CE

SHANDONG WEIDA PRECISION INTELLIGENT MACHINERY CO., LTD.

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WEIDA

山东威达精工

SHANDONG WEIDA PRECISION INTELLIGENT MACHINERY CO., LTD.

FIVE-AXIS MACHINING CENTER

30强
机床工具
TOP 30 MACHINE TOOL

使命 THE MISSION

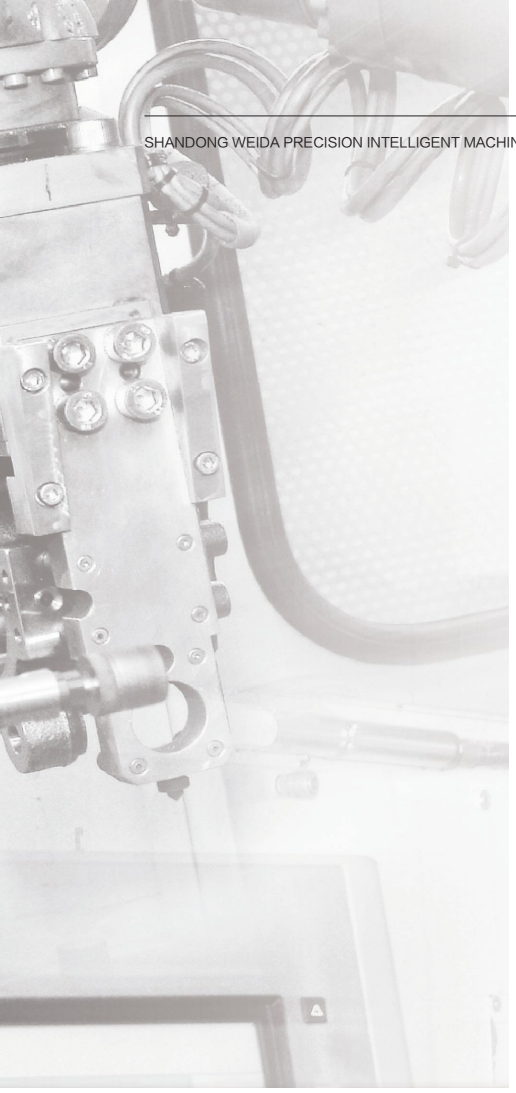
CREATE VALUE FOR CUSTOMERS
AND DEVELOP WITH THEM

愿景 THE VISION

WE ARE COMMITTED TO
BECOMING AN INTERNATIONALLY
RESPECTED MACHINE TOOL
MANUFACTURER

真诚合作

SINCERE
COOPERATION



Company Profile

Situated in the scenic hometown of Mo-tse — Tengzhou city, Shandong Province,Shandong Weida Precision Intelligent Machinery Co.,Ltd. is a large-scale joint-stock enterprise with the right of Import&Export. It covers an area 500,000 square meters, the building zone is about 350,000 square meters, and the total assets is more than RMB1 billion, there are 365 engineers,the main processing equipment is imported from Germany Waldrich Corburg guide grinder, Heckert,Heller and DMG horizontal machining center, Japan Okuma, New Japan SNK gantry type five-face boring and milling center, 132 sets of testing and debugging equipment. The company has set up a scientific research achievement transformation base in cooperation with Shandong University, cooperated with Huazhong University of Science and Technology in industry-university research, which composed of Technology research and Development Center, Information Data Processing Center, Product Inspection & Testing Center and Metrology room. In 2022,setting up a horizontal CNC machine tool engineering research center in Shandong Province.

Business Fields

In recent years, through the combination of absorbing advanced technology from abroad, cooperating with scientific research institutes and self-development and design, the main products have developed to 8 series: Automatic production line, Bridge type five-axis gantry machining center series, Gantry type/Vertical/Horizontal machining center series, CNC milling machine series, Horizontal boring and milling machine series, Radial drilling machine series, CNC lathe machine series, Milling/Drilling machine series, altogether more than 90 specifications. With stable capability & reliable quality, the products are widely sold both in home and abroad market, covering more than 70 countries and regions,especially Europe & America market.

Professional Certifications

WEIDA company pursues the quality strategy of creating famous brand and excellent reputation. It has obtained ISO9001:2015 Standard Quality System Certification, ISO14001:2015 Environmental Management System Certification, ISO45001:2018 Occupational Health And Safety Management System Certification from CQC accreditation body; EU "CE" certification; National High-tech Enterprise; Shandong Province "Specialized and Special New" Enterprise; In 2022, we passed the certification of two integration management system.

From 2011 to 2021, we were multiply honored as one of the "Top Ten Export Enterprises in China Machine Tool Industry"; In 2014, the company undertook the Science and Technology Major Special Project of "National High-grade CNC Machine Tools and Basic Manufacturing Equipment" ; The XH2130 CNC Gantry Boring and Milling Center and DMC1300 Gantry Machining Center independently designed and developed by WEIDA won the "National Chunyan Award"; it was awarded as one of the Top 30 Enterprises in China Machine Tool Industry for three consecutive years in 2015, 2016 and 2017.

1.0 品质&精度

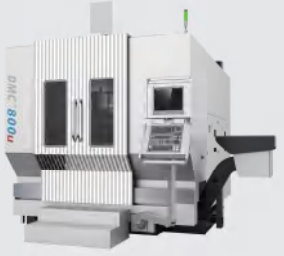
QUALITY ACCURACY

THE RELENTLESS PURSUIT OF QUALITY AND PRECISION IS THE CHARACTERISTICS OF WEIDA AND ITS STAFF

2.0

产品展示目录

PRODUCT CATALOGUE



性能特点 PERFORMANCE

- – Suitable for automotive mold, aerospace, printing, packaging, textile, military and other machining fields.
- – The latest model structure, modular structure design, has the best machine rigidity.
- – The bridge gantry structure has a footprint that is approximately 56% of that of a traditional table-moving structure.
- – Fixed table, load capacity doubled, and machine tool machining characteristics are not affected by the quality of the workpiece.
- – The patented one-piece bed table and column form a U-shaped frame structure with strong structural rigidity and high stability.
- – The column adopts “honeycomb” bionic structural design with high structural rigidity.
- – Adoption of patented technology cable fine-tuning mechanism of large span high rigidity gantry welded crossbeam, effectively solving the problem of large span crossbeam with low long-term accuracy retention and unadjustable.
- – The crossbeam, slide plate and ram adopt the patented double-nested thermo-symmetric “box-in-box” structure, which is characterized by strong structural rigidity and excellent thermal balance performance.
- – X, Y and Z axes all adopt “hollow screw” and patented “nut circulation oil cooling” technology, which can effectively control the influence of temperature rise on the precision of the machine tool.
- – X-axis and Z-axis adopt double ball screw synchronized dual drive technology.
- – X, Y and Z axes all adopt heavy-duty linear roller guideways with strong load bearing capacity.
- – X, Y and Z axes adopt grease lubrication system, which is both environmentally friendly and reliable.
- – The balancing cylinders are symmetrically arranged on both sides of the ram, and the Z-axis response speed is fast.

标准配置 STANDARD

- – Kessler double-arm fork type 5-axis milling head is equipped as standard: direct drive by torque motor, permanent precision.Encoder direct measurement, absolute accuracy, A/C axis speed : 100rpm, A/C axis brake torque : 2160/3024N, A/C axis cooling : constant temperature water cooling.
- – All axes are equipped with linear scales to improve precision and reliability.
- – Standard CNC system Siemens ONE
- – Horizontal chain chip conveyor as standard
- – 24pcs ATC

选择配置 OPTION

- – CNC system Heidenhain TNC640
- – HSK-A100-15000rpm high rigidity electric spindle.
- – Equipped with German BLUM laser tool setting instrument to realize fast and reliable tool setting.
- – Renishaw automatic workpiece measurement system.
- – 32pcs ATC and 40pcs ATC.

Main specifications	Unit	GMC2232bu	GMC2242bu	GMC2742bu	GMC3262bu
X-axis travel	mm	2200	4200	4200	6200
Y-axis travel	mm	3200	2200	2700	3200
Z-axis travel	mm	1250	1250	1250	1250
Distance from spindle nose to table surface	mm	250-1500	250-1500	250-1500	250-1500
Distance between two columns	mm	4000	3000	3500	4000
Worktable size	mm	3200X2200	4000X2200	4000X2500	6000X3000
Max.load of worktable	kg/m^2	5000	5000	5000	5000
T-slot (Width-No.-Distance)	mm	28-13-240	28-9-220	28-11-240	28-13-220
Spindle taper	--	HSK-A63	HSK-A63	HSK-A63	HSK-A63
Max. Spindle speed	rpm	18000	18000	18000	18000
Main motor power	kW	56/70	56/70	56/70	56/70
Spindle torque	N.m	89/111	89/111	89/111	89/111
Max. Swing/rotation speed	rpm	A=100 C=100	A=100 C=100	A=100 C=100	A=100 C=100
Max. Swing/rotation torque	N.m	A=1200 C=1100	A=1200 C=1100	A=1200 C=1100	A=1200 C=1100
Holding force	N.m	A=2160 C=3024	A=2160 C=3024	A=2160 C=3024	A=2160 C=3024
Swing/rotation angle	°	A=±105 C=±240	A=±105 C=±240	A=±105 C=±240	A=±105 C=±240
Rapid feed speed(X/Y/Z)	mm/min	15000/15000/15000	15000/15000/15000	15000/15000/15000	15000/15000/15000
Cutting feed speed(X/Y/Z)	mm/min	1-12000/1-12000/1-12000	1-6000/1-6000/1-12000	1-1600/1-6000/1-6000	1-1600/1-6000/1-6000
Positioning accuracy(X/Y/Z)	mm	0.014/0.016/0.012	0.020/0.014/0.012	0.020/0.016/0.012	0.030/0.016/0.012
Repeat positioning accuracy(X/Y/Z)	mm	0.010/0.012/0.008	0.016/0.010/0.008	0.016/0.012/0.008	0.024/0.012/0.008
Total power capacity	kVA	150	150	150	150
Machine weight	kg	62000	68000	71000	96000
Overall dimensions	mm	8600X6100X6600	8200X7600X6600	8200X8100X6600	10200X8600X6600

五轴桥式高速龙门加工中心

GMC2232bu

FIVE-AXIS BRIDGE-TYPE HIGH-SPEED GANTRY MACHINING CENTER

性能特点 PERFORMANCE

- – Square ram with four linear guide ways and slider with encryption structure; High stability; With the characteristic of strong structural rigidity and excellent thermal balance performance.
- – X-axis adopts precision rack and pinion transmission structure, the drive adopts double motors and double planetary reducer electrical backlash mode, double motors to realize master-slave control, which can effectively improve the positioning accuracy.
- – Y, Z axis adopts “hollow screw” or patented “nut circulation oil cooling” technology, which can effectively control the influence of temperature rise on the accuracy of the machine tool.
- – X, Y, Z axes all adopt heavy-duty linear roller guideway, with strong loading capacity.

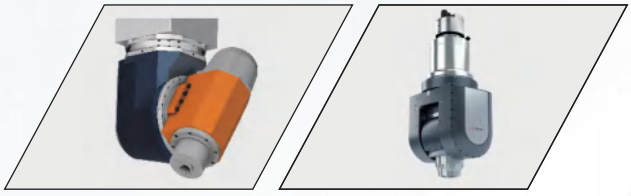
标准配置 STANDARD

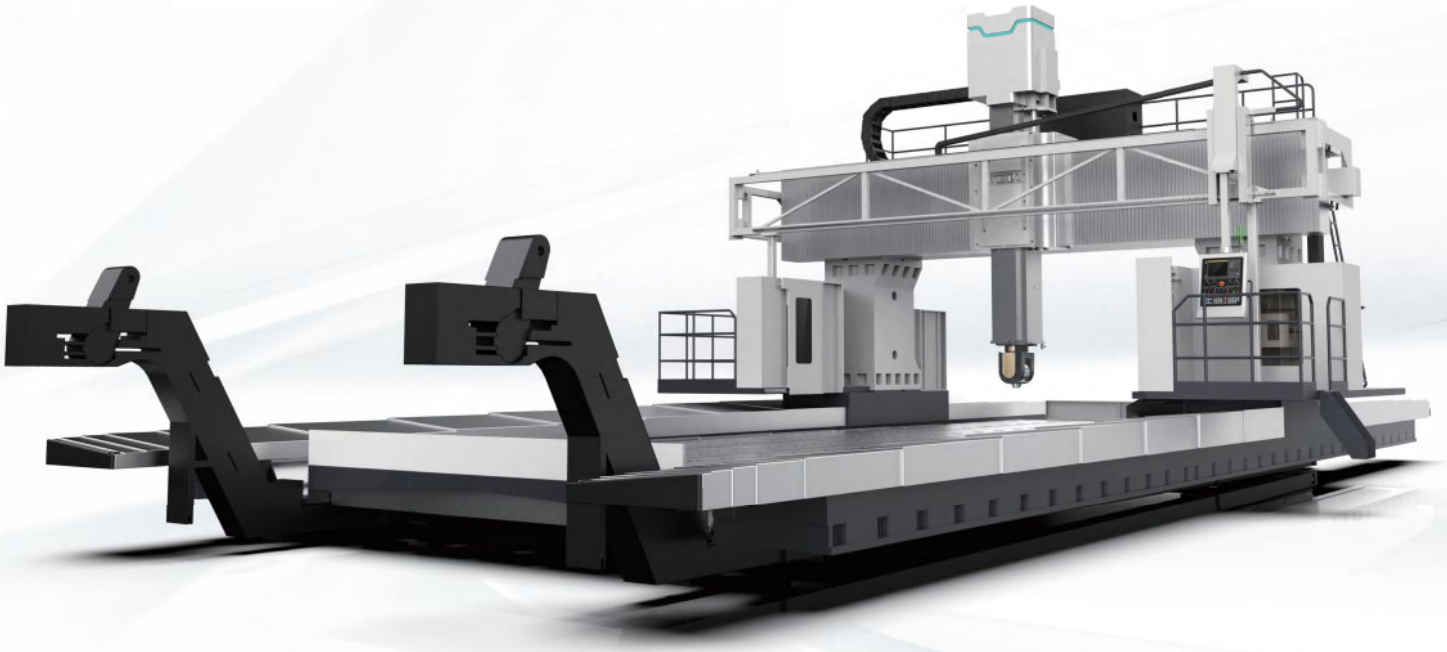
- – Kessler double-arm fork type 5-axis milling head is equipped as standard: direct drive by torque motor, permanent precision. Encoder direct measurement, absolute accuracy, A/C axis speed : 100rpm, A/C axis brake torque : 2160/3024N, A/C axis cooling : constant temperature water cooling.
- – All axes are fully closed-loop controlled by scale to improve accuracy and reliability.
- – Standard CNC system Siemens ONE
- – Equipped with double chain plate chip conveyor as standard

选择配置 OPTION

- – CNC system Heidenhain TNC640
- – HSK-A100-15000rpm high rigidity electric spindle.
- – Equipped with German BLUM laser tool setting instrument to realize fast and reliable tool setting.
- – Renishaw automatic workpiece measurement system.

Main specifications	Unit	GMU30100fm	GMU40100fm	GMU40140fm	GMU50200fm
X-axis travel	mm	10600	10600	14600	20600
Y-axis travel	mm	4500	5500	5500	6500
Z-axis travel	mm	1500	1500	1500	1500
Distance from spindle nose to table surface	mm	250-1750	250-1750	250-1750	250-1750
Distance between two columns	mm	4100	5100	5100	6100
Worktable size	mm	10000X3000	10000X4000	14000X4000	20000×5000
Max.load of worktable	T / m ^{2}	15	15	15	15
T-slot (Width-No.-Distance)	mm	28	36	36	36
Spindle taper	--	HSK-A63	HSK-A63	HSK-A63	HSK-A63
Max. Spindle speed	rpm	18000	18000	18000	18000
Main motor power	kW	56/70	56/70	56/70	56/70
Spindle torque	N.m	89/111	89/111	89/111	89/111
Max. Swing/rotation speed	rpm	A=100 C=100	A=100 C=100	A=100 C=100	A=100 C=100
Max. Swing/rotation torque	N.m	A=1200 C=1100	A=1200 C=1100	A=1200 C=1100	A=1200 C=1100
Holding force	N.m	A=2160 C=3024	A=2160 C=3024	A=2160 C=3024	A=2160 C=3024
Swing/rotation angle	°	A=±105 C=±240	A=±105 C=±240	A=±105 C=±240	A=±105 C=±240
Rapid feed speed(X/Y/Z)	mm/min	10000/10000/10000	10000/10000/10000	10000/10000/10000	10000/10000/10000
Cutting feed speed(X/Y/Z)	mm/min	1-8000/1-8000/1-8000	1-8000/1-8000/1-8000	1-8000/1-8000/1-8000	1-8000/1-8000/1-8000
Positioning accuracy(X/Y/Z)	mm	0.055/0.022/0.015	0.055/0.028/0.015	(0.011/1000)/0.028/0.015	(0.011/1000)/0.032/0.015
Repeat positioning accuracy(X/Y/Z)	mm	0.038/0.018/0.012	0.038/0.024/0.012	(0.008/1000)/0.024/0.012	(0.008/1000)/0.028/0.012
Total power capacity	kVA	120	120	120	120
Machine weight	kg	100000	120000	140000	210000
Overall dimensions	mm	19000×8200×8000	19000×9200×8000	23000×9200×8000	29000×10500×8000





GMU 30100fm

GMU 40140fm / **GMU** 50200fm

定梁动柱龙门式五轴加工中心

GMU/40140fm

FIXED BEAM MOVING COLUMN GANTRY MACHINING CENTER

Main specifications	Unit	GMU2040	GMU2560	GMU3060
X-axis travel	mm	4200	6200	6200
Y-axis travel	mm	3200	3700	4200
Z-axis travel	mm	1000(1250)	1000(1250)	1250
Distance from spindle nose to table surface	mm	250-1250(250-1500)	250-1250(250-1500)	250-1500
Distance between two columns	mm	2800	3300	3800
Worktable size	mm	4000×2000	6000×2500	6000X3000
Max.load of worktable	kg	15000	26000	30000
T-slot (Width-No.-Distance)	mm	28-9-200	28-11-220	28-13-220
Spindle taper	--	HSK-A63	HSK-A63	HSK-A63
Max. Spindle speed	rpm	18000	18000	18000
Main motor power	kW	56/70	56/70	56/70
Spindle torque	N.m	89/111	89/111	89/111
Max. Swing/rotation speed	rpm	A=100 C=100	A=100 C=100	A=100 C=100
Max. Swing/rotation torque	N.m	A=1200 C=1100	A=1200 C=1100	A=1200 C=1100
Holding force	N.m	A=2160 C=3024	A=2160 C=3024	A=2160 C=3024
Swing/rotation angle	°	A=±105 C=±240	A=±105 C=±240	A=±105 C=±240
Rapid feed speed(X/Y/Z)	mm/min	12000/12000/10000	10000/10000/10000	10000/10000/10000
Cutting feed speed(X/Y/Z)	mm/min	1-8000/1-10000/1-8000	1-8000/1-8000/1-8000	1-6000/1-6000/1-6000
Positioning accuracy(X/Y/Z)	mm	0.020/0.015/0.010(0.012)	0.030/0.020/0.010(0.012)	0.030/0.028/0.012
Repeat positioning accuracy(X/Y/Z)	mm	0.013/0.010/0.008(0.010)	0.022/0.013/0.008(0.010)	0.022/0.019/0.010
Total power capacity	kVA	110	110	110
Machine weight	kg	46000	65000	88000
Overall dimensions	mm	11500×6200×6800	15500×6500×6850	18600×6900×7150

性能特点 PERFORMANCE

- – The X, Y and Z axes all use heavy-duty linear roller guideways.
- – The beam adopts vertical orthogonal linear guide structure to meet the demand of large span and high rigidity.
- – The square ram four-line rail encircles the roller guide and slider encrypted structure, with high stability. It is characterized by strong structural rigidity and excellent thermal balance performance.
- – X, Y, Z-axis adopts "hollow screw" or patented "nut circulation oil cooling" technology, which can effectively control the impact of temperature rise on the accuracy of the machine.
- – X, Y, Z-axis adopts independent lubricant recycling system balancing cylinders are arranged symmetrically on both sides of ram, and Z-axis has fast response speed.
- – Suitable for automotive mold, aerospace, printing, packaging, textile, military and other machining fields.

标准配置 STANDARD

- – Kessler double-arm fork type 5-axis milling head is equipped as standard: direct drive by torque motor, permanent precision.
- – Encoder direct measurement, absolute precision, A/C axis speed :100rpm, A/C axis brake torque :2160/3024N.Constant temperature water cooling on A/C axis.
- – All axes are fully closed-loop controlled by scale to improve accuracy and reliability.
- – Standard equipped with Siemens ONE CNC controller.
- – Equipped with horizontal chip type conveyor as standard.

选择配置 OPTION

- – Heidenhain TNC640 CNC controller.
- – HSK-A100-15000rpm high rigidity electric spindle.
- – Equipped with German BLUM laser tool setting instrument to realize fast and reliable tool setting.
- – Renishaw automatic workpiece measurement system.

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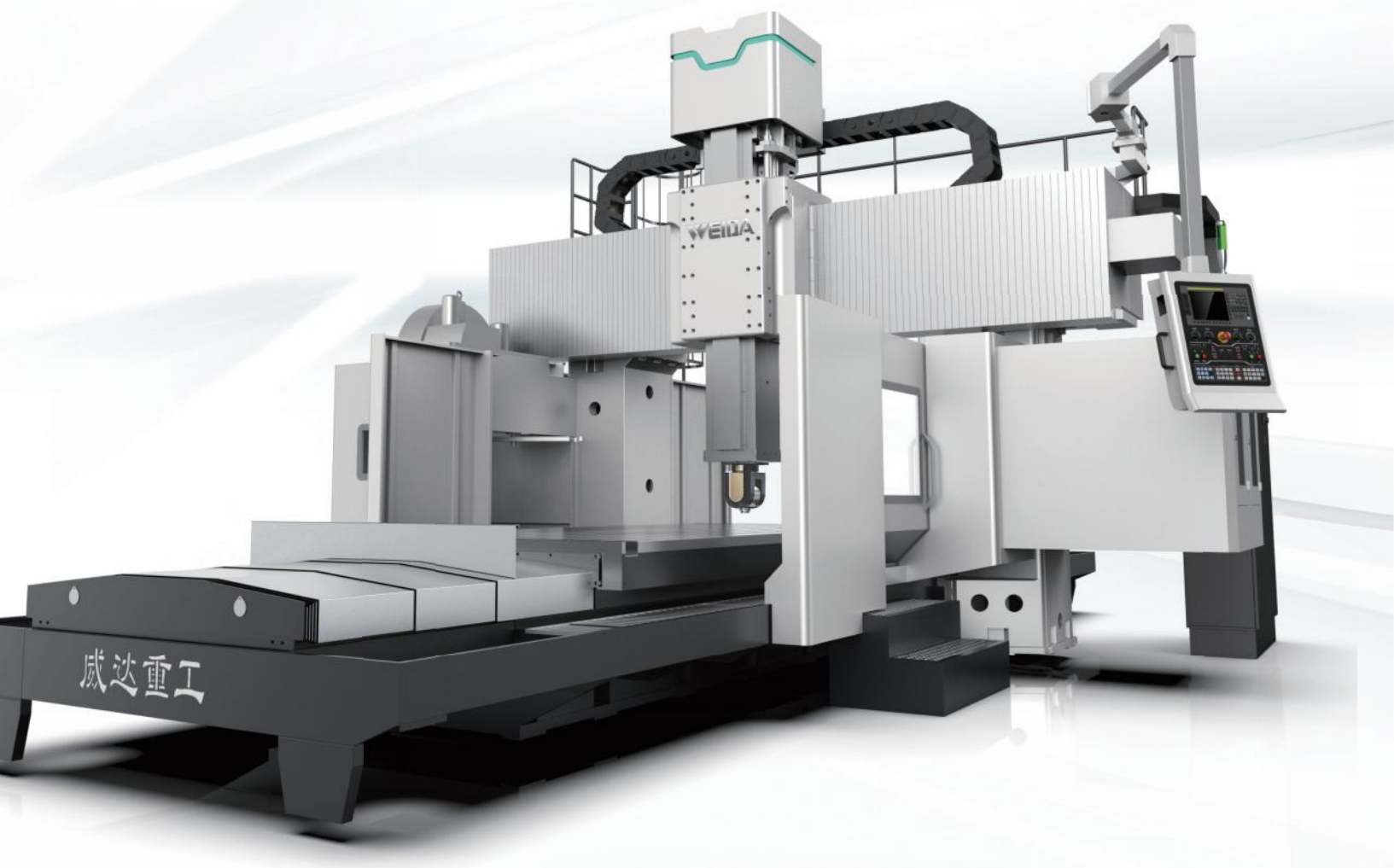
GMU/2040

FIVE-AXIS CNC GANTRY TYPE MACHINING CENTER

GMU 2040 / **GMU** 2560

GMU 3060



性能特点 PERFORMANCE

- – The machine adopts positive T type three-point support bed, frame-in-frame overall structure design, with better rigidity and excellent thermal balance performance.
- – X, Y and Z axes all adopt high-strength roller linear guideway to ensure high rigidity and positioning accuracy.
- – Equipped with 45° automatic indexing direct-drive milling head, and the milling head is equipped with a self-locking mechanism, which has a large locking torque, stable and reliable locking, and the rotating speed of the pendulum head can reach 60r/min.
- – The spindle of milling head adopts direct-drive electric spindle with high speed, low vibration and excellent machining performance.
- – The milling head spindle nose is designed with spindle air curtain to prevent debris from entering and ensure spindle accuracy and life.
- – The rotary table adopts direct drive technology of torque motor, which can rotate 360° and the speed can reach 40r/min.
- – X, Y, Z three-axis adopts motor direct screw structure, X, Z axis for the double ball screw synchronous drive, reasonable layout, faster response.
- – X, Y, Z axis is equipped with linear scale, A, C axis is equipped with circular time scale, five-axis full closed-loop control improves the machining accuracy and stability.
- – X, Y, Z three-axis adopts "hollow screw" technology, bearing ring cooling technology, the whole machine five-axis constant temperature water cooling, effective control of temperature rise on the precision of the machine.
- – The speed of X, Y and Z axes can reach 60m/min, which improves the machining efficiency.
- – The tool cooling and lubrication adopts the spindle ring spray cooling system with high flow rate.
- – The machine is equipped with SINUMERIK ONE controller.
- – Equipped with 45pcs large-capacity tool magazine system, meets the demands of multi-process and multi-featured machining, reduces the machining auxiliary time and improves the machining efficiency.
- – The machine adopts independent PLC-controlled centralized lubrication device to automatically lubricate the screws and guide rails of each motion axis.
- – The machine is equipped with double screw chip conveyor and double chain chip conveyor as standard and at the same time configured with large flow top chip flushing, which can realize fully automatic chip discharge of the machine.
- – It is applicable to various machining fields such as automobile industry, mold industry, aerospace industry, machinery manufacturing industry, energy technology industry and so on.

	Model	Unit	HMU1600	HMU1250	HMU1000
Machining range	X-axis travel (column left-right movement)	mm	1600	1250	1000
	Y-axis travel (forward and backward movement of rotary table)	mm	1500	1250	1100
	Z-axis travel (headstock up and down)	mm	1300	1100	1000
	A-axis rotary range	°	-30° ~+180°	-30° ~+180°	-30° ~+180°
	C-axis rotary range	°	360°	360°	360°
	Max. workpiece rotary diameter	mm	∅ 1600	∅ 1250	∅ 1000
	Distance from spindle nose to table nose (spindle vertical)	mm	150 ~ 1450	150 ~ 1250	150 ~ 1150
	Distance from spindle axis to table rotation center (spindle vertical)	mm	-200 ~ 1300	-200 ~ 1050	-200 ~ 800
	Distance from spindle axis to table surface (spindle horizontal)	mm	50 ~ 1350	50 ~ 1150	50 ~ 1050
	Distance from spindle nose to table rotation center (spindle horizontal)	mm	-100 ~ 1400	-100 ~ 1150	-100 ~ 900
Work Table	Table size	mm	∅ 1250×1100	∅ 1000×850	∅ 800×650
	Min. indexing unit	°	0.001	0.001	0.001
	Max.table load	Kg	2000	1500	1000
	Rotary table speed	r/min	40	40	40
Spindle	Max.spindle speed	rpm	10000	10000	10000
	Spindle tapper		HSK A100	HSK A100	HSK A100
	Spindle motor power	Kw	54	54	54
	Spindle torque	Nm	200/240	200/240	200/240
Pendulum head	Rotational speed of the pendulum head	rpm	60	60	60
	Rated torque	Nm	1200	1200	1200
	Clamping system		液压	液压	液压
Feeding System	X/Y/Z rapid feed speed	m/min	60	60	60
	X/Y/Z max. cutting feed speed	m/min	20	20	20
Tool Magazine	Max.tool magazine capacity		45	45	45
	Max.tool diameter(full/empty)	mm	125/250	125/250	125/250
	Max.tool length	mm	400	400	400
	Max.tool weight	kg	25	25	25
Accuracy	Linear axis positioning accuracy X/Y/Z	mm	0.008/0.008/0.008	0.008/0.008/0.008	0.008/0.008/0.008
	Linear axis repeatable positioning accuracy X/Y/Z	mm	0.005/0.005/0.005	0.005/0.005/0.005	0.005/0.005/0.005
	Rotary axis positioning accuracy	arc/sec	8	8	8
	Repeatable positioning accuracy of rotary axis	arc/sec	4	4	4
CNC Controller	Model		SINUMERIK One	SINUMERIK One	SINUMERIK One
	Total control axes	Axes	5	5	5
	Number of linkage control axes	Axes	5	5	5

标准配置 STANDARD

- – Equipped with 45° automatic indexing direct-drive milling head as standard.
- – X, Y, Z axis is equipped with linear scale, A, C axis is equipped with circular time scale,
- – X, Y, Z axis hollow screw constant temperature water cooling
- – 45T arm type tool magazine
- – Direct-drive rotary table
- – Equipped with Siemens SINUMERIK ONE CNC controller as standard.
- – Equipped with double screw chip conveyor+double chain chip conveyor+top flushing chip as standard.

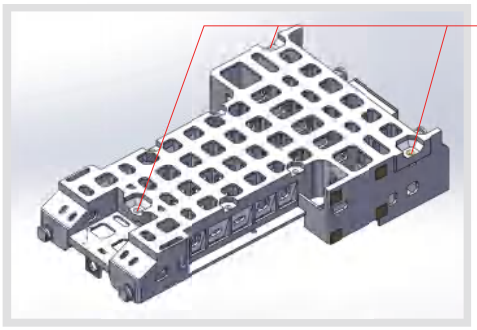
选择配置 OPTION

- – 40pcs or 60pcs chain type tool magazine
- – Automatic tool measuring system
- – Automatic workpiece measurement system
- – A, C-axis circular scale
- – 2Mpa, 3Mpa, 5Mpa CTS
- – Turning function, a clamping can be completed turning, milling, boring and other forms of processing

五轴加工中心

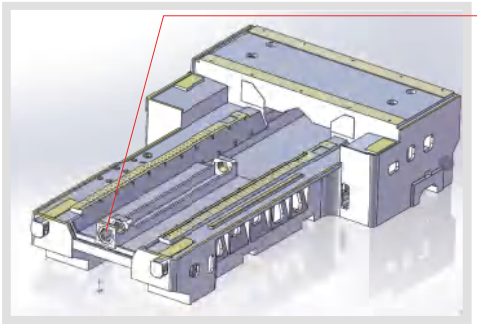
HMU1250

5-AXIS VERTICAL MACHINING CENTER

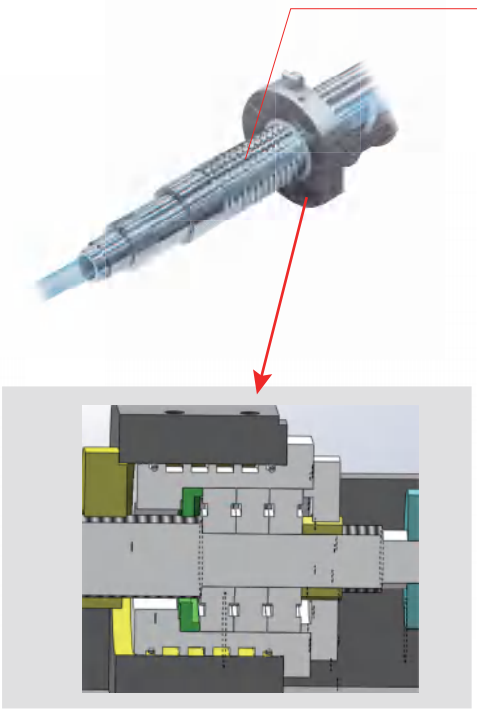


Three-point support bed

The bed adopts high rigidity and low stress structural large casting technology to guarantee good accuracy retention;

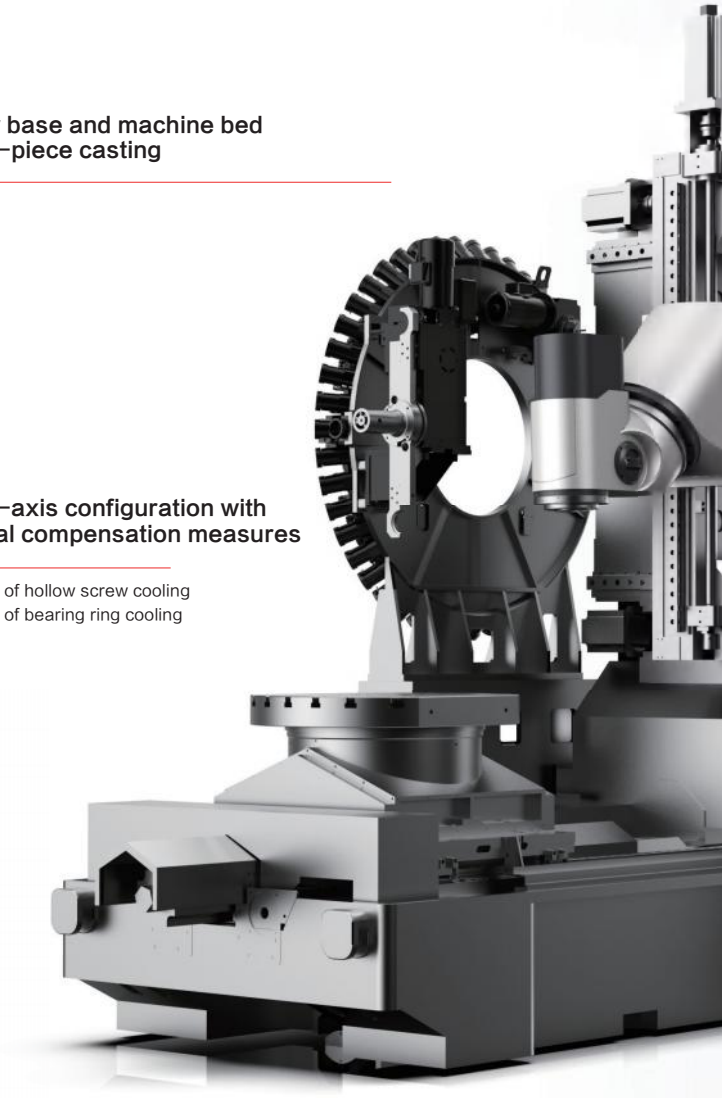


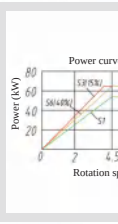
Screw base and machine bed is one-piece casting



Three-axis configuration with thermal compensation measures

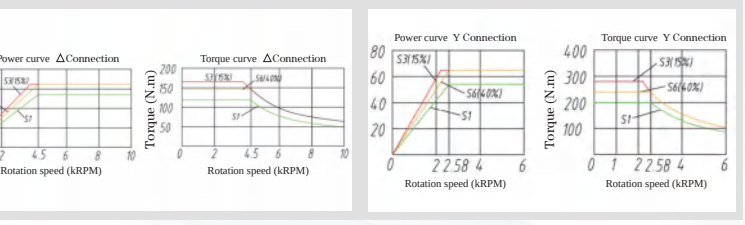
Adoption of hollow screw cooling
Adoption of bearing ring cooling

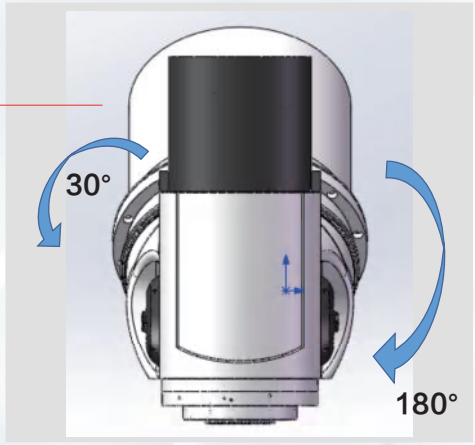




Self-made 45° direct drive pendulum head and high speed spindle.

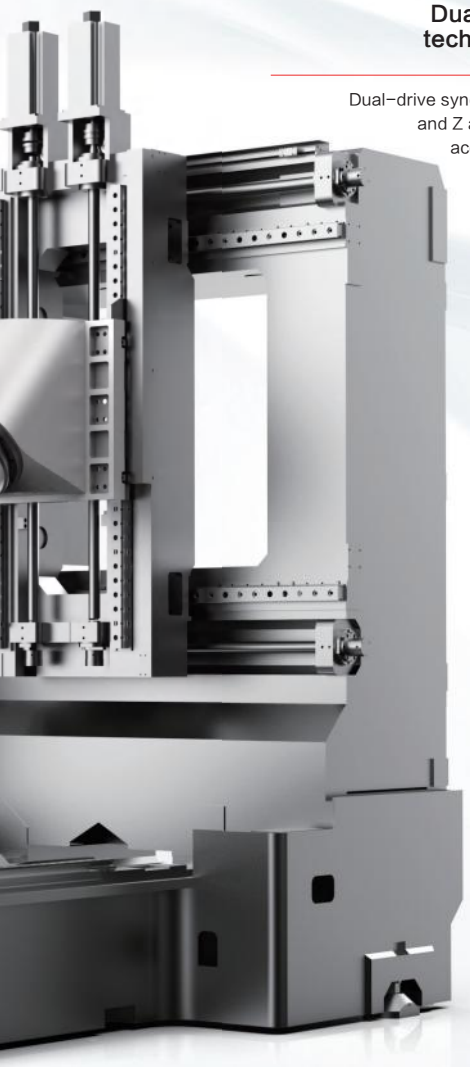
High torque, high positioning accuracy, high spindle speed and low vibration.

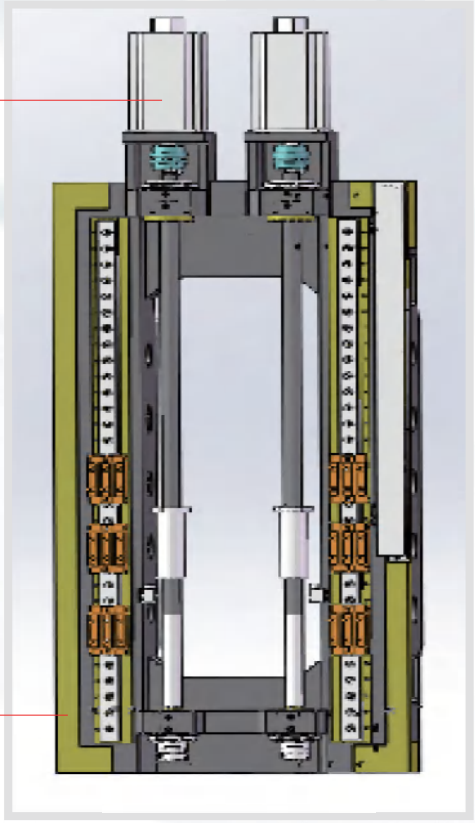




Dual-drive synchronization technology for X and Z axes

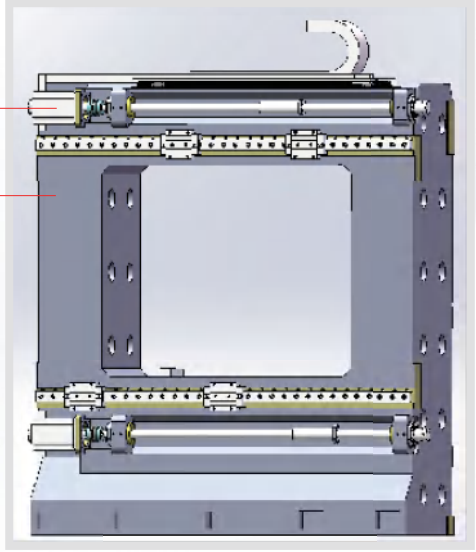
Dual-drive synchronization technology for both X and Z axes improves machine response, accuracy retention and travel speed.

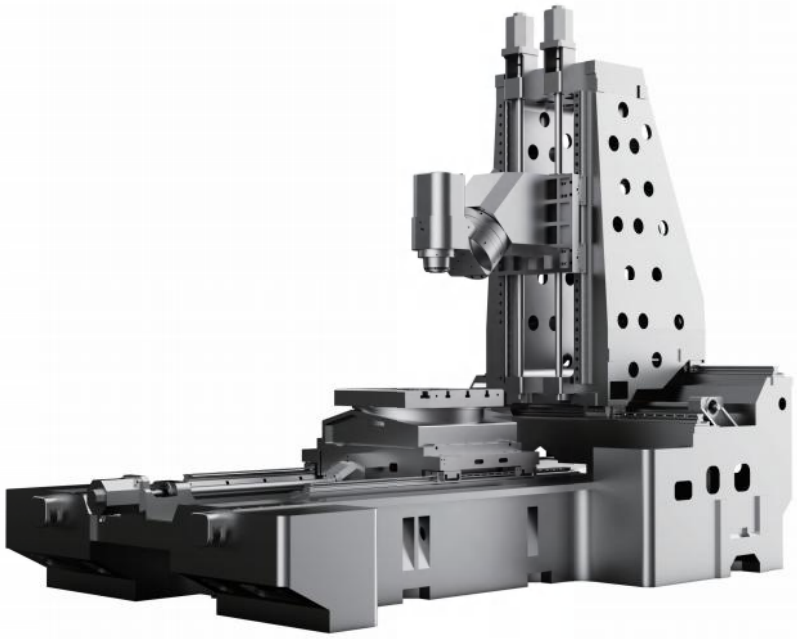




Frame-in-frame overall structure

The column and slide plate form a frame-in-frame structure, and the slide plate is supported in the full range of travel, compared with the transmission of a single-column type HMC, the spindle box is more rigid in the highest position of the Z-travel, reducing vibration due to the lack of rigidity of the column.





	Model	Unit	HMC1250u	HMC1000u	HMC800u
Machining range	X-axis travel (column left/right movement)	mm	1250	1000	800
	Y-axis travel (forward and backward movement of rotary table)	mm	1250	1100	1000
	Z-axis travel (spindle box moving up and down)	mm	1100	1000	900
	A-axis rotation range	°	-30° ~+180°	-30° ~+180°	-30° ~+180°
	C-axis rotation range	°	360°	360°	360°
	Max. workpiece rotation diameter	mm	∅ 1200	∅ 1100	∅ 1100
	Distance from spindle end face to table surface (spindle vertical)	mm	150 ~ 1250	150 ~ 1150	150 ~ 1050
	Distance from spindle axis center to table rotation center (spindle vertical)	mm	-200 ~ 1050	-200 ~ 900	-200 ~ 800
	Distance from spindle axis to table surface (spindle horizontal)	mm	50 ~ 1150	50 ~ 1050	50 ~ 950
	Distance from spindle end face to table rotation center (spindle horizontal)	mm	-100 ~ 1150	-100 ~ 1000	-100 ~ 900
Table	Table size	mm	1000×1000	800×800	630×630
	Min. indexing unit	°	0.001	0.001	0.001
	Max. table load	Kg	3000	2000	1200
	Table speed	r/min	11.1	11.1	11.1
Spindle	Max. spindle speed	rpm	18000	18000	18000
	Spindle taper		HSK-A63	HSK-A63	HSK-A63
	Spindle power	Kw	30	30	30
	Spindle output torque	Nm	72/85	72/85	72/85
Pendulum head	Rotational speed of the pendulum head	rpm	60	60	60
	Rated torque	Nm	1200	1200	1200
	Clamping system		Hydraulic	Hydraulic	Hydraulic
Feed system	X/Y/Z rapid feed speed	m/min	48	48	48
	X/Y/Z max. cutting feed speed	m/min	20	20	20
Tool magazine	Capacity		45	45	45
	Max. tool dia.(Full / Empty)	mm	75/130	75/130	75/130
	Max. tool length	mm	350	350	350
	Max. tool weight	kg	8	8	8
Accuracy	Linear axis positioning accuracy X/Y/Z	mm	0.008/0.008/0.008	0.008/0.008/0.008	0.008/0.008/0.008
	Linear axis repeatable positioning accuracy X/Y/Z	mm	0.005/0.005/0.005	0.005/0.005/0.005	0.005/0.005/0.005
	Rotary axis positioning accuracy	arc/sec	8	8	8
	Repeatable positioning accuracy of rotary axis	arc/sec	4	4	4
Cnc controller	Model		SINUMERIK One	SINUMERIK One	SINUMERIK One
	Total control axes	Axes	5	5	5
	Number of linkage control axes	Axes	5	5	5

性能特点 PERFORMANCE

- – T bed with three-point support structure, better machine rigidity
- – The back guideway of the bed is low at the front and high at the back, which reduces the weight of the column and improves the motion performance of the machine.
- – X, Y and Z axes all adopt high-strength roller linear guideways to ensure high rigidity and geometric accuracy of the machine.
- – Adoption of 45° pendulum head, small machining interference area, strong machining adaptability
- – Pendulum head adopts high torque motor, direct drive, with circular scale, good motion performance, high rotary positioning accuracy.
- – Pendulum head spindle adopts electric spindle with high speed, low vibration and excellent machining performance.
- – The spindle nose of the milling head is equipped with spindle front seal to prevent dust and debris from entering, ensuring spindle accuracy and life.
- – The lifting and lowering of spindle box adopts double-screw synchronous drive, with reasonable arrangement and faster response.
- – Five-axis full closed-loop control improves machine accuracy and stability
- – Adopting water cooling technology of hollow screw and cooling technology of bearing ring sleeve, effectively controlling the influence of temperature rise on the precision of machine tool.
- – With high flow spindle ring spray cooling system
- – With Siemens ONE control system
- – Equipped with a large-capacity tool magazine system to meet the needs of multi-process, multi-featured machining, reduce machining assistance time and improve machining efficiency.
- – The machine adopts an independent PLC-controlled centralized lubrication device to automatically lubricate the screws and guideways of each axis of motion.
- – The machine is equipped with double screw chip conveyor + double chain chip conveyor as standard, and at the same time equipped with high-flow chip flushing, which can realize fully automatic chip removal on the machine.
- – Suitable for a wide range of machining applications,such as automotive, mold and die industry, aerospace, machine building, energy technology, etc.

标准配置 STANDARD

- – 45 ° automatic indexing direct-drive pendulum head
- – Full closed loop control
- – Hollow ball screw
- – 40pcs chain type tool magazine
- – Siemens Sinumerik Cnc Controller
- – Double screw chip conveyor + double chain chip conveyor + top chip flushing

选择配置 OPTION

- – 60pcs chain type tool magazine
- – Automatic Tool Measuring System
- – Automatic Workpiece Measuring System
- – Coolant through spindle system (CTS)
- – turning function, one time clamping can be completed turning, milling, boring and other forms of processing

五轴加工中心

HMC1000u

5-AXIS VERTICAL MACHINING CENTER

Main parameter	Unit	DMC500u	DMC650u	DMC800u
Table size	mm	ϕ500	ϕ650	ϕ800
T slot	mm	14H8	14H8	18H8
Table center hole	mm	ϕ50H7	ϕ50H8	ϕ50H8
Max. table load	kg	350	850	1200
X travel	mm	500	600	850
Y travel	mm	600	650	850
Z travel	mm	450	600	700
A-axis rotation range	°	±120	±120	±120
C-axis rotation range	°	360	360	360
Distance from spindle end face to table surface	mm	130-580	150-750	150-850
Spindle taper	--	HSK-A63	HSK-A63	HSK-A63
Max. spindle speed	rpm	18000	15000	15000
Main spindle power	kW	22/33	25/37.5	25/37.5
Spindle torque	N.m	61.3/90.7	91.7/37.5	91.7/137.7
Tool magazine type	--	Flat Chain Type	Flat Chain Type	Flat Chain Type
Tool magazine capacity	把	32	40	40
Max. tool dia. (Full / Empty)	mm	ϕ76/ϕ125	ϕ76/ϕ125	ϕ76/ϕ125
Max. tool length	mm	300	300	300
Max. tool weight	kg	8	8	8
Tool change time (T-T)	s	2-4	2-4	2-4
Rapid feed speed (X/Y/Z)	mm/min	36000/36000/36000	36000/36000/36000	32000/32000/32000
Cutting fees speed (X/Y/Z)	mm/min	1-10000/1-10000/1-10000	1-10000/1-10000/1-10000	1-10000/1-10000/1-10000
Positioning accuracy (X/Y/Z)	mm	0.008	0.008	0.008
Positioning accuracy (A/C)	″	±5	±5	±5
Repeat positioning accurayc （X/Y/Z)	mm	0.005	0.005	0.005
Repeat positioning accurayc （A/C)	″	4	4	4
Machine Weight	kg	11000	15000	18000
Machine overall size	mm	5500X2350X3100	4600X3840X3300	5500X4000X3500

性能特点 PERFORMANCE

- – Excellent structural design
  1.Bed, column double U-shaped structure design, constituting a return force flow structure, greatly improving the rigidity of the machine and accuracy retention.
  2.Compact machine layout with guideways, drives and tool changers safely located outside the machining area
  3.The four beveled square-open chip discharge structure in the inner cavity of the bed constitutes a smooth chip discharge method, which reduces the accumulation of iron chips during the machining process of the machine.
  4.The column adopts a center-mounted ball screw transmission structure, which effectively suppresses the vibration of the machine tool during high acceleration and deceleration.
  5.The crossbeam adopts a large span 4 guide rails support structure, which effectively improves the rigidity of the whole machine operation and increases the machining precision.
- – Highly reliable and efficient drive positioning system
  1.X, Y, Z are connected to high-precision ball screw through backlash-free elastic coupling , to ensure the positioning accuracy of the machine tools
  2.X and Z axis adopts Taiwan HIWIN 45mm wide roller linear guideway, Y axis adopts 4pcs 55mm roller linear guideway to improve transmission rigidity.
  3.The rotary axes A and C are equipped with high torque motors, which optimizes the rotary accuracy of the whole machine. The table load capacity is up to 1200kg, with large processing range.
  4. The working table has a large swing range of ±120 ° , and can process 30 ° bottom cutting processing.
  5.Configured with high torque and high speed electric spindle, with wide range of speed change; constant temperature water circulation cooling method ensures the stability of spindle rotary precision.
- – Reasonable configuration
  1. Pneumatic protection door is equipped between the machining area and the tool magazine, and the protection design is humanized.
  2. The spindle adopts air blowing structure, and the inner taper hole of the spindle and the shank of the tool are cleaned before the tool change to remove the residue and ensure the high precision and rigidity of the spindle.
  3.3D simulation and comprehensive tool management functions are possible.
  4. The machine adopts centralized automatic lubrication device with electric pump to lubricate the screw and guideway surface automatically and intermittently at regular time and quantity, which is stable and reliable.

标准配置 STANDARD

- – Built-in electric spindle unit
- – High torque A and C 5-axis rotary table
- – Linear scale on three axes
- – Siemens ONE control system
- – 40T ATC

选择配置 OPTION

- –Heidenhain TNC640 controller
- –Laser tool setter
- –Automatic Workpiece Measuring System
- –60T ATC
- –X,Y linear motor, Z double drive
- –Turning function

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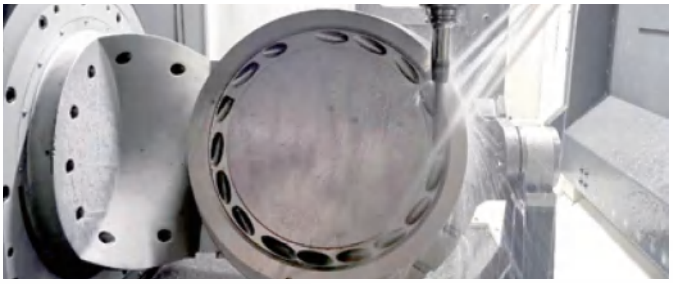
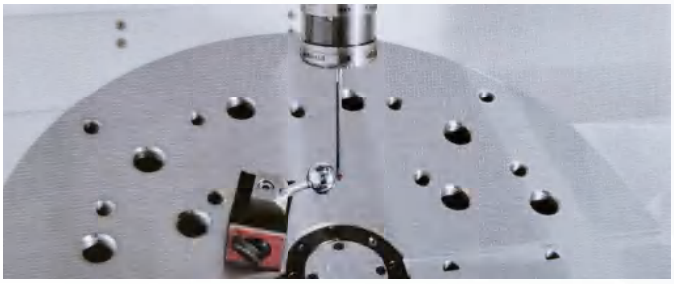
DMC800u

5-AXIS VERTICAL MACHINING CENTER





性能特点 PERFORMANCE

- – Truss frame layout, integrated design structure of column and bed
- – The bed, column, slide, table and spindle box is with reinforcement and corner support plates
- – Germany roller linear guides for X,Y,Z axis
- – The motors of X Y Z axis and the lead screws are directly connected with a gapless elastic coupling
- – Drive type spindle unit

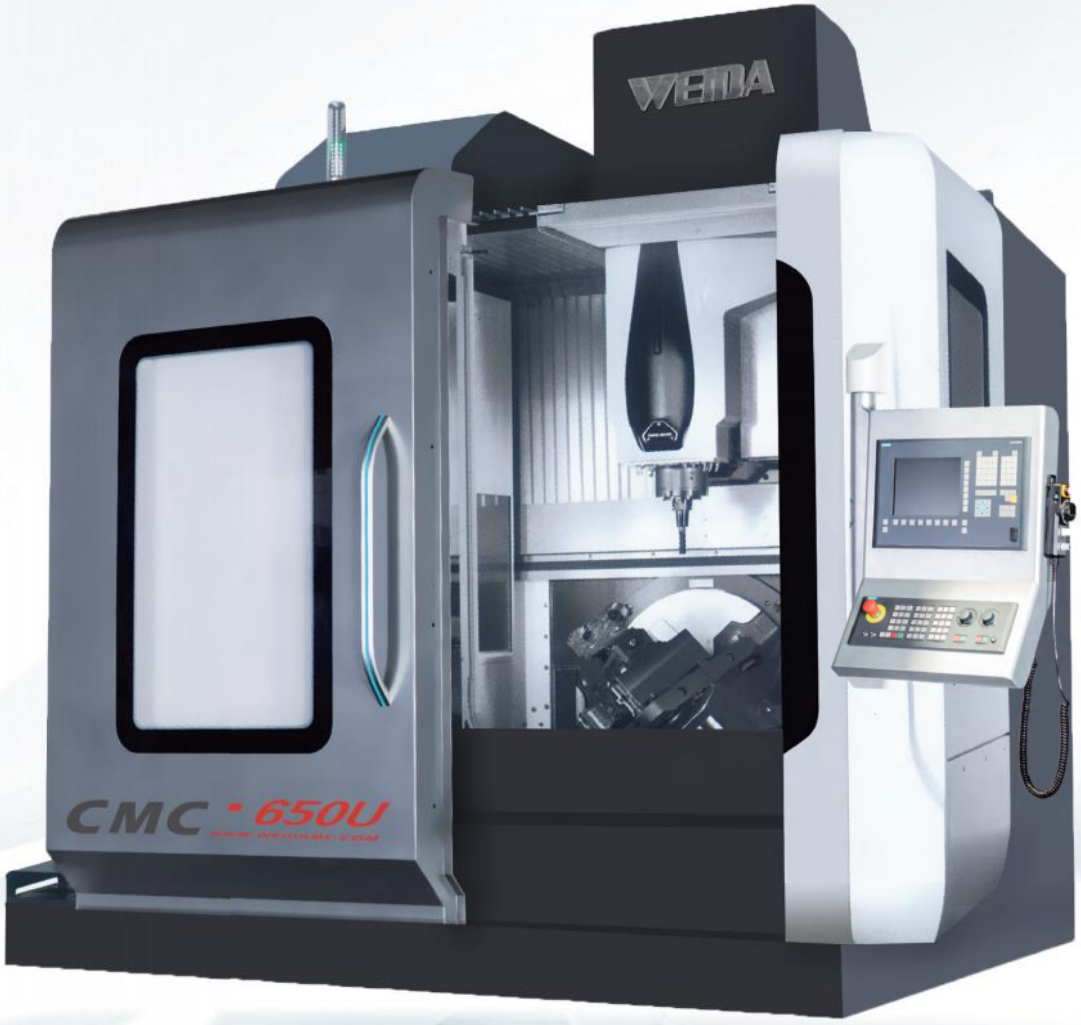
标准配置 STANDARD

- – Siemens 840 DSL, Sinumerik One
- – Taiwan direct drive motor rotary table with double axis and single arms
- – Full-axis scales with fully closed-loop control
- – Chain type chip conveyor

选择配置 OPTION

- – Heidenhain TNC 640 five axis linkage CNC control system
- – Linear motor
- – Online inspection system for tools and workpieces
- – Coolant through spindle
- – Turning-milling function

Main specifications	Unit	CMC650u
Table size	mm	ϕ650X540
T-slot size	mm	14
Table center hole	mm	ϕ50
Max.table load	kg	300
X-axis travel	mm	650
Y-axis travel	mm	520
Z-axis travel	mm	475
A-axis rotation range	°	±120
C-axis rotation range	°	360
Distance from spindle nose to table surface	mm	150-625
Spindle taper	--	BBT40
Max.spindle speed	rpm	12000
Spindle motor power	kW	7.5
Max.torque of spindle	N.m	45
Tool magazine type	--	Arm type
Tool magazine capacity	pcs	24
Max.diameter of tool(Full/Empty)	mm	ϕ78/ϕ150
Max.tool length	mm	300
Max.tool weight	kg	8
Tool change time(T-T)	s	1.55
Rapid feed speed(X/Y/Z)	mm/min	42000/42000/42000
Cutting feed speed(X/Y/Z)	mm/min	1-10000/1-10000/1-10000
Positioning accuracy (X/Y/Z)	mm	±0.005/300 JIS
Positioning accuracy (A/C)	″	±5
Repeat positioning accuracy(X/Y/Z)	mm	±0.003 JIS
Repeat positioning accuracy(A/C)	″	4
Machine weight	kg	9500
Machine overall size	mm	3970X3210X2800



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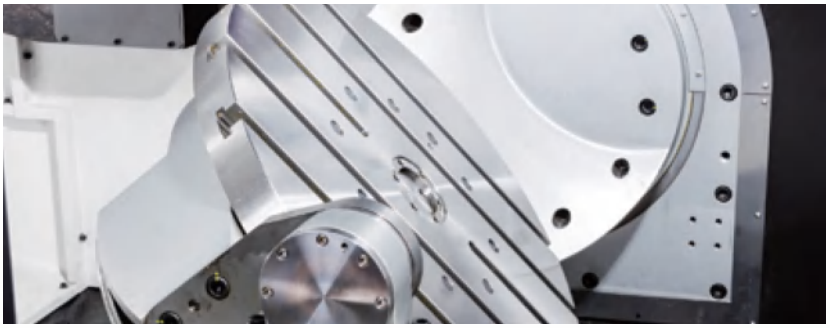
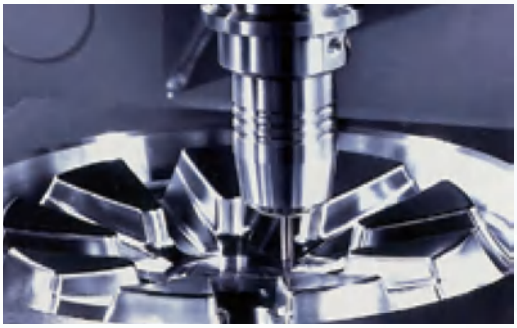
CMC650u

FIVE-AXIS LINKAGE VERTICAL MACHINING CENTER





性能特点 PERFORMANCE

- – Integrated structure of bed and column, low gravity center and stable machine structure,to ensure high static and dynamic stability of the whole machine
- – Compact machine layout with guides, drives, measuring systems and tool changing systems safely located outside the machining area
- – The large slope design of the bed allows the chips to fall freely to the chip conveyor, optimizing the processing interval and processing environment
- – Large swinging range of the rotary table, up to 115° , and it can process 20° undercut

标准配置 STANDARD

- – Fanuc 0i – MF Plus CNC controller
- – B, C-axis scale, fully closed-loop control
- – Taiwan 12000rpm direct connect spindle
- – Spindle constant temperature cooling system

选择配置 OPTION

- – HNC 818, Siemens 828D CNC controller
- – X, Y, Z axis scales
- – Online inspection system for tools and workpieces
- – Coolant through spindle

Main specifications	Unit	CMC500f
Table size	mm	ϕ630X500
T-slot size	mm	14
Table center hole	mm	ϕ30
Max.table load	kg	200
X-axis travel	mm	550
Y-axis travel	mm	450
Z-axis travel	mm	400
B-axis rotation range	°	-5/110
C-axis rotation range	°	360
Distance from spindle nose to table surface	mm	150-550
Spindle taper	--	BT40
Max.spindle speed	rpm	12000
Spindle motor power	kW	7.5
Max.torque of spindle	N.m	35.8/70
Tool magazine type	--	Arm type
Tool magazine capacity	pcs	24
Max.diameter of tool(Full/Empty)	mm	ϕ78/ϕ150
Max.tool length	mm	300
Max.tool weight	kg	8
Tool change time(T-T)	s	1.55
Rapid feed speed(X/Y/Z)	mm/min	30000/30000/30000
Cutting feed speed(X/Y/Z)	mm/min	1-10000/1-10000/1-10000
Positioning accuracy (X/Y/Z)	mm	0.012
Positioning accuracy (B/C)	″	28
Repeat positioning accuracy(X/Y/Z)	mm	0.01
Repeat positioning accuracy (B/C)	″	16
Machine weight	kg	6000
Machine overall size	mm	3500X3400X2700

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CMC500f

FIVE-AXIS LINKAGE VERTICAL MACHINING CENTER