

# CNC

## EQUIPMENT CATALOGUE

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## GROUP HEADQUARTER



## CNC EQUIPMENT



Industrial Valves

Oil Equipment

Industrial Materials



Neway International Group Inc. (NIG) has developed into a worldwide famous machinery supplier with experience and support of 4 primary divisions—Neway CNC, Neway Oil Equipment, Neway Industrial Materials and Neway Valves. Neway Valve (stock code: 603699) and Neway CNC (stock code: 688697) are listed companies. With the help of advanced ERP management system and barcode management technology, the company sets up Enterprise level management structures controlling global sub-companies and factories with multi-product chains, in order to achieve best efficiency of supply chain operation.

NIG comprises ten companies in China (staff 5000); 6 sole-capital or joint-capital enterprises in the US, Europe, Middle East and South America, product and spare parts warehouses, sales offices in essential cities in China and leading industrial countries and has established strategic partnerships with more than 100 overseas agencies and distributors.

NIG is an independent creative enterprise practicing global management over marketing, research & development, manufacture and human resources all over the globe. The group has two development centers in China, one for valves and the other for CNC machine tools with 800 staff including 150 experienced senior research and development engineers. Some senior engineers receive the regular government subsidy.

Neway targets becoming a dominant global machinery manufacturer, with the best quality of product and service.

## Welcome to Neway CNC

Neway CNC is situated in Suzhou High Tech Development District. Equipped with modernized workshops with constant temperature assembly shops, precise inspection, precise machining, heat treatment, painting and logistics on a 200000 square meter footprint.

Neway imported from Europe World Class "Mother Machines," including a top quality portal pentahedron coordination boring machine, high precision horizontal miller, universal miller, guideway miller for machine tools; a coordination profile tester, a laser interferer, a dynamic spindle balancer and a spindle temperature raise test platform, etc. as just a few of the milling and inspection machines that inspect and process castings and spindles for the highest quality end product available.

Managed with the help of SAP system designed to ensure the production of quality products for customers with zero defects. Everything is measured and twice.

Factory area: 200,000 square meters

### Products:

- CNC horizontal lathe
- CNC vertical lathe
- Vertical machine center
- Horizontal milling center
- Gantry/portal milling center
- CNC boring and milling machine
- Special purpose machine
- Automatic production line

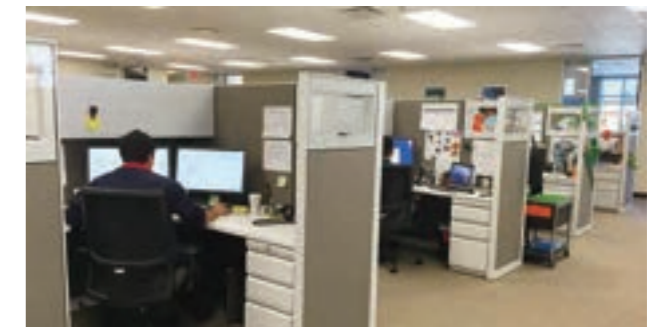


## Neway Machine Tools Research Institute

Neway machine tools research institute own 150 first class national R&D engineers. Numerous engineers enjoy special government subsidy to research and publish important essays in national and international publications. The institute consists of 7 R&D departments: 4 mechanical, one electrical, 1 documentary and one application engineering. All parts are designed in 3D format and optimized by FEA Finite Element Analysis before entering into SAP system and PLM system. Neway cooperates strategically with key part suppliers and vendors to offer customers the highest quality products capable of high-performance machining all based on proper attention to critical details.

## International Cooperative Support System ICSS

NEWAY CNC shares international researchers from different countries, including USA headquarter, South Korea, China -Taiwan and Italy. These international teams continuously supply advanced technical instruction of the newest CNC technologies to R&D team in China. This gives us broad vision. And we continuously improve our products and develop new products.



## Research and Development Design Tools

R&D designers make full use of Finite Element Analysis method and simulation technology of multibody dynamics theory in machine structure construction. When analyzing the dynamic and static properties and vibration characteristics of the structure; care is even taken to measure heating features of the pattern. The resulting metrics allow optimized machine structure. Couple this to performance designs with topology, geometry, dimensional and reliability optimization possible.



- Finite element analysis
- Temperature analysis
- Intelligent remote diagnosis



- Dynamic analysis
- Frequency spectrum analysis
- Vibration test during cutting

## Leading the Charge in Development of a Neway Tech team

The powerful Neway technology team can't be apart from the creative system. We sponsored technical brochure "NEWAY TECH" which is published periodically and offers a forum for the technical people to exchange point of views. Technicians and engineers from design, research, and its development, process, and manufacture are encouraged to share their experiences. The best essays will be awarded; technical skills are developed; nice atmosphere is created, and more experienced engineers are attracted to join Neway tech team.



## Digital Factory Operations Management

Neway manages its factories and warehouses with ERP, bar code and CAM enterprise resource system to meet the requirement of the lofty manufacturing goals. (OEE) Overall Equipment Efficiency is managed digitally and tracked to insure proper care is taken to maintain all machine calibrations and preventative maintenances insure longer asset life and real time operations timeliness and capacity gauging.

### OA office system

Neway promotes digital office automation. Everyday applications and approvals are able to access conveniently with tremendous efficiency. The system is updated and simplified periodically for easier and practical use.



### PLM system

To improve overall life cycle product management, Neway imported the world top PLM - SIEMENS Team Center to manage product lifecycle. Utilizing an advanced information management platform, Neway improved overall product standardization and efficient accumulation and transmission of the product knowledge among R&D, manufacturing and inspection fields.



### ERP system

Neway imported the world's leading SAP system. It enables synchronized engineering and precise manufacturing. Enterprise The full supply chain, financial resource distribution and human resource adjusting is well optimized and managed.



### Storage Barcode Management system

Neway Barcode Storage Management control system is based on barcode technology. The application of the technology sets up a target query of management information and solves problems related to location, quantity, experience sales stock/overstock storage and shipment management.



### Neway Supplier Management

Neway maintains ongoing supplier training and management system guidelines; the company developed metrics and management expected or preferred suppliers; Each guidance to suppliers is meant to reinforce quality control and to enhance and ensure quality consciousness throughout our entire supplier affiliate network.



### CRM Service Management System

Neway is the first company to utilize mobile internet technology in service. Our response time is greatly shortened, and satisfaction greatly increased. Information management is realized via the connection between CRM system and cell phone so that each service unit information is traced with ensured service quality. This allows for technicians to have the data regarding your machine available through the CRM.





**Temperature Controlled Assembling Room**

• VM assembly

The workshop is equipped with Trane Geothermal Source Heat Pump system ensuring the workshop with 20°C ventilating air. All parts of the machine are installed at the same temperature with good precision without thermal growth or shrinkage issues when precision aligning and scraping surfaces. This ensures a precision build and improves machining qualities of the finished product.



• HM assembly



• NL assembly



• PM assembly

### World Class Mother Machines

Newway adopts world's top processing machines. Swiss SIP boring and milling center, Swiss KELLEN-BERGER grinding machine. Italian FAVRETTO grinding machine, German STARRAG HECKERT horizontal machine center, and Spanish ZAYER portal type milling machine.



● SIP boring center – Swiss



● Kellenberger grinding machine – Swiss



● Zayer milling center – Spain



● Favretto guideway grinder – Italy



● Starrageckert horizontal milling center – Germany



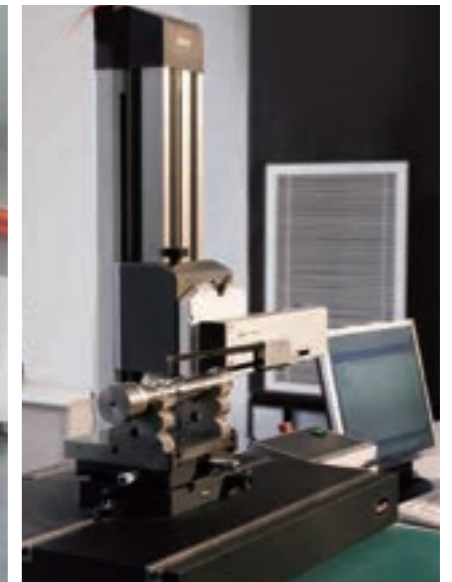
● Zayer milling center – Spain

### Inspection and Calibration Measures

Newway continuously pursues advanced R&D technology and strict quality control, utilizing an English Renishaw laser interferometer, German Schenk dynamic spindle balancing instrument, German Mahr roundness measuring equipment, profile measuring device and roughness measuring equipment. We use Swedish Hexagon three-coordinate measuring device, Japanese Yoshida sonic belt tension measuring device as well as even a universal tool microscope. We use an HL sclerometer, main-shaft temperature rises test bench, a leaning pendulum instrument, an infrared radiation thermometer, along with rotational speed meters, sound level meter, laser distance measuring instrument, flatness tester, HRC sclerometer, dynamic meter and other inspection and testing equipment. We strictly supervise the quality of each process to constantly improve our machines' performance and stability.



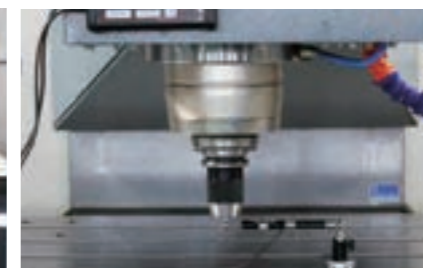
● Sweden Hexagon coordinate tester



● Germany Mahr profile detector



● British Renishaw laser interferer



● British Renishaw ballbar tester



● Germany Schenk dynamic balance tester



● Universal tool micrometer



● Collimation converter



● Germany Mahr roundness tester

# 360°


































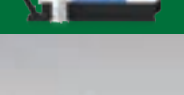

## Neway offers complete CNC machining solution.

Neway CNC Equipment produces machines in 7 categories with 200 models. Create a 360-degree solution with the goal of improving customer satisfaction, provide processing equipment for thousands of customers, and gradually develop towards automated processing and intelligent manufacturing, providing customers with complete set of cutting technology solutions.

- 1 CNC machines full series**  
Quality metal cutting machines
- 2 Processing plan**  
Tell us what you need, and we' ll do the rest
- 3 Automated production line**  
Increased throughput during or after hours utilizing "lights out" production
- 4 Intelligent digitally managed and monitored factory**  
IOT internet of things allows for real-time cloud-based monitoring of assets.
- 5 Remote machine diagnosis**  
Neway electronic professionals can diagnose and troubleshoot by remote control.



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NL series-  
Linear guideway CNC horizontal lathe



NL series-  
High efficiency CNC horizontal lathe



Item	Unit	NL161E	NL201E	NL251HA	NL253HA	NL322HA	NL324HA	NL402HA	NL404HA
Max. swing over bed	mm	Φ500	Φ450	Φ550	Φ550	Φ570	Φ570	Φ650	Φ650
Max. swing over saddle	mm	Φ300	Φ230	Φ330	Φ370	Φ400	Φ400	Φ480	Φ480
Max. turning diameter	mm	Φ320	Φ350	Φ360	Φ360	Φ430	Φ430	Φ510	Φ510
Max. turning length	mm	320	445	435	810	565	1000	550	1000
Travel X/Z	mm	180/350	200/455	240/455	240/830	240/600	240/1100	280/600	280/1100
Rapid travel speed X/Z	m/min	30/30	24/30	24/30	24/30	24/30	24/30	24/30	24/30
Spindle motor power	kW	5.5/7.5	7.5/11	7.5/11	7.5/11	11/15	11/15	11/15	11/15
Max. spindle speed	r/min	6000	6000	5000	5000	4000	4000	4000	4000
Spindle nose	ISO	A2-5	A2-5	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6
Spindle bore	mm	Φ56	Φ56	Φ56	Φ56	Φ65	Φ65	Φ65	Φ65
Hydraulic chuck	inch	6	6	8	8	8	8	10	10
Tool position	-	8	8	8	8	8	8	8	8
Turning tool shank size	mm	25×25	25×25	25×25	25×25	25×25	25×25	25×25	25×25
Boring tool holder diameter	mm	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40
Tailstock quill diameter	mm	-	-	-	Φ100	Φ100	Φ100	Φ100	Φ100
Tailstock quill travel	mm	-	-	-	100	100	100	100	100
Tailstock quill taper	Mose	-	-	-	Live center 5#				
Positioning accuracy(X/Z)	mm	0.006	0.006	0.006	0.006	0.008	0.008	0.010	0.010
Repeatability accuracy(X/Z)	mm	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
CNC system	-	NEWAY FANUC [SIEMENS]							
Auto chip conveyor	-	rear way	side way [rear way]						
Machine weight	kg	2600	3400	3500	4200	4200	4400	4400	4600

[ ]Option

Item	Unit	NL161L	NL201L	NL251L	NL253L	NL322L	NL324L	NL402L	NL404L	NL635L
Max. swing over bed	mm	Φ500	Φ450	Φ550	Φ550	Φ570	Φ570	Φ650	Φ650	Φ650
Max. swing over saddle	mm	Φ300	Φ240	Φ370	Φ370	Φ400	Φ400	Φ480	Φ480	Φ450
Max. turning diameter	mm	Φ320	Φ350	Φ360	Φ360	Φ430	Φ430	Φ510	Φ510	Φ630
Max. turning length	mm	320	420	410	810	565	1000	550	1000	1500
Travel X/Z	mm	180/350	200/430	240/430	240/830	240/600	240/1100	280/600	280/1100	350/1600
Rapid travel speed X/Z	m/min	30/30	24/30	24/30	24/30	24/30	24/30	24/30	24/30	16/18
Spindle motor power	kW	5.5/7.5	7.5/11	7.5/11	7.5/11	11/15	11/15	11/15	11/15	15/18.5
Max. spindle speed	r/min	6000	6000	5000	5000	4000	4000	4000	4000	2000
Spindle nose	ISO	A2-5	A2-5	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6	A2-8
Spindle bore	mm	Φ56	Φ56	Φ56	Φ56	Φ65	Φ65	Φ65	Φ65	Φ87
Hydraulic chuck	inch	6	6	8	8	8	8	10	10	12
Tool position	-	8	8	8	8	8	8	8	8	8
Turning tool shank size	mm	25×25	25×25	25×25	25×25	25×25	25×25	25×25	25×25	32×25
Boring tool holder diameter	mm	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ50
Tailstock quill diameter	mm	Servo tailstock								Φ130
Tailstock quill travel	mm	250	400	380	700	450	900	450	900	100
Tailstock quill taper	Mose	Live center 4#			Live center 5#					5#
Positioning accuracy(X/Z)	mm	0.006	0.006	0.006	0.006	0.008	0.008	0.010	0.010	0.01/0.014
Repeatability accuracy(X/Z)	mm	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.005/0.008
CNC system	-	NEWAY FANUC [SIEMENS]								
Auto chip conveyor	-	rear way	side way [rear way]							side way
Machine weight	kg	2600	3400	3500	4200	4200	4400	4400	4600	8000

[ ]Option



NL series-  
High performance CNC horizontal Lathe



NL series-  
Gang tooling type CNC horizontal lathe



NL series-  
High precision CNC horizontal lathe



Item	Unit	NL201EP	NL251E	NL251HP	NL252E	NL253HP	NL502SP	NL504SP	NL634SP	NL635SP
Max. swing over bed	mm	Φ450	Φ550	Φ550	Φ550	Φ550	Φ600	Φ600	Φ650	Φ650
Max. swing over saddle	mm	Φ230	Φ330	Φ330	Φ370	Φ370	Φ450	Φ450	Φ450	Φ450
Max. turning diameter	mm	Φ350	Φ320	Φ320	Φ320	Φ320	Φ500	Φ500	Φ630	Φ630
Max. turning length	mm	445	330	435	550	810	500	1000	1000	1500
Travel X/Z	mm	200/455	240/330	240/455	240/550	240/830	295/600	295/1100	350/1100	350/1600
Rapid travel speed X/Z	m/min	30/36	30/36	30/36	30/36	30/36	16/20	16/20	12/16	12/16
Spindle motor power	kW	11/15	11/15	11/15	11/15	11/15	15/18.5	15/18.5	18/22	18/22
Max. spindle speed	r/min	4000	5000	4000	4000	4000	2500	2500	2000	2000
Spindle nose	ISO	A2-6	A2-6	A2-6	A2-6	A2-6	A2-8	A2-8	A2-11	A2-11
Spindle bore	mm	Φ76	Φ56	Φ76	Φ76	Φ76	Φ92	Φ92	Φ102	Φ102
Hydraulic chuck	inch	8	8	8	8	8	10	10	12	12
Tool position	-	8	12	12	12	12	12	12	12	12
Turning tool shank size	mm	25×25	25×25	25×25	25×25	25×25	25×25	25×25	32×32	32×32
Boring tool holder diameter	mm	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ50	Φ50
Tailstock quill diameter	mm	-	-	-	Φ75	Φ100	Φ100	Φ100	Φ130	Φ130
Tailstock quill travel	mm	-	-	-	80	100	100	100	100	100
Tailstock quill taper	Mose	-	-	-	Live center 4#		Live center 5#		5#	5#
Positioning accuracy (X/Z)	mm	0.006	0.006	0.006	0.006	0.006	0.010/0.012	0.010/0.012	0.012/0.014	0.012/0.014
Repeatability accuracy (X/Z)	mm	0.004	0.004	0.004	0.004	0.004	0.005/0.007	0.005/0.007	0.006/0.008	0.006/0.008
CNC system	-	NEWAY FANUC [SIEMENS]								
Auto chip conveyor	-	side way [rear way]							side way	
Machine weight	kg	3400	3200	3500	3800	4200	4300	4800	7500	8000

[ ]Option

Item	Unit	NLH202E	NLH202V	NLH202LV
Max. over bed	mm	Φ550	Φ550	Φ550
Max. turning diameter	mm	Φ300	Φ300	Φ300
Max. turning length	mm	560	560	560
Travel X/Z	mm	190/600	190/600	190/600
Rapid travel speed X/Z	m/min	30/30	30/30	30/30
Spindle motor power	kW	11/15	11/15	11/15
Max. spindle speed	r/min	4000	4600	4600
Spindle nose	ISO	A2-6	A2-6	A2-6
Spindle bore	mm	Φ76	Φ61	Φ61
Hydraulic chuck	inch	8	8	8
Tool position	-	12	12	12
Turning tool shank size	mm	25×25	25×25	25×25
Boring tool holder diameter	mm	Φ40	Φ40	Φ40
Tailstock quill diameter	mm	Φ65	Φ65	servo tailstock
Tailstock quill travel	mm	80	80	530
Tailstock quill taper	Mose	Live center 4#		Live center 5#
Positioning accuracy (X/Z)	mm	0.008	0.008	0.008
Repeatability accuracy (X/Z)	mm	0.004	0.004	0.004
CNC system	-	NEWAY FANUC [SIEMENS]		
Auto chip conveyor	-	side way [rear way]		
Machine weight	kg	3700	3700	3700

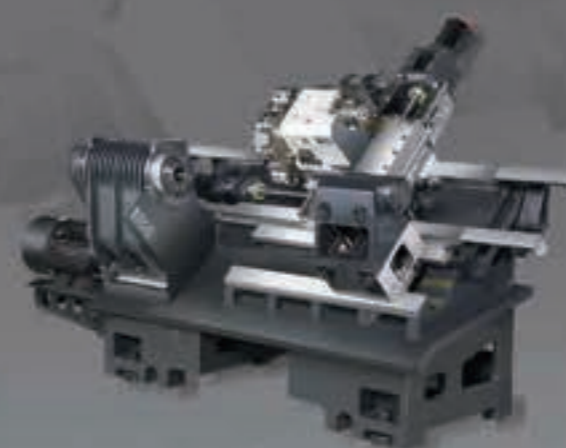
[ ]Option

Item	Unit	NL201HG
Max. swing over bed	mm	Φ590
Max. swing over saddle	mm	Φ200
Max. turning diameter	mm	Φ200
Max. turning length	mm	350
Travel X/Z	mm	470/350
Rapid travel speed X/Z	m/min	30/30
Spindle motor power	kW	7.5/11
Max. spindle speed	r/min	6000
Spindle nose	ISO	A2-5
Spindle bore	mm	Φ56
Hydraulic chuck	inch	6
Tool position	-	1~6
Turning tool shank size	mm	20×20
Boring tool holder diameter	mm	Φ32
Tailstock quill diameter	mm	-
Tailstock quill travel	mm	-
Tailstock quill taper	Mose	-
Positioning accuracy (X/Z)	mm	0.006
Repeatability accuracy (X/Z)	mm	0.004
CNC system	-	
Auto chip conveyor	-	side way [rear way]
Machine weight	kg	3000

[ ]Option



NL series-  
Buit-in motor spindle CNC horizontal lathe



NL series-  
Slider guideway CNC horizontal lathe



Item	Unit	NL161V	NL161LV	NL201V	NL201LV	NL251V	NL251LV	NL253V	NL253LV
Max. swing over bed	mm	Φ500	Φ500	Φ450	Φ450	Φ550	Φ550	Φ550	Φ550
Max. swing over saddle	mm	Φ300	Φ300	Φ230	Φ240	Φ330	Φ370	Φ330	Φ370
Max. turning diameter	mm	Φ320	Φ320	Φ350	Φ350	Φ360	Φ360	Φ360	Φ360
Max. turning length	mm	320	320	420	355	410	410	810	810
Travel X/Z	mm	180/350	180/350	200/430	200/360	240/430	240/430	240/830	240/830
Rapid travel speed X/Z	m/min	30/30	30/30	24/30	24/30	24/30	24/30	24/30	24/30
Spindle motor power	kW	11.6/14.4	11.6/14.4	11.6/14.4	11.6/14.4	11.6/14.4	11.6/14.4	11.6/14.4	11.6/14.4
Max. spindle speed	r/min	6000	6000	6000	6000	5000	5000	5000	5000
Spindle nose	ISO	A2-5	A2-5	A2-5	A2-5	A2-6	A2-6	A2-6	A2-6
Spindle bore	mm	Φ56	Φ56	Φ56	Φ56	Φ56	Φ56	Φ56	Φ56
Hydraulic chuck	inch	6	6	6	6	8	8	8	8
Tool position	-	8	8	8	8	8	8	8	8
Turning tool shank size	mm	25×25	25×25	25×25	25×25	25×25	25×25	25×25	25×25
Boring tool holder diameter	mm	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40
Tailstock quill diameter	mm	-	Servo tailstock	-	Servo tailstock	-	Servo tailstock	Φ100	Servo tailstock
Tailstock quill travel	mm	-	250	-	400	-	380	100	700
Tailstock quill taper	Mose	-	Live center 4#	-	Live center 4#	-	Live center 5#	Live center 5#	Live center 5#
Positioning accuracy(X/Z)	mm	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
Repeatability accuracy(X/Z)	mm	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
CNC system	-								
Auto chip conveyor	-	rear way	rear way	side way[rear way]					
Machine weight	kg	2600	2600	3400	3400	3500	3500	4200	4200

[ ]Option

Item	Unit	NL502SC/H	NL504SC/H	NL634SC	NL634SCZ	NL635SC	NL635SCZ	NL636SC	NL636SCZ	NL638SC	NL638SCZ	
Max. swing over bed	mm	Φ600	Φ600	Φ650	Φ650	Φ650	Φ650	Φ650	Φ650	Φ650	Φ650	
Max. swing over saddle	mm	Φ450	Φ450	Φ410	Φ410	Φ410	Φ410	Φ450	Φ450	Φ450	Φ450	
Max. turning diameter	mm	Φ500	Φ500	Φ630	Φ630	Φ630	Φ630	Φ630	Φ630	Φ630	Φ630	
Max. turning length	mm	500	1000	1000	1000	1500	1500	2000	2000	3000	3000	
Travel X/Z	mm	295/600	295/1100	330/1100	330/1100	330/1600	330/1600	350/2100	350/2100	350/3100	350/3100	
Rapid travel speed X/Z	m/min	12/16	12/16	8/12	8/12	8/12	8/12	8/12	8/12	8/10	8/10	
Spindle motor power	kW	11/15	11/15	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5	15/18.5	18.5/22	18.5/22	
Max. spindle speed	r/min	3000	3000	2000	1000	2000	1000	2000	1000	2000	2000	
Spindle nose	ISO	A2-6	A2-6	A2-8	A2-11	A2-8	A2-11	A2-8	A2-11	A2-11	A2-11	
Spindle bore	mm	Φ65	Φ65	Φ87	Φ106	Φ87	Φ106	Φ102	Φ106	Φ102	Φ106	
Hydraulic chuck	inch	10	10	12	15	12	15	12	15	12	15	
Tool position	-	8	8	8	8	8	8	8	8	12	12	
Turning tool shank size	mm	25×25	25×25	32×25	32×25	32×25	32×25	32×25	32×25	32x32	32x32	
Boring tool holder diameter	mm	Φ40	Φ40	Φ50	Φ50	Φ50	Φ50	Φ50	Φ50	Φ50	Φ50	
Tailstock quill diameter	mm	Φ100	Φ100	Φ130	Φ130	Φ130	Φ130	Φ130	Φ130	Φ130	Φ130	
Tailstock quill travel	mm	100	100	100	100	100	100	100	100	100	100	
Tailstock quill taper	Mose	Live center 5#		5#	5#	5#	5#	5#	5#	5#	5#	
Positioning accuracy(X/Z)	mm	0.010/0.012		0.012/0.014			0.016/0.040		0.016/0.050			
Repeatability accuracy(X/Z)	mm	0.005/0.007		0.006/0.008			0.007/0.020		0.007/0.022			
CNC system	-	NEWAY FANUC [SIEMENS]										
Auto chip conveyor	-	side way[rear way]			side way							
Machine weight	kg	4300	4800	7500	7600	8000	8100	8800	8900	10000	10100	

[ ]Option



NL series-  
CNC horizontal turning center



NL series-  
CNC horizontal turning center



Item	Unit	NL161T	NL251T	NL253T	NL322T	NL324T	NL402T	NL404T
Max. swing over bed	mm	Φ500	Φ550	Φ550	Φ570	Φ570	Φ650	Φ650
Max. swing over saddle	mm	Φ300	Φ330/Φ370	Φ370	Φ400	Φ400	Φ480	Φ480
Max. turning diameter	mm	Φ240	Φ290	Φ290	Φ320	Φ320	Φ400	Φ400
Max. turning length	mm	320	325	725	475	955	460	940
Max. bar capacity	mm	Φ45	Φ45	Φ45	Φ51	Φ51	Φ51	Φ51
Spindle motor power	kW	5.5/7.5	7.5/11	7.5/11	11/15	11/15	11/15	11/15
Max. spindle speed	rpm	6000	5000	5000	4000	4000	4000	4000
Spindle nose	ISO	A2-5	A2-6	A2-6	A2-6	A2-6	A2-6	A2-6
Spindle bore	mm	Φ56	Φ56	Φ56	Φ65	Φ65	Φ65	Φ65
Spindle taper	-	Mose 6#	Mose 6#	Mose 6#	Metric 80	公制80	公制80	公制80
Hydraulic chuck	inch	6	8	8	8	8	10	10
Tailstock quill diameter	mm	-	-	Φ100	Φ100	Φ100	Φ100	Φ100
Tailstock quill travel	mm	-	-	100	100	100	100	100
Tailstock quill taper	Mose	-	-	Live center 5#	Live center 5#	Live center 5#	Live center 5#	Live center 5#
Travel X/Z	mm	180/350	240/430	240/830	235/530	235/1050	275/530	275/1050
Rapid travel speed X/Z	m/min	30/30	24/30	24/30	24/30	24/30	24/30	24/30
Tool position	mm	12 (VDI 20)	12[BMT55]	12[BMT55]	12[BMT55]	12[BMT55]	12[BMT55]	12[BMT55]
Max. living tool speed	rpm	4000	4000	4000	6000[5000]	6000[5000]	6000[5000]	6000[5000]
Turning tool shank size	mm	16×16	25×25	25×25	25×25	25×25	25×25	25×25
Max. boring tool holder	mm	Φ16	Φ40	Φ40	Φ40	Φ40	Φ40	Φ40
Max. drilling capacity	mm	Φ12×0.14	Φ14×0.15	Φ14×0.15	Φ14×0.15	Φ14×0.15	Φ14×0.15	Φ14×0.15
Max. tapping capacity	mm	M8×1.5/M14×1	M10×1.5/M24×1	M10×1.5/M24×1	M10×1.5/M24×1	M10×1.5/M24×1	M10×1.5/M24×1	M10×1.5/M24×1
Max. milling capacity	mm	Φ12×8×45	Φ20×10×40	Φ20×10×40	Φ16×12×40	Φ16×12×40	Φ16×12×40	Φ16×12×40
positioning accuracy (X/Z/C)	mm	0.006/0.006/51"	0.006/0.006/51"	0.006/0.006/51"	0.008/0.008/51"	0.008/0.008/51"	0.01/0.01/51"	0.01/0.01/51"
Repeatability accuracy (X/Z/C)	mm	0.004/0.004/20"	0.004/0.004/20"	0.004/0.004/20"	0.004/0.004/20"	0.004/0.004/20"	0.004/0.004/20"	0.004/0.004/20"
CNC system	-	NEWAY FANUC [SIEMENS]						
Auto chip conveyer	-	rear way	side way [rear way]					
Machine weight	Kg	2600	3500	4200	4200	4400	4400	4600

[ ] Option

Item	Unit	NL502T	NL504T	NL634T	NL635T	NL636T	NL638T	HL635T
Max. swing over bed	mm	Φ600	Φ600	Φ650	Φ650	Φ650	Φ650	Φ720
Max. swing over saddle	mm	Φ450	Φ450	Φ410	Φ410	Φ450	Φ450	Φ530
Max. turning diameter	mm	Φ430	Φ430	Φ540[Φ630]	Φ540[Φ630]	Φ540[Φ630]	Φ540[Φ630]	Φ630
Max. turning length	mm	500	1000	1000	1500	2000	3000	1500
Max. bar capacity	mm	Φ51	Φ51	Φ89	Φ89	Φ89	Φ89	Φ89
Spindle motor power	kW	11/15	11/15	15/18.5	15/18.5	15/18.5	15/18.5	Y18.5/30 △22/30
Max. spindle speed	rpm	3000	3000	2000	2000	2000	2000	2000
Spindle nose	ISO	A2-6	A2-6	A2-8	A2-8	A2-8	A2-11	A2-11
Spindle bore	mm	Φ65	Φ65	Φ102	Φ102	Φ102	Φ102	Φ100
Spindle taper	-	Metric 80	Metric 80	Metric 120	Metric 120	Metric 120	Metric 120	Metric 120
Hydraulic chuck	inch	10	10	12	12	12	12	15
Tailstock quill diameter	mm	Φ100	Φ100	Φ130	Φ130	Φ130	Φ130	Φ160
Tailstock quill travel	mm	100	100	100	100	100	100	180
Tailstock quill taper	Mose	Live center 5#	Live center 5#	5#	5#	5#	5#	5#
Travel X/Z	mm	295/550	295/1050	355/1100	355/1600	355/2100	355/3100	425/1600
Rapid travel speed X/Z	m/min	12/16	12/16	8/12	8/12	8/12	8/10	8/12
Tool position	mm	12(BMT55)	12(BMT55)	12[VDI 40][BMT55]	12[VDI 40][BMT55]	12[VDI 40][BMT55]	12[VDI 50][BMT55]	12[VDI 50][BMT65]
Max. living tool speed	rpm	4000	4000	5000[6000]	5000[6000]	5000[6000]	5000[6000]	4000[6000]
Turning tool shank size	mm	25×25	25×25	25×25	25×25	25×25	25×25	32×25[25×25]
Max. boring tool holder	mm	Φ40	Φ40	Φ40[Φ32]	Φ40[Φ32]	Φ40[Φ32]	Φ40[Φ32]	Φ50[Φ40]
Max. drilling capacity	mm	Φ14×0.15	Φ14×0.15	Φ16×0.2[Φ14×0.16]	Φ16×0.2[Φ14×0.16]	Φ16×0.2[Φ14×0.16]	Φ16×0.2[Φ14×0.16]	Φ20×0.23[Φ16×0.2]
Max. tapping capacity	mm	M14×2/M20×1.5	M10×1.5/M24×1	M14×2/M20×1.5 [M10×1.5/M24×1]	M14×2/M20×1.5 [M10×1.5/M24×1]	M14×2/M20×1.5 [M10×1.5/M24×1]	M14×2/M20×1.5 [M10×1.5/M24×1]	M18×2/M27×1.5 [M14×2/M20×1.5]
Max. milling capacity	mm	Φ20×12×40	Φ16×12×40	Φ20×12×40 [Φ16×12×40]	Φ20×12×40 [Φ16×12×40]	Φ20×12×40 [Φ16×12×40]	Φ20×12×40 [Φ16×12×40]	Φ22×25×40 [Φ16×12×40]
positioning accuracy (X/Z/C)	mm	0.010/0.012/51"	0.010/0.012/51"	0.012/0.016/51"	0.012/0.016/51"	0.016/0.040/51"	0.016/0.050/51"	0.012/0.016/51"
Repeatability accuracy (X/Z/C)	mm	0.005/0.007/20"	0.005/0.007/20"	0.006/0.008/20"	0.006/0.008/20"	0.007/0.020/20"	0.007/0.022/20"	0.006/0.008/20"
CNC system	-	NEWAY FANUC [SIEMENS]						
Chip removal system	-	side way [rear way]			side way			
Machine weight	Kg	4300	4800	7500	8000	8800	10000	13000

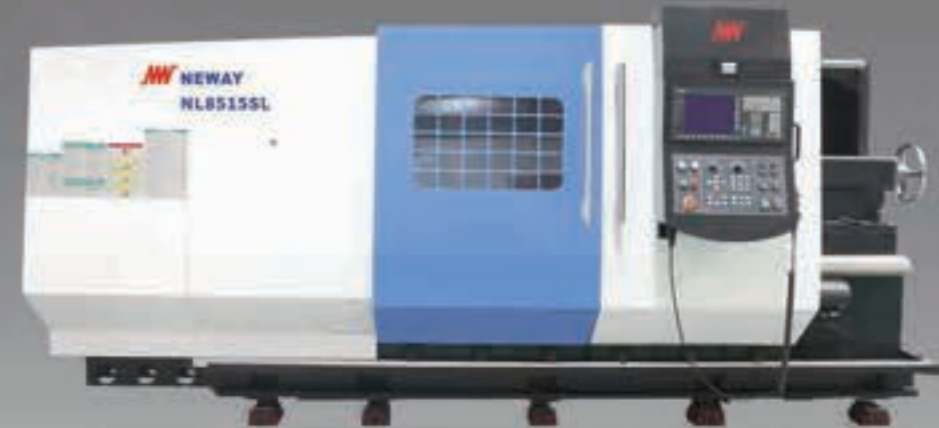
[ ] Option



NL series-  
Multi-axis horizontal turning center



NL series-  
Large size CNC horizontal lathe



Item	Unit	NL301Y	NL302Y	NL322M
Max. swing dia.	mm	Φ620	Φ620	Φ314
Max. turning dia.	mm	Φ300	Φ300	Φ314
Max. working length	mm	300	550	550
Spindle	Max. spindle speed	rpm	6000	4500
	Motor power	kW	11/15	11/15
	Spindle nose type	ISO	A2-6	A2-6
	Spindle bore diameter	mm	Φ56	Φ56
	Max. bar capacity	mm	Φ44	Φ44
	Hydraulic chuck	inch	6	6
Sub-Spindle	Max. spindle speed	rpm	-	4500
	Motor power	kW	-	Built-in motor 22/25
	Spindle nose type	ISO	-	A2-6
	Spindle bore diameter	mm	-	Φ66
	Travel	mm	-	650
	Rapid travel speed	m/min	-	40
Hydraulic chuck	inch	-	8	
Travel X1/X2/Z1/Z2	mm	210/400 (X/Z)	210/600/550 (X/Z1/Z2)	200/200/650/650
Travel Y	mm	105(±52.5)	105(±52.5)	100(±50)
Rapid travel speed X1/X2/Z1/Z2	m/min	30/30 (X/Z)	30/30/10 (X/Z1/Z2)	30/30/40/40
Rapid travel speed Y	m/min	10	10	15
Number of turret	Set	1	1	2
Number of tools	Pc	12(BMT55)	12(BMT55)	12×2 (BMT65)
Size of square tool shank	mm	□25	□25	□25
Size of circular tool shank	mm	Φ32	Φ32	Φ40
Diameter of live tool shank	mm	ER25/Φ16	ER25/Φ16	ER32/Φ20
Max. speed of C axis	rpm	6000	6000	5000
Max. boring capacity	mm	Φ14×0.16	Φ14×0.16	Φ16×0.2
Max. threading capacity	mm	M10×1.5/M24×1	M10×1.5/M24×1	M14×2/M20×1.5
Max. slot boring capacity	mm	Φ16×12×40	Φ16×12×40	Φ20×12×40
Positioning accuracy (X1/X2/Z1/Z2/Y)	mm	0.01	0.01	0.01
Positioning accuracy (C1/C2)	sec	51	51	51
Repeatability accuracy (X1/X2/Z1/Z2/Y)	mm	0.005	0.005	0.005
Repeatability accuracy (C1/C2)	sec	20	20	20
CNC system	-	NEWAY FANUC	NEWAY FANUC	NEWAY FANUC
Auto chip conveyor	-	side way / rear way	side way / rear way	side way / rear way
Machine weight	kg	3800	4200	8500

[ ]Option

Item	Unit	NL8515SL	NL8530SL	NL10015SL	NL8515S	NL8530S	NL8550S	NL10015S/H	NL10030S/H	NL10050S/H
Max. swing over bed	mm	Φ850	Φ850	Φ1000	Φ850	Φ850	Φ850	Φ1000	Φ1000	Φ1000
Max. swing over saddle	mm	Φ510	Φ510	Φ680	Φ500	Φ500	Φ500	Φ700	Φ700	Φ700
Max. turning diameter	mm	Φ800	Φ800	Φ1000	Φ850	Φ850	Φ850	Φ1000	Φ1000	Φ1000
Max. turning length	mm	1500	3000	1500	1500	3000	5000	1500	3000	5000
Max. workpiece weight	kg	4000	4000	4000	6000	6000	6000	6000	6000	6000
Spindle motor power	kW	18.5/22	18.5/22	18.5/22	15/18.5	15/18.5	15/18.5	22/25	22/25	22/25
Max. spindle speed	rpm	800	800	800	630	630	630	500	500	500
Spindle nose	ISO	A2-11	A2-11	A2-11	A2-11	A2-11	A2-11	A2-11/A2-15	A2-11/A2-15	A2-11/A2-15
Spindle bore	mm	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100	Φ100/Φ130	Φ100/Φ130	Φ100/Φ130
Spindle torque	N.m	3533	3533	3533	4343	4343	4343	6370	6370	6370
Manual 4 jaw chuck	mm	Φ500	Φ500	Φ800	Φ800	Φ800	Φ800	Φ1000	Φ1000	Φ1000
Tool position	-	4	4	4	4	4	4	4	4	4
Turning tool shank size	mm	32×32	32×32	32×32	32×32	32×32	32×32	50×50	50×50	50×50
Tailstock quill diameter	mm	Φ125	Φ125	Φ125	Φ160	Φ160	Φ160	Φ160	Φ160	Φ160
Tailstock quill travel	mm	250	250	250	300	300	300	300	300	300
Tailstock quill taper	Mose	6#	6#	6#	6#	6#	6#	6#	6#	6#
Positioning accuracy (X/Z)	mm	0.012/0.020	0.012/0.035	0.012/0.020	0.012/0.020	0.012/0.035	0.012/0.050	0.012/0.020	0.012/0.035	0.012/0.050
Repeatability accuracy (X/Z)	mm	0.007/0.013	0.007/0.020	0.007/0.013	0.007/0.013	0.007/0.020	0.007/0.020	0.007/0.013	0.007/0.020	0.007/0.020
CNC system	-	SIEMENS[NEWAY FANUC][wide number]			SIEMENS [NEWAY FANUC]					
Auto chip conveyor	-	Rear chip tray			Double chip collecting plate					
Machine weight	kg	6300	7500	6800	11000	13000	16000	12500	14500	17500

[ ]Option

CNC horizontal lathe

CNC vertical lathe

Vertical machine center

Horizontal milling center

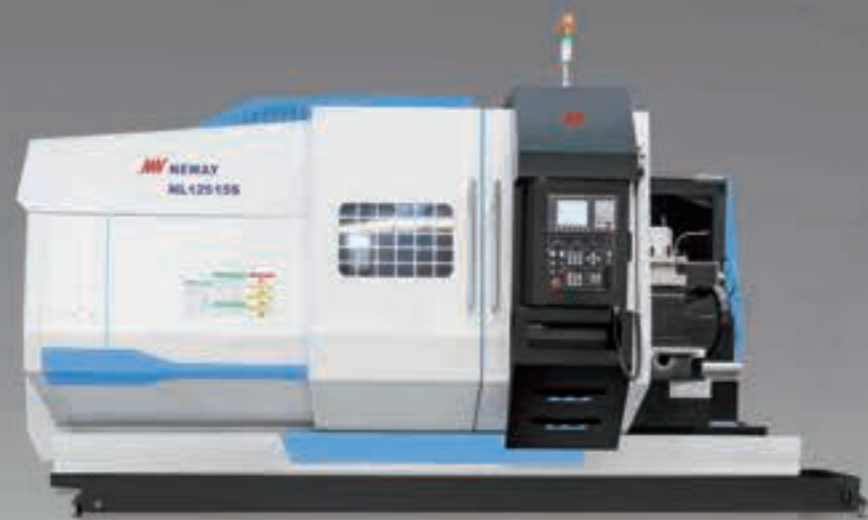
Gantry milling center

CNC boring and milling machine

Special purpose machine

Automatic production line

### NL series- Heavy duty CNC horizontal lathe



### VNL series- CNC vertical lathe



Item	Unit	NL12515S/H	NL12530S/H	NL12550S/H	NL16030S	NL16060S	NL20050S	NL20060S
Max. swing over bed	mm	Φ1250	Φ1250	Φ1250	Φ1600	Φ1600	Φ2200	Φ2200
Max. swing over saddle	mm	Φ950	Φ950	Φ950	Φ1300	Φ1300	Φ1600	Φ1600
Max. turning diameter	mm	Φ1250	Φ1250	Φ1250	Φ1300	Φ1300	Φ1600	Φ1600
Max. turning length	mm	1500	3000	5000	3000	6000	5000	6000
Max. workpiece weight	kg	6000	6000	6000	20000	20000	20000	20000
Spindle motor power	kW	22/25	22/25	22/25	55 (continuous)	55 (continuous)	55 (continuous)	55 (continuous)
Max. spindle speed	rpm	500	500	500	450	450	450	450
Spindle nose	ISO	A2-11/A2-15	A2-11/A2-15	A2-11/A2-15	A2-20	A2-20	A2-20	A2-20
Spindle bore	mm	Φ100/Φ130	Φ100/Φ130	Φ100/Φ130	Φ130	Φ130	Φ130	Φ130
Spindle torque	N.m	6370	6370	6370	22000	22000	22000	22000
Manual 4 jaw chuck	mm	Φ1000	Φ1000	Φ1000	Φ1400	Φ1400	Φ1800	Φ1800
Tool position	-	4	4	4	4	4	4	4
Turning tool shank size	mm	50×50	50×50	50×50	40×40	40×40	40×40	40×40
Tailstock quill diameter	mm	Φ160	Φ160	Φ160	Φ320	Φ320	Φ320	Φ320
Tailstock quill travel	mm	300	300	300	250	250	250	250
Tailstock quill taper	Mose	6#	6#	6#	100(Metric)	100(Metric)	100(Metric)	100(Metric)
Positioning accuracy (X/Z)	mm	0.012/0.020	0.012/0.035	0.012/0.050	0.050/0.080	0.050/0.080	0.050/0.080	0.050/0.080
Repeatability accuracy (X/Z)	mm	0.007/0.013	0.007/0.020	0.007/0.020	0.02/0.035	0.02/0.035	0.02/0.035	0.02/0.035
CNC system	-	SIEMENS [NEWAY FANUC]			SIEMENS			
Chip removal system	-	Double chip collecting plate			Rear auto chip conveyor			
Machine weight	kg	14500	16500	19500	35000	420000	45000	48000

[ ]Option

Item	Unit	VNL40S/H	VNL60SA/HA	VNL80SA/HA	VNL100S/H	VNL125S/H	VNL125SK/HK
Max. swing over bed	mm	Φ620	Φ800	Φ930	Φ1000	Φ1500	Φ1500
Max. turning diameter	mm	Φ600	Φ780	Φ850	Φ1000	Φ1250	Φ1250
Max. cutting height	mm	460	600	770	800	1000	1000
Max. workpiece weight	kg	-	-	-	-	5000	5000
Travel X/Z	mm	350/500	420/620	480/780	520/880	840/620	800/620
Rapid travel speed X/Z	m/min	20/20	16/16(SA) 20/20(HA)	16/16(SA) 20/20(HA)	12/12	12/12	10/10(SK) 12/10(HK)
Spindle motor power	kW	22/30(S) 15/18.5(H)	22/30(S) 18.5/22(H)	22/30	24/30(S) 18.5/22(H)	30(continuous)	30(continuous)
Worktable diameter	mm	12" (hydraulic chuck)	15" (hydraulic chuck)	18" (hydraulic chuck)	21" (hydraulic chuck)	Φ1000	Φ1000
Max. worktable speed	r/min	2500	1500/2000	1500/2000	1500	500	500
Max. worktable torque	N.m	573/544	716/913	1345	2083/3650	9000	9000
Tool position	-	8(horizontal) 6(vertical)	12(horizontal) [6(vertical)]		4(vertical)	8(tool magazine)	
Turning tool shank	mm	25×25	32×32	32×32	32×32	32×32	32×32
Driving type	-	hydraulic[electrical]				electrical	electrical
Positioning accuracy(X/Z)	mm	0.006/0.008	0.008/0.012	0.008/0.012	0.012/0.015	0.020/0.020	0.020/0.020
Repeatability accuracy(X/Z)	mm	0.005/0.005	0.006/0.008	0.006/0.008	0.0075/0.010	0.015/0.015	0.015/0.015
CNC system	-	NEWAY FANUC [SIEMENS]					
Auto chip conveyor	-	rear way[side way]				rear way	
Machine weight	kg	6000	8000	9500	12000	16000	17000

[ ]Option

CNC horizontal lathe  
CNC vertical lathe  
Vertical machine center  
Horizontal milling center  
Gantry milling center  
CNC boring and milling machine  
Special purpose machine  
Automatic production line



VNL series-  
CNC vertical lathe



VNL series-  
CNC vertical turning center



Item	Unit	VNL160S/H	VNL160SK/HK	VNL250S/H	VNL250SK/HK	VNL400SF/HF	VNL400S/H	VNL500S/H
Max. swing over bed	mm	Φ1800	Φ1800	Φ2750	Φ2750	Φ4000	Φ4000	Φ5000
Max. turning diameter	mm	Φ1600	Φ1600	Φ2500	Φ2500	Φ4000	Φ4000	Φ5000
Max. cutting height	mm	1600	1600	2000/2500	2000/2500	1000	2000/2500/3150	2000/2500/3150
Max. workpiece weight	kg	8000	8000	16000	16000	40000	40000	50000
Travel X/Z	mm	1040/800	1000/800	1820/1400	1420/1400	2265/1400	2265/1400	2765/1400
Rapid travel speed X/Z	m/min	12/12	10/10(SK) 12/10(HK)	9/9	9/9	6/6	6/6	6/6
Spindle motor power	kW	37 (continuous)	37 (continuous)	55 (continuous)	55 (continuous)	75 (continuous)	75 (continuous)	75 (continuous)
Worktable diameter	mm	Φ1250	Φ1250	Φ2250/Φ2500	Φ2250/Φ2500	Φ3600	Φ3600	Φ4500
Max. worktable speed	r/min	400	400	120	120	63	63	50
Max. worktable torque	N.m	14000	14000	40000	40000	125000	125000	160000
Tool position	-	4 (vertical)	12 (Tool magazine)	1	12 (Tool magazine)	1	1	1
Turning tool shank	mm	32×32	32×32	40×40	40×40	40×40	40×40	50×50
Driving type	-	electrica	electrica	-	electrica	-	-	-
Positioning accuracy(X/Z)	mm	0.020/0.020	0.020/0.020	0.030/0.030	0.030/0.030	0.030/0.030	0.030/0.030	0.030/0.030
Repeatability accuracy(X/Z)	mm	0.015/0.015	0.015/0.015	0.015/0.015	0.015/0.015	0.015/0.015	0.015/0.015	0.015/0.015
CNC system	-	NEWAY FANUC [SIEMENS]						
Auto chip conveyer	-	side way	side way	[side way]	[side way]	[side way]	[side way]	[side way]
Machine weight	kg	25000	26000	44000/48000	45000/49000	51000/550000	66000/70000	76000/80000

[ ]Option

Item	Unit	VNL40T	VNL60T
Max. swing dia. (shaft/disk)	mm	φ320/φ600	φ550/φ780
Max. turning dia.	mm	φ620	φ800
Max. workpiece weight	mm	400	550
Travel X	mm	350	420
Travel Z	mm	500	620
Spindle nose	-	A2-8	A2-11
Spindle speed	r/min	50~2500	50~2000
Spindle motor power	kW	15/18.5	18.5/22
Max. spindle torque	N.m	544	913
hydraulic chuck	inch	12	15
Rapid travel speed X/Z	m/min	20/20	20/20
Cutting feed speed	mm/min	1~2000	1~2000
No. of tools	-	12(horizontal)	12(horizontal)
Living tool rotation speed	r/min	4000	4000
Driving	-	servo	servo
Living turret type	mm	BMT65	BMT65
Turning tool shank size	mm	25×25	25×25
Boring tool holder dia.	mm	φ50	φ50
Max. drilling capacity	-	φ16×0.2	φ16×0.2
Max. tapping capacity	-	M14×2.0/M20×1.5	
Max. milling capacity	-	φ20×12×40	φ20×12×40
Positioning accuracy (X/Z)	mm	0.006/0.008	0.008/0.012
Repeatability accuracy(X/Z)	mm	0.005/0.005	0.006/0.008
Power capacity	kVA	35	40
Coolant tank volume	L	240	280
Dimension	mm	1730×3260×3130	1870×3630×3430
Machine weight	kg	6000	8000

[ ]Option

Item	Unit	VNL80T	VNL160T	VNL250T	VNL400T
Max. swing over bed	mm	φ1000	φ1800	φ2750	φ4000
Max. turning dia.	mm	φ800	φ1600	φ2500	φ4000
Max. cutting height	mm	600	1200	2000/2500	2000/2500/3150
Max. workpiece weight	kg	2000	8000	16000	40000
Worktable diameter	mm	φ630	φ1600	φ2250/φ2500	φ3600
Max. worktable speed	low rpm	20~150	1~65	0.020~30	0.020~16
	high rpm	150~600	66~260	30~120	16~63
Live tool speed	low rpm	1~2400	1~600	1~600	1~600
	high rpm	1~2400	600~2400	600~2400	600~2400
Max. worktable torque	N.m	3720	19000	40000	100000
No. of tools (ATC)	Pc	12	16	16	16
Type of tools	mm	BT50	BT50	BT50	BT50
Ram size	mm	200×200	250×250	250×250	250×250
Max. tool size	280W×150T×380L				
Max. tool weight	kg	35	50	50	50
Max. tool load	kg	42	640	640	640
Tool change time (T to T)	Sec	45	45	45	45
Rapid travel speed X	m/min	10	12	9	6
Rapid travel speed Z	m/min	10	10	9	6
Cutting feedrate	mm/min	1~2000	1~2000	1~2000	1~1000
Travel X	mm	-50~635	-100~950	-20~1400	-20~2175
Travel Z	mm	600	900	1400	1400
Travel of beam	mm	/	750	1250	1250
Spindle motor power	kW	15×2	37/45	37×2	37×2
CNC system	NEWAY FANUC [SIEMENS]				
Dimension (LxW)	mm	4000×3350	5790×4470	9700×6500	12000×9000
Height	mm	4500	5300	7500	7500
Machine weight	kg	12000	27000	48000	73000

[ ]Option

CNC horizontal lathe

CNC vertical lathe

Vertical machine center

Horizontal milling center

Gantry milling center

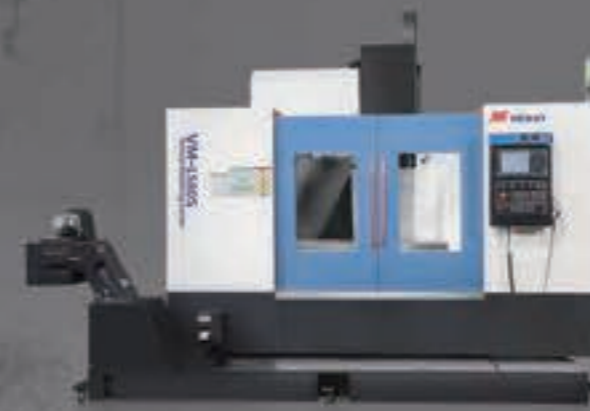
CNC boring and milling machine

Special purpose machine

Automatic production line



VM series-  
High efficiency CNC vertical machining center



VM series-  
High efficiency CNC vertical machining center



Item	Unit	VM740SA/HA	VM1050S/H	VM1150S/H	VM1160S/H	VM1260S/H
Worktable size	mm	750×420	1000×520	1100×520	1100×600	1200×600
Max. worktable load	kg	350	650	750	750	800
Axis travel X/Y/Z	mm	650/420/500	850/520/560	1000/520/560	1000/600/560	1100/600/600
Spindle terminal to worktable	mm	120~620	150~710	150~710	150~710	140~740
Spindle center to column guideway	mm	485	580	590	660	650
Axis rapid travel speed X/Y/Z	m/min	40/40/30	36/36/36	36/36/30	36/36/30	36/36/30
Spindle motor power	kW	5.5/7.5	7.5/11 11/15	7.5/11 11/15	7.5/11 11/15	11/15
Max. spindle speed	rpm	10000(belt)	8000(belt)	8000(belt)	8000(belt)	8000(belt)
Spindle taper	-	7:24 taper NO.40	7:24 taper NO.40	7:24 taper NO.40	7:24 taper NO.40	7:24 taper NO.40 [7:24 taper NO.50]
Number of tools(disc type)	Pc	20	24	24	24	24
Tool shank	-	MAS403 BT40	MAS403 BT40	MAS403 BT40	MAS403 BT40	MAS403 BT40
Max. tool dia./length/weight	mm/mm/kg	Φ80/300/8	Φ80/300/8	Φ80/300/8	Φ80/300/8	Φ80/300/8
Tool change time T-T	s	1.7	1.8	1.8	1.8	1.8
Drilling (normalized carbon steel)	mm	Φ30	Φ40	Φ40	Φ40	Φ45
Tapping (normalized carbon steel)	mm	M16	M20	M20	M20	M24
Milling (normalized carbon steel)	cm <sup>3</sup> /min	150	200	200	200	250
Positioning accuracy (X/Y/Z)	mm	0.008	0.008	0.008	0.008	0.008
Repeatability accuracy (X/Y/Z)	mm	0.005	0.005	0.005	0.005	0.005
CNC system	-	NEWAY FANUC [SIEMENS、Mitsubish]				
Auto chip conveyer	-	[side way (rear)]	[side way]	[side way]	[side way]	side way
Machine weight	kg	3800	5600	6500	6800	7200

[ ]Option

Item	Unit	VM1370S/H	VM1580S/H	VM1780S/H	VM1880S/H
Worktable size	mm	1400×700	1500×800	1700×800	1800×800
Max. worktable load	kg	1100	1250	1500	1750
Axis travel X/Y/Z	mm	1300/700/700	1350/800/700	1500/800/700	1700/850/700
Spindle terminal to worktable	mm	120~820	140~840	150~840	140~840
Spindle center to column guideway	mm	773	868	868	900
Axis rapid travel speed X/Y/Z	m/min	24/24/20 (S) 30/30/24 (H)	24/24/20 (S) 30/30/24 (H)	24/24/20 (S) 30/30/24 (H)	24/24/20
Spindle motor power	kW	11/15	15/18.5	15/18.5	15/18.5
Max. spindle speed	rpm	8000(belt)	6000(belt)	6000(belt)	6000(belt)
Spindle taper	-	7:24 taper NO.40 [7:24 taper NO.50]	7:24 taper NO.50	7:24 taper NO.50	7:24 taper NO.50
Number of tools(disc type)	Pc	24	24	24	24
Tool shank	-	MAS403 BT40	MAS403 BT50	MAS403 BT50	MAS403 BT50
Max. tool dia./length/weight	mm/mm/kg	Φ80/300/8	Φ110/350/15	Φ110/350/15	Φ110/350/15
Tool change time T-T	s	1.8	2.5	2.5	2.5
Drilling (normalized carbon steel)	mm	Φ45	Φ50	Φ50	Φ50
Tapping (normalized carbon steel)	mm	M24	M30	M30	M30
Milling (normalized carbon steel)	cm <sup>3</sup> /min	250	300	300	300
Positioning accuracy (X/Y/Z)	mm	0.012/0.010/0.010	0.012/0.010/0.010	0.012/0.010/0.010	0.012/0.010/0.010
Repeatability accuracy (X/Y/Z)	mm	0.008/0.006/0.006	0.008/0.006/0.006	0.008/0.006/0.006	0.008/0.006/0.006
CNC system	-	NEWAY FANUC [SIEMENS、Mitsubish]			
Auto chip conveyer	-	side way	side way	side way	side way
Machine weight	kg	9500	11000	13000	14200

[ ]Option

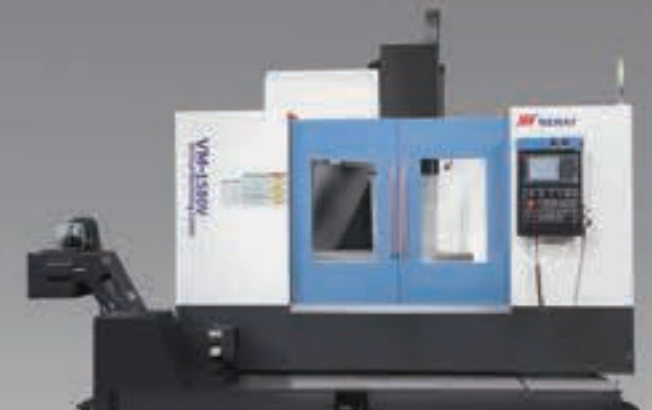




VM series-  
High speed CNC vertical machining center



VM series-  
Built-in motor spindle CNC vertical machining center



Item	Unit	VM640D	VM740SL/HL	VM950SL/HL	VM1050SL/HL	VM1150SL/HL	VM1155SL/HL	
Worktable size	mm	650×400	750×420	950×520	1000×520	1100×520	1100×550	
Max. worktable load	kg	250	350	500	550	600	600	
Axis travel X/Y/Z	mm	510/400/350	650/420/500	850/520/560	850/520/560	1000/520/560	1000/550/560	
Spindle terminal to worktable	mm	150~500	120~620	120~680	120~680	120~680	120~680	
Spindle center to column guideway	mm	458	485	575	580	575	580	
Axis rapid travel speed X/Y/Z	m/min	60/60/60	48/48/48	40/40/30	48/48/48	40/40/30	48/48/48	
Spindle motor power	kW	3.7/5.5	5.5/7.5	7.5/11	7.5/11	7.5/11	7.5/11	
Max. spindle speed	rpm	20000 (direct connection)	12000(direct connection) [15000(direct connection)]					
Spindle taper	-	7:24 taper NO.30	7:24 taper NO.40					
Spindle temperature	-	Oil cooler	Oil cooler	Oil cooler	Oil cooler	Oil cooler	Oil cooler	
Number of tools(disc type)	Pc	16(front location/servo)	20	24	24	24	24	
Tool shank	-	MAS403 BT30	MAS403 BT40	MAS403 BT40	MAS403 BT40	MAS403 BT40	MAS403 BT40	
Max. tool dia./length/weight	mm/mm/kg	Φ100/250/3	Φ80/300/8	Φ80/300/8	Φ80/300/8	Φ80/300/8	Φ80/300/8	
Tool change time T-T	s	1.6	1.7	1.8	1.8	1.8	1.8	
Drilling (normalized carbon steel)	mm	Φ16	Φ30	Φ40	Φ40	Φ40	Φ40	
Tapping (normalized carbon steel)	mm	M10	M16	M20	M20	M20	M20	
Milling (normalized carbon steel)	cm <sup>3</sup> /min	60	150	200	200	200	200	
Positioning accuracy (X/Y/Z)	mm	0.008	0.008	0.008	0.008	0.008	0.008	
Repeatability accuracy (X/Y/Z)	mm	0.005	0.005	0.005	0.005	0.005	0.005	
CNC system	-	NEWAY FANUC [SIEMENS, Mitsubishi]						
Auto chip conveyer	-		[side way (rear)]		side way	[side way (rear)]	[side way]	
Machine weight	kg	3000	3800	5000	5600	5600	6000	

[ ]Option

Item	Unit	VM1050V	VM1160V	VM1580V	VM1780V
Worktable size	mm	1000×520	1100×600	1500×800	1700×800
Max. worktable load	kg	550	750	1250	1500
Axis travel X/Y/Z	mm	850/520/560	1000/600/560	1350/800/680	1500/800/680
Spindle terminal to worktable	mm	180~740	150~710	150~830	150~830
Spindle center to column guideway	mm	580	659	868	868
Axis rapid travel speed X/Y/Z	m/min	40/40/30	36/36/30	30/30/24	30/30/24
Spindle motor power	kW	18.5/22	15/18.5	18.5/26	18.5/26
Max. spindle speed	rpm	15000(built-in)[18000(built-in)][24000(built-in)]			
Spindle taper	-	7:24 taper NO.40 [1:10 taper HSK A63]			
Spindle temperature control	-	Oil cooler [water cooler]			
Number of tools(disc type)	Pc	24	24	24	24
Tool shank	-	MAS403 BBT40 [HSK A63]			
Max. tool dia./length/weight	mm/mm/kg	Φ80/300/8	Φ80/300/8	Φ80/300/8	Φ80/300/8
Tool change time T-T	s	1.8	1.8	1.8	1.8
Drilling (normalized carbon steel)	mm	Φ20	Φ20	Φ25	Φ25
Tapping (normalized carbon steel)	mm	M12	M12	M16	M16
Milling (normalized carbon steel)	cm <sup>3</sup> /min	80	80	120	120
Positioning accuracy (X/Y/Z)	mm	0.008	0.008	0.012/0.010/0.010	0.012/0.010/0.010
Repeatability accuracy (X/Y/Z)	mm	0.005	0.005	0.008/0.006/0.006	0.008/0.006/0.006
CNC system	-	NEWAY FANUC [SIEMENS]			
Auto chip conveyer	-	[side way]	side way	side way	side way
Machine weight	kg	5600	6800	11000	13000

[ ]Option



VM series-  
Industry specific vertical machining center



VM series-  
Portal CNC vertical machining center

Item	Unit	VM740VG	VM1050VG
Worktable size	mm	750×420	1000×520
Max. worktable load	kg	350	650
Axis travel X/Y/Z	mm	650/420/500	850/520/560
Spindle terminal to worktable	mm	120~620	150~710
Spindle center to column guideway	mm	485	580
Axis rapid travel speed X/Y/Z	m/min	48/48/48	40/40/36
Spindle motor power	kW	5.5/7.5	7.5/11[11/15]
Max. spindle speed	rpm	12000(direct connection)[15000(Built-In)]	
Spindle taper	-	7:24 taper NO.40	
Number of tools(disc type)	Pc	20 (Cam type quick change ATC)	24 (servo magazine tool)
Tool shank	-	BBT40	BBT40
Max. tool dia./length/weight	mm/mm/kg	Φ80/300/8	Φ80/300/8
Tool change time T-T	s	1.6	1.6
Drilling (normalized carbon steel)	mm	Φ30	Φ40
Tapping (normalized carbon steel)	mm	M16	M20
Milling (normalized carbon steel)	cm <sup>3</sup> /min	150	200
Positioning accuracy (X/Y/Z)	mm	0.008	0.008
Repeatability accuracy (X/Y/Z)	mm	0.005	0.005
CNC system	-	NEWAY FANUC [SIEMENS]	
Auto chip conveyer	-	side chip conveyer	Double spiral chip conveyer + side chip conveyer
Machine weight	kg	3800	5600

[ ] Option

Item	Unit	VM2550XC	VM4550XC	VM4550XC (with swing milling head)
Worktable size	mm	2700×550	4500×550	4500×500
Max. worktable load	kg	800/m	800/m	800/m
Axis travel X/Y/Z	mm	2500/500/520	4500/500/520	4500/500/600 B axis(swing milling head)
Spindle terminal to worktable	mm	250~770	250~770	120~720
Spindle center to column guideway	mm	660	660	714
Axis rapid travel speed X/Y/Z	m/min	60/30/30	50/30/30	50/30/30
Spindle motor power	kW	7.5/11	7.5/11	15/18.5
Max. spindle speed	rpm	12000(direct connection) 14000(Built-In)		
Spindle taper	-	7:24 taper NO.40	7:24 taper NO.40	7:24 taper NO.40
Number of tools(disc type)	Pc	20	20	16
Tool shank	-	BT40	BT40	BBT40
Max. tool dia./length/weight	mm/mm/kg	Φ75/300/8	Φ75/300/8	Φ75/300/8
Tool change time T-T	s	1.8	1.8	1.8
Drilling (normalized carbon steel)	mm	Φ30	Φ30	Φ25
Tapping (normalized carbon steel)	mm	M16	M16	M14
Milling (normalized carbon steel)	cm <sup>3</sup> /min	150	150	100
Positioning accuracy (X/Y/Z)	mm	0.045/0.022/0.025	0.080/0.022/0.025	0.080/0.022/0.025
Repeatability accuracy (X/Y/Z)	mm	0.030/0.012/0.015	0.050/0.012/0.015	0.050/0.012/0.015
CNC system	-	NEWAY FANUC [SIEMENS]		
Auto chip conveyer	-	side way	side way	side way
Machine weight	kg	8500	12000	12000

[ ] Option

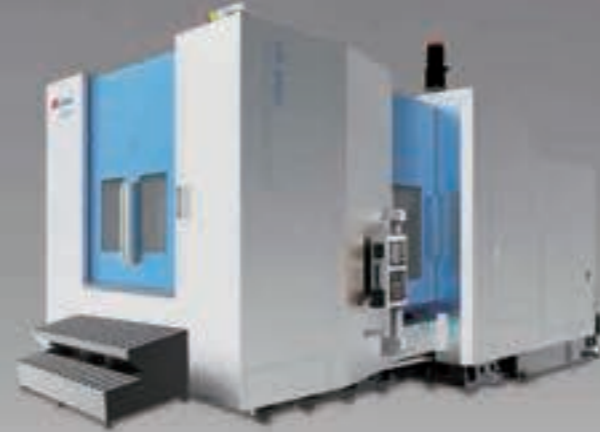
Item	Unit	VM450F	VM650F
Worktable size	mm	Φ450	Φ650
Max. worktable load	kg	200	300
Axis travel X/Y/Z	mm	450/400/400	650/550/500
B/C axis rotating degree	°	±110°/360°	±110°/360°
Spindle terminal to worktable	mm	140~540	175~675
Axis rapid travel speed X/Y/Z	m/min	48/48/40	48/48/40
Spindle motor power	kW	10.6	15.5
Max. spindle speed	rpm	15000	18000
Spindle taper	-	7:24 taper NO.40	HSK A63
Number of tools(disc type)	Pc	30	30
Tool shank	-	MAS403 BT40	HSK A63
Max. tool dia./length/weight	mm/mm/kg	Φ76/300/8	Φ76/300/8
Tool change time T-T	s	1.8	1.8
Drilling (normalized carbon steel)	mm	Φ30	Φ40
Tapping (normalized carbon steel)	mm	M16	M20
Milling (normalized carbon steel)	cm <sup>3</sup> /min	150	200
Positioning accuracy (X/Y/Z)	mm/sec	0.006/10"	0.006/10"
Repeatability accuracy (X/Y/Z)	mm/sec	0.004/5"	0.004/5"
CNC system	-	SIEMENS 840D sl	
Auto chip conveyer	-	side way	side way
Machine weight	kg	8000	12000

Item	Unit	VM12100B
Worktable size	mm	1200x1000
Max. worktable load	kg	2000
Axis travel X/Y/Z	mm	1200/1200/600
Spindle terminal to worktable	mm	200-800 [400-1000][600-1200]
Spindle center to column guideway	mm	426
Axis rapid travel speed X/Y/Z	m/min	30/30/24
Spindle motor power	kW	15/18.5
Max. spindle speed	rpm	5000
Spindle taper	-	7:24 taper NO.50
Number of tools(disc type)	Pc	24
Tool shank	-	MAS403 BT50
Max. tool dia./length/weight	mm/mm/kg	Φ110/350/15
Tool change time T-T	s	2.5
Drilling (normalized carbon steel)	mm	Φ60
Tapping (normalized carbon steel)	mm	M36
Milling (normalized carbon steel)	cm <sup>3</sup> /min	350
Positioning accuracy (X/Y/Z)	mm	0.010/0.010/0.008
Repeatability accuracy (X/Y/Z)	mm	0.006/0.006/0.005
CNC system	-	NEWAY FANUC [SIEMENS]
Auto chip conveyer	-	[side way (rear)]
Machine weight	kg	15000

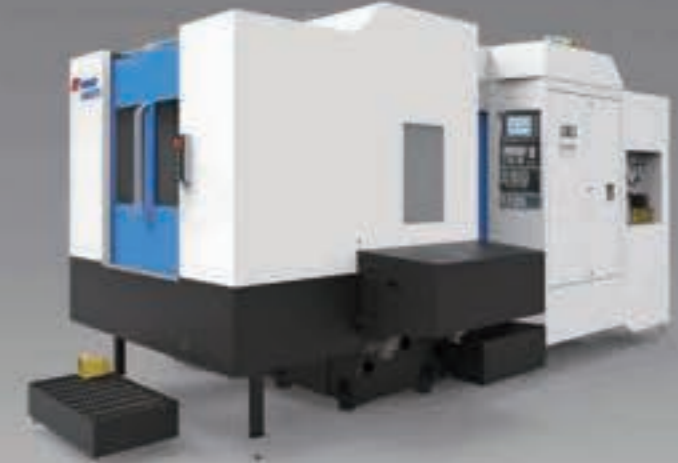
[ ] Option



HE Series-  
High speed horizontal machining center



HM Series-  
Heavy cutting horizontal machining center



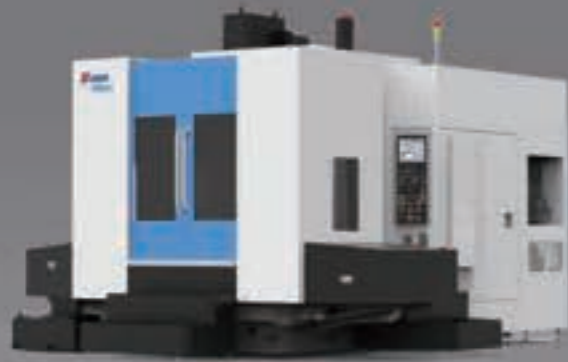
Item	Unit	HE50S	HE50D	HE63S	HE63D	HE80S	HE80D	HE80EV	HE80EF
Worktable size	mm	500×500	2-500×500	630×630	630×630	800×800	8800×800	800×800	800×800
Max. worktable load	kg	500	500	1200	1200	1500	2500	2500 (B) / 600(C)	
Worktable indexing	-	0.001°×360000			1°×360[0.001°×360000]				0.001°×360000
Worktable exchanging time	s	/	10	/	16	/	16	/	/
Worktable exchanging drive	-	/	hydraulic	/	hydraulic	/	hydraulic	/	/
Worktable max. rotate speed	r/min	33.3		16		16		20	20(B)/20(C)
Max. part diameter / height	mm	Φ800/800		Φ1050/1300		Φ1250/1300		Φ1600/1800	Φ1500 (C)
Axis travel X/Y/Z	mm	730/730/800		1050/900/1000		1250/900/1100		1350/1300/1200	
Spindle terminal to worktable	mm	70~870		140~1140	100~1100	140~1240	100~1200	160~1360	
Spindle center to worktable surface	mm	100~830		120~1020		120~1020	80~980	50~1350	
Axis rapid travel speed X/Y/Z	m/min	60		60		60		60	
Spindle motor power	kW	15/18.5		18.5/30		22/35		26/45	
Max. spindle speed	rpm	12000		4500		4500		8000	
Spindle torque	N.m	104/128		649/1050		770/1226		305/623	
Spindle taper	-	7:24 taper NO.40		7:24 taper NO.50		7:24 taper NO.50		7:24 taper NO.50	
Number of tool	Pc	40(disc type)		40		40		40	
Tool shank	-	MAS403 BT40		MAS403 BT50		MAS403 BT50		MAS403 BT50	
Max. tool dia./length/weight	mm/mm/kg	Φ85/500/8		Φ125/530/25		Φ125/530/25		Φ125/600/25	
Max. tool size (empty neighbor)	mm	Φ170		Φ250		Φ250		Φ250	
Tool change time T-T	s	1.5		2.8s ((25kg) / 2.4s ((15kg)		2.8s ((25kg) / 2.4s ((15kg)		2.8s ((25kg) / 2.4s ((15kg)	
Drilling (normalized carbon steel)	mm	Φ50		Φ55		Φ55		Φ55	
Tapping (normalized carbon steel)	mm	M36		M45		M45		M45	
Milling (normalized carbon steel)	cm³/min	300		600		600		600	
Positioning accuracy (X/Y/Z)	mm	0.010		0.010		0.010		0.010	
Repeatability accuracy (X/Y/Z)	mm	0.006		0.006		0.006		0.006	
Positioning accuracy (B)	"	15		6		6		10	
Repeatability accuracy (B)	"	6		2		2		4	
CNC system	-	NEWAY FANUC [SIEMENS]							
Auto chip conveyor	-	Z axis with double helix + rear chain chip conveyor							
Machine weight	kg	11000	12000	19000	20000	19000	21000	18000	19000

[ ]Option

Item	Unit	HM50TS		HM50TD		HM50TSA	HM63TEA
		(BT40)	(BT50)	(BT40)	(BT50)	(BT50)	(BT50)
Worktable size	mm	500×500		2-500×500		500×500	630×630
Max. worktable load	kg	600		500		800	1000
Worktable indexing	-	1°×360[0.001°×360000]		1°×360[0.001°×360000]			
Worktable exchanging time	s	/		12		/	/
Worktable exchanging drive	-	/		hydraulic		/	/
Worktable max. rotate speed	r/min	10		10		10	10
Max. part diameter / height	mm	Φ630/700		Φ630/700		Φ1000/800	Φ1200/1000
Axis travel X/Y/Z	mm	750/650/650		750/600/650		850/750/750	1000/800/800
Spindle terminal to worktable	mm	150~800	50~700	150~800	50~700	50~800	50~850
Spindle center to worktable surface	mm	90~740		100~700		0~750	0~800
Axis rapid travel speed X/Y/Z	m/min	30/20/30 [30/24/30]		30/20/30 [30/24/30]		30/20/30 [30/24/30]	30/20/30 [30/24/30]
Spindle motor power	kW	15/18.5 [11/15]		15/18.5 [11/15]		15/18.5 [11/15]	15/18.5 [11/15]
Max. spindle speed	rpm	8000	6000	8000	6000	6000	6000
Spindle torque	N.m	143/236 [140/191]		143/236 [140/191]		143/236 [140/191]	
Spindle taper	-	7:24 taper NO.40	7:24 taper NO.50	7:24 taper NO.40	7:24 taper NO.50	7:24 taper NO.50	7:24 taper NO.50
Number of tool	Pc	32 (disc type)	24 (disc type)	32 (disc type)	24 (disc type)	24 (disc type)	30 (disc type)
Tool shank	-	MAS403 BT40	MAS403 BT50	MAS403 BT40	MAS403 BT50	MAS403 BT50	MAS403 BT50
Max. tool dia./length/weight	mm/mm/kg	Φ80/350/8	Φ110/350/20	Φ80/350/8	Φ110/350/20	Φ110/350/20	Φ125/500/25
Max. tool size (empty neighbor)	mm	Φ150	Φ250	Φ150	Φ250	Φ250	Φ250
Tool change time T-T	s	2.33	3.8	2.33	3.8	3.8	3.8
Drilling (normalized carbon steel)	mm	Φ30	Φ35	Φ30	Φ35	Φ35	Φ35
Tapping (normalized carbon steel)	mm	M20	M24	M20	M24	M24	M24
Milling (normalized carbon steel)	cm³/min	200	250	200	250	250	250
Positioning accuracy (X/Y/Z)	mm	0.010		0.010		0.010	0.010
Repeatability accuracy (X/Y/Z)	mm	0.006		0.006		0.06	0.06
Positioning accuracy (B)	"	6		6		6	6
Repeatability accuracy (B)	"	2		2		2	2
CNC system	-	NEWAY FANUC [SIEMENS]					
Auto chip conveyor	-	X axis double helix + sideway chain type chip conveyer				Z axis double helix + X axis double chain type chip conveyer + sideway chain type chip conveyer	
Machine weight	kg	12000		13000		12000	12000

[ ]Option

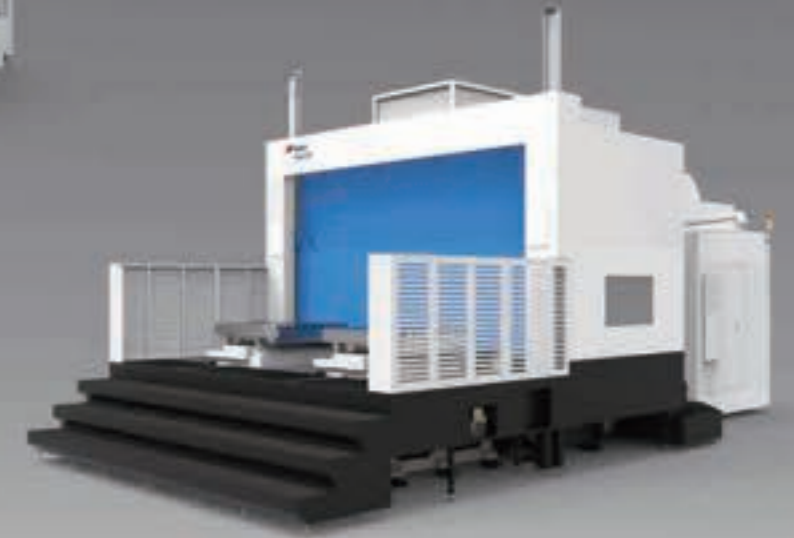
CNC horizontal lathe  
CNC vertical lathe  
Vertical machine center  
Horizontal milling center  
Gantry milling center  
CNC boring and milling machine  
Special purpose machine  
Automatic production line



HM Series-  
Heavy cutting horizontal machining center



HM Series-  
Heavy cutting horizontal machining center



Item	Unit	HM63TS	HM63TD	HM6380TD	HM80TS	HM80TD	HM8080TD
Worktable size	mm	630×630	2-630×630	2-630×800	800×800	2-800×800	2-800×800
Max. worktable load	kg	1200		1200	1600		1600
Worktable indexing	-	1°×360[0.001°×360000]					
Worktable exchanging time	s	/	20	55	/	25	55
Worktable exchanging drive	-	/	hydraulic	hydraulic	/	Servo motor	hydraulic
Worktable max. rotate speed	r/min	10		10	10		10
Max. part diameter / height	mm	φ1000/1000		φ1000/1000	φ1300/1300		φ1750/1300
Axis travel X/Y/Z	mm	1000/850/900		1000/850/900	1400/1050/1050		1400/1050/1050
Spindle terminal to worktable	mm	200~1100		200~1100	250~1300		250~1300
Spindle center to worktable surface	mm	80~930	80~930	0~850	120~1170	0~1050	0~1050
Axis rapid travel speed X/Y/Z	m/min	20 [30]		20 [30]	16 [24]		16 [24]
Spindle motor power	kW	15/18.5 [18.5/22]		15/18.5 [18.5/22]	15/18.5 [22/26]		15/18.5 [22/26]
Max. spindle speed	rpm	4500		4500	4500		4500
Spindle torque	N.m	786/1050 [647/770]		786/1050 [647/770]	786/1050 [770/910]		786/1050 [770/910]
Spindle taper	-	7:24 taper NO.50		7:24 taper NO.50	7:24 taper NO.50		7:24 taper NO.50
Number of tool	Pc	40 (chain type)		40 (chain type)	40 (chain type)		40 (chain type)
Tool shank	-	MAS403 BT50		MAS403 BT50	MAS403 BT50		MAS403 BT50
Max. tool dia./length/weight	mm/mm/kg	Φ125/400/25		Φ125/500/25	Φ125/400/25		Φ125/400/25
Max. tool size (empty neighbor)	mm	Φ250		Φ250	Φ250		Φ250
Tool change time T-T	s	4.75		4.75	4.75		4.75
Drilling (normalized carbon steel)	mm	Φ55		Φ55	Φ55		Φ55
Tapping (normalized carbon steel)	mm	M45		M45	M45		M45
Milling (normalized carbon steel)	cm <sup>3</sup> /min	600		600	600		600
Positioning accuracy (X/Y/Z)	mm	0.010		0.010	0.010		0.010
Repeatability accuracy (X/Y/Z)	mm	0.006		0.006	0.006		0.006
Positioning accuracy (B)	"	6		6	6		6
Repeatability accuracy (B)	"	2		2	2		2
CNC system	-	NEWAY FANUC [SIEMENS]					
Auto chip conveyor	-	Z axis double helix + X axis double chain type chip conveyor + sideway chain type chip conveyer					
Machine weight	kg	18000	21000	21000	20000	23000	23000

[ ]Option

Item	Unit	HM100TS	HM100TD	HM100TL	HM125TS	HM125TD	HM125TBS	HM125TBD
Worktable size	mm	1000×1000	2-1000×1000	1000×1000	1250×1250	2-1250×1250	1250×1250	2-1250×1250
Max. worktable load	kg	2000		3000	4000		4000	
Worktable indexing	-	1°×360[0.001°×360000]						
Worktable exchanging time	s	/	25	/	/	90	/	90
Worktable exchanging drive	-	/	Servo motor	/	/	hydraulic	/	hydraulic
Worktable max. rotate speed	r/min	10		10	5.5		5.5	
Max. part diameter / height	mm	φ1300/1300		φ2000/2000	φ2000/2000	φ2000/1800	φ2000/2000	φ2000/1800
Axis travel X/Y/Z	mm	1600/1100/1100		2100/1300/1300	2200/1500/1500		2200/1500/1500/500 (w)	
Spindle terminal to worktable	mm	250~1350		300~1600	300~1800		300~1800	
Spindle center to worktable surface	mm	120~1220	0~1100	120~1420	120~1620		120~1620	
Axis rapid travel speed X/Y/Z	m/min	16 [24]		20	20		20/20/20/5	
Spindle motor power	kW	15/18.5 [22/26]		22/26	22/26		22/26	
Max. spindle speed	rpm	4500		4500	4500		3500	
Spindle torque	N.m	786/1050 [770/910]		1155/1365	1155/1365		1155/1365	
Spindle taper	-	7:24 taper NO.50		7:24 taper NO.50	7:24 taper NO.50		7:24 taper NO.50	
Number of tool	Pc	40 (chain type)		60 (chain type)	60 (chain type)		60 (chain type)	
Tool shank	-	MAS403 BT50		MAS403 BT50	MAS403 BT50		MAS403 BT50	
Max. tool dia./length/weight	mm/mm/kg	Φ125/400/25		Φ125/600/35	Φ125/600/35		Φ125/600/35	
Max. tool size (empty neighbor)	mm	Φ250		Φ250	Φ250		Φ250	
Tool change time T-T	s	4.75		7.5	7.5		7.5	
Drilling (normalized carbon steel)	mm	Φ60		Φ70	Φ70		Φ70	
Tapping (normalized carbon steel)	mm	M48		M50	M50		M50	
Milling (normalized carbon steel)	cm <sup>3</sup> /min	900		1000	1000		1000	
Positioning accuracy (X/Y/Z)	mm	0.010		0.015	0.015		0.015	
Repeatability accuracy (X/Y/Z)	mm	0.006		0.010	0.010		0.010	
Positioning accuracy (B)	"	6		6	6		6	
Repeatability accuracy (B)	"	2		2	2		2	
CNC system	-	NEWAY FANUC [SIEMENS]						
Auto chip conveyor	-	Z axis double helix + X axis double chain type chip (Remark: HM125TBS/TBD boring bar diameter Φ110)						
Machine weight	kg	21000	24000	34000	35000	38000	35000	38000

[ ]Option



HE Series-  
High efficiency horizontal machining center



HN Series-  
Swing head 5-axis horizontal machining center



Item	Unit	HE63SZ	HE63SV	HE100AZ	HE100AV	HE50FZ	HE50FV
Worktable size	mm	630×630	630×630	1000×500	1000×500	500×500	500×500
Max. worktable load	kg	1200	1200	800	800	400	400
Worktable indexing	-	0.001°×360000	0.001°×360000	0.001°×360000	0.001°×360000	0.001°×360000	0.001°×360000
Worktable exchanging time	s	/	/	/	/	/	/
Worktable exchanging drive	-	/	/	/	/	/	/
Worktable max. rotate speed	r/min	30	30	12	12	30(Baxis)/12(Aaxis)	30(Baxis)/12(Aaxis)
Max. part diameter / height	mm	Φ900/1000	Φ900/1000	Φ900/600	Φ900/600	Φ800/600	Φ800/600
Axis travel X/Y/Z	mm	1000/890/1000	1000/890/1000	1000/890/970	1000/890/970	1000/890/970	1000/890/970
A-axis rotation range	°	/	/	±360	±360	±120	±120
B-axis rotation range	°	±360	±360	/	/	±360	±360
Spindle terminal to worktable	mm	120~1120	120~1120	150~1120	150~1120	150~1120	150~1120
Spindle center to worktable surface	mm	100~990	100~990	-37~853	-37~853	-37~853	-37~853
Axis rapid travel speed X/Y/Z	m/min	60	60	60	60	60	60
Spindle motor power	kW	22/26	50/65[50/70]	22/26	50/65 [50/70]	22/26	50/65 [50/70]
Max. spindle speed	rpm	6000	8000[10000]	6000	8000 [10000]	6000	8000 [10000]
Spindle torque	N.m	770/910	405/526[400/560]	770/910	405/526 [400/560]	770/910	405/526 [400/560]
Spindle taper	-	HSK-A100	HSK-A100	HSK-A100	HSK-A100	HSK-A100	HSK-A100
Number of tools(disc type)	Pc	40(chain type)	40(chain type)	40(chain type)	40(chain type)	40(chain type)	40(chain type)
Tool shank	-	HSK-A100	HSK-A100	HSK-A100	HSK-A100	HSK-A100	HSK-A100
Max. tool dia./length/weight	mm/mm/kg	Φ125/450/25	Φ125/450/25	Φ125/450/25	Φ125/450/25	Φ125/450/25	Φ125/450/25
Max. tool size (empty neighbor)	mm	Φ250	Φ250	Φ250	Φ250	Φ250	Φ250
Tool change time T-T	s	2.25(Knife weight<25kg)/ 1.6(Knife weight<10kg)					
Drilling (normalized carbon steel)	mm	Φ55	Φ55	Φ55	Φ55	Φ55	Φ55
Tapping (normalized carbon steel)	mm	M45	M45	M45	M45	M45	M45
Milling (normalized carbon steel)	cm <sup>3</sup> /min	600	600	600	600	600	600
Positioning accuracy (X/Y/Z)	mm	0.01	0.01	0.01	0.01	0.01	0.01
Repeatability accuracy X/Y/Z	mm	0.006	0.006	0.006	0.006	0.006	0.006
Positioning accuracy (B)	"	8	8	8	8	8	8
Repeatability accuracy (B)	"	5	5	5	5	5	5
CNC system	-	NEWAY FANUC [SIEMENS]					
Auto chip conveyor	-	Central double screw chip removal					
Machine weight	kg	21000	21000	22000	22000	23000	23000

[ ]Option

Item	Unit	HM100TLU	HM125TU
Worktable size	mm	1000×1000	1250×1250
Max. worktable load	kg	2000	4000
Worktable indexing	-	0.001°×360000	0.001°×360000
Worktable exchanging time	S	/	/
Worktable exchanging drive	-	/	/
Worktable max. rotate speed	r/min	10	8
Max. part diameter / height	mm	Φ2000/2000	Φ2000/2000
Axis travel X/Y/Z	mm	2100/1300/1300	2200/1500/1500
A-axis rotation range	°	±105	±105
B-axis rotation range	°	±360	±360
Spindle terminal to worktable(horizontal)	mm	-280~1020	-280~1220
Spindle center to worktable surface(horizontal)	mm	120~1420	120~1620
Spindle terminal to worktable surface (vertical)	-	-160~1140	-160~1340
Spindle center to worktable(vertical)	-	0~1300	0~1500
Axis rapid travel speed X/Y/Z	m/min	20	20
Spindle motor power	kW	56/70	56/70
Max. spindle speed	rpm	15000	15000
Spindle torque	N.m	89/111	89/111
Spindle taper	-	HSK-A63	HSK-A63
Number of tools(disc type)	Pc	60(chain type)	60(chain type)
Tool shank	-	HSK-A63	HSK-A63
Max. tool dia./length/weight	mm/mm/kg	Φ75mm/400mm/8kg	Φ75mm/400mm/8kg
Max. tool size (empty neighbor)	mm	Φ150	Φ150
Tool change time T-T	s	10	10
Drilling (normalized carbon steel)	mm	Φ30	Φ30
Tapping (normalized carbon steel)	mm	M20	M20
Milling (normalized carbon steel)	cm <sup>3</sup> /min	200	200
Positioning accuracy (X/Y/Z)	mm	0.015	0.015
Repeatability accuracy X/Y/Z	mm	0.01	0.01
Positioning accuracy (B)	"	10	10
Repeatability accuracy (B)	"	5	5
CNC system	-	NEWAY SIEMENS	NEWAY SIEMENS
Auto chip conveyor	-	Z axis double helix + X axis double chain type chip conveyor	
Machine weight	kg	34000	35000

[ ]Option

## PM Series- High speed gantry machining center



## PM Series- High speed gantry machining center



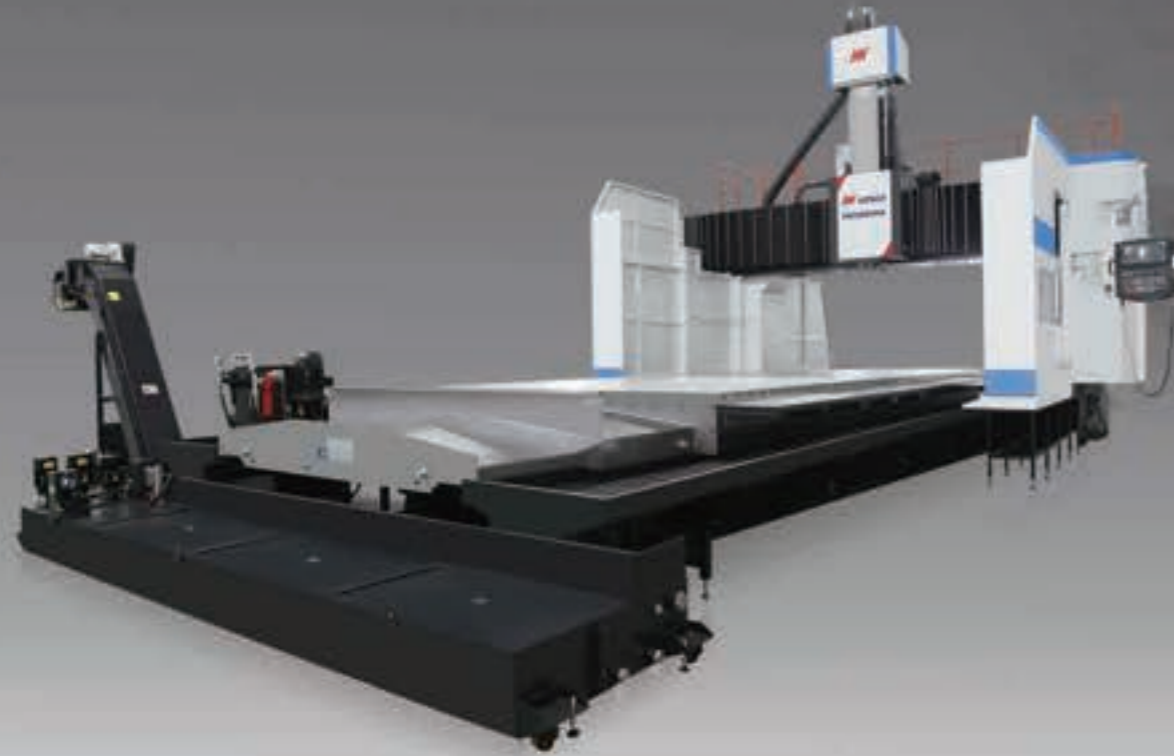
Item	Unit	PM1220HA	PM1230HA	PM1520HA	PM1530HA	PM1830HA	PM1840HA
Worktable width	mm	1200		1500		1800	
Worktable length	mm	2000	3000	2000	3000	3000	4000
Table load	kg	3500	5500	6000	7000	10000	12000
Worktable travel (X axis)	mm	2200	3200	2200	3200	3200	4200
Carriage travel (Y axis)	mm	1500 [1700]		1900	2700		
Ram travel (Z axis)	mm	800		800	800 [1000]		
Spindle terminal to worktable	mm	200~1000		200~1000	200~1000 [200~1200]		
Column span	mm	1400 [1600]		1800	2300		
Tool shank size	-	BT50		BT50	BT50		
Spindle speed	r/min	40~6000		40~6000	40~6000		
Max. output torque	N.m	788/1295		788/1295	525/647 [770/910]		
Spindle motor power	kW	15/18.5		15/18.5	15/18.5 [22/26]		
Ram section	mm	400×320		400×320	400×400		
X/Y/Z axis rapid travel speed	m/min	24/24/15	15/24/15	15/24/15	12/24/15	20/18/15	15/18/15
Tool position	-	24 [32/40/60]		24 [32/40/60]	[24/32/40/60]		
Max. tool diameter/length/weight	mm/mm/kg	Φ110/350/15		Φ110/350/15	Φ105/350/15		
Max. tool diameter (empty neighbor)	mm	Φ200		Φ200	Φ200		
X axis positioning /repeatability accuracy	mm	0.012/0.008	0.015/0.010	0.012/0.008	0.015/0.010	0.018/0.010	0.020/0.012
Y axis positioning /repeatability accuracy	mm	0.012/0.008		0.014/0.009	0.015/0.010		
Z axis positioning /repeatability accuracy	mm	0.012/0.008		0.014/0.009	0.015/0.010		
CNC system	-	NEWAY FANUC [SIEMENS]					
Machine weight	kg	19000	23000	21000	25000	30000	35000

[ ]Option

Item	Unit	PM2030HA	PM2040HA	PM2060HA	PM2080HA	PM2540HA	PM2560HA	PM2580HA	PM25100HA
Worktable width	mm	2000				2500			
Worktable length	mm	3000	4000	6000	8000	4000	6000	8000	10000
Table load	kg	16000	20000	26000	28000	22000	30000	35000	40000
Worktable travel (X axis)	mm	3200	4200	6200	8500	4200	6200	8500	10500
Carriage travel (Y axis)	mm	3200				3200	3700[4200]		
Ram travel (Z axis)	mm	1000 [800] [1250]				1000 [1250]			
Spindle terminal to worktable	mm	200~1200 [200~1000] [250~1500]				200~1200 [250~1500]		140~1140 [190~1440]	
Column span	mm	2800 [3200]				2800 [3200]	3300 [3800]		
Tool shank size	-	BT50				BT50			
Spindle speed	r/min	40~6000 [Z axis 1250:40~4500]				40~6000 [Z axis 1250:40~4500]			
Max. output torque	N.m	770/910				770/910			
Spindle motor power	kW	22/26				22/26			
Ram section	mm	400×400 [Z axis 1250:420×420]				400×400 [Z axis 1250:420×420]			
X/Y/Z axis rapid travel speed	m/min	15/15/12	15/15/12	12/15/12	10/15/10	12/12/12	12/12/12	10/12/12	8/12/12
Tool position	-	[24/32/40/60]				[24/32/40/60]			
Max. tool diameter/length/weight	mm/mm/kg	Φ105/350/15				Φ105/350/15			
Max. tool diameter (empty neighbor)	mm	Φ200				Φ200			
X axis positioning /repeatability accuracy	mm	0.018/0.010	0.020/0.012	0.028/0.018	0.032/0.020	0.020/0.012	0.028/0.018	0.032/0.020	0.038/0.024
Y axis positioning /repeatability accuracy	mm	0.018/0.012				0.024/0.016			
Z axis positioning /repeatability accuracy	mm	0.015/0.010 [Z axis 1250:0.018/0.012]				0.015/0.010 [Z axis 1250:0.018/0.012]			
CNC system	-	NEWAY FANUC [SIEMENS]							
Machine weight	kg	41000	45000	55000	65000	50000	65000	85000	95000

[ ]Option

## PM Series- High speed gantry machining center



Item	Unit	PM3040HA	PM3060HA	PM3080HA	PM30100HA
Worktable width	mm	3000			
Worktable length	mm	4000	6000	8000	10000
Table load	kg	25000	35000	40000	45000
Worktable travel (X axis)	mm	4200	6200	8500	10500
Carriage travel (Y axis)	mm	4200[4600]			
Ram travel (Z axis)	mm	1250			
Spindle terminal to worktable	mm	250~1500			190~1440
Column span	mm	3800[4200]			
Tool shank size	-	BT50			
Spindle speed	r/min	40~6000[Z axis 1250:40~4500]			
Max. output torque	N.m	770/910			
Spindle motor power	kW	22/26			
Ram section	mm	400×400 [Z axis 1250:420×420]			
X/Y/Z axis rapid travel speed	m/min	12/12/12	12/12/12	10/12/12	8/12/12
Tool position	-	[24/32/40/60]			
Max. tool diameter/length/weight	mm/mm/kg	Φ105/350/15			
Max. tool diameter (empty neighbor)	mm	Φ200			
X axis positioning /repeatability accuracy	mm	0.020/0.012	0.028/0.018	0.032/0.020	0.038/0.024
Y axis positioning /repeatability accuracy	mm	0.028/0.018			
Z axis positioning /repeatability accuracy	mm	0.018/0.012			
CNC system	-	NEWAY FANUC [SIEMENS]			
Machine weight	kg	55000	70000	90000	100000

[ ]Option

## PM Series- High speed gantry machining center



Item	Unit	PM1320HC	PM1330HC	PM1525HC	PM2030HC	PM2040HC	PM2060HC
Worktable width	mm	1300	1300	1500	2000		
Worktable length	mm	2100	3100	2600	3000	4000	6000
Table load	kg	3500	8000	8000	14000	18000	24000
Worktable travel (X axis)	mm	2200	3200	2700	3200	4200	6200
Carriage travel (Y axis)	mm	1500	1500	1700	2700		
Ram travel (Z axis)	mm	800			1000		
Spindle terminal to worktable	mm	200~1000	20~1000	200~1000	250~1250		
Column span	mm	1600	1600	1800	2800		
Tool shank size	-	BT50			BT50		
Spindle speed	r/min	40~8000			40~6000		
Max. output torque	N.m	352/470			770/910		
Spindle motor power	kW	15/18.5			22/26		
Ram section	mm	400×395			400×400		
X/Y/Z axis rapid travel speed	m/min	24/24/15	15/24/15	15/24/15	15/20/15	15/20/15	12/20/15
Tool position	-	[24/32/40]			[24/32/40/60]		
Max. tool diameter/length/weight	mm/mm/kg	Φ110/350/15			Φ105/350/15		
Max. tool diameter (empty neighbor)	mm	Φ200			Φ200		
X axis positioning /repeatability accuracy	mm	0.012/0.008	0.015/0.010	0.012/0.008	0.018/0.012	0.020/0.012	0.028/0.018
Y axis positioning /repeatability accuracy	mm	0.012/0.008			0.018/0.012		
Z axis positioning /repeatability accuracy	mm	0.012/0.008			0.015/0.010		
CNC system	-	NEWAY FANUC [SIEMENS]					
Machine weight	kg	16500	18500	18500	34000	38000	46000

[ ]Option

## PM Series- High speed direct drive spindle gantry machining center



Item	Unit	PM0813L	PM1320L	PM1330L	PM1525L	PM1830L	PM1840L	PM2040L	PM2060L
Worktable width	mm	1300			1500	1800		2000	
Worktable length	mm	900	2100	3100	2600	3000	4000	4000	6000
Table load	kg	1500	3500	8000	8000	10000	12000	20000	26000
Worktable travel (X axis)	mm	800	2200	3200	2700	3200	4200	4200	6200
Carriage travel (Y axis)	mm	1300			1500	2700		2700	
Ram travel (Z axis)	mm	700			700	800[1000]		1000	
Spindle terminal to worktable	mm	150~850			150~850	130~930 [130~1130]		180-1180	120-1120
Column span	mm	1400			1600	2300		2800	
Tool shank size	-	BT40			BT40	BT50 [BT40]		BT50 [BT40]	
Spindle speed	r/min	15000			15000	100~12000 [BT40:15000]		100~10000 [BT40:15000]	
Max. output torque	N.m	34/46			34/46	95/118[BT40:70/96]		140/165 [BT40:70/96]	
Spindle motor power	kW	11.7/15.8			11.7/15.8	15/18.5 [BT40:11/15]		22/26 [BT40:11/15]	
Ram section	mm	350×350			350×350	450×400		450×400	
X/Y/Z axis rapid travel speed	m/min	24/24/24	18/24/24		18/24/24	20/18/20	15/18/20	15/15/15	12/15/15
Tool position	-	[24/32]			[24/32]	[24/32/40/60]		[24/32/40/60]	
Max. tool diameter/length/weight	mm/mm/kg	Φ80/250/8			Φ80/250/8	Φ105/350/15		Φ105/350/15	
Max. tool diameter (empty neighbor)	mm	/			/	Φ200		Φ200	
X axis positioning /repeatability accuracy	mm	0.012/0.008	0.012/0.008	0.015/0.010	0.012/0.008	0.018/0.010	0.020/0.012	0.020/0.012	0.028/0.018
Y axis positioning /repeatability accuracy	mm	0.012/0.008			0.012/0.008	0.015/0.010		0.018/0.012	
Z axis positioning /repeatability accuracy	mm	0.012/0.008			0.012/0.008	0.015/0.010		0.015/0.010	
CNC system	-	SIEMENS 828D [NEWAY FANUC]				NEWAY FANUC [SIEMENS]			
Machine weight	kg	12000	16000	18000	18000	25000	28000	37000	45000

[ ]Option

## PM Series- Electric spindle gantry machining center



Item	Unit	PM1320V	PM1330V	PM1525V	PM1830V	PM1840V	PM2040V	PM2060V
Worktable width	mm	1300			1500	1800		2000
Worktable length	mm	2100	3100	2600	3000	4000	4000	6000
Table load	kg	3500	8000	8000	10000	12000	20000	26000
Worktable travel (X axis)	mm	2200	3200	2700	3200	4200	4200	6200
Carriage travel (Y axis)	mm	1500		1700	2700		2700	
Ram travel (Z axis)	mm	800		800	800 [1000]		1000	
Spindle terminal to worktable	mm	250~1050		250~1050	200~1000 [200~1200]		250~1250	200~1200
Column span	mm	1600		1800	2300		2800[2300]	
Tool shank size	-	HSK-A63		HSK-A63	HSK-A63		HSK-A63	
Spindle speed	r/min	100~18000		100~18000	100~18000		100~18000	
Max. output torque	N.m	51.7/107		51.7/107	88.3/159		88.3/159	
Spindle motor power	kW	13/18.5		13/18.5	18.5/25		18.5/25	
Ram section	mm	400×320		400×320	450×400		450×400	
X/Y/Z axis rapid travel speed	m/min	24/24/15	15/24/15	15/24/15	20/18/20	15/18/20	15/15/15	12/15/15
Tool position	-	[24/32/40/60]		[24/32/40/60]	[24/32/40/60]		[24/32/40/60]	
Max. tool diameter/length/weight	mm/mm/kg	Φ80/300/8		Φ80/300/8	Φ80/300/8		Φ80/300/8	
Max. tool diameter (empty neighbor)	mm	Φ150		Φ150	Φ150		Φ150	
X axis positioning /repeatability accuracy	mm	0.012/0.008	0.015/0.010	0.012/0.008	0.018/0.010	0.020/0.012	0.020/0.012	0.028/0.018
Y axis positioning /repeatability accuracy	mm	0.012/0.008		0.014/0.009	0.015/0.010		0.018/0.012	
Z axis positioning /repeatability accuracy	mm	0.012/0.008		0.012/0.008	0.015/0.010		0.015/0.010	
CNC system	-	NEWAY FANUC[SIEMENS]						
Machine weight	kg	16500	18500	18500	25000	28000	37000	45000

[ ]Option



## PM Series- High speed 5 axis gantry machining center



Item	Unit	PM2040U	PM2060U	PM2560U	PM2580U
Worktable width	mm	2000		2500	
Worktable length	mm	4000	6000	6000	8000
Table load	kg	20000	26000	30000	35000
Worktable travel (X axis)	mm	4200	6200	6200	8500
Carriage travel (Y axis)	mm	3200		3700	
Ram travel (Z axis)	mm	1000[1250]		1000[1250]	
Spindle terminal to worktable	mm	200~1200[250~1500]		200~1200[250~1500]	
Column span	mm	2800		3300	
Tool shank size	-	HSK-A63			
Spindle speed	r/min	24000			
Max. output torque	N.m	60/73			
Spindle motor power	kW	37/46			
A/C axis indexing degree	°	±105/±360			
A/C axis positioning accuracy	degree/second	±5/±3			
X/Y/Z axis rapid travel speed	m/min	15/15/15	12/15/15	12/12/12	10/12/12
Tool position	-	[24/32/40/60]			
Max. tool diameter/length/weight	mm/mm/kg	φ80/350/8			
Max. tool diameter (empty neighbor)	mm	φ150			
X axis positioning /repeatability accuracy	mm	0.020/0.012	0.025/0.016	0.025/0.016	0.030/0.020
Y axis positioning /repeatability accuracy	mm	0.017/0.010		0.020/0.012	
Z axis positioning /repeatability accuracy	mm	0.012/0.008		0.012/0.008	
CNC system	-	SIEMENS [HEIDENHAIN]			
Machine weight	kg	45000	55000	65000	85000

[ ]Option

## PMB Series- High speed 5 axis bridge type gantry machining center



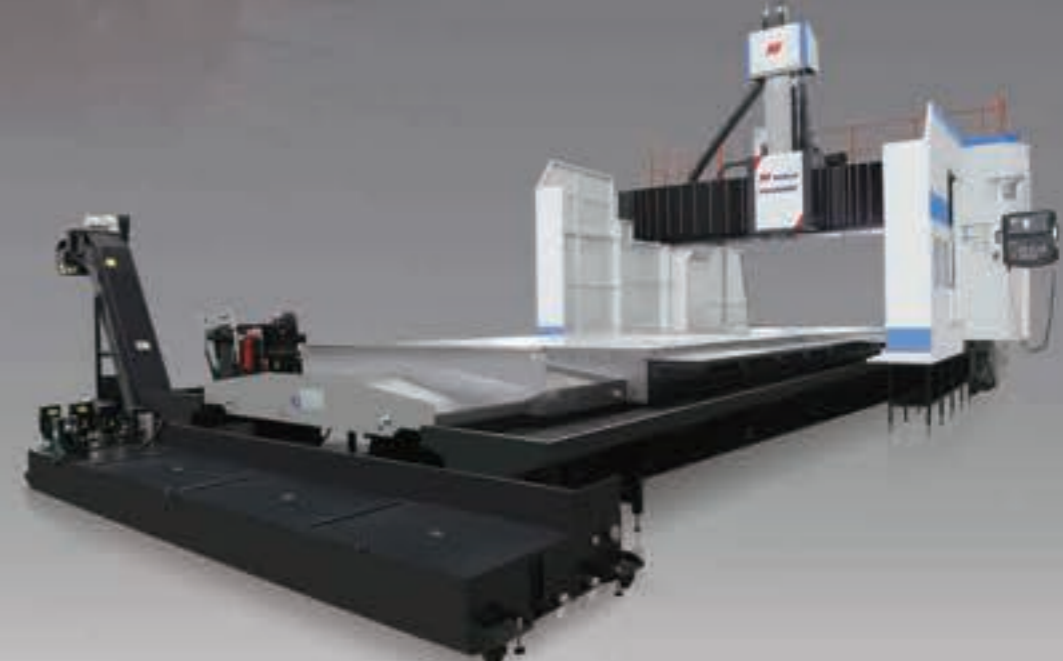
Item	Unit	PMB2040U	PMB2060U	PMB2540U	PMB2560U	PMB3060U
Worktable width	mm	2000		2500		3000
Worktable length	mm	4000	6000	4000	6000	6000
Table load	kg/m <sup>2</sup>	5000		5000		5000
Worktable travel (X axis)	mm	4000	6000	4000	6000	6000
Carriage travel (Y axis)	mm	2300		2800		3300
Ram travel (Z axis)	mm	1000[1250][1500]		1000[1250][1500]		1000[1250][1500]
Spindle terminal to worktable	mm	300~1300[400~1650][150~1650]		300~1300[400~1650][150~1650]		300~1300[400~1650][150~1650]
Column span	mm	3200		3700		4200
Tool shank size	-	HSK-A63		HSK-A63		HSK-A63
Spindle speed	r/min	24000		24000		24000
Max. output torque	N.m	60/73		60/73		60/73
Spindle motor power	kW	37/46		37/46		37/46
A/C axis indexing degree	°	±105/±360		±105/±360		±105/±360
A/C axis positioning accuracy	degree/second	±5/±3		±5/±3		±5/±3
X/Y/Z axis rapid travel speed	m/min	25/25/25		25/25/25		25/25/25
Tool position	-	[12/24/32]		[12/24/32]		[12/24/32]
Max. tool diameter/length/weight	mm/mm/kg	φ80/350/8		φ80/350/8		φ80/350/8
Max. tool diameter (empty neighbor)	mm	φ150		φ150		φ150
X axis positioning /repeatability accuracy	mm	0.020/0.012	0.030/0.020	0.020/0.012	0.030/0.020	0.030/0.020
Y axis positioning /repeatability accuracy	mm	0.016/0.010		0.020/0.012		0.025/0.016
Z axis positioning /repeatability accuracy	mm	0.012/0.008		0.012/0.008		0.012/0.008
CNC system	-	SIEMENS [HEIDENHAIN]				
Machine weight	kg	60000	70000	70000	90000	100000

[ ]Option

## PM Series- Heavy cutting gantry machining center



## PM Series- Heavy cutting gantry machining center



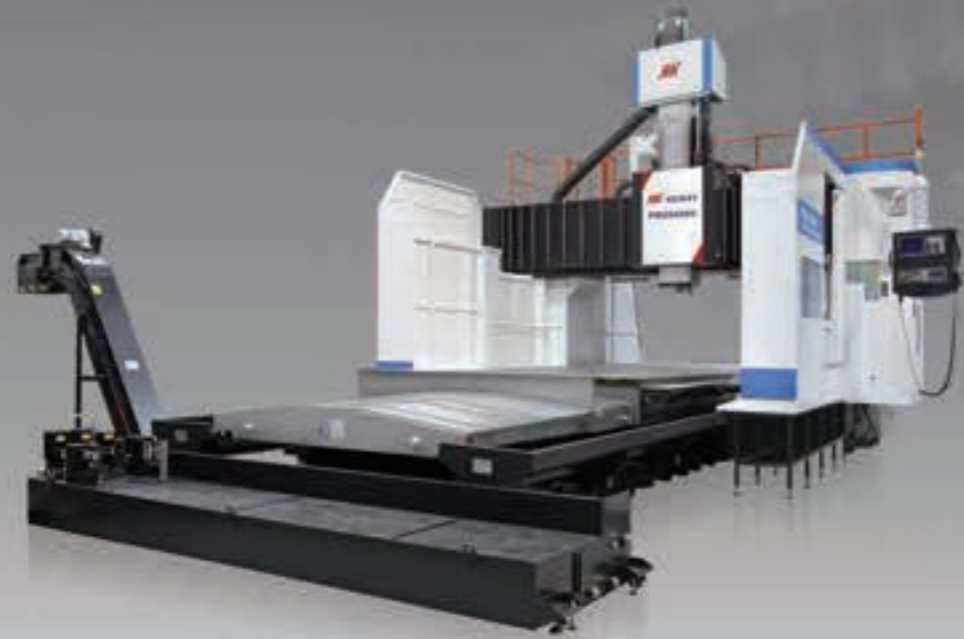
Item	Unit	PM2030HZ	PM2040HZ	PM2060HZ	PM2080HZ	PM2540HZ	PM2560HZ	PM2580HZ	PM25100HZ
Worktable width	mm	2000				2500			
Worktable length	mm	3000	4000	6000	8000	4000	6000	8000	10000
Table load	kg	16000	20000	26000	28000	22000	30000	35000	40000
Worktable travel (X axis)	mm	3200	4200	6200	8500	4200	6200	8500	10500
Carriage travel (Y axis)	mm	3200				3200	3700[4200]		
Ram travel (Z axis)	mm	1000 [1250]				1000 [1250]			
Spindle terminal to worktable	mm	200~1200 [ 250~1500]				200~1200 [ 250~1500]			140~1140[190-1440]
Column span	mm	2800 [3200]				2800 [3200]	3300 [3800]		
Tool shank size	-	BT50				BT50			
Spindle speed	r/min	40~3500				40~3500			
Max. output torque	N.m	1120/1320				1120/1320			
Spindle motor power	kW	22/26				22/26			
Cutting feed speed range	mm	420×420				420×420			
X/Y/Z axis rapid travel speed	m/min	15/15/10	15/15/10	12/15/10	10/15/10	12/12/10	12/12/10	10/12/10	8/12/10
Tool position	-	[24/32/40/60]				[24/32/40/60]			
Max. tool dia./length/weight	mm/mm/kg	Φ105/350/15				Φ105/350/15			
Max. tool diameter (empty neighbor)	mm	Φ200				Φ200			
X axis positioning /repeatability accuracy	mm	0.018/0.012	0.020/0.012	0.028/0.018	0.030/0.020	0.020/0.012	0.028/0.018	0.032/0.020	0.038/0.024
Y axis positioning /repeatability accuracy	mm	0.018/0.012				0.024/0.016			
Z axis positioning /repeatability accuracy	mm	0.015/0.010[Z axis 1250:0.01/0.012]				0.015/0.020[Z axis 1250:0.018/0.012]			
CNC system	-	NEWAY FANUC(SIEMENS)							
Machine weight	kg	41000	45000	55000	65000	52000	67000	87000	97000

[ ]Option

Item	Unit	PM3040HZ	PM3060HZ	PM3080HZ	PM30100HZ	PM30120HZ	PM30140HZ
Worktable width	mm	3000					
Worktable length	mm	4000	6000	8000	10000	12000	14000
Table load	kg	25000	35000	40000	45000	45000	45000
Worktable travel (X axis)	mm	4200	6200	8500	10500	12500	14500
Carriage travel (Y axis)	mm	4200[4600]					
Ram travel (Z axis)	mm	1250					
Spindle terminal to worktable	mm	250~1500			190-1440		
Column span	mm	3800[4200]					
Tool shank size	-	BT50					
Spindle speed	r/min	40~3500					
Max. output torque	N.m	1120/1320					
Spindle motor power	kW	22/26					
Cutting feed speed range	mm	420×420					
X/Y/Z axis rapid travel speed	m/min	12/12/10	12/12/10	10/12/10	8/12/10	8/12/10	8/12/10
Tool position	-	[24/32/40/60]					
Max. tool dia./length/weight	mm/mm/kg	Φ105/350/15					
Max. tool diameter (empty neighbor)	mm	Φ200					
X axis positioning /repeatability accuracy	mm	0.020/0.012	0.028/0.018	0.032/0.020	0.038/0.024	0.038/0.024	0.038/0.024
Y axis positioning /repeatability accuracy	mm	0.028/0.018					
Z axis positioning /repeatability accuracy	mm	0.018/0.012					
CNC system	-						
Machine weight	kg	57000	72000	92000	102000	112000	122000

[ ]Option

## PM Series- Heavy cutting gantry machining center



## PM Series- Movable column gantry machining center



Item	Unit	PM2560SC	PM2580SC	PM25100SC	PM3040SC	PM3060SC	PM3080SC	PM30100SC	PM30120SC	PM30140SC
Worktable width	mm	2500			3000					
Worktable length	mm	6000	8000	10000	4000	6000	8000	10000	12000	14000
Table load	kg	30000	35000	40000	25000	35000	40000	45000	45000	45000
Worktable travel (X axis)	mm	6200	8500	10500	4200	6200	8500	10500	12500	14500
Carriage travel (Y axis)	mm	3700 [4200]			4200 [4600]					
Ram travel (Z axis)	mm	1250 [1500]			1250 [1500]					
Spindle terminal to worktable	mm	250~1500 [300~1800]		190-1440[240-1740]	250~1500 [300~1800]			190~1440[240~1740]		
Column span	mm	3300 [3800]			3800 [4200]					
Tool shank size	-	BT50			BT50					
Spindle speed	r/min	40~2500			40~2500					
Max. output torque	N.m	1993/2458			1993/2458					
Spindle motor power	kW	30/37			30/37					
Ram section	mm	450×450			450×450					
A/C axis positioning accuracy	m/min	12/12/10	10/12/10	8/12/10	12/12/10	12/12/10	10/12/10	8/12/10	8/12/10	8/12/10
X/Y/Z axis rapid travel speed	-	[24/32/40/60]			[24/32/40/60]					
Max. tool diameter/length/weight	mm/mm/kg	Φ105/350/15			Φ105/350/15					
Max. tool diameter (empty neighbor)	mm	Φ200			Φ200					
X axis positioning /repeatability accuracy	mm	0.028/0.018	0.032/0.020	0.038/0.024	0.020/0.012	0.028/0.018	0.032/0.020	0.028/0.024	0.038/0.024	0.038/0.024
Y axis positioning /repeatability accuracy	mm	0.024/0.016			0.028/0.018					
Z axis positioning /repeatability accuracy	mm	0.018/0.012[Z axis 1500: 0.020/0.012]			0.018/0.012[Z axis 1500: 0.020/0.012]					
CNC system	-	NEWAY FANUC[SIEMENS]								
Machine weight	kg	68000	88000	98000	58000	73000	93000	103000	113000	123000

[ ]Option

Item	Unit	PM30100MHZ	PM30120MHZ	PM30140MHZ	PM30160MHZ	PM30120MSC	PM30140MSC	PM30160MSC
Worktable width	mm	3000			3000			
Worktable length	mm	10000	12000	14000	16000	12000	14000	16000
Table load	kg/m <sup>2</sup>	15000			15000			
Worktable travel (X axis)	mm	10500+750 (chage head)	12500+750 (chage head)	14500+750 (chage head)	16500+750 (chage head)	12500+750 (chage head)	14500+750 (chage head)	16500+750 (chage head)
Carriage travel (Y axis)	mm	4600			4600			
Ram travel (Z axis)	mm	1250[1500]			1250[1500]			
Spindle terminal to worktable	mm	250~1500[300~1800]			250~1500[300~1800]			
Column span	mm	4200[4600]			4200[4600]			
Tool shank size	-	P50T-I (MAS403)			P50T-I (MAS403)			
Spindle speed	r/min	40~3500			40~2500			
Max. output torque	N.m	1120/1320			1993/2458			
Spindle motor power	kw	22/26			30/37			
A/C axis indexing degree	mm	420x420[450x450]			450×450			
A/C axis positioning accuracy	m/min	12/12/10			12/12/10			
X/Y/Z axis rapid travel speed	-	[24/32/40/60]			[24/32/40/60]			
Max. tool diameter/length/weight	mm/mm/kg	Φ125/350/20			Φ125/350/20			
Max. tool diameter (empty neighbor)	mm	Φ225			Φ225			
X axis positioning /repeatability accuracy	mm	0.038/0.024	0.038/0.024	0.038/0.024	0.045/0.028	0.038/0.024	0.038/0.024	0.045/0.028
Y axis positioning /repeatability accuracy	mm	0.028/0.018			0.028/0.018			
Z axis positioning /repeatability accuracy	mm	0.018/0.012 [0.020/0.012]			0.018/0.012[0.020/0.012]			
CNC system	-	NEWAY FANUC [SIEMENS 828D]			NEWAY FANUC [SIEMENS 828D]			
Machine weight	kg	100000	110000	120000	130000	110000	120000	130000

[ ]Option

## PM Series- Movable column gantry machining center



Item	Unit	PM40100MSC	PM40120MSC	PM40140MSC	PM40160MSC
Worktable width	mm	4000			
Worktable length	mm	10000	12000	14000	16000
Table load	kg/m <sup>2</sup>	15000			
Worktable travel (X axis)	mm	10500+750 (chage head)	12500+750 (chage head)	14500+750 (chage head)	16500+750 (chage head)
Carriage travel (Y axis)	mm	5200[5600]			
Ram travel (Z axis)	mm	1500			
Spindle terminal to worktable	mm	500~2000			
Column span	mm	5200[5600]			
Tool shank size	-	P50T-1 (MAS403)			
Spindle speed	r/min	40-2500			
Max. output torque	N.m	1993/2458			
Spindle motor power	kW	30/37			
A/C axis indexing degree	mm	450×450			
A/C axis positioning accuracy	m/min	10/10/10			
X/Y/Z axis rapid travel speed	-	[24/32/40/60]			
Max. tool diameter/length/weight	mm/mm/kg	Φ125/350/20			
Max. tool diameter (empty neighbor)	mm	Φ225			
X axis positioning/repeatability accuracy	mm	0.038/0.024	0.038/0.024	0.038/0.024	0.045/0.028
Y axis positioning/repeatability accuracy	mm	0.038/0.024			
Z axis positioning/repeatability accuracy	mm	0.021/0.014			
CNC system	-	NEWAY FANUC [SIEMENS 828D]			
Machine weight	kg	110000	125000	138000	150000

[ ]Option

## HB Series- CNC boring and milling machine



Item	Unit	HB110S	HB110H	HB110U
Worktable size	mm	1250x1250	1250×1400	1250×1400
Max. worktable load	kg	5000	5000	5000
T slot width	mm	28	28	28
Min. table indexing	°	0.001	0.001	0.001
Max. worktable rotate speed (B axis)	rpm	3	2	2
Worktable travel (X axis)	mm	1600	1800	1800
Spindle box travel (Y axis)	mm	1200	1600	1600
Column travel (Z axis)	mm	1200	1400	1400
Spindle axial travel (W axis)	mm	600	600	600
Facing head slider radial movement (U axis)	mm	/	/	200 (±100)
Worktable indexing (B axis)	°	360 (any angle)	360 (any angle)	360 (any angle)
Spindle center line to worktable	mm	0~1200	0~1600	0~1600
Spindle terminal to center line of worktable	mm	-25~1775	-25~1975	-130~1870
Rapid travel speed X/Y/Z/W/U	m/min	12/12/12/8	5/5/5/3	5/5/5/3/2.5
Max. cutting feed speed X/Y/Z/W/U	m/min	10/10/10/6	3/3/3/2	3/3/3/2/1
Boring shaft dia.	mm	Φ110	Φ110	Φ110
Milling shaft end dia.	mm	Φ221.44	Φ221.44	/
Spindle taper	-	BT50	BT50	BT50
Pull stud size	-	MAS403 P50T-1	MAS403 P50T-1	MAS403 P50T-1
Motor power	kW	15/18.5	15/18.5	15/18.5
Spindle speed	rpm	5~2500	5~3000	5~1500
Max. milling shaft torque	N.m	1205/1487(30min)	3000/3651(30min)	1480/1826(30min)
Max. boring shaft tensile	N	15000	15000	15000
Facing head dia.	mm	/	/	Φ670
Facing head speed	rpm	/	/	7-165
Facing head max. torque	N.m	/	/	2227/2742(30min)
Max. cutting feedrate (B axis)	rpm	1	1	1
Min. setting unit	mm	0.001	0.001	0.001
Positioning accuracy X/Y/Z/W/U	mm	0.015/0.015/0.015/0.02	0.02/0.02/0.02/0.02	0.02/0.02/0.02/0.03/0.03
Repeatability accuracy X/Y/Z/W/U	mm	0.01/0.01/0.01/0.015	0.015/0.015/0.015/0.015	0.015/0.015/0.015/0.025/0.025
Positioning accuracy B	"	10	10	10
Repeatability accuracy B	"	6	6	6
CNC system	-	NEWAY FANUC [SIEMENS]		
CNC coordinate axis number	-	5 axis four linkage	5 axis four linkage	6 axis four linkage
Auto chip conveyer (option)	-	Chain type chip conveyer (two sets) + coolant tank		
Tool magazine (option)	-	[ 40(chain)]	[ 40(chain)]	/
Machine power capacity	kVA	55	55	55
Air source/pressure	-	500L/min 6~8bar	500L/min 6~8bar	500L/min 6~8bar
Machine weight	kg	18000	21000	21300

[ ]Option

### PB Series- CNC boring and milling machine



### FB Series- CNC floor type boring and milling machine



Item	Unit	PB110S	PB110H	PB130H	PB160H	PB130U	PB160U	PB130R	PB160R
Worktable size	mm	1250x1400	1400x1600	1600×1800 [2000x2000] [2000x2500]	2000x2000 [2000x2500]	1600×1800 [2000×2000] [2000×2500]	2000x2000 [2000x2500]	2000x2000 [2000x2500]	2500x3000 [3000×3000]
Max. worktable load	kg	5000	8000	15000 [25000]	15000 [25000]	15000 [25000]	15000 [25000]	25000	40000
T slot width	mm	28	22/28	28	28	28	28	28	28
Min. table indexing	-	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°	0.001°
Max. worktable rotate speed (B axis)	r/min	2	1.5	2	2	2	2	1.5	1.25
Worktable travel (X axis)	mm	2000	2500	3000 [4000]	3000 [4000]	3000 [4000]	3000 [4000]	3000[4000]	3000 [4000][6000]
Spindle box travel (Y axis)	mm	1600	2000	2000 [2500]	2000 [2500]	2000 [2500]	2000 [2500]	2000[2500][3000]	3000 [4000]
Column travel (Z axis)	mm	1400	1500	1600	1600	1600	1600	2000	2000
Spindle axial travel (W axis)	mm	/	/	/	/	/	/	1000	1000
Facing head slider radial movement (U axis)	mm	600	600	800	900	800	900	800	800
Worktable indexing (B axis)	mm	/	/	/	/	300 (±150)	300 (±150)	/	/
Spindle center line to worktable	°	360	360	360	360	360	360	360	360
Spindle terminal to center line of worktable	mm	100-1700	0-2000	0~2000	0~2000	30~2030	30~2030	300~2300	300~3300
Rapid travel speed X/Y/Z/W/U	mm	-40~1960	100~2200	100~2500	-150~2350	-50~2350	-150~2350	/	/
Max. cutting feed speed X/Y/Z/W/U	m/min	9/9/9/-/6/-	10/10/10/-/4/-	10/10/10/-/4/-	10/10/10/-/4/-	10/10/10/-/4/2	10/10/10/-/4/2	10/10/10/10/10	10/10/10/10/10
Boring shaft dia.	m/min	6/6/6/-/2/-	6/6/6/-/2/-	6/6/6/-/2/-	6/6/6/-/2/-	6/6/6/-/2/1	6/6/6/-/2/1	8/8/8/8/8	8/8/8/8/8
Milling shaft end dia.	mm	Φ110	Φ110	Φ130	Φ160	Φ130	Φ160	Φ130	Φ160
Spindle taper	mm	Φ221.44	Φ221.44	Φ221.44	Φ260	/	/	Φ221.44	Φ260
Pull stud size	-	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Motor power	-	MAS403 P50T-I							
Spindle speed	kW	15/18.5	18.5/22	22/30	30/37 [45/55]	22/30	30/37	31/37	44/51
Max. milling shaft torque	rpm	5~2500	10~2500	10~2500	10~2000	10~1500	10~1500	10~3000	10~2500
Max. boring shaft tensile	N.m	1205/1487	2150/2590	2837/3868	2553/3063[3831/4597]	2600/3120	2677/3302	2827/3374	3080/3696
Facing head dia.	N	15000	15000	25000	25000	25000	25000	25000	25000
Facing head speed	mm	/	/	/	/	Φ800	Φ800	/	/
Facing head max. torque	rpm	/	/	/	/	5~150	5~150	/	/
Max. cutting feedrate (B axis)	N.m	/	/	/	/	5000	5000	/	/
Min. setting unit	mm	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Positioning accuracy X/Y/Z/W/U	mm	0.02/0.02/0.02/-/0.02							
Repeatability accuracy X/Y/Z/W/U	mm	0.01/0.01/0.01/-/0.015							
Positioning accuracy B	-	10"	10"	10"	10"	10"	10"	10"	10"
Repeatability accuracy B	-	6"	6"	6"	6"	6"	6"	6"	6"
CNC system	-	NEWAY FANUC [SIEMENS]				SIEMENS			
CNC coordinate axis number	-	5 axis four linkage				6 axis four linkage			
Auto chip conveyer (option)	-	Spiral chip extractor+ chain plate		chain plate					
Tool magazine (option)	-	[40(chain)/60(chain)]							
Machine power capacity	kVA	45	80	80	88	80	88	90	103
Air source/pressure	-	500L/min 6~8bar							
Machine weigh	kg	20000	30000	40000	42000	40000	42000	55000	65000

[ ] Option

Item	Unit	FB130P	FB160P	FB130HC	FB160HC
Column travel X	mm	6000[It can increase 1000 by 1000]			
Spindle box travel Y	mm	2000[2500]	2000[2500][3000]	2000[2500][3000]	3000[4000]
Column travel Z	mm	/	/	1000	1000
Spindle axial travel W	mm	800	900	800	800
Rapid travel speed X/Y/Z/W	m/min	10/10/6	10/10/6	15/10/10/10	15/10/10/10
Max. cutting feed speed X/Y/Z/W	m/min	6/6/2	6/6/2	8/8/8/8	8/8/8/8
Boring shaft dia.	mm	Φ130	Φ160	Φ130	Φ160
Milling shaft end dia.	mm	Φ221.44	Φ260	Φ221.44	Φ260
Ram section	mm	/	/	450×450	450×450
Spindle taper	-	BT50	BT50	BT50	BT50
Pull stud size	-	MAS403 P50T-I	MAS403 P50T-I	MAS403 P50T-I	MAS403 P50T-I
Motor power	kW	22/30	30/37[45/55]	31/37	44/51
Spindle speed	rpm	10~2500	10~2000	10~3000	10~2500
Max. milling shaft torque	Nm	2837/3868	2553/3063[3831/4597]	2827/3374	3080/3572
Max. boring shaft tensile	N	25000	25000	25000	25000
Max. worktable load (option)	kg	[25000]	[40000]	[25000]	[40000]
Worktable size	mm	2000×2000[2000×2500]	2500×3000[3000×3000]	2000×2000[2000×2500]	2500×3000[3000×3000]
T slot width	mm	28	28	28	28
Min. setting unit	-	0.001°	0.001°	0.001°	0.001°
Worktable travel V	-	2000	2000	2000[3000]	2000[3000]
Workable travel B	-	360°	360°	360°	360°
Rapid travel speed V	m/min	10	10	10	10
Rapid travel speed B	rpm	1.5	1.25	1.5	1.25
Positioning accuracy X/Y/Z/W/V	mm	0.04/0.02/0.025/0.02			
Repeatability accuracy (X/Y/Z/W/V)	mm	0.023/0.015/0.018/0.015			
Positioning accuracy B	"	10	10	10	10
Repeatability accuracy B	"	6	6	6	6
CNC system	-	NEWAY FANUC [SIEMENS]		SIEMENS	
CNC coordinate axis number	-	5 axis four linkage [Optional rotary table]		6 axis four linkage [Optional rotary table]	
Auto chip conveyer	-	chain plate	chain plate	chain plate	chain plate
Tool magazine (option)	-	[40(chain)/60(chain)]			
Machine power capacity	kVA	80	80	92	105
Air source/pressure	-	500L/min 6~8bar			
Machine weight	kg	45000	50000	73000	88000

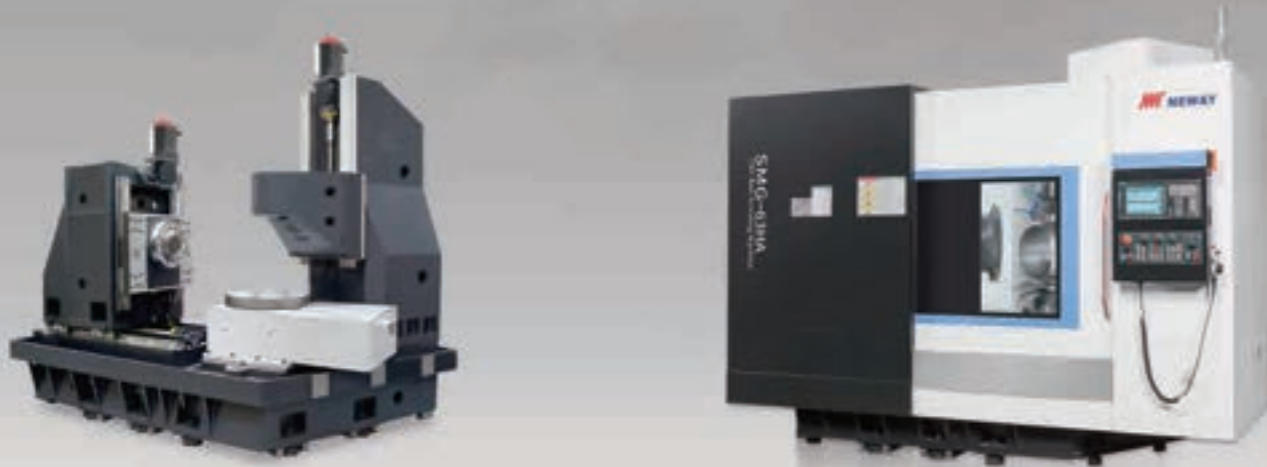
[ ] Option

## SMG series- CNC spherical grinding machine

### Patent:

A digital controlled ball grinding machine  
Patent number: 200920047912.9

- Conjugate curve principle
- Vertical clamping ball
- Modularized design, grinding ball diameter range 75-2400mm
- Overall static and modal analysis ensures static rigidity and dynamic performance
- Easy operation, easy loading and unloading parts



Item	Unit	SMG32H	SMG63HA	SMG100H	SMG240H
Work range O.D	mm	Φ75~320	Φ320~630	Φ630-1100	Φ900-2400
Work range I.D	inch	2"~8"	8"~16"	16"~28"	24"~64"
Grinding wheel spindle motor power	kW	15	15/18.5	28	80
Grinding wheel spindle torque	N.m	96	98	267	1910
Grinding wheel max. spindle speed	rpm	6000	2700	1500	500
Workpiece turn spindle motor power	kW	3.7	5.5	7.5	55
Workpiece turn spindle torque	N.m	24	36	49	709.8
Workpiece turn spindle max. speed	rpm	60	30	15	10
Travel Y/Z	mm	200/500	200/500	400/900	800/2000
Rapid travel speed Y/Z	m/min	18/20	18/20	16/16	6/4
Positioning accuracy (Y/Z)	mm	0.008/0.008	0.008/0.008	0.011/0.016	0.020/0.016
Repeatability accuracy (Y/Z)	mm	0.004/0.004	0.004/0.004	0.006/0.009	0.012/0.009
CNC controller	-	SIEMENS [ NEWAY FANUC ]		SIEMENS	
Machine weight	kg	6000	7500	22000	85000

[ ]Option

## FMS series- CNC automatic production line

### Automatic line for processing engine box

Machine: HE63S+HE100A

This project is composed by 45 horizontal machining centers with auto loading and unloading system. These machines work for 300 days per year, three shifts and 21.3 hours per day, with an annual output of 200,000 engine boxes. The production line can finish one parts within 96 seconds (including the auto robot loading and unloading time 25 seconds, the probe replacement time, the detection time and all auxiliary time). The processing  $CmK \geq 1.67$ .

Workpiece name: Diesel engine box  
Workpiece material: HT250



### Automatic line for oil processing path valve

Machine: HM50TD+VM1160H

The project changed from the single process, sub-equipment and small batch processing mode to the rhythmic, continuous, flexible, automated, and less labor operation mode. The production cycle was shortened by 67%, the number of products in producing was reduced by 25%, and the labor-cost-saving value was more than 2 million per year, the production capacity was increased by 70%, and the consistency and compliance of products quality are guaranteed.

Workpiece name: oil path valve  
Workpiece material: aluminum alloy



### Automatic line for processing flywheel shell

Machine: VM1370H+VNL80S+HE63VS

Workpiece name: flywheel housing  
Workpiece material: aluminum alloy



### Mixed processing automatic line

Machine: VM950SL+NL201HG+NL201H

Workpiece name: input shaft  
Workpiece material: 45# steel



### Automatic line for processing automobile engine shell

Machine: VM950S+VM1150S

Workpiece name: automobile engine shell  
Workpiece material: magnesium alloy



### Automatic line for processing generator claw pole

Machine: NL201HA

Workpiece name: generator claw pole  
Workpiece material: QD08 forging



CNC horizontal lathe

CNC vertical lathe

Vertical machine center

Horizontal milling center

Gantry milling center

CNC boring and milling machine

Special purpose machine

Automatic production line