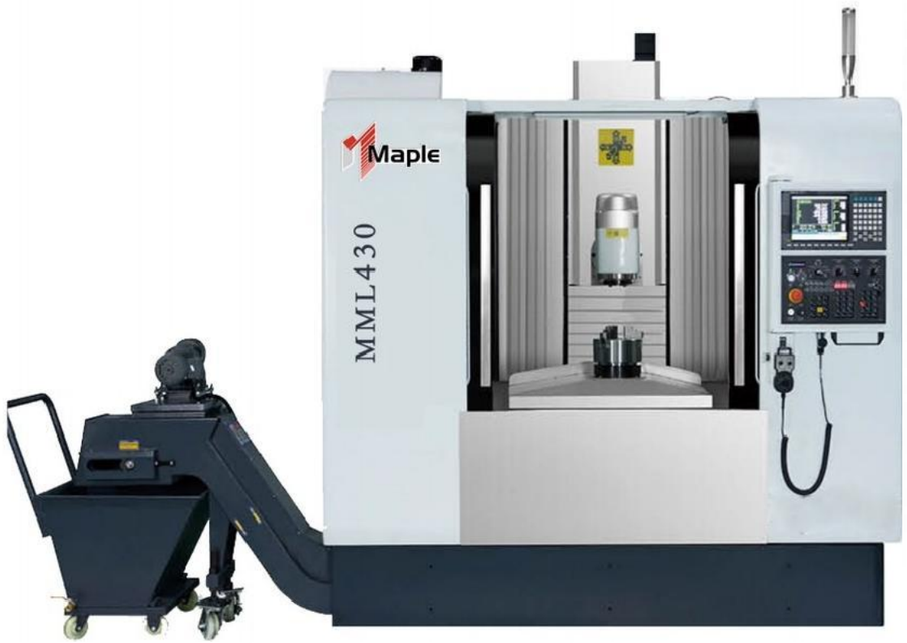
Technical Specifications

SPEC.	Configuration Parameters	
	MMT400	MMT640
Maximum Workpiece Rotating Diameter (mm)	400	630
X/Y/Z1/Z2 Linear Axis Travel (mm)	700/400/550/550	1200/630/5800/800
Distance from Spindle to Column Surface (mm)	420	640
Distance from Spindle Nose to Chuck (mm)	-90-460	-165-635
Distance from B-Axis Rotary Center to Chuck (mm)	36-586	-8~792
Maximum Drilling Diameter	φ32	φ45
Maximum Tapping Diameter	M16	M24
Maximum Rapid Traverse Speed (m/min)	36/36/36/36	30/30/30/30
Positioning Accuracy	±0.006/300	±0.006/300
Spindle Type	A2-6	A2-11
Maximum Torque	240	1430

MML430

Introduction:

- HT300 Cast Iron Bed
- BT40/10000 Electric Spindle
- DD High-Speed C-Axis Rotary Table
- Machine Tool Lubrication System
- Automatic Chip Removal System
- BT40-24T Rotary ATC
- Syntec 220MA-5 CNC System
- Taiwan Hiwin P-class Roller Linear Guideway
- Taiwan Hiwin C-class Ball Screws
- C-Axis Renishaw Grating Encoder
- Cooling Air Conditioning
- Spindle Oil Cooling System



Technical Specifications

SPEC.	Configuration Parameters	
	MML430	MML630
Maximum Workpiece Rotating Diameter (mm)	400	630
X/Y/Z Linear Axis Travel (mm)	1040/400/550	1500/630/800
Distance from Spindle to Column Surface (mm)	450	640
Distance from Spindle Nose to Chuck (mm)	-50-500	-165-635
Distance from B-Axis Rotary Center to Chuck (mm)	70-620	-8-792
Maximum Drilling Diameter	φ32	φ45
Maximum Tapping Diameter	M16	M24
Maximum Rapid Traverse Speed (m/min)	36/36/36	30/30/30
Positioning Accuracy	±0.006/300	±0.006/300
Spindle Type	BT40	BT40
Maximum Torque	74	140

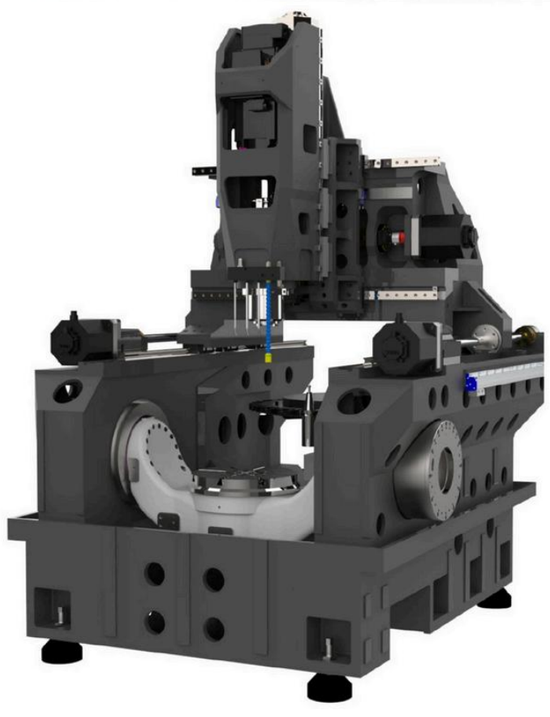
MGU SERIES

Introduction:

◆This model is a gantry-type five-axis machining center with ergonomic design,fully considering ease of operation and chip removal, making it suitable for machining various complex parts.

◆ The rotary axis AC is not superimposed on the linear axis, avoiding the impact of linear axis precision, thereby achieving higher accuracy requirements for the rotary axis.

◆ Standard configuration includes AC direct-drive rotary axis, offering high transmission precision, fast speed, and no mechanical friction or wear, ensuring longer-lasting machining accuracy.



NO	SPEC	MGU320	MGU400	MGU500	MGU600	MGU800
1	CNC System	Siemens 840 (ONE) / Siemens 828D / HNC848D				
2	Spindle	Direct Drive 11KW-BT40-12000 / Electric Spindle 30KW-HSK A63-18000				
3	ATC	Umbrella Type 30T Chain Type 40T			Umbrella Type 30/40T Chain Type 40/60T	
4	Rotary Table	DD Direct Drive Ø320	DD Direct Drive Ø400	DD Direct Drive Ø500 (Opt. A-Axis Dual Drive)	DD Direct Drive Ø650 (Opt. A-Axis Dual Drive)	DD Direct Drive Ø800 (Opt. A-Axis Dual Drive)
5	Maximum Machining Range	Ø400×350	Ø500×400	Ø600×450	Ø700×500	Ø900×550
6	Chip Removal Method	Chain Type	Chain Type	Chain Type	Chain Type	Chain Type
7	Turn-Mill Multi-Tasking	Opt.	Opt.	Opt.	Opt.	Opt.

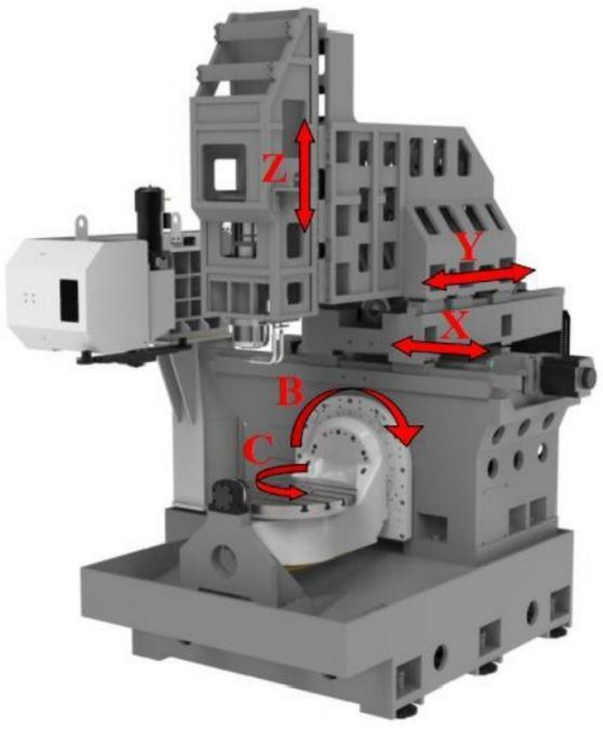
MU-630

Introduction:

◆ This model is a five-axis machining center with an ergonomic design that fully considers ease of operation and chip removal, making it suitable for machining various complex parts.

◆ The rotary axes BC are not superimposed on the linear axes, avoiding the impact of linear axis precision, thereby achieving higher accuracy requirements for the rotary axes.

◆ The standard configuration includes BC rotary axes with direct-drive transmission,offering high transmission precision, fast speed, and no mechanical friction or wear, ensuring longer-lasting machining accuracy.



SPEC.	MU-630
CNC System	Fanuc / Siemens /Heidenhain /Syntec
Spindle	BT40-12000/15000/18000
ATC	BT40-24T/30T/40T HSK A63-24T/30T/40T
Travel	XYZ:630*530*465 B:-90 C:+110
Spindle Center to Worktable Center	150-615
Table Diameter	Ø650
Load Capacity(KG)	200/300

MMA1040

Main Configuration:

- HT300 Cast Iron Bed
- BT40/10000 Electric Spindle
- Spindle Oil Cooling System
- Machine Tool Lubrication System
- Automatic Chip Removal System
- BT40-24T Rotary ATC
- Syntec 220TB-5 CNC System
- Taiwan Hiwin P-class Roller Linear Guideway
- Taiwan Hiwin C-class Ball Screws
- NC200 Precision Cam Rotary Table
- Compatible NC200 Tailstock with Center Pin
- Cooling Air Conditioning

Technical Specifications

	Configuration Parameters		
	MMA1040	MMA1500	MMA1040-B4
Maximum Workpiece Rotating Diameter (mm)	320	420	/
X/Y/Z Linear Axis Travel (mm)	1040/400/550	1500/630/800	1040/400/550
Distance from Spindle to Column Surface (mm)	450	640	450
Distance from Spindle Nose to Chuck (mm)	120-670	75-885	120-670
Spindle RPM	10000	8000	10000
Maximum Drilling Diameter	Ø32	Ø45	Ø32
Maximum Tapping Diameter	M216	M24	M16
Maximum Rapid Traverse Speed (m/min)	36/36/36	30/30/30	36/36/36
Positioning Accuracy	±0.006/300	±0.006/300	±0.006/300
Spindle Type	BT40	BT40	BT40
Maximum Torque	74	140	74

MEU380

SPEC	MEU380	MEU430
X/Y/Z Axis Travel(mm)	500X500X450	550X550X550
Working area(mm)	380X370	500X380
Spindle Nose to 5 axis (mm)	60~430	50~600
C-axis disk size(mm)	φ260	φ380
A/C axis rated torque(Nm)	253/105	406/698
A/C axis rated speed(rpm)	200/200	200/200
A/C axis rotation angle(°)	±110°/360	±110°/360
Spindle RPM	15000	15000
Spindle Motor	7.5	18.5/20
Max. load capacity (kg)	50	120

MVWX40

Introduction:

This machine is a vertical five-axis special machining center for blades, primarily suitable for roughing, semi-finishing, and finishing of medium and small-sized precision blades and complex parts. The material of the parts is generally carbon steel, alloy steel, tool steel, steel, and non-ferrous metals, among others.

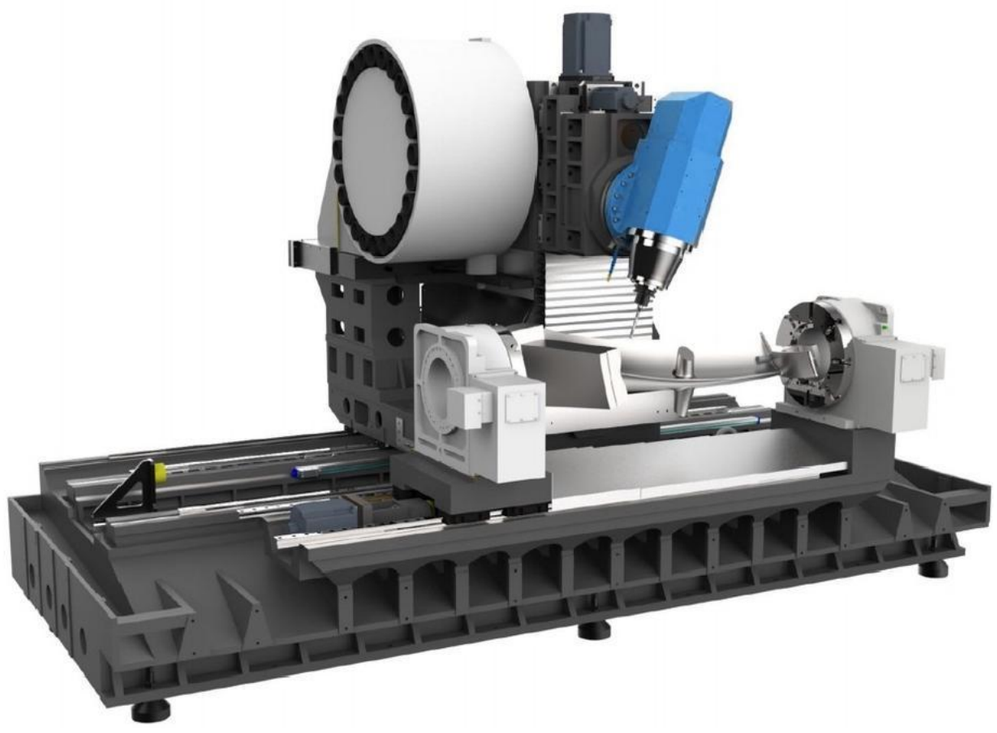
Technical Specifications

SEPC.	Configuration Parameters		Opt./Note
	MVWX40	MVWX80	
CNC System	Siemens SINUMERIK ONE		HNC848
Travel	X/Y/Z:500/300/500mm U:350mm A/A1:360° B:-50°—50°	X/Y/Z:1200/400/500mm U:700mm A/A1:360° B:-50°—50°	/
Spindle	HSK A63/18000	HSK A100/12000	/
ATC	24T	24T	30T
Max. Machining Size	500mm	900mm	/
Max.Load Capacity of Worktable	100KG	200KG	/

MVMC2500X

Introduction:

This is a five-axis linked blade-specific machining equipment developed for precision machining of blades. From the design perspective, it offers high machining accuracy and excellent operability.



Technical Specifications

SPEC.	Configuration Parameters MVMC2500X	Opt./Note
CNC System	Siemens SINUMERIK ONE	HNC848
Travel	X/Y/Z:2500/800/850mm U:1600mm A/A1:360° B:-50°—50°	/
Spindle	HSK A100/12000	/
ATC	24T	30T、40T
Max. Machining Size	1600mm	/
Max. Load Capacity of Worktable	Single Rotary Table:350KG Dual Rotary Tables:600KG	

MM-1260XL

Introduction:

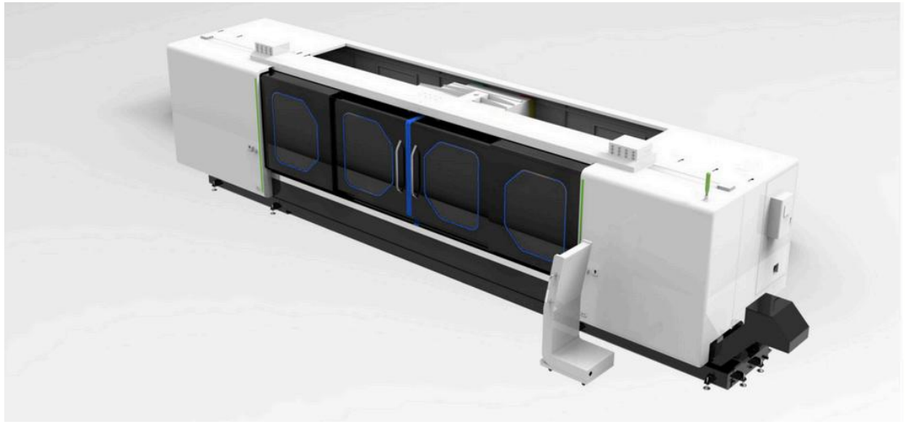
This series is a vertical five-axis machining center specially designed to meet the processing needs of square and round parts. The BC rotary axes adopt a direct-drive structure, making it particularly suitable for simultaneous five-axis machining. It offers advantages such as high responsiveness, high rotational speed, and high precision. The series excels in square and round part machining, making it an ideal choice for improving production efficiency and machining quality. When equipped with a high-speed rotary table, it can achieve turn-mill multi-tasking operations.

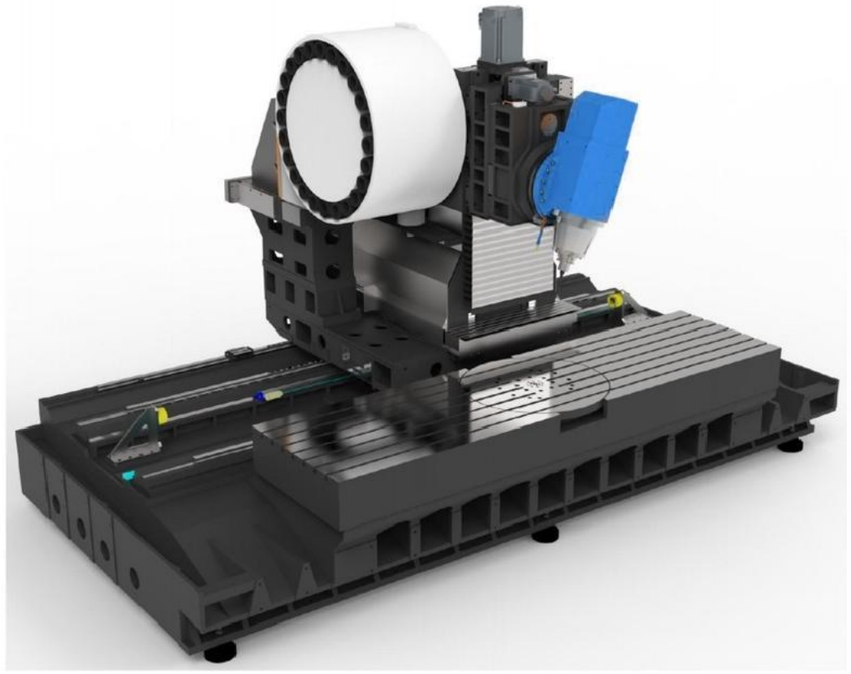
SPEC.	Configuration Parameters	Opt./Note
CNC System	Siemens 828D	Siemens 840/HNC848
Spindle	HSK A63-18000	/
ATC	24T	/
Travel	1100*600*600	/
Distance from Spindle Nose to Worktable Surface	120-720	/
Worktable	1200*600(Table Diameter:600)	/
Max. Load Capacity of Worktable	500KG	/
Chip Removal Method	Chain Type	/

MVMC2080-XL

Introduction:

Traveling Column Type Vertical Five-Axis Machining Center Equipped with the Siemens Sinumerik One system, this machine offers high positioning accuracy, fast response speed, and five-axis simultaneous machining capabilities. Additionally, it features an automatic tool changer and automatic workpiece and tool measurement devices, enabling efficient and automated machining processes.





SPEC.	TVMC2080-XL	TVMC2080-XL	Opt./Note
CNC System	Siemens840		HNC848
Spindle	SHK A63-18000		/
ATC	30T		/
Travel	2000*800*800	3000*800*800	/
Distance from Spindle Nose to Worktable Surface	20-820(Vertical) 320-1120(Horozinal)		/
Worktable	2000*800	3000*800	/
Axis Table Diameter	Ø800		/
Max. Load Capacity of Worktable	800KG		

MVMC2500/4500/6500

Product Overview

This series of high-speed five-axis swivel head machining centers is suitable for machining long workpieces. It offers drilling, milling, tapping, and five-axis machining capabilities.

Product Features

- High Speed
- High Precision
- Large Travel
- Cost-Effective

Product Performance

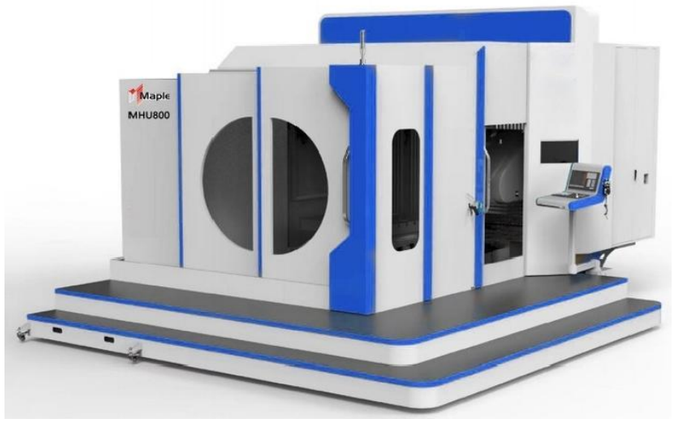
- Three-Axis Rapid Traverse: 60 m/min
- BT30 Spindle Speed: 20,000 RPM
- BT40 Spindle Speed: 10,000 RPM
- Positioning Accuracy: Up to 0.008 mm/m
- Repeat Positioning Accuracy: Up to 0.004 mm/m

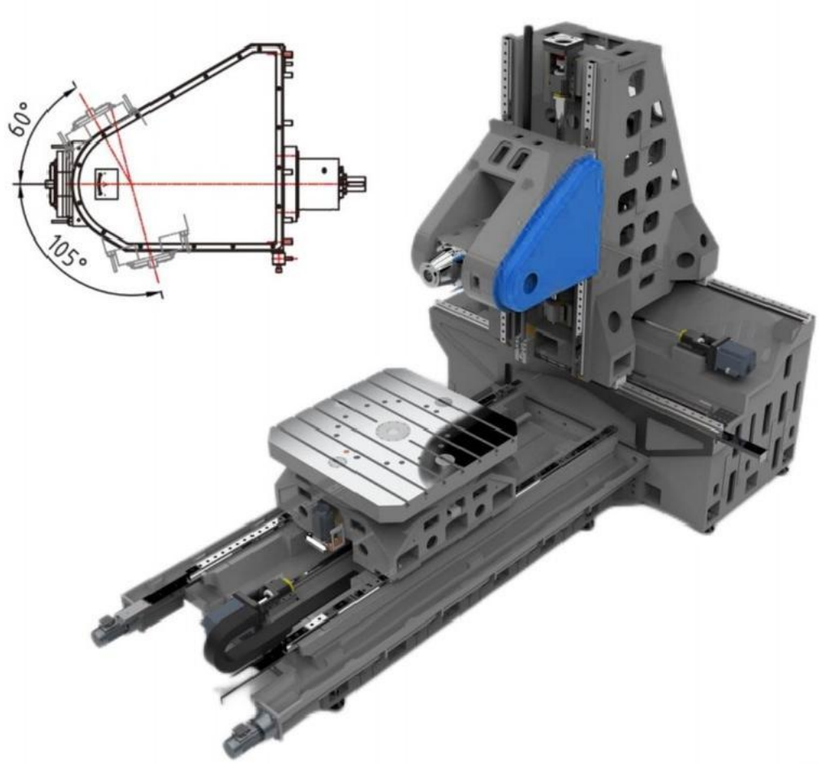
SPEC.	Configuration Parameters		Opt./Note
CNC System	Siemens 828D		FANUC
Spindle	HSK A63-18000 BBT50-15000		/
ATC	HSK A63-24	BBT50/24T	/
Travel	TVMC**42: X:2500/4500/6500 Y:420 Z:350	TVMC**60: X:2500/4500/6500 Y:600 Z:350	/
Distance fromSpindle Nose to Worktable Surface	BT30:200-550	BT40:100-600	/
Worktable	TVMC**42: 2500*400 4500*400 6500*400	TVMC**60: 2500*600 4500*600 6500*400	/
Chip Removal Method	Chain Type		/

MHU SERIES

Introduction:

The MHU series is a horizontal five-axis machining center specially designed to meet the machining needs of large parts. It is ideal for small -batch production, enabling multi-face or curved surface machining in a single setup. The AB rotary axes utilize a mechanical structure, providing high precision and large torque. This series excels in machining large box-type components, offering outstanding cutting and load capacity, making it an excellent choice for enhancing production efficiency and machining quality.



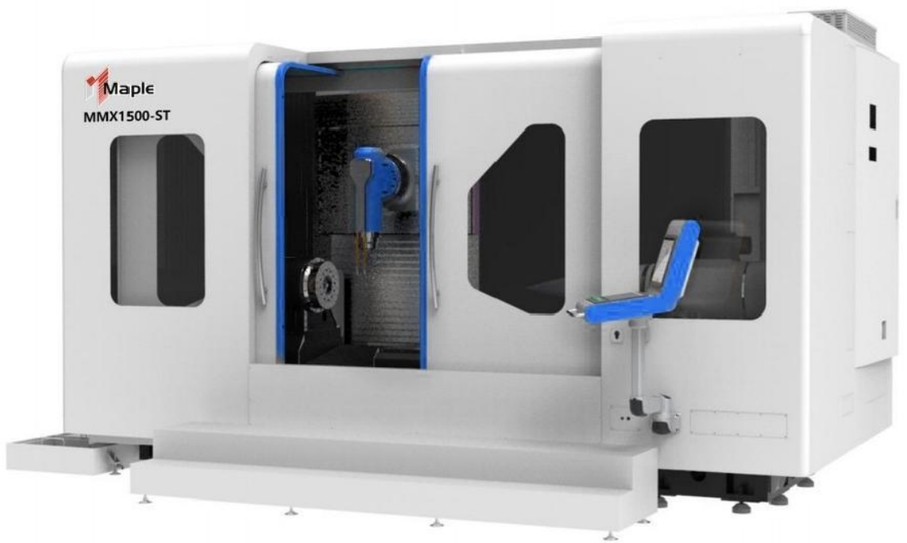


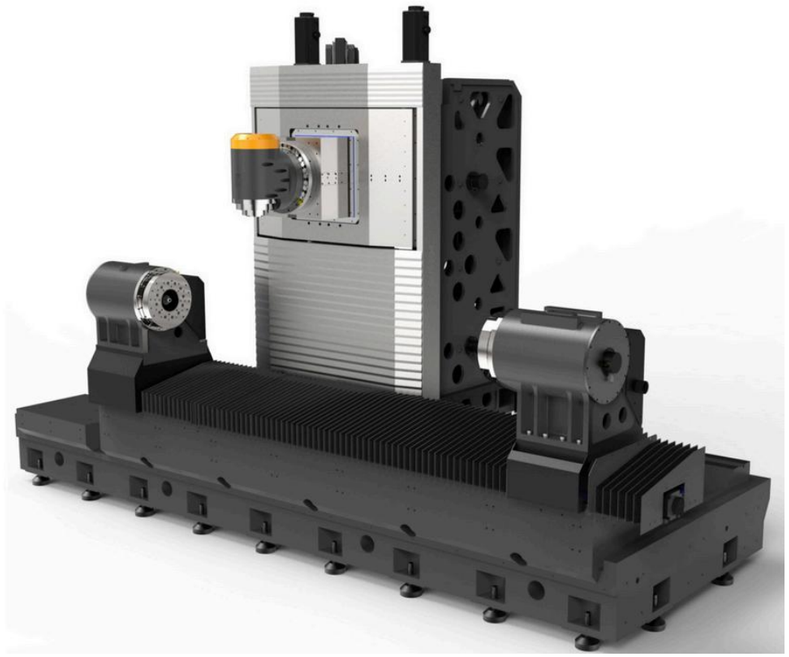
SPEC.	MHU800	MHU1250	MHU1600
CNC System	Siemens 828/840	Siemens 828/840	Siemens 828/840
Spindle	BT50-8000 or Electric Spindle HSK		
ATC	BT50-24T		
Travel	1000*950*1000	1300*1300*1700	2000*1500*1800
Swivel Head Rotation Angle		'+30~-120	
Distance from Spindle Nose to Worktable (Horizontal)	100~1050	100~1400	100~1600
Worktable	800*800	1250*1250	1600*1600
Chip Removal Method	Base Screw-Type + Chain-Type	Base Screw-Type + Chain-Type	Base Screw-Type + Chain-Type

MMX1500-ST

Introduction:

The TMX1500-ST is an advanced multi-axis machining center designed to meet the complex machining needs of various shaft-type parts. It is primarily used for multi-axis linked milling and positioning milling of cylindrical shell-type components. The machine is equipped with a coaxial horizontal spindle and hydraulic clamping fixtures, allowing for workpiece reorientation and installation. It also features a high-torque swivel head, which can work in conjunction with the horizontal direct-drive axis and three linear axes for five-axis milling operations.





SPEC.	Configuration Parameters	OPT.
CNC system	Siemens 840D ONE	Huazhong
Spindle	HSK A100-10000	
ATC	HSK A100-40T	60
Travel	1500/400/1000,Z1:1500,X1:350	Customizable according to requirements
Max. Machining Diameter	670	Customizable according to requirements
Max. Machining Length	1500	Customizable according to requirements
Max. Rotating Diameter	670	
Max. Workpiece Weight	500KG	

MHX1070-V

Introduction:

The horizontal CNC five-axis machining center features high precision and high rigidity. The machine body is optimized through finite element analysis design to achieve the most efficient structural design. This machine is suitable for machining various automotive steering shafts, different types of box components,and complex parts.

SPEC.	Configuration Parameters	Opt./Note
CNC System	Siemens 828D	Siemens840/HNC848
Spindle	BT40-8000	BT50-6000
ATC	24T	30T
Travel	1000*700*700	/
Distance from Spindle Nose to Worktable	145-845	/
Worktable	Table Diameter:400	/
Load Capacity	200KG	
Chip Removal Method	Chain Type	/

T-380U

Technical Specifications

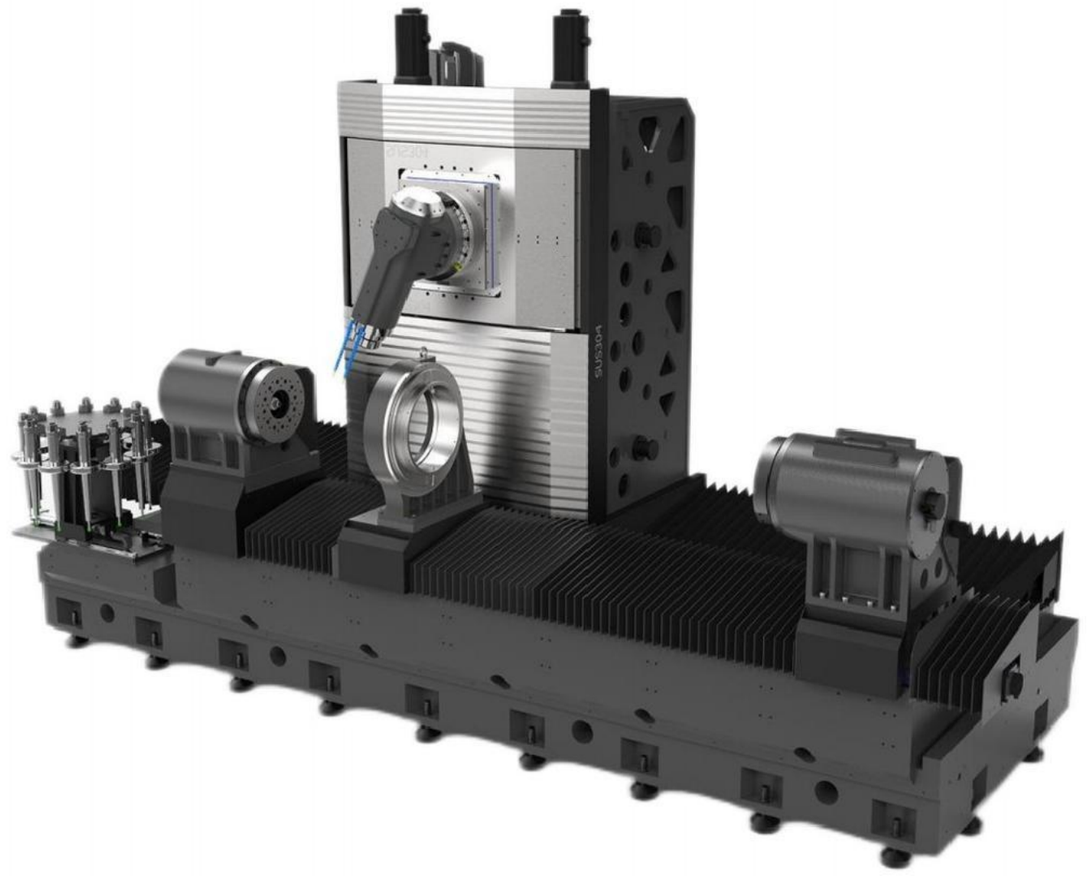
SPEC.	Configuration Parameters
C-Axis Table Size (mm)	260
A/C Axis Rated Torque (Nm	253/105
A/C Axis Rated Speed (rpm)	200/200
A-Axis Rotation Angle	±110
Spindle Nose to Five-Axis Table Surface Distance (mm)	60-430
X/Y/Z Axis Travel (mm)	500/560/380
Spindle Center to Column Distance (mm)	445
Spindle Type	DD
Spindle Speed	20000
Cutting Feed Speed Range	5-20000

MVMC2700C

Missile Nose Cone Housing Grinding

Main Features:

- High precision
- High stability
- Direct-drive rotary table (A1/A2/B axes)
- Box-in-box structure



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