NEWAY


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NEWAY

# 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:

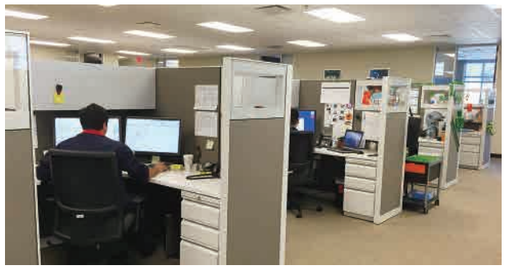
- CNC horizontal lathe
- CNC vertical lathe
- Vertical machine center
- Horizontal milling center
- Gantry/portal milling center
- CNC boring and milling machine
- Special purpose machine
- Automatic production line


## Neway Machine Tools Research Institute

Neway machine tools research institute began supported by not quite 100 first class national R&D engineers but within recent years, the number has risen to 150. 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. From Headquarters in the USA, Asia-South Korea, China -Taiwan and Europe-Italy; These international teams continuously supply advanced technical instruction of the newest CNC technologies to China. R&D team. This gives us broad vision We use this constant learning to continuously improve our products and develop new products.

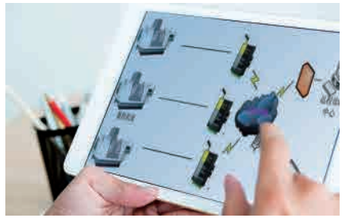



## Research and Development Design Tools

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

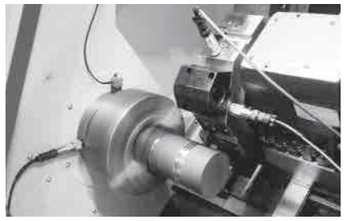
● Temperature analysis



● Intellient 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 are awarded; technical skills developed; nice atmosphere created, and more experienced engineers interested to be trained to join Neway tech team.

## Digital Factory Operations Management

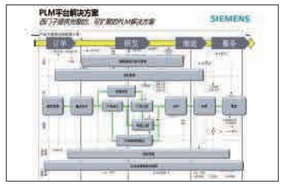
Neway manages its factories and warehouses with ERP, bar code and CAM enterprise resource system to meet the requirement of the lofty manufacturing goals. (OEE) Overall Equipment Efficiency is managed digitally and tracked to insure proper care is taken to maintain all machine calibrations and preventative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


● VM assembly

## Temperature Controlled Assembling Room

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

Neway adopts world’ s top processing machine from a variety of countries. Swiss SIP boring and milling center, Swiss KELLENBERGER 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

● Starragheckert horizontal milling center – Germany

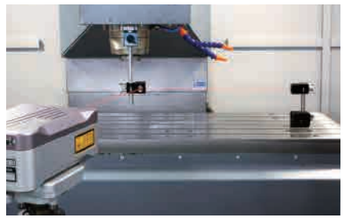
● Zayer milling center – Spain

## Inspection and Calibration Measures

Neway 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 the performance our machines deliver when cutting for customers in their shops.

● Sweden Hexagon coordinate tester

● Germany Mahr profile detector



● British Renishaw laser interferer

● British Renishaw ballbar tester

● Germany Schenker dynamic balance tester

● Universal tool micrometer

● Collimation converter

● Germany Mahr roundness tester

# 360°

**Neway offers a Complete Lineup of tools and Accessories.**

Neway CNC Equipment produces machines in 7 categories with 200 models; sets up 360 degree solutions for the aim of fulfill customers. The factory offers made-to-order(drawing /material) products. Its future target is to develop into automatic processing and intelligent manufacturer.

**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.

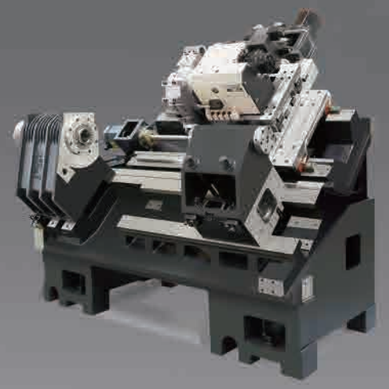
**5** Remote Machine Diagnosis

Neway electronic professionals can diagnose and troubleshoot parameter settings and alarm faults by remote control and correct them without having to travel.



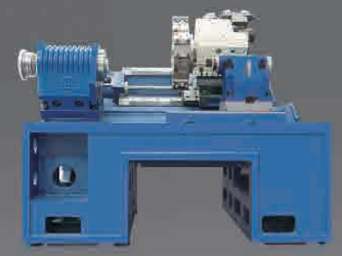


# CONTENT



## NL series-
## Roller guideway CNC horizontal lathe


## NL series-
## High efficiency CNC horizontal lathe

### High performance CNC horizontal Lathe

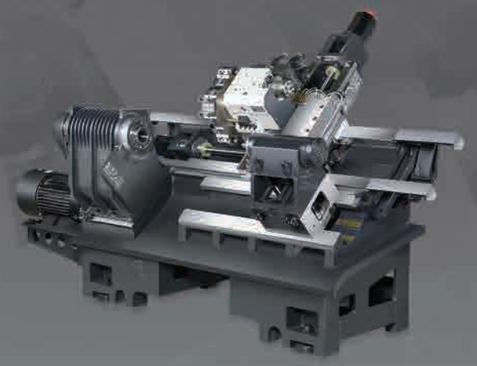
| Item | Unit | NL161E | NL201E | NL251HA | NL253HA | NL322HA | NL324HA | NL402HA | NL404HA | NL201EP | NL251HP | NL253HP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Max. swing over bed | mm | Φ500 | Φ450 | Φ550 | Φ550 | Φ570 | Φ570 | Φ650 | Φ650 | Φ450 | Φ550 | Φ550 |
| Max. swing over saddle | mm | Φ300 | Φ230 | Φ330 | Φ370 | Φ400 | Φ400 | Φ480 | Φ480 | Φ230 | Φ330 | Φ370 |
| Max. turning diameter | mm | Φ320 | Φ350 | Φ360 | Φ360 | Φ430 | Φ430 | Φ510 | Φ510 | Φ350 | Φ320 | Φ320 |
| Max. turning length | mm | 320 | 445 | 435 | 810 | 565 | 1000 | 550 | 1000 | 445 | 435 | 810 |
| Travel X/Z | mm | 180/350 | 200/455 | 240/455 | 240/830 | 240/600 | 240/1100 | 280/600 | 280/1100 | 200/455 | 240/455 | 240/830 |
| Rapid travel speed X/Z | m/min | 30/30 | 24/30 | 24/30 | 24/30 | 24/30 | 24/30 | 24/30 | 24/30 | 30/36 | 30/36 | 30/36 |
| 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 | 11/15 | 11/15 | 11/15 |
| Max. spindle speed | r/min | 6000 | 6000 | 5000 | 5000 | 3500(SA) 4000(HA) | 3500(SA) 4000(HA) | 3000(SA) 4000(HA) | 3000(SA) 4000(HA) | 4000 | 4000 | 4000 |
| Spindle nose | ISO | A2-5 | A2-5 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 |
| Spindle bore | mm | 6 | Φ56 | Φ56 | Φ56 | Φ65 | Φ65 | Φ65 | Φ65 | Φ76 | Φ76 | Φ76 |
| Hydraulic chuck | inch | 8 | 6 | 8 | 8 | 8 | 8 | 10 | 10 | 8 | 8 | 8 |
| Tool position | - | Φ56 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 12 | 12 |
| Turning tool shank size | mm | 20×20 | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 |
| Boring tool holder diameter | mm | Φ32 | Φ40 | Φ40 | Φ40 | Φ40 | Φ40 | Φ40 | Φ40 | Φ40 | Φ40 | Φ40 |
| Tailstock quill diameter | mm | - | - | - | Φ100 | Φ100 | Φ100 | Φ100 | Φ100 | - | - | Φ100 |
| Tailstock quill travel | mm | - | - | - | 100 | 100 | 100 | 100 | 100 | - | - | 100 |
| Tailstock quill taper | Mose | - | - | - | Live center 5# | | | | | - | - | Live center 5# |
| Positioning accuracy (X/Z) | mm | 0.006 | 0.006 | 0.006 | 0.006 | 0.008 | 0.008 | 0.01 | 0.01 | 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 | 0.004 | 0.004 | 0.004 |
| CNC system | - | | NEWAY FANUC [SIEMENS] | | | | | | | NEWAY FANUC [SIEMENS] | | |
| Auto chip conveyor | - | rear way | side way [rear way] | | | | | | | side way [rear way] | | |
| Machine weight | kg | 2600 | 3400 | 3500 | 4200 | 4200 | 4400 | 4400 | 4600 | 3400 | 3500 | 4200 |

[ ]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 | 0.01 | 0.01 | 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-
## Buit-in motor spindle CNC horizontal lathe



## NL series-
## Slider guideway CNC horizontal lathe


## NL series-
## Multi-axis horizontal turning center


| Item | Unit | NL161V/LV | NL201V/LV | NL251V/LV | NL253V/LV |
|---|---|---|---|---|---|
| Max. swing over bed | mm | Φ500 | Φ450 | Φ550 | Φ550 |
| Max. swing over saddle | mm | Φ300 | Φ230(V) Φ240 (LV) | Φ330(V) Φ370 (LV) | Φ330(V) Φ370 (LV) |
| Max. turning diameter | mm | Φ320 | Φ350 | Φ360 | Φ360 |
| Max. turning length | mm | 320 | 420/355 | 410 | 810 |
| Travel X/Z | mm | 180/350 | 200/430(V) 200/360(LV) | 240/430 | 240/830 |
| Rapid travel speed X/Z | m/min | 30/30 | 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 |
| Max. spindle speed | r/min | 6000 | 6000 | 5000 | 5000 |
| Spindle nose | ISO | A2-5 | A2-5 | A2-6 | A2-6 |
| Spindle bore | mm | Φ56 | Φ56 | Φ56 | Φ56 |
| Hydraulic chuck | inch | 6 | 6 | 8 | 8 |
| Tool position | - | 8 | 8 | 8 | 8 |
| Turning tool shank size | mm | 20×20 | 25×25 | 25×25 | 25×25 |
| Boring tool holder diameter | mm | Φ40 | Φ40 | Φ40 | Φ40 |
| Tailstock quill diameter | mm | -/Servo tailstock | | | |
| Tailstock quill travel | mm | -/ 250 | - / 400 | - / 380 | - / 700 |
| Tailstock quill taper | Mose | -/ Live center 4# | | ¯ / Live center 5# | |
| Positioning accuracy (X/Z) | mm | 0.006 | 0.006 | 0.006 | 0.006 |
| Repeatability accuracy (X/Z) | mm | 0.004 | 0.004 | 0.004 | 0.004 |
| CNC system | - | SIEMENS | | | |
| Auto chip conveyor | - | rear way | side way[rear way] | | |
| Machine weight | kg | 2600 | 3400 | 3500 | 4200 |

[ ]Option

| 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 | 6000 | 4500 |
| | Motor power | kW | 11/15 | 11/15 | Built-in motor 22/25 |
| | Spindle nose type | ISO | A2-6 | A2-6 | A2-6 |
| | spindle bore diameter | mm | Φ56 | Φ56 | Φ66 |
| | Max . bar capacity | mm | Φ44 | Φ44 | Φ51 |
| | Hydraulic chuck | inch | 6 | 6 | 8 |
| 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 | FANUC 0i-TF(1) |
| Auto chip conveyer | | - | side way/rear way | | |
| Machine weight | | kg | 3800 | 4200 | 8500 |

[ ]Option

| Item | Unit | NL502SC/H | NL504SC/H | NL634SC | NL634SCZ | NL635SC | NL635SCZ | NL636SC | NL636SCZ | NL638SC/SCZ |
|---|---|---|---|---|---|---|---|---|---|---|
| Max. swing over bed | mm | Φ600 | Φ600 | Φ650 | Φ650 | Φ650 | Φ650 | Φ650 | Φ650 | Φ650 |
| Max. swing over saddle | mm | Φ450 | Φ450 | Φ410 | Φ410 | Φ410 | Φ410 | Φ450 | Φ450 | Φ450 |
| Max. turning diameter | mm | Φ500 | Φ500 | Φ630 | Φ630 | Φ630 | Φ630 | Φ630 | Φ630 | Φ630 |
| Max. turning length | mm | 500 | 1000 | 1000 | 1000 | 1500 | 1500 | 2000 | 2000 | 3000 |
| Travel X/Z | mm | 295/600 | 295/1100 | 330/1100 | 330/1100 | 330/1600 | 330/1600 | 350/2100 | 350/2100 | 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 |
| 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 |
| Max. spindle speed | r/min | 3000 | 3000 | 2000 | 1000 | 2000 | 1000 | 2000 | 1000 | 2000(SC) 1000(SCZ) |
| Spindle nose | ISO | A2-6 | A2-6 | A2-8 | A2-11 | A2-8 | A2-11 | A2-8 | A2-11 | A2-11 |
| Spindle bore | mm | Φ65 | Φ65 | Φ87 | Φ106 | Φ87 | Φ106 | Φ102 | Φ106 | Φ102(SC) Φ106(SCZ) |
| Hydraulic chuck | inch | 10 | 10 | 12 | 15 | 12 | 15 | 12 | 15 | 12(SC) 15(SCZ) |
| Tool position | - | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 12 |
| Turning tool shank size | mm | 25×25 | 25×25 | 32×25 | 32×25 | 32×25 | 32×25 | 32×25 | 32×25 | 32x32 |
| Boring tool holder diameter | mm | Φ40 | Φ40 | Φ50 | Φ50 | Φ50 | Φ50 | Φ50 | Φ50 | Φ50 |
| Tailstock quill diameter | mm | Φ100 | Φ100 | Φ130 | Φ130 | Φ130 | Φ130 | Φ130 | Φ130 | Φ130 |
| Tailstock quill travel | mm | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Tailstock quill taper | Mose | Live center 5# | Live center 5# | 5# | 5# | 5# | 5# | 5# | 5# | 5# |
| Positioning accuracy (X/Z) | mm | 0.010/0.012 | 0.010/0.012 | 0.012/0.014 | 0.012/0.014 | 0.012/0.014 | 0.012/0.014 | 0.016/0.040 | 0.016/0.040 | 0.016/0.050 |
| Repeatability accuracy (X/Z) | mm | 0.005/0.007 | 0.005/0.007 | 0.006/0.008 | 0.006/0.008 | 0.006/0.008 | 0.006/0.008 | 0.007/0.020 | 0.007/0.020 | 0.007/0.020 |
| 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(SC) 10100(SCZ) |

[ ]Option

## NL series-
## CNC horizontal turning center

## NL series-
## Gang tooling type CNC horizontal lathe

## NL series-
## CNC horizontal turning center

| Item | Unit | NL161T | NL251T | NL253T | NL322T | NL324T | NL402T | NL404T | NL502T |
|---|---|---|---|---|---|---|---|---|---|
| Max. swing over bed | mm | Φ500 | Φ550 | Φ550 | Φ570 | Φ570 | Φ650 | Φ650 | Φ600 |
| Max. swing over saddle | mm | Φ300 | Φ330 | Φ370 | Φ400 | Φ400 | Φ480 | Φ480 | Φ450 |
| Max. turning diameter | mm | Φ240 | Φ350 [Φ290] | Φ350[Φ290] | Φ320 | Φ320 | Φ400 | Φ400 | Φ430 |
| Max. turning length | mm | 320 | 395[325] | 795[725] | 475[500] | 955[1000] | 460[500] | 1000[940] | 500 |
| Max. bar capacity | mm | Φ45 | Φ45 | Φ45 | Φ51 | 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 | 11/15 |
| Max. spindle speed | rpm | 6000 | 5000 | 5000 | 4000 | 4000 | 4000 | 4000 | 3000 |
| Spindle nose | ISO | A2-5 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 | A2-6 |
| Spindle bore | mm | Φ56 | Φ56 | Φ56 | Φ65 | Φ65 | Φ65 | Φ65 | Φ65 |
| Spindle taper | - | Mose 6# | Mose 6# | Mose 6# | Metric 80 | Metric 80 | Metric 80 | Metric 80 | Metric 80 |
| Hydraulic chuck | inch | 6 | 8 | 8 | 8 | 8 | 10 | 10 | 10 |
| Tailstock quill diameter | mm | - | - | Φ100 | Φ100 | Φ100 | Φ100 | Φ100 | Φ100 |
| Tailstock quill travel | mm | - | - | 100 | 100 | 100 | 100 | 100 | 100 |
| Tailstock quill taper | Mose | - | - | Live center 5# | 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 | 295/550 |
| Rapid travel speed X/Z | m/min | 30/30 | 24/30 | 24/30 | 24/30 | 24/30 | 24/30 | 24/30 | 12/16 |
| Tool position | mm | 12 (VDI 20) | 12(VDI 30)[BMT55] | 12(VDI 30)[BMT55] | 12(BMT55)[VDI 40] | 12(BMT55)[VDI 40] | 12(BMT55)[VDI 40] | 12(BMT55)[VDI 40] | 12(BMT55)[VDI 40] |
| Max. living tool speed | rpm | 4000 | 5000 [6000] | 5000 [6000] | 6000 [5000] | 6000 [5000] | 6000 [5000] | 6000 [5000] | 4000 |
| Turning tool shank size | mm | 16×16 | 20×20 [25×25] | 20×20 [25×25] | 25×25 | 25×25 | 25×25 | 25×25 | 25×25 |
| Max. boring tool holder | mm | Φ16 | Φ25 [Φ32] | Φ25 [Φ32] | Φ32 | Φ32 | Φ32 | Φ32 | Φ32 |
| Max. drilling capacity | mm | Φ12×0.14 | Φ14×0.15 | Φ14×0.15 | Φ14×0.16[Φ16×0.2] | Φ14×0.16[Φ16×0.2] | Φ14×0.16[Φ16×0.2] | Φ14×0.16[Φ16×0.2] | Φ14×0.16[Φ16×0.2] |
| Max. tapping capacity | mm | M8×1.5/M14×1 | M10×1.5/M24×1 | M10×1.5/M24×1 | 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] | M14×2/M20×1.5 |
| Max. milling capacity | mm | Φ12×8×45 | Φ20×10×40 | Φ20×10×40 | Φ16×12×40 [Φ20×12×40] | Φ16×12×40 [Φ20×12×40] | Φ16×12×40 [Φ20×12×40] | Φ16×12×40 [Φ20×12×40] | Φ20×12×40 |
| 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" | 0.010/0.012/51" |
| Repeatibility 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" | 0.005/0.007/20" |
| CNC system | - | NEWAY FANUC [SIEMENS] | | | | | | | |
| Auto chip conveyer | - | rear way | sideway [rear way] | sideway [rear way] | sideway [rear way] | sideway [rear way] | sideway [rear way] | sideway [rear way] | sideway [rear way] |
| Machine weight | Kg | 2600 | 3500 | 4200 | 4200 | 4400 | 4400 | 4600 | 4300 |

[ ]Option

| NL504T | NL634T | NL635T | NL636T | NL638T | HL635T |
|---|---|---|---|---|---|
| Φ600 | Φ650 | Φ650 | Φ650 | Φ650 | Φ720 |
| Φ450 | Φ410 | Φ410 | Φ450 | Φ450 | Φ530 |
| Φ430 | Φ540[Φ630] | Φ540[Φ630] | Φ540[Φ630] | Φ540[Φ630 | Φ630 |
| 1000 | 1000 | 1500 | 2000 | 3000 | 1500 |
| Φ51 | Φ89 | Φ89 | Φ89 | Φ89 | Φ89 |
| 11/15 | 15/18.5 | 15/18.5 | 15/18.5 | 15/18.5 | Y18.5/30 △22/30 |
| 3000 | 2000 | 2000 | 2000 | 2000 | 2000 |
| A2-6 | A2-8 | A2-8 | A2-8 | A2-11 | A2-11 |
| Φ65 | Φ102 | Φ102 | Φ102 | Φ102 | Φ100 |
| Metric 80 | Metric 120 | Metric 120 | Metric 120 | Metric 120 | Metric 120 |
| 10 | 12 | 12 | 12 | 12 | 15 |
| Φ100 | Φ130 | Φ130 | Φ130 | Φ130 | Φ160 |
| 100 | 100 | 100 | 100 | 100 | 180 |
| Live center 5# | 5# | 5# | 5# | 5# | 5# |
| 295/1050 | 355/1100 | 355/1600 | 355/2100 | 355/3100 | 425/1600 |
| 12/16 | 8/12 | 8/12 | 8/12 | 8/10 | 8/12 |
| 12(BMT55)[VDI 40] | 12(VDI 40)[BMT55] | 12(VDI 40)[BMT55] | 12(VDI 40)[BMT55] | 12(VDI 50)[BMT55] | 12(VDI 50)[BMT65] |
| 4000 | 5000[6000] | 5000[6000] | 5000[6000] | 5000[6000] | 4000[6000] |
| 25×25 | 25×25 | 25×25 | 25×25 | 25×25 | 32×25[25x25] |
| Φ32 | Φ40[Φ32] | Φ40[Φ32] | Φ40[Φ32] | Φ40[Φ32] | Φ50[Φ40] |
| Φ14×0.16[Φ16×0.2] | 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] |
| M10×1.5/M24×1 [M14×2/M20×1.5] | 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] |
| Φ16×12×40 [Φ20×12×40] | 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] |
| 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" |
| 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" |
| NEWAY FANUC [SIEMENS] | | | | | |
| sideway [rear way] | sideway | sideway | sideway | sideway | sideway |
| 4800 | 7500 | 8000 | 8800 | 10000 | 13000 |

[ ]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 | - | NEWAY FANUC[SIEMENS] |
| Auto chip conveyor | - | side way[rear way] |
| Machine weight | kg | 3000 |

[ ]Option

## NL series-
## Large size CNC horizontal lathe

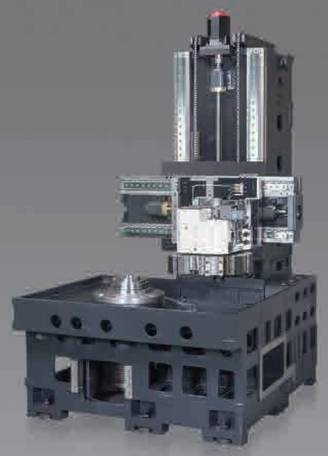

| Item | Unit | NL8515SL | NL8530SL | NL8515S | NL8550S | NL10015S/H | NL10030S/H | NL10050S/H |
|---|---|---|---|---|---|---|---|---|
| Max. swing over bed | mm | Φ850 | Φ850 | Φ850 | Φ850 | Φ1000 | Φ1000 | Φ1000 |
| Max. swing over saddle | mm | Φ510 | Φ510 | Φ500 | Φ500 | Φ700 | Φ700 | Φ700 |
| Max.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

[ ]Option

## NL series-
## Heavy duty CNC horizontal lathe


| Item | Uint | 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 | Φ1800 | Φ1800 |
| 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 | 0.05/0.08 | 0.05/0.08 | 0.05/0.08 | 0.05/0.08 |
| 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 | | | |
| Auto chip conveyer | - | Double chip collecting plate | | | Rear auto chip conveyer | | | |
| Machine weight | kg | 14500 | 16500 | 19500 | 35000 | 420000 | 45000 | 48000 |

[ ]Option



## VNL series-
## CNC vertical lathe


## VNL series-
## CNC vertical lathe


| Item | Unit | VNL40S/H | VNL50S/H | VNL65S/H | VNL80S/H | VNL80SK/HK | VNL125S/H | VNL125SK/HK |
|---|---|---|---|---|---|---|---|---|
| Max. swing over bed | mm | Φ620 | Φ800 | Φ900 | Φ1000 | Φ1000 | Φ1500 | Φ1500 |
| Max. turning diameter | mm | Φ600 | Φ780 | Φ850 | Φ1000 | Φ1000 | Φ1250 | Φ1250 |
| Max. cutting height | mm | 460 | 600 | 700 | 800 | 600 | 1000 | 1000 |
| Max. workpiece weight | kg | - | - | - | - | - | 5000 | 5000 |
| Travel X/Z | mm | 350/500 | 520/620 | 520/750 | 520/880 | 700/700 | 800/620 | 800/620 |
| Rapid travel speed X/Z | m/min | 20/20 | 16/16 | 16/16 | 12/12 | 10/10 | 12/12 | 10/10(SK)<br>12/10(HK) |
| Spindle motor power | kW | 18.5/22 | 18.5/22 | 24/30(S)<br>18.5/22(H) | 24/30(S)<br>18.5/22(H) | 24/30(S)<br>18.5/22(H) | 30(continuous) | 30(continuous) |
| Worktable diameter | mm | 12"(hydraulic chuck) | 15"(hydraulic chuck) | 18"(hydraulic chuck) | 21"(hydraulic chuck) | 21"(hydraulic chuck) | Φ1000 | Φ1000 |
| Max. worktable speed | r/min | 2000/2500 | 1500/2000 | 1500/2000 | 1500 | 1500 | 500 | 500 |
| Max. worktable torque | N.m | 572/730 | 840/730 | 2083/3650 | 2083/3650 | 2083/3650 | 9000 | 9000 |
| Tool position - | | 8(horizontal)<br>[6(vertical)] | 12(horizontal)<br>[6(vertical)] | 12(horizontal))<br>[6(vertical)] | 12(horizontal)<br>[6(vertical)] | 8(Tool magazine) | 4(vertical) | 8(Tool magazine) |
| Turning tool shank | mm | 25×25 | 32×32 | 32×32 | 32×32 | 32×32 | 32×32 | 32×32 |
| Driving type - | | | hydraulic[electrical] | | | | electrical | |
| Positioning accuracy(X/Z) | mm | 0.008/0.012 | 0.008/0.012 | 0.008/0.012 | 0.012/0.015 | 0.015/0.015 | 0.02/0.02 | 0.02/0.02 |
| Repeatability accuracy(X/Z) | mm | 0.006/0.008 | 0.006/0.008 | 0.006/0.008 | 0.0075/0.010 | 0.010/0.010 | 0.015/0.015 | 0.015/0.015 |
| CNC system - | | NEWAY FANUC [SIEMENS] | | | | | | |
| Auto chip conveyer - | | rear way[sideway] | rear way[sideway] | rear way[sideway] | rear way[sideway] | rear way | side way | side way |
| Machine weight | kg | 6000 | 10000 | 11000 | 12000 | 14000 | 16000 | 17000 |

[ ]Option

| 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 | 2000 | 1000 | 2000 | 2000 |
| 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)<br>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 | Φ2250 | 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 | 42000 | 42000 | 55000 | 70000 | 80000 |

[ ]Option


## VNL series-
## CNC vertical turning center


## VM series-
## High efficiency CNC vertical machining center


| Item | Unit | VNL50T | VNL65T |
|---|---|---|---|
| Max. swing over bed | mm | ϕ800 | Φ900 |
| Max. turning diameter | mm | ϕ780 | Φ850 |
| Max. cutting height | mm | 500 | 700 |
| Max. workpiece weight | kg | / | / |
| Travel X/Z | mm | 520/620 | 520/750 |
| Rapid travel speed X/Z | m/min | 16/20 | 16/16 |
| Spindle motor power | kW | 18.5/22 | 18.5/22 |
| Worktable diameter | inch/mm | 15"(hydro chuck) | 18"(hydro chuck) |
| Max. worktable speed | r/min | 2000 | 2000 |
| Max. worktable torque | N·m | 730 | 1302 |
| No. of tools | - | 12 (horizontal) | 12 (horizontal) |
| Turning tool shank | mm | 32×32 | 32×32 |
| Max. boring capacity | mm | ϕ18×0.2 | Φ18×0.2 |
| Max. threading capacity | mm | M16×2 / M27×1.5 | M16×2/M27×1.5 |
| Max. slot boring capacity | mm | ϕ20×22×35 | Φ20×22×35 |
| Driving | - | servo motor | servo motor |
| Positioning accuracy (X/Z) | mm | 0.008/0.012 | 0.008/0.012 |
| Repeatability accuracy (X/Z) | mm | 0.006/0.008 | 0.006/0.008 |
| CNC system | - | NEWAY FANUC[SIEMENS] | |
| Chip conveyer | - | rear way[side way] | rear way[side way] |
| Machine weight | kg | 10000 | 11000 |

[ ]Option

| tem | Unit | VNL80T | VNL160T | VNL250T |
|---|---|---|---|---|
| Max. swing over bed | mm | ϕ1000 | ϕ1800 | ϕ2750 |
| Max. turning dia. | mm | ϕ800 | ϕ1600 | ϕ2500 |
| Max. cutting height | mm | 600 | 1200 | 2000 |
| Max. workpiece weight | kg | 2000 | 8000 | 16000 |
| Worktable diameter | mm | ϕ630 | ϕ1600 | ϕ2250 |
| Max. worktable speed low / high | rpm | 20～600 | 1～65<br>66～260 | 0.0020～30<br>30～120 |
| Live tool speed low / high | rpm | 1～2400 | 1～600<br>600～2400 | 1～600<br>600～2400 |
| Max. worktable torque | Nm | 3720 | 19000 | 40000 |
| No. of tools (ATC) | Pc | 12 | 16 | 12 |
| Type of tools | mm | BT50 | BT50 | BT50 |
| Ram size | mm | 200×200 | 250×250 | 250×250 |
| Max. tool size | - | 280W×150T×380L | | |
| Max. tool weight | kg | 50 | 50 | 50 |
| Max. tool load | kg | 420 | 360 | 420 |
| Tool change time (T to T) | Sec | 45 | 45 | 45 |
| Rapid travel speed X | m/min | 10 | 12 | 9 |
| Rapid travel speed Z | m/min | 10 | 10 | 9 |
| Cutting feedrate | mm/min | 1～2000 | 1～2000 | 1～2000 |
| Travel X | mm | -50～635 | -100～+950 | -20～1400 |
| Travel Z | mm | 600 | 900 | 1400 |
| Travel of beam | mm | / | 750 | 1250 |
| Spindle motor power | kW | 15*2 | 37/45 | 37*2 |
| CNC system | - | NEWAY FANUC[SIEMENS] | | |
| Dimension (length x width) | mm | 4000×3350 | 5790×4470 | 9700×6500 |
| Height | mm | 4500 | 5300 | 7500 |
| Machine weight | kg | 12000 | 27000 | 42000 |

[ ]Option

| 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 | 659 | 649 |
| 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<br>11/15 | 7.5/11<br>11/15 | 7.5/11<br>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<br>[7:24 taper NO.50] | 7:24 taper NO.40<br>[7:24 taper NO.50] | 7:24 taper NO.40<br>[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) | $cm^3$/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 | - | [rear way] | side way | side way | side way | side way |
| Machine weight | kg | 4000 | 5800 | 6600 | 7000 | 7500 |

[ ]Option

## VM series-
## High efficiency CNC vertical machining center


| Item | Uni | 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 | 1350/800/680 | 1500/800/680 | 1700/850/700 |
| Spindle terminal to worktable | mm | 120～820 | 150～830 | 150～830 | 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)<br>30/30/24 (H) | 24/24/20 (S)<br>30/30/24 (H) | 24/24/20 (S)<br>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<br>[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) | $cm^3$/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 | 15000 |

[ ]Option

## VM series-
## High speed CNC vertical machining center


| Item | Unit | VM740SL/HL | VM950SL/HL | VM1050SL/HL | VM1150SL/HL |
|---|---|---|---|---|---|
| Worktable size | mm | 750×420 | 950×520 | 1000×520 | 1100×520 |
| Max. worktable load | kg | 350 | 500 | 550 | 600 |
| Axis travel X/Y/Z | mm | 650/420/500 | 850/520/560 | 850/520/560 | 1000/520/560 |
| Spindle terminal to worktable | mm | 120～620 | 120～680 | 152～680 | 120～680 |
| Spindle center to column guideway | mm | 485 | 575 | 580 | 575 |
| Axis rapid travel speed X/Y/Z | m/min | 48/48/48 | 40/40/30 | 48/48/48 | 40/40/30 |
| Spindle motor power | kW | 5.5/7.5 | 7.5/11 | 7.5/11 | 7.5/11 |
| Max. spindle speed | rpm | 12000(direct connection)<br>[15000(direct connection)] | | | |
| Spindle taper | - | 7:24 taper NO.40 | 7:24 taper NO.40 | 7:24 taper NO.40 | 7:24 taper NO.40 |
| Spindle temperature | - | Oil cooler | Oil cooler | Oil cooler | Oil cooler |
| Number of tools(disc type) | Pc | 20 | 24 | 24 | 24 |
| Tool shank | - | 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 |
| Tool change time T-T | s | 1.7 | 1.8 | 1.8 | 1.8 |
| Drilling (normalized carbon steel) | mm | Φ30 | Φ40 | Φ40 | Φ40 |
| Tapping (normalized carbon steel) | mm | M16 | M20 | M20 | M20 |
| Milling (normalized carbon steel) | $cm^3$/min | 150 | 200 | 200 | 200 |
| Positioning accuracy (X/Y/Z) | mm | 0.008 | 0.008 | 0.008 | 0.008 |
| Repeatability accuracy (X/Y/Z) | mm | 0.005 | 0.005 | 0.005 | 0.005 |
| CNC system | - | NEWAY FANUC [SIEMENS、Mitsubishi] | | | |
| Auto chip conveyer | - | [side way (rear)] | [side way (rear)] | side way | [side way (rear)] |
| Machine weight | kg | 4000 | 5000 | 5800 | 6000 |

[ ]Option

## VM series-
## Industry specific vertical machining center

## VM series-
## Buit-in motor spindle CNC vertical machining center

| Item | Unit | VM740VG | VM1050VG | VM1260VG |
|---|---|---|---|---|
| Worktable size | mm | 750×420 | 1000×520 | 1200×600 |
| Max. worktable load | kg | 350 | 650 | 800 |
| Axis travel X/Y/Z | mm | 650/420/500 | 850/520/560 | 1100/650/600 |
| Spindle terminal to worktable | mm | 120～620 | 150～710 | 140～740 |
| Spindle center to column guideway | mm | 485 | 580 | 690 |
| Axis rapid travel speed X/Y/Z | m/min | 48/48/48 | 40/40/36 | 36/36/30 |
| Spindle motor power | kW | 5.5/7.5 | 7.5/11 | 11/15 |
| Max. spindle speed | rpm | 12000(direct connection) [15000(direct connection)] | 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 | - | BT40 | BBT40 | BBT40 |
| Max. tool dia./length/weight | mm/mm/kg | Φ80/300/8 | Φ80/300/8 | Φ80/300/8 |
| Tool change time T-T | s | 1.6 | 1.6 | 1.6 |
| Drilling (normalized carbon steel) | mm | Φ30 | Φ40 | Φ45 |
| Tapping (normalized carbon steel) | mm | M16 | M20 | M24 |
| Milling (normalized carbon steel) | $cm^3$/min | 150 | 200 | 250 |
| Positioning accuracy (X/Y/Z) | mm | 0.008 | 0.008 | 0.008 |
| Repeatability accuracy (X/Y/Z) | mm | 0.005 | 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 | 4000 | 5800 | 7600 |

[ ]Option

| VM4550XC | VM4550XC(with swing milling head) |
|---|---|
| 4500×500 | 4500×500 |
| 800/m | 800/m |
| 4500/500/600 | 4500/500/600 B axis(swing milling head)±100°C |
| 120～720 | 120～720 |
| 714 | 714 |
| 50/30/30 | 50/30/30 |
| 9/13.5 | 15/18.5 |
| 12000(direct connection) | [14000(Built-In)] |
| 7:24 taper NO.40 | 7:24 taper NO.40 |
| 16 | 16 |
| BT40 | BBT40 |
| Φ75/300/8 | Φ75/300/8 |
| 1.8 | 1.8 |
| Φ25 | Φ25 |
| M14 | M14 |
| 100 | 100 |
| 0.080/0.022/0.025 | 0.080/0.022/0.025 |
| 0.050/0.012/0.015 | 0.050/0.012/0.015 |
| SIEMENS | SIEMENS |
| side way | sde way |
| 12000 | 12000 |

[ ]Option

| Item | Unit | VM950V | VM1050V | VM1150V | VM1160V | VM1260V | VM1580V | VM1780V |
|---|---|---|---|---|---|---|---|---|
| Worktable size | mm | 950×520 | 1000×520 | 1100×520 | 1100×600 | 1200×600 | 1500×800 | 1700×800 |
| Max. worktable load | kg | 500 | 550 | 600 | 750 | 800 | 1250 | 1500 |
| Axis travel X/Y/Z | mm | 850/520/560 | 850/520/560 | 1000/520/560 | 1000/600/560 | 1100/600/600 | 1350/800/680 | 1500/800/680 |
| Spindle terminal to worktable | mm | 120～680 | 180～740 | 120～680 | 150～710 | 140～740 | 150～830 | 150～830 |
| Spindle center to column guideway | mm | 575 | 580 | 575 | 659 | 649 | 868 | 868 |
| Axis rapid travel speed X/Y/Z | m/min | 40/40/30 | 40/40/30 | 40/40/30 | 36/36/30 | 36/36/30 | 30/30/24 | 30/30/24 |
| Spindle motor power | kW | 15/18.5 | 18.5/22 | 15/18.5 | 15/18.5 | 15/18.5 | 18.5/26 | 18.5/26 |
| Max. spindle speed | rpm | 15000(built-in) [18000(built-in)] [24000(built-in)] | [18000(内藏式)] | 15000(built-in) [18000(built-in)] [24000(built-in)] | | | 15000(built-in) [18000(built-in)] [24000(built-in)] | |
| Spindle taper | - | 7:24 taper NO.40 [1:10 taper HSK A63] | 1:10 taper HSK A63 | 7:24 taper NO.40 [1:10 taper HSK A63] | | | 7:24 taper NO.40 [1:10 taper HSK A63] | |
| Spindle temperature control | - | Oil cooler [water cooler] | | Oil cooler [water cooler] | | | Oil cooler [water cooler] | |
| Number of tools(disc type) | Pc | 24 | 24 | 24 | | | 24 | |
| Tool shank | - | MAS403 BBT40 [HSK A63] | HSK A633 | MAS403 BBT40 [HSK A63] | | | MAS403 BBT40 [HSK A63] | |
| Max. tool dia./length/weight | mm/mm/kg | Φ80/300/8 | Φ80/300/8 | Φ80/300/8 | 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 | 1.8 | 1.8 | 1.8 |
| Drilling (normalized carbon steel) | mm | Φ20 | Φ20 | Φ20 | Φ20 | Φ20 | Φ25 | Φ25 |
| Tapping (normalized carbon steel) | mm | M12 | M12 | M12 | M12 | M12 | M16 | M16 |
| Milling (normalized carbon steel) | $cm^3$/min | 80 | 80 | 80 | 80 | 80 | 120 | 120 |
| Positioning accuracy (X/Y/Z) | mm | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.012/0.010/0.010 | |
| Repeatability accuracy (X/Y/Z) | mm | 0.005 | 0.005 | 0.005 | 0.005 | 0.005 | 0.008/0.006/0.006 | |
| CNC system | - | NEWAY FANUC [SIEMENS] | | | | | | |
| Auto chip conveyer | - | [side way (rear)] | [side way ] | [side way (rear)] | side way | side way | side way | side way |
| Machine weight | kg | 5000 | 5800 | 6000 | 7000 | 7500 | 11000 | 13000 |

[ ]Option

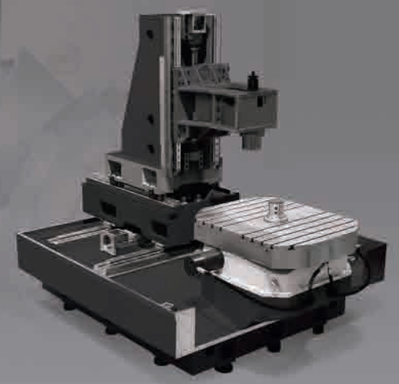
## VM series-
## Portal CNC vertical machining center

| 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) | $cm^3$/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 |

## VM series-
## 5 axis CNC vertical machining center

| 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) | $cm^3$/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

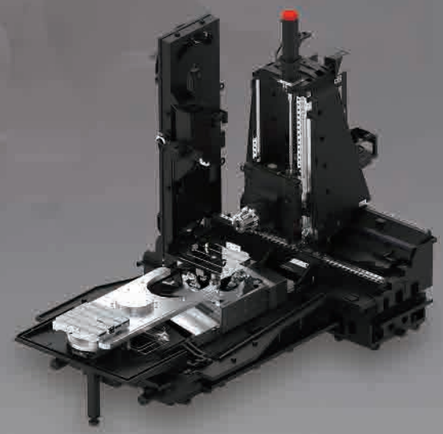


## VM series-
## Movable column CNC vertical machining center

| Item | Unit | VM840T | VM960T |
|---|---|---|---|
| Worktable size | mm | 800×440×2 | 960×600×2 |
| Max. worktable load | kg | 2-350 | 2-500 |
| Worktable type | - | Two position hydraulic indexing worktable | Two position hydraulic indexing worktable |
| Axis travel X/Y/Z | mm | 700/420/560 | 900/460/620 |
| Spindle terminal to worktable | mm | 200～760 | 230 ～ 850 |
| Axis rapid travel speed X/Y/Z | m/min | 30/30/20 | 30/30/20 |
| Spindle motor power | kW | 15/18.5 | 15/18.5 |
| Max. spindle speed | rpm | 6000 | 6000 |
| Spindle taper | - | 7:24 taper NO.40 | 7:24 taper NO.40 |
| Number of tools(disc type) | PC | 24(disc type) | 24(disc type) |
| Tool shank | - | MAS403 BT40 | MAS403 BT40 |
| Max. tool dia./length/weight | mm/mm/kg | Φ80/300/8 | Φ80/300/8 |
| Tool change time T-T | s | 1.8 | 1.8 |
| Drilling (normalized carbon steel) | mm | Φ50 | Φ50 |
| Tapping (normalized carbon steel) | mm | M27 | M27 |
| Milling (normalized carbon steel) | $cm^3$/min | 300 | 300 |
| Positioning accuracy (X/Y/Z) | mm | 0.008 | 0.008 |
| Repeatability accuracy (X/Y/Z) | mm | 0.005 | 0.005 |
| CNC system | - | NEWAY FANUC | |
| Auto chip conveyer | - | side way | side way |
| Machine Weight | kg | 11000 | 15000 |

[ ]Option

## HE Series-
## High speed horizontal machining center



## HE Series-
## High speed horizontal machining center

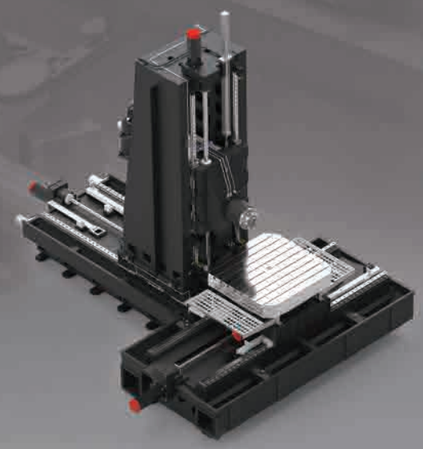
| Item | Unit | HM50VS | | HM50VD | | HE50D | HE63S |
|---|---|---|---|---|---|---|---|
| | | (BT40) | (BT50) | (BT40) | (BT50) | | |
| Worktable size | mm | 500×500 | | 2-500×500 | | 2-500×500 | 630×630 |
| Max. worktable load | kg | 500 | | 500 | | 500 | 1200 |
| Worktable indexing | - | 1°×360[0.001°×360000] | | 1°×360[0.001°×360000] | | 0.001°×360000 | 1°×360[0.001°×360000] |
| Worktable exchanging time | s | / | | 10 | | 10 | / |
| Worktable exchanging drive | - | / | | hydraulic | | hydraulic | / |
| Worktable max. rotate speed | r/min | 10 | | 10 | | 10 | 16 |
| Max. part diameter / height | mm | Φ800/800 | | Φ800/800 | | Φ800/800 | Φ1050/1300 |
| Axis travel X/Y/Z | mm | 900/750/800 | | 900/750/800 | | 730/730/800 | 1050/900/1000 |
| Spindle terminal to worktable | mm | 140~940 | 100~900 | 140~940 | 100-900 | 70-870 | 140～1140 |
| Spindle center to worktable surface | mm | 65～815 | | 50～800 | | 100-830 | 120～1020 |
| Axis rapid travel speed X/Y/Z | m/min | 50 | | 50 | | 60 | 60 |
| Spindle motor power | kW | 11/15 | | 11/15 | | 15/18.5 | 18.5/22 |
| Max. spindle speed | rpm | 10000 | 6000 | 10000 | 6000 | 12000 | 4500 |
| Spindle torque | N.m | 70/95.4 | 140/191 | 70/95.4 | 140/191 | 104/191 | 649/770 |
| Spindle taper | - | 7:24 taper NO.40 | 7:24 taper NO.50 | :24 taper NO.40 | 7:24 taper NO.50 | 7:24 taper NO.40 | 7:24 taper NO.50 |
| Number of tools(disc type) | Pc | 32 | 40 | 32 | 40 | 40(disc type) | 40 |
| Tool shank | - | MAS403 BT40 | MAS403 BT50 | MAS403 BT40 | MAS403 BT50 | MAS403 BT40 | MAS403 BT50 |
| Max. tool dia./length/weight | mm/mm/kg | Φ80/350/8 | Φ125/450/25 | Φ80/350/8 | Φ125/450/25 | Φ85/500/8 | Φ125/530/25 |
| Max. tool size (empty neighbor) | mm | Φ120 | Φ250 | Φ120 | Φ250 | Φ170 | Φ250 |
| Tool change time T-T | s | 2.31 | 3.45 | 2.31 | 3.45 | 1.5 | 2.8s(〈25kg) /2.4s(〈15k g) |
| Drilling (normalized carbon steel) | mm | Φ30 | Φ35 | Φ30 | Φ35 | Φ50 | Φ50 |
| Tapping (normalized carbon steel) | mm | M20 | M24 | M20 | M24 | M36 | M36 |
| Milling (normalized carbon steel) | $cm^3$/min | 200 | 250 | 200 | 250 | 300 | 300 |
| 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 | | 15 | 6 |
| Repeatability accuracy (B) | " | 2 | | 2 | | 6 | 2 |
| CNC system | - | NEWAY FANUC [SIEMENS] | | | | | |
| Auto chip conveyer | - | center chain | | center chain | | Z axis with double helix + rear chain chip conveyer | |
| Machine weight | kg | 16000 | | 18000 | | 12000 | 19000 |

[ ]Option

| Item | Unit | HE63D | HE80S | HE80D | HM100VS | HM100VD |
|---|---|---|---|---|---|---|
| Worktable size | mm | 630×630 | 800×800 | 800×800 | 1000×1000 | 2-1000×1000 |
| Max. worktable load | kg | 1200 | 1500 | 1500 | 2000 | |
| Worktable indexing | - | 1°×360[0.001°×360000] | | | | |
| Worktable exchanging time | S | 16 | / | 16 | / | 25 |
| Worktable exchanging drive | - | hydraulic | / | hydraulic | / | Servo motor |
| Worktable max. rotate speed | r/min | 16 | 16 | 16 | 10 | |
| Max. part diameter / height | mm | Φ1050/1300 | Φ1250/1300 | Φ1250/1300 | Φ1300/1300 | |
| Axis travel X/Y/Z | mm | 1050/900/1000 | 1250/900/1100 | 1250/900/1100 | 1400/1020/1050 | |
| Spindle terminal to worktable | mm | 100～1100 | 140～1140 | 100～1200 | 250～1300 | |
| Spindle center to worktable surface | mm | 120～1020 | 120～1020 | 80～980 | 120～1140 | 80～1100 |
| Axis rapid travel speed X/Y/Z | m/min | 60 | 60 | 60 | 30 | |
| Spindle motor power | kW | 18.5/22 | 22/26 | 22/26 | 22/26 | |
| Max. spindle speed | rpm | 4500 | 4500 | 4500 | 4500 | |
| Spindle torque | N.m | 649/770 | 770/910 | 770/910 | 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 tools(disc type) | Pc | 40 | 40 | 40 | 40 (chain type) | |
| Tool shank | - | MAS403 BT50 | MAS403 BT50 | MAS403 BT50 | MAS403 BT50 | |
| Max. tool dia./length/weight | mm/mm/kg | Φ125/530/25 | Φ125/530/25 | Φ125/530/25 | Φ125/500/35 | |
| Max. tool size (empty neighbor) | mm | Φ250 | Φ250 | Φ250 | Φ250 | |
| Tool change time T-T | s | 2.8s(〈25kg) /2.4s(〈15kg) | | | 5.5 | |
| Drilling (normalized carbon steel) | mm | Φ50 | Φ55 | Φ55 | Φ60 | |
| Tapping (normalized carbon steel) | mm | M36 | M45 | M45 | M48 | |
| Milling (normalized carbon steel) | $cm^3$/min | 300 | 300 | 300 | 900 | |
| 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 conveyer | - | Z axis with double helix + rear chain chip conveyer | | | | |
| Machine weight | kg | 20000 | 19000 | 21000 | 24000 | 27000 |

[ ]Option

## HM Series-
## Heavy cutting horizontal machining center



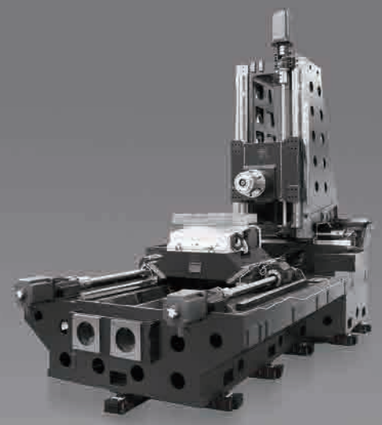
## HM Series-
## Heavy cutting horizontal machining center

| Item | Unit | HM50TS | | HM50TD | | HM63TS | HM63TD | HM6380TD |
|---|---|---|---|---|---|---|---|---|
| | | (BT40) | (BT50) | (BT40) | (BT50) | | | |
| Worktable size | mm | 500×500 | | 2-500×500 | | 630×630 | 2-630×630 | 2-630×800 |
| Max. worktable load | kg | 600 | | 500 | | 1200 | | 2000 |
| Worktable indexing | - | 1°×360[0.001°×360000] | | 1°×360[0.001°×360000] | | 1°×360[0.001°×360000] | | |
| Worktable exchanging time | s | / | | 12 | | / | 20 | 50 |
| Worktable exchanging drive | - | / | | hydraulic | | / | hydraulic | hydraulic |
| Worktable max. rotate speed | r/min | 10 | | 10 | | 10 | | 10 |
| Max. part diameter / height | mm | ϕ630/700 | | ϕ630/700 | | ϕ1000/1000 | | Φ1000/1000 |
| Axis travel X/Y/Z | mm | 750/650/650 | | 750/600/650 | | 1000/850/900 | | 1000/850/900 |
| Spindle terminal to worktable | mm | 150～800 | 50～700 | 150～800 | 50～700 | 200～1100 | | 200～1100 |
| Spindle center to worktable surface | mm | 120～770 | | 100～700 | | 80～930 | 80～930 | 0～850 |
| Axis rapid travel speed X/Y/Z | m/min | 30/20/30 [30/24/30] | | 30/20/30 [30/24/30] | | 20 [30] | | 20 [30] |
| Spindle motor power | kW | 15/18.5 [11/15] | | 15/18.5 [11/15] | | 15/18.5 [18.5/22] | | 15/18.5 [18.5/22] |
| Max. spindle speed | rpm | 8000 | 6000 | 8000 | 6000 | 4500 | | 4500 |
| Spindle torque | N.m | 143/236 [140/191] | | 143/236 [140/191] | | 786/1050 [647/770] | | 786/1050 [647/770] |
| 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 tools(disc type) | Pc | 32 (disc type) | 24 (disc type) | 32 (disc type) | 24 (disc typex) | 40 (chain type) | | 40 (chain 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 | Φ125/400/25 | | 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 | 4.75 | | 4.75 |
| Drilling (normalized carbon steel) | mm | Φ30 | Φ35 | Φ30 | Φ35 | Φ55 | | Φ55 |
| Tapping (normalized carbon steel) | mm | M20 | M24 | M20 | M24 | M45 | | M45 |
| Milling (normalized carbon steel) | $cm^3$/min | 200 | 250 | 200 | 250 | 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] | | | | NEWAY FANUC [SIEMENS] | | |
| Auto chip conveyer | - | X axis double helix + sideway chain type chip conveye | | | | Z axis double helix + X axis double chain type chip conveyer + sideway chain type chip conveye | | |
| Machine weight | kg | 12000 | | 13000 | | 18000 | 20000 | 21000 |

[ ]Option

| Item | Unit | HM80TS | HM80TD | HM100TS | HM100TD | HM100TL | HM125TS | HM125TD | HM125TBS | HM125TBD |
|---|---|---|---|---|---|---|---|---|---|---|
| Worktable size | mm | 800×800 | 2-800×800 | 1000×1000 | 2-1000×1000 | 1000×1000 | 1250×1250 | 2-1250×1250 | 1250×1250 | 2-1250×1250 |
| Max. worktable load | kg | 1600 | | 2000 | | 3000 | 4000 | | 4000 | |
| Worktable indexing | - | 1°×360[0.001°×360000] | | | | | | | | |
| Worktable exchanging time | s | / | 25 | / | 25 | / | / | 90 | / | 90 |
| Worktable exchanging drive | - | / | Servo motor | / | Servo motor | / | / | hydraulic | / | hydraulic |
| Worktable max. rotate speed | r/min | 10 | | 10 | | 10 | 5.5 | | 5.5 | |
| Max. part diameter / height | mm | ϕ1200/1200 | | ϕ1300/1300 | | Φ2000/2000 | Φ2000/2000 | Φ2000/1800 | Φ2000/2000 | Φ2000/1800 |
| Axis travel X/Y/Z | mm | 1400/1050/1050 | | 1600/1100/1100 | | 2100/1300/1300 | 2200/1500/1500 | | 2200/1500/1500/500 (w) | |
| Spindle terminal to worktable | mm | 250～1300 | | 250～1350 | | 300～1600 | 300～1800 | | 300～1800 | |
| Spindle center to worktable surface | mm | 120～1170 | 0～1050 | 120～1220 | 0～1100 | 120～1420 | 120～1620 | | 120～1620 | |
| Axis rapid travel speed X/Y/Z | m/min | 16 [24] | | 16 [24] | | 20 | 20 | | 20/20/20/5 | |
| Spindle motor power | kW | 15/18.5 [22/26] | | 15/18.5 [22/26] | | 22/26 | 22/26 | | 22/26 | |
| Max. spindle speed | rpm | 4500 | | 4500 | | 4500 | 4500 | | 3500 | |
| Spindle torque | N.m | 786/1050 [770/910] | | 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 | | 7:24 taper NO.50 | |
| Number of tools(disc type) | Pc | 40 (chain type) | | 40 (chain type) | | 60 (chain type) | 60 (chain type) | | 60 (chain type) | |
| Tool shank | - | MAS403 BT50 | | MAS403 BT50 | | MAS403 BT50 | MAS403 BT50 | | MAS403 BT50 | |
| Max. tool dia./length/weight | mm/mm/kg | Φ125/400/25 | | Φ125/400/25 | | Φ125/600/35 | Φ125/600/35 | | Φ125/600/35 | |
| Max. tool size (empty neighbor) | mm | Φ250 | | Φ250 | | Φ250 | Φ250 | | Φ250 | |
| Tool change time T-T | s | 4.75 | | 4.75 | | 7.5 | 7.5 | | 7.5 | |
| Drilling (normalized carbon steel) | mm | Φ55 | | Φ60 | | Φ70 | Φ70 | | Φ70 | |
| Tapping (normalized carbon steel) | mm | M45 | | M48 | | M50 | M50 | | M50 | |
| Milling (normalized carbon steel) | cm3/min | 600 | | 900 | | 1000 | 1000 | | 1000 | |
| Positioning accuracy (X/Y/Z) | mm | 0.010 | | 0.010 | | 0.015 | 0.015 | | 0.015 | |
| Repeatability accuracy X/Y/Z) | mm | 0.006 | | 0.006 | | 0.010 | 0.010 | | 0.010 | |
| Positioning accuracy (B) | " | 6 | | 6 | | 6 | 6 | | 6 | |
| Repeatability accuracy (B) | " | 2 | | 2 | | 2 | 2 | | 2 | |
| CNC system | - | NEWAY FANUC [SIEMENS] | | | | | | | | |
| Auto chip conveyer | - | Z axis double helix + X axis double chain type chip conveyer + sideway chain type chip conveye | | | | Z axis double helix + X axis double chain type chip (Remark：HM125TBS/TBD boring bar diameter Φ110) | | | | |
| Machine weight | kg | 20000 | 23000 | 21000 | 24000 | 34000 | 35000 | 38000 | 35000 | 38000 |

[ ]Option



## HE Series-
## High efficiency 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) | $cm^3$/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 conveyer | - | Central double screw chip removal | | | | | |
| Machine weight | kg | 21000 | 21000 | 22000 | 22000 | 23000 | 23000 |

[ ]Option

## HN Series-
## Swing head 5-axis horizontal machining center

| 项目 | 单位 | 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 | 60chain 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) | cm3/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 conveyer | - | Z axis double helix + X axis double chain type chip conveyer | |
| 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 dia./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 axis1250：40～4500] | | | | 40～6000 [Z axis1250：40～4500] | | | |
| Max. output torque | N.m | 770/910 | | | | 770/910 | | | |
| Spindle motor power | kW | 22/26 | | | | 22/26 | | | |
| Ram section | mm | 400×400 [Z axis1250：420×420] | | | | 400×400 [Z axis1250：420×420] | | | |
| 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 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 | 0.018/0.010 | 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 axis1250：0.018/0.012] | | | | 0.015/0.010[Z axis1250：0.018/0.012] | | | |
| 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 axis1250：40～4500] | | | |
| Max. output torque | N.m | 770/910 | | | |
| Spindle motor power | kW | 22/26 | | | |
| Ram section | mm | 400×400 [Z axis1250：420×420] | | | |
| 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 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 |
| 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 | PM1525HC | PM2030HC | PM2040HC | PM2060HC |
|---|---|---|---|---|---|---|
| Worktable width | mm | 1300 | 1500 | 2000 | | |
| Worktable length | mm | 2100 | 2600 | 3000 | 4000 | 6000 |
| Table load | kg | 3500 | 8000 | 14000 | 18000 | 24000 |
| Worktable travel (X axis) | mm | 2200 | 2700 | 3200 | 4200 | 6200 |
| Carriage travel (Y axis) | mm | 1500 | 1700 | 2700 | | |
| Ram travel (Z axis) | mm | 800 | | 1000 | | |
| Spindle terminal to worktable | mm | 200～1000 | 200～1000 | 250～1250 | | |
| Column span | mm | 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 | 15/20/15 | 15/20/15 | 15/20/15 |
| Tool position | - | [24/32/40] | | [24/32/40/60] | | |
| Max. tool dia./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 | | 0.018/0.012 | 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 | 19000 | 22000 | 36000 | 40000 | 48000 |

[ ]Option

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


| 项目 | 单位 | 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 diam./length/weight | mm/mm/kg | ф80/250/8 | | | ф80/250/8 | 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 | 18000 | 22000 | 22000 | 25000 | 28000 | 40000 | 50000 |

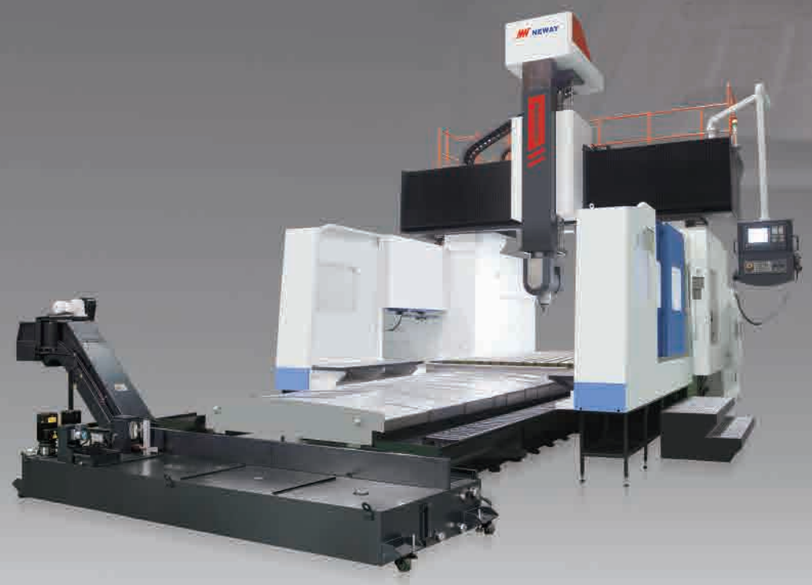
[ ]Option

## PM Series-
## Electric spindle gantry machining center


| Item | Unit | PM1220V | PM1230V | PM1520V | PM1530V | PM1830V | PM1840V | PM2040V | PM2060V |
|---|---|---|---|---|---|---|---|---|---|
| Worktable width | mm | 1200 | | 1500 | | 1800 | | 2000 | |
| Worktable length | mm | 2000 | 3000 | 2000 | 3000 | 3000 | 4000 | 4000 | 6000 |
| Table load | kg | 3500 | 5500 | 6000 | 7000 | 10000 | 12000 | 20000 | 26000 |
| Worktable travel (X axis) | mm | 2200 | 3200 | 2200 | 3200 | 3200 | 4200 | 4200 | 6200 |
| Carriage travel (Y axis) | mm | 1500 | | 1900 | | 2700 | | 2700 | |
| Ram travel (Z axis) | mm | 800 | | 800 | | 800 [1000] | | 1000 | |
| Spindle terminal to worktable | mm | 110～910 | | 110～910 | | 200～1000 [200～1200] | | 250～1250 | 200～1200 |
| Column span | mm | 1400 | | 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 | 12/24/15 | 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 diam./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 | 0.015/0.010 | 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 | 18000 | 22000 | 20000 | 24000 | 25000 | 28000 | 40000 | 50000 |

[ ]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 dia./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

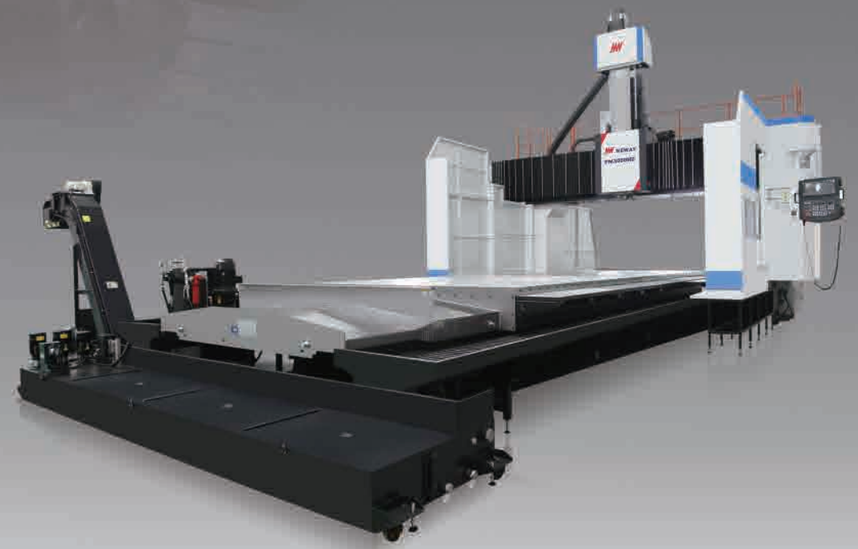
## PMB Series-
## High-speed 5 axis bridge type gantry machining center

| Item | Unit | PMB2040U | PMB2060U | PMB2540U | PMB2560U | PMB3060U |
|---|---|---|---|---|---|---|
| Worktable width | mm | 2000 | | 2500 | | 3000 |
| Worktable length | mm | 4000 | 6000 | 4000 | 6000 | 6000 |
| Table load | kg/m² | 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 dia./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


| 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 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 | 0.028/0.018 | 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

## PM Series-
## Movable column gantry machining center


| 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/m² | 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 dia./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 | 0.045/0.024 | 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 | 单位 | PM40100MSC | PM40120MSC | PM40140MSC | PM40160MSC |
|---|---|---|---|---|---|
| Worktable width | mm | 4000 | | | |
| Worktable length | mm | 10000 | 12000 | 14000 | 16000 |
| Table load | kg/m² | 15000 | | | |
| Worktable travel (X axis) | mm | 10500+750 (换头) | 12500+750 (换头) | 14500+750 (换头) | 16500+750 (换头) |
| 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-I (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 dia./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 | HB110H | HB110U | HB110S |
|---|---|---|---|---|
| Worktable size | mm | 1250×1400 | 1250×1400 | 1250x1250 |
| 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 | 2 | 2 | 3 |
| Worktable travel (X axis) | mm | 1800 | 1800 | 1600 |
| Spindle box travel (Y axis) | mm | 1600 | 1600 | 1200 |
| Column travel (Z axis) | mm | 1400 | 1400 | 1200 |
| 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 cneter line to woktable | mm | 0～1600 | 0～1600 | 0～1200 |
| Spindle terminal to center line of worktable | mm | -25～1975 | -130～1870 | -25～1775 |
| Rapid travel speed X/Y/Z/W/U | m/min | 5/5/5/3 | 5/5/5/3/2.5 | 12/12/12/8 |
| Max. cutting feed speed X/Y/Z/W/U | m/min | 3/3/3/2 | 3/3/3/2/1 | 10/10/10/6 |
| Boring shaft dia. | mm | ф110 | ф110 | ф110 |
| 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 | 5～3000 | 5～1500 | 5~2500 |
| Max. milling shaft torque | N.m | 3000/3651(30min) | 1480/1826(30min) | 1205/1487(30min) |
| Max. boring shaft tensile | N | 15000 | 15000 | 15000 |
| Facing head dia. | mm | / | ф670 | / |
| 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 | 0.02/0.02/0.02/0.02 | 0.02/0.02/0.02/0.03/0.03 | 0.015/0.015/0.015/0.02 |
| Repeatability accuracy X/Y/Z/W/U | mm | 0.015/0.015/0.015/0.015 | 0.015/0.015/0.015/0.025/0.025 | 0.01/0.01/0.01/0.015 |
| 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 | 6 axis four linkage | 5 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 | 21000 | 21300 | 16000 |

[ ]Option

## PB Series
## CNC boring and milling machine

| 项目 | 单位 | PB110H | PB130H | PB160H | PB130U | PB160U | PB130R | PB160R |
|---|---|---|---|---|---|---|---|---|
| Worktable size | mm | 1400x1600 | 1600×1800 [2000x2000][2000x2500] | 2000x2000 [2000x2500] | 1600×1800 [2000×2000][2000×2500] | 2000x2000 [2000x2500] | 2000x2000 [2000x2500] | 2500x3000 [3000×3000][3000×3500] |
| Max. worktable load | kg | 8000 | 15000 [25000] | 15000 [25000] | 15000 [25000] | 15000 [25000] | 25000 | 40000 |
| T slot width | mm | 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° |
| Max. worktable rotate speed (B axis) | r/min | 1.5 | 2 | 2 | 2 | 2 | 1.5 | 1.25 |
| Worktable travel (X axis) | mm | 2500 | 3000 [4000] | 3000 [4000] | 3000 [4000] | 3000 [4000] | 3000[4000] | 3000 [4000][6000] |
| Spindle box travel (Y axis) | mm | 2000 | 2000 [2500] | 2000 [2500] | 2000 [2500] | 2000 [2500] | 2000[2500][3000] | 3000 [4000] |
| Column travel (Z axis) | mm | 1500 | 1600 | 1600 | 1600 | 1600 | 2000 | 2000 |
| Spindle axial travel (W axis) | mm | / | / | / | / | / | 1000 | 1000 |
| Facing head slider radial movement (U axis) | mm | 600 | 800 | 900 | 800 | 900 | 800 | 800 |
| Worktable indexing (B axis) | mm | / | / | / | 300（±150） | 300（±150） | / | / |
| Spindle cneter line to woktable | ° | 360 | 360 | 360 | 360 | 360 | 360 | 360 |
| Spindle terminal to center line of worktable | mm | 0-2000 | 0～2000 | 0～2000 | 30～2030 | 30～2030 | 300～2300 | 300～3300 |
| Rapid travel speed X/Y/Z/W/U | mm | 100～2200 | 100～2500 | -150～2350 | -50～2350 | -150～2350 | / | / |
| Max. cutting feed speed X/Y/Z/W/U | m/min | 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/-/2/1 | 6/6/6/-/2/1 | 8/8/8/8/8 | 8/8/8/8/8 |
| Milling shaft end dia. | mm | Φ110 | Φ130 | Φ160 | Φ130 | Φ160 | Φ130 | Φ160 |
| Spindle taper | mm | Φ221.44 | Φ221.44 | Φ260 | / | / | Φ221.44 | Φ260 |
| Pull stud size | - | BT50 | BT50 | BT50 | BT50 | BT50 | BT50 | BT50 |
| Motor power | - | MAS403 P50T-I | MAS403 P50T-I | MAS403 P50T-I | MAS403 P50T-I | MAS403 P50T-I | MAS403 P50T-I | MAS403 P50T-I |
| Spindle speed | kW | 18.5/22 | 22/30 | 30/37 [45/55] | 22/30 | 30/37 | 31/37 | 44/51 |
| Max. milling shaft torque | rpm | 10～2500 | 10～2500 | 10～2000 | 10～1500 | 10～1500 | 10～3000 | 10～2500 |
| Max. boring shaft tensile | N.m | 2150/2590 | 2837/3868 | 2553/3063[3831/4597] | 2600/3120 | 2677/3302 | 2827/3374 | 3080/3696 |
| Facing head dia. | N | 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 |
| Positioning accuracy X/Y/Z/W/U | mm | 0.025/0.02/0.02/-/0.025 | | | | | 0.025/0.14/0.014/0.011/0.025 | |
| Repeatability accuracy X/Y/Z/W/U | mm | 0.017/0.015/0.015/-/0.018 | | | | | 0.017/0.007/0.007/0.007/0.018 | |
| Positioning accuracy B | - | 10" | 10" | 10" | 10" | 10" | 10" | 10" |
| Repeatability accuracy B | - | 6" | 6" | 6" | 6" | 6" | 6" | 6" |
| CNC system | - | NEWAY FANUC [SIEMENS] | | | | | SIEMENS | SIEMENS |
| CNC coordinate axis number | - | 5 axis four linkage | | | 6 axis four linkage | | 6 axis four linkage | |
| Auto chip conveyer (option) | - | chain plate | chain plate | chain plate | chain plate | chain plate | chain plate | chain plate |
| Tool magazine (option) | - | [40(chain)/60(chain)] | | | / | / | [40(chain)/60(chain)] | |
| Machine power capacity | kVA | 80 | 80 | 88 | 80 | 88 | 90 | 103 |
| Air source/pressure | - | 500L/min 6~8bar | | | | | | |
| Machine weigh | kg | about30000 | about40000 | about42000 | about40000 | about42000 | about55000 | about65000 |

[ ]Option

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

| 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 | 0.04/0.02/0.025/0.014 | 0.026/0.014/0.011/0.025/0.02 | 0.032/0.017/0.011/0.025/0.014 |
| Repeatability accuracy（X/Y/Z/W/V） | mm | 0.023/0.015/0.018/0.015 | 0.023/0.015/0.018/0.007 | 0.015/0.014/0.007/0.018/0.015 | 0.019/0.009/0.007/0.018/0.007 |
| 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 | 500L/min 6~8bar | 500L/min 6~8bar | 500L/min 6~8bar |
| Machine weight | kg | about45000 | about50000 | about73000 | about88000 |

[ ]Option

## SMG series-
## CNC spherical grinding machine

**Patent:**
A digital controlled ball grinding machine
Patent number: 200920047912.9

- Conjugate curve principle
- Ball vertical installation
- Modularized design, ball diameter 75-2400 spheroidal grinding
- Overall static and modal analysis ensures static rigidity and dynamic performance
- Easy operation, easy access to work piece and spindle


| Item | Unit | SMG32H | SMG63HA | SMG100H | SMG240H |
|---|---|---|---|---|---|
| Work range O.D | mm | SΦ75～320 | SΦ320～630 | SΦ630-1100 | SΦ900-2400 |
| 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



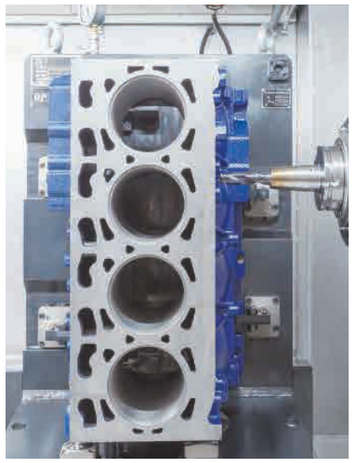
# FMS series CNC automatic production line

## 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 hoursper 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).The net machining time is 25 seconds, include the probe replacement time and the detection time. The processing CmK≥1.67.

Workpiece name: Diesel engine box
Workpiece material: HT250

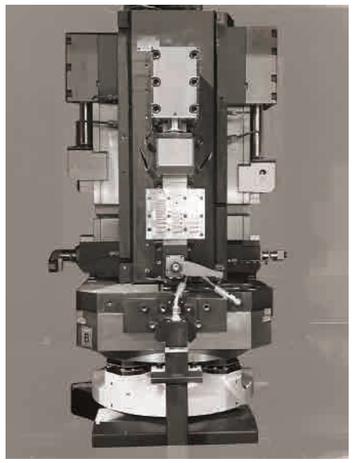


## Automatic line for oil processing path valve

Machine：choose machine tool HM50TD+VM1160H

The project changed from a single process, sub-equipment, and small batch processing mode to a rhythmic, continuous, flexible, automated, and less labor-intensive 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



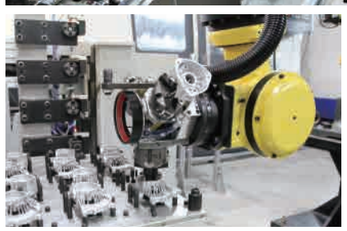
## Automatic line for processing flywheel shell
Machine: VM1370H+VNL80S+HE63VS

Workpiece name: flywheel housing
Workpiece material: aluminum alloy

## Automatic line for processing box bonet
Machine: VM950S+VM1150S

Workpiece name: automobile engine shell
Workpiece material: magnesium alloy





## Mixed processing automatic line
Machine: VM950SL+NL201HG+NL201H

Workpiece name: input shaft
Workpiece material: 45# steel


## Claw pole processing automatic line
Machine: NL201HA

Workpiece name: generator claw pole
Workpiece material: QD08 forging