

PROFESSIONAL CNC MACHINE FACTORY
Quality, Efficiency, Integrity, Innovation



CHONGQING QIAOBO INTELLIGENT TECHNOLOGY CO.,LTD

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High-end Intelligent Equipment Integrated Solution Service Provider



- High speed drilling,milling and tapping center
- High speed machining center
- High rigidity, heavy cutting machining center
- Five-axis high-precision machining center
- Gantry machining center
- Horizontal machining center
- Engraving and milling machine
- High precision CNC machine tool



CHONGQING QIAOBO INTELLIGENT TECHNOLOGY CO.,LTD


Company profile

Chongqing Qiaobo Intelligent Technology Co., Ltd is specialized in producing mechanical equipment such as Five axis machining center, Gantry machining center, Horizontal machining center, Drilling and tapping center, Carving and milling machines, CNC lathes, etc. We are a high-tech enterprise that integrates research and development, manufacture, sales, and service. We are SRDI (Specialized, Refined,



Differential, Innovative) enterprise in Chongqing, and passed the national “Integration of Informatization and Industrialization” standard in 2021. All our products have passed the ISO9001:2015 international quality system certification and meet the GB inspection standard.

Our company has dozens of senior engineers and R&D teams who have been engaged in the development of CNC machine tools for a long time, and we continuously bring in advanced technology, production equipment, and various testing instruments such as laser interferometers and circular measuring instruments from the United States. We have established long-term and close business partnerships with well-known enterprises such as Mitsubishi, FANUC, and Siemens. After years of continuous improvement in manufacturing processes, combined with high-performance imported precision components, Qiaobo tech has become a well-known brand in the mechanical industry, widely praised by the market and favored by customers. At present, our company has branches and offices in Chongqing, Shanghai, Suzhou, Tianjin, Hangzhou, Dongguan, Changsha, Wuhan, Chengdu, Guiyang, Zhengzhou, Qingdao, and other places to ensure that it can provide comprehensive mechanical processing solutions and fast services for users.

We always adheres to the business philosophy of “quality, efficiency, integrity, and innovation” , and adheres to the quality policy of “striving for excellence, continuous improvement, and providing customers with satisfactory products and services” . Pay attention to customer needs, listen to their voices, and thank all new and old customers for their trust and support. We warmly welcome friends from all walks of life to visit, inspect, guide, and negotiate business. “Your satisfaction is our success” , we will do better for you.



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Patents and certificates



High speed drilling, milling and tapping machining center (T series)

T-640

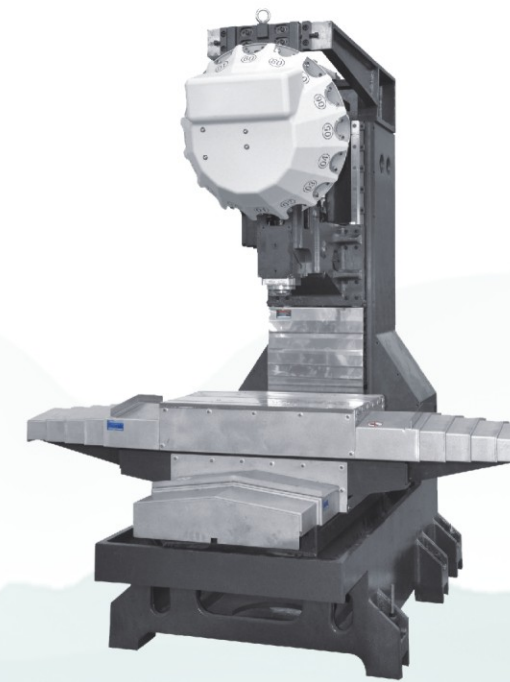
The Best Tool for Mass Production and Processing of 4C Parts

The rapid displacement speed of the XYZ axis is

48/48/48m/min,

Tool change speed T-T: **1.2**s

Spindle speed **12000/20000/24000**RPM



The body of T-640

High rigidity and high-speed feed system

Three axis motor and precision high-speed ball screw direct transmission enhance rigidity and improve precision.

The Z-axis use a brake motor system, which can keep high balance and sensitivity during rapid displacement, ensuring machining accuracy.

The three axes use linear sliding rails, which have high rigidity, low noise, and low friction characteristics, allowing for rapid displacement and optimal circular accuracy.

Rapid displacement XYZ axis **48** m/min

Using Ball bar circular measurement, pre adjusting parameters, the best accuracy can be achieved.



High speed section bar machining center

V-2075

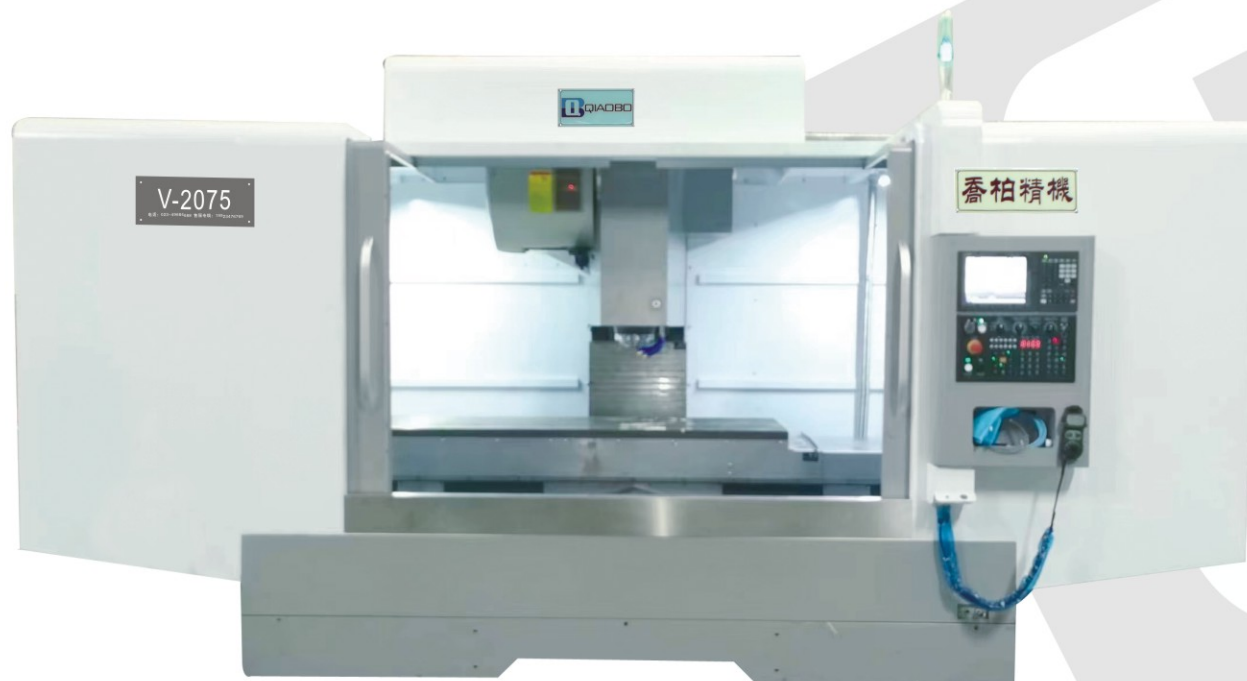
The best tool for mass production and processing of aluminum profiles

The rapid displacement speed of the XYZ axis is

36/36/36 m/min,

Tool change speed T-T: **1.8** s

Spindle speed: **12000** RPM



Three axis motor and precision high-speed ball screw direct transmission enhance rigidity and improve precision. The Z-axis adopts a brake motor system, which can maintain high balance and sensitivity during rapid displacement to ensure machining accuracy. The three axes adopt linear sliding rails, which have high rigidity, low noise, and low friction characteristics, allowing for rapid displacement and optimal circular accuracy. By using Ball bar circular measurement and pre adjusting parameters, the best accuracy can be achieved.



Parameter table of high- performance high speed drilling and tapping center

Model/Unit	T-640	T-640G	T-740	T-840	T-1150	T-1365	T-2075	V-2075
X-axis stroke (mm)	600	600	700	800	1100	1350	2000	2000
Y-axis stroke (mm)	400	400	400	500	500	700	750	750
Z-axis stroke (mm)	350	350	350	440	550	700	710	710
Spindle end face to work table distance (mm)	150-500	350-700	150-500	120-560	120-670	150-590	120-600	135-845
Workbench size (mm)	700*420	700*420	780*420	1000*500	1200*500	1400*660	2100*700	2100*700
Distance from spindle center to column guide rail (mm)	439	439	439	560	560	750	775	775
Maximum load of workbench (kg)	250	250	250	550	700	900	700	700
Width of T-shaped groove on workbench (mm)	3*14*100	3*14*100	3*14*100	2*18*108	2*19*109/3*19*102	5*18*105	5*18*105	5*18*105
Spindle taper hole	BT-30	BT-30	BT-30	BT30	BT30	BT30	BT30	BT40
Maximum spindle speed (rpm)	20000	20000	20000	20000	20000	20000	20000	12000
Spindle/motor specifications (kw)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	7.5
Three axis/motor specifications (kw)	1.5*1.5*3	1.5*1.5*3	1.5*1.5*3	1.5*1.5*3	2*2*3	2*2*3	3*3*3	3*3*3
Three axis maximum movement speed (m/min)	48	48	48	48	48	36	36	36
Automatic tool change form	Clamping arm type	Clamping arm type	Clamping arm type	Clamping arm type	Clamping arm type	Clamping arm type	Clamping arm type	Knife arm type
Number of tools	21	21	21	21	21	21	21	24
Maximum tool length (mm)	200	200	200	200	200	200	200	300
Maximum weight of tool (kg)	3	3	3	3	3	3	3	8
Cutting speed (mm/min)	1-12000	1-12000	1-12000	1-12000	1-12000	1-12000	1-12000	1-12000
Positioning accuracy (mm)	± 0.003/300	± 0.003/300	± 0.003/300	± 0.003/300	± 0.003/300	± 0.003/300	± 0.003/300	± 0.003/300
Repetitive positioning accuracy (mm)	± 0.005	± 0.005	± 0.005	± 0.005	± 0.006	± 0.006	± 0.006	± 0.006
X-axis ball screw (mm)	Φ 25/16	Φ 28/16	Φ 28/16	36	36	40	40	40
Y-axis ball screw (mm)	Φ 25/16	Φ 28/16	Φ 28/16	36	36	40	36	36
Z-axis ball screw (mm)	Φ 36/16	Φ 32/16	Φ 32/16	36	36	40	36	36
X-line track (mm)	25	30	30	35	35	45	35	35
Y-line track (mm)	25	30	30	35	35	45	35	35
Z-axis guide rail specification (mm)	30	30	30	35	35	45	35	35
Air pressure (kg/cm ²)	≥6	≥6	≥6	≥6	≥6	≥6	≥6	≥6
Power (KVA)	15	15	15	15	20	20	20	25
Mechanical weight (kg)	3500	3600	3800	4800	5500	5600	6300	6300
Machine tool overall dimension (L*W*H)	2000*2150*2650	2000*2150*2650	2300*2150*2650	2500*2100*2650	3200*2450*2850	3900*3000*2900	6300*3000*3500	6300*3000*3500

Standard equipment

Toolbox and adjustment tools
LED work lights
LED warning light
Tool cooling system
Operation manual
Rear flushing device
Automatic lubrication system
Electrical box air conditioner
Electronic handwheel

Spindle oil cooler
Program instructions
Tool magazine
CF card
Maintenance manual
Certificate of Conformity
Laser check list
Transmission line

Selective equipment

BT40/50 blade and nozzle
Flat pliers pressing plate
Disassembly tool holder
Voltage regulator
MITSUBISHI M80 system
FANUC control system
Siemens system
Fourth axis (CNC indexing plate)
Fifth axis (fourth axis plus tilt axis)
Spindle center water outlet system



High speed parts machining center (V series) ■■■

V-640A



Good choice for precision molds and product processing

The rapid displacement speed of the XYZ axis is **48/48/48**m/min

Spindle speed: **20000**RPM (or **24000**RPM)

Tool change speed T~T: **1.6s** Adopting a fully enclosed tool magazine **BT-30** Precision spindle

Technical characterist

- ◎ The base use an A-shaped rib structure layout to improve the seismic absorption effect, and the overall iron parts adopt a box design to achieve high bending rigidity.
- ◎ The structure use advanced cast iron material, which is tempered to eliminate internal stress, ensuring the best rigidity, accuracy, and durability.
- ◎ The high rigidity structure originates from the accumulation of years of experience data and the rationalization of the slenderness ratio design of the mechanism, improving the compression and lateral bending resistance of iron parts.
- ◎ The design of a high-speed tool changing mechanism, combined with pre induction control and an efficient tool changing system, enables tool changing work.



High speed parts machining center (V series) ■■■

V-855



Good choice for precision molds and product processing

The rapid displacement speed of the XYZ axis is **48/48/48**m/min

Spindle speed: **10000**RPM (or **12000/15000**RPM)

Tool change speed T~T: **1.8 s**

BT-40 Precision spindle

Technical characterist

- ◎ The electrical box use constant temperature air condition to ensure there is in a sealed and constant temperature state for a long time, extending the service life of the electrical appliances.
- ◎ The spindle use a constant temperature oil cooler to ensure that it doesn't generate high temperatures due to heavy cutting or high-speed rotation, extending the service life and accuracy of the spindle.
- ◎ Using a dual filtered water and 10L air storage tank device, ensuring the stability of knife changing and allowing for continuous replacement of three knives in the event of gas stoppage.
- ◎ Using a forward flushing and back chip removal method, it is convenient to clean iron filings and never leaks water. The water tank adopts a hidden pipeline design to avoid pipeline entanglement, which is both beautiful and clean.
- ◎ The transmission components are all imported, with high accuracy and good stability.



High speed parts machining center (V series) ■■■

V-1160



Good choice for precision molds and product processing

The rapid displacement speed of the XYZ axis is

36/36/36m/min

Spindle speed

10000RPM (or **12000/15000**RPM)

Spindle speed T~T: **1.8 s**

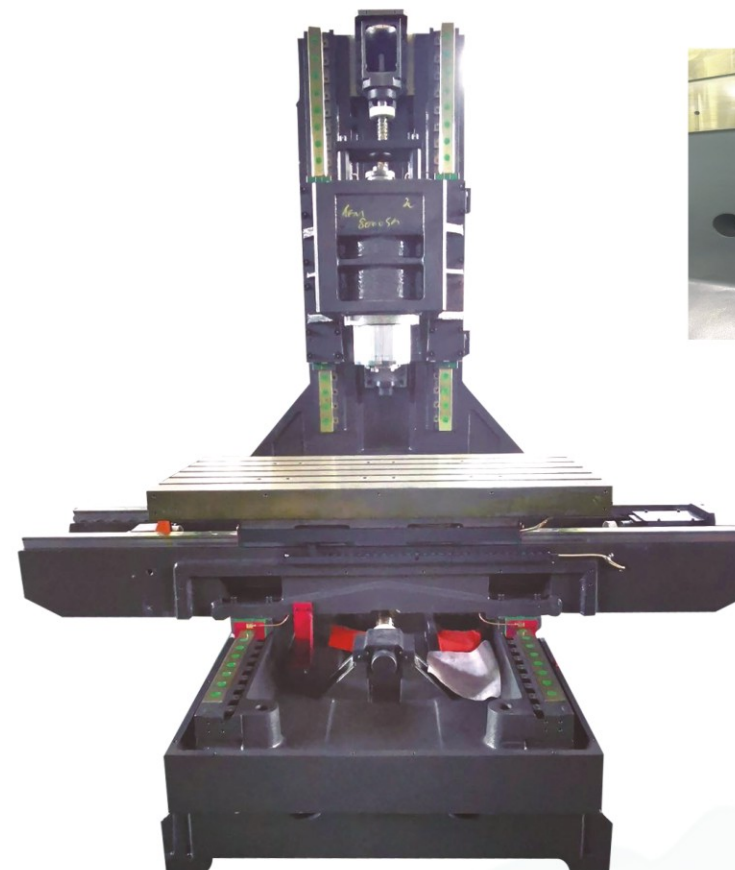
BT-40 Precision spindle

Technical characterist

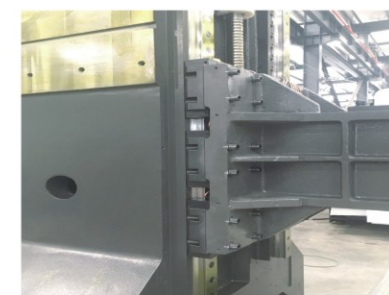
- ◎ The electrical cabinet adopts constant temperature air conditioning to ensure that the cabinet is in a sealed and constant temperature state for a long time, extending the service life of the electrical appliances.
- ◎ The spindle adopts a constant temperature oil cooler to ensure that the spindle does not experience high temperatures caused by heavy cutting or high-speed rotation, extending the service life of the spindleAccuracy.
- ◎ Adopting a dual filtered water and 10L air storage tank device, ensuring the stability of knife changing and allowing for continuous replacement of three knives in the event of gas stoppage.
- ◎ Adopting a forward flushing and back chipping method, it is convenient to clean iron filings and never leak water. The water tank adopts a hidden pipeline design to avoid pipeline entanglement, whichBeautiful and tidy.
- ◎ The transmission components are all imported, with high accuracy and good stability.



High speed parts machining center (V series) ■■■



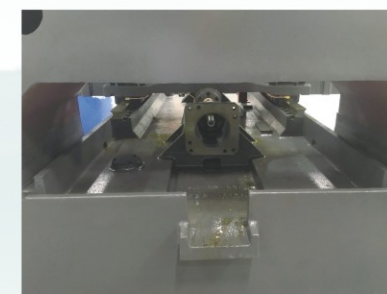
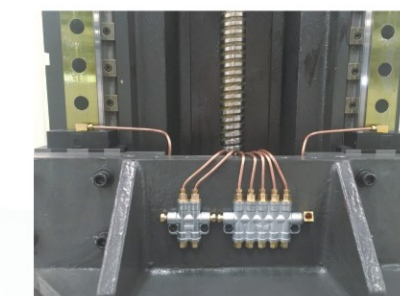
The body of V-1160



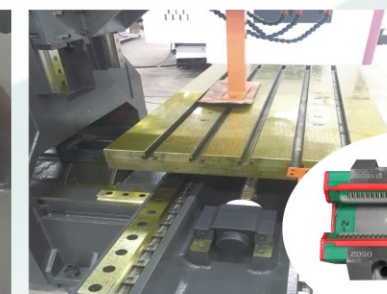
The YZ axis adopts a six slider design with good rigidity and load-bearing capacity



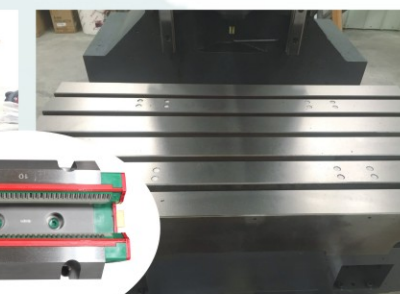
The oil pipeline adopts all copper pipes, which are not easy to corrode



The lathe bed adopts an oil-water separation design



Three axes adopt roller guide rails, with good rigidity and load-bearing capacity



Five T-shaped slots on the workbench for easy clamping



Parameter table of high performance high speed linear machining center

Model/Unit	V-640A	V-855	V-1160	V-1167	V-1370	V-1380 (Four rails on the Y axis)	V-1580 (Four rails on the Y axis)	V-1890 (Four rails on the Y axis)
X-axis stroke (mm)	600	800	1100	1100	1300	1300	1500	1800
Y-axis stroke (mm)	450	550	600	600	700	800	800	900
Z-axis stroke (mm)	460	550	600	700	700	700	800	720
Spindle end face to work table distance (mm)	70-530	120-670	120-720	95-795	150-850	100-800	120-920	160-960
Workbench size (mm)	700*400	1000*550	1200*600	1200 x 600	1400*680	1400*800	1700*810	2000*900
Distance from spindle center to column guide rail (mm)	450	595	650	686	730	850	875	960
Maximum load of workbench (kg)	250	600	800	800	1200	1300	1500	1600
Width of T-shaped groove on workbench (mm)	14T*3*100	5*18*90	5*18*100	5 x 18 x 110	5*18*115	5*18*125	5*18*147.5	5*22*165
Spindle taper hole	BT-30	BT-40	BT-40	BT-40	BT-40	BT-50	BT-50	BT-50
Maximum spindle speed (rpm)	20000 (Direct connection type)	10000 (Belt)	10000 (Belt)	10000(Belt)	8000 (Belt)	8000 (Belt)	8000 (Belt)	8000 (Belt)
Spindle/motor specifications (kw)	5.5	7.5	11	11	11-15	15	15	18.5
Three axis/motor specifications (kw)	1.5*1.5*3	2*2*3	3*3*3	3*3*3	3*3*3	3*3*4.5	4.5*4.5*4.5	4.5*4.5*7
Three axis maximum movement speed (m/min)	48/48/48	36/48	36/36/36	36/36/36	24/24/24	20/20/20	15/15/15	12/12/12
Automatic tool change form	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type
Number of tools	21	24	24	24	24	24	24	24
Maximum tool length (mm)	200	300	300	300	300	300	300	300
Maximum weight of tool (kg)	3	8	8	8	15	15	15	15
Cutting speed (mm/min)	1-12000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy (mm)	±0.004	±0.004	±0.004	±0.005	±0.005	±0.005	±0.005	±0.005
Repetitive positioning accuracy (mm)	±0.003			±0.004				
X-axis ball screw (mm)	Φ25/16	Φ40/12(16)	Φ40/12	Φ50/10	Φ50/10	Φ50/10	Φ40/10	Φ55/12
Y-axis ball screw (mm)	Φ25/16	Φ40/12(16)	Φ40/12	Φ50/10	Φ50/10	Φ50/10	Φ50/10	Φ55/12
Z-axis ball screw (mm)	Φ25/16	Φ40/12(16)	Φ40/12	Φ50/10	Φ50/10	Φ50/10	Φ50/10	Φ55/12
X-line track (mm)	25	35	45	45	45	55	45	55
Y-line track (mm)	25	45	45	45	45	45	45	45
Z-axis guide rail specification (mm)	30	45	45	45	45	55	45	55
Air pressure (kg/cm ²)	≥6	≥6	≥6	≥6	≥6	≥6	≥6	≥6
Power (KVA)	15	20	25	25	25/30	30	35	40
Mechanical weight (kg)	3600	5500	7000	7500	9000	10000	10500	14500
Machine tool overall dimension (L*W*H)	2000*2150*2650	2550*2450*2900	3250*2400*2900	3250*2400*2900	3600*3000*2900	3900*3000*2900	4000*3000*3500	4800*3800*3500

Standard equipment

- Toolbox and adjustment tools
- LED work lights
- LED warning light
- Tool cooling system
- Operation manual
- Rear flushing device
- Automatic lubrication system
- Electrical box air conditioner
- Electronic handwheel
- Spindle oil cooler
- Program instructions
- Tool magazine
- CF card
- Maintenance manual
- Certificate of Conformity
- Laser check list
- Transmission line

Selective equipment

- BT40/50 blade and nozzle
- Flat pliers pressing plate
- Disassembly tool holder
- Voltage regulator
- MITSUBISHI M80 system
- FANUC control system
- Siemens system
- Fourth axis (CNC indexing plate)
- Fifth axis (fourth axis plus tilt axis)
- Spindle center water outlet system



Vertical and horizontal dual purpose machining center



QVH-10

The best processing tools for box and valve block products

The rapid displacement speed of the XYZ axis is

36/36/20m/min

BT-40 Precision spindle speed

12000RPM (or **15000** RPM)

Dual tool magazine configuration

Tool change speed T-T:**1.8s**

Adopting a fully enclosed cover, double helix and chain type chip removal for smoother chip removal

Type/Unit	QVH-10	QVH-10(Four tracks)
Workbench size (mm)		640*500
X/Y/Z1/Z2 stroke(mm)		1100*700*720(Vertical head)*600(Horizontal head)
Rotating workbench size, minimum division angle(mm)		500*500 (minimum division angle 1°)
Rotating workbench load (maximum allowable) (kg)		500
Distance from Z1 vertical spindle center to column (mm)		765
Distance from Z1 vertical spindle end face to table surface (mm)		150-870
Distance from Z2 horizontal spindle axis to workbench(mm)		-140-600
Distance from Z2 horizontal spindle end face to workbench center (mm)		310-1010
X/Y/Z1/Z2 axis positioning accuracy (mm)		±0.005/300
X/Y/Z1/Z2 axis repeated positioning accuracy (mm)		±0.003/300
Four axis segmentation accuracy (sec)		±10
Four axis repeated positioning accuracy (sec)		4
Spindle motor power (kw)		11
Spindle taper hole		BT40/φ155
Spindle speed (rpm)		12000
X/Y/Z1/Z2 rapid movement (mm/min)		XY:36/ Z1/Z2:20
Maximum allowable workpiece rotation diameter (mm)		φ1250
Machine tool overall dimensions		3200*2600*3750
Mechanical weight (kg)		9000





High speed parts machining center (Mineral bed) ■■■

V-850A Mineral machine bed



Good choice for precision molds and high-precision product processing

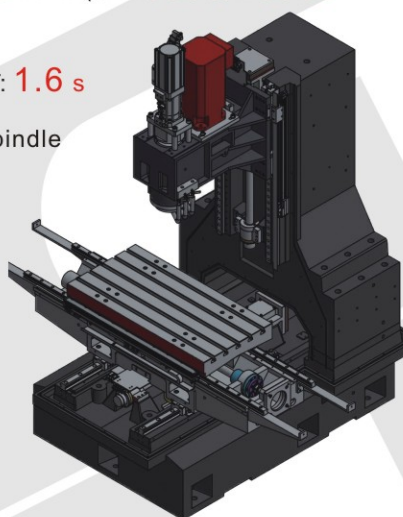
The rapid displacement speed of the XYZ axis is

48/48/48 m/min

Spindle speed: **12000** RPM (or **16000/20000** RPM)

Tool change speed T~T: **1.6** s

BBT-40 Precision spindle



Technical characterist:

Mineral bed with good shock absorption and low shaking during processing.

Model A: Adopting a **12000** rpm mechanical spindle, with low vibration and good stability. High precision: The constant power of the electric spindle is **11KW**, The maximum power is **15KW**.

The **BBT40** spindle has high rigidity and high precision processing efficiency, and better results!

Model B: Adopting a **16000** rpm high-speed electric spindle, with low vibration, good stability, and high accuracy: the constant power of the electric spindle is **15KW**, the maximum power is **18.5KW**, The **BBT40** spindle has Higher precision machining efficiency and better results!

Model C: Adopting a high-speed electric spindle with a spindle speed of **20000** revolutions, the high-speed **BBT40(HSK63)** electric spindle has low vibration, good stability, and three-axis full closed-loop control, with higher accuracy. The constant power of the electric spindle is **15KW**, The maximum power is **18.5KW**. The **BBT40** spindle has higher accuracy, higher processing efficiency, and better results!



Parameter table of high performance high speed linear machining center ■■■

Model/Unit	V-850A	V-850B	V-850C	V-856	V-1160
X-axis stroke (mm)	800	800	800	800	1100
Y-axis stroke (mm)	500	500	500	550	600
Z-axis stroke (mm)	500	500	500	600	600
Spindle end face to work table distance (mm)	150-650	150-650	150-650	125-725	120-720
Workbench size (mm)	1000*500	1000*500	1000*500	1000*550	1200*600
Distance from spindle center to column guide rail (mm)	550	550	550	631	648
Maximum load of workbench (kg)	500	500	500	500	800
Width of T-shaped groove on workbench (mm)	5*18*90	5*18*90	5*18*90	5-18*100	5-18*100
Spindle taper hole	BBT-40	BBT-40	BBT-40	BT-40	BT-40
Maximum spindle speed (rpm)	12000(Mechanical spindle)	16000(High speed motorized spindle)	20000(High speed motorized spindle)	12000(Direct connection type)	8000(Belt)
Spindle/motor specifications (kw)	11	15	15	11	11
Three axis/motor specifications (kw)	3*3*3	3*3*3	3*3*3	3*3*3	3*3*3
Three axis maximum movement speed (m/min)	48	48	48	48	36
Automatic tool change form	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type	Knife Arm type
Number of tools	24	24	24	24	24
Maximum tool length (mm)	300	300	300	300	300
Maximum weight of tool (kg)	8	8	8	8	8
Cutting speed (mm/min)	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy (mm)	±0.004	±0.004	±0.004	±0.004	±0.004
Repetitive positioning accuracy (mm)	±0.003	±0.003	±0.003	±0.003	±0.003
X-axis ball screw (mm)	Φ40/16	Φ40/16	Φ40/16	Φ40/16	Φ40/16
Y-axis ball screw (mm)	Φ40/16	Φ40/16	Φ40/16	Φ40/16	Φ40/16
Z-axis ball screw (mm)	Φ40/16	Φ40/16	Φ40/16	Φ40/16	Φ40/16
X-line track (mm)	35	35	35	45	45
Y-line track (mm)	35	35	35	45	45
Z-axis guide rail specification (mm)	35	35	35	45	45
Air pressure (kg/cm ²)	≥6	≥6	≥6	≥6	≥6
Power (KVA)	25	30	30	25	25
Mechanical weight (kg)	6000	6000	6000	6000	8500
Machine tool overall dimension (L*W*H)	2550*2350*2900	2550*2350*2900	2550*2350*2900	2600*2450*2900	3200*2450*2900

Standard equipment

Toolbox and adjustment tools
LED work lights
LED warning light
Tool cooling system
Operation manual
Rear flushing device
Automatic lubrication system
Electrical box air conditioner
Electronic handwheel

Spindle oil cooler
Program instructions
Tool magazine
CF card
Maintenance manual
Certificate of Conformity
Laser check list
Transmission line

Selective equipment

BT40/50 blade and nozzle
Flat pliers pressing plate
Disassembly tool holder
Voltage regulator
MITSUBISHI M80 system

FANUC control system
Siemens system
Fourth axis (CNC indexing plate)
Fifth axis (fourth axis plus tilt axis)
Spindle center water outlet system



High rigidity, heavy cutting machining center

VMC-1160

Table size	1200x600mm
X-axis stroke	1100mm
Y-axis stroke	600mm
Z-axis stroke	600mm



○ The spindle adopts a constant temperature oil cooler to ensure that it does not generate high temperatures due to heavy cutting or high-speed rotation, extending the service life and accuracy of the spindle.

○ Adopting a dual filtered water and 10L air storage tank device, ensuring the stability of knife changing and allowing for continuous replacement of three knives in the event of gas stoppage.

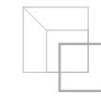


○ Adopting a forward flushing and back flushing method, it is convenient to clean iron filings and never leaks water. The water tank adopts a hidden pipeline design to avoid pipeline entanglement, which is both beautiful and clean.

○ The electrical cabinet adopts constant temperature air conditioning to ensure that the cabinet is in a sealed and constant temperature state for a long time, extending the service life of the electrical appliances.

Technical Characteristics

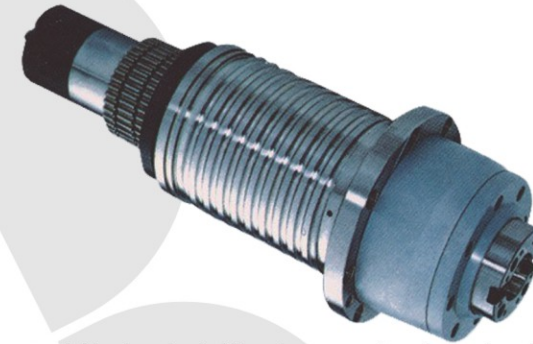
- The machinery adopts a box structure with excellent pressure characteristics.
- Rigid herringbone column with good stability; The machine tool structure has been optimized through finite element analysis.
- The spindle sleeve adopts precision grade spindle special bearings, with excellent accuracy and stability.
- The precision ball bearing adopts double nuts, and the support seats at both ends of each shaft are pre tensioned with five special ball screw bearings to ensure thermal expansion precision.
- The XY axis roller guide rail design, fully supported saddle, provides better cutting performance when machining large workpieces.
- The machine tool adopts an oil-water separation design, and all lubrication systems are sealed outside the machine body with covers for easy maintenance and inspection.



Quality assurance system

SPINDLE

High speed and high precision Taiwan spindle with large diameter, P4 grade precision bearing, high stability, low noise, high precision, and other advantages.

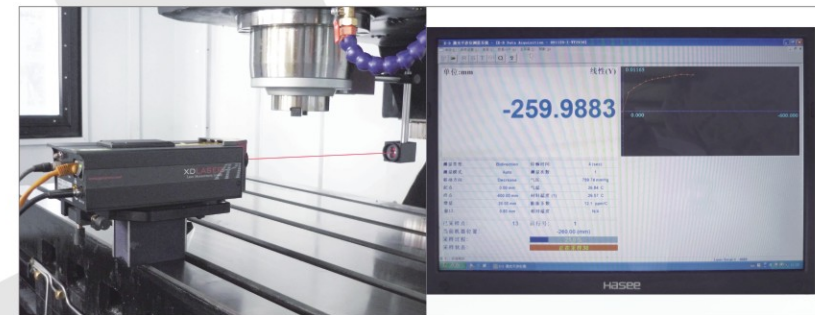


High rigidity imported spindle



Dynamic balance inspection of spindle motor

High speed running balance inspection of spindle, Ensure that the spindle is free of deflection



Laser inspection

The full range motion accuracy is compensated by laser correction, ensuring the accuracy of the machine and the calibration results.

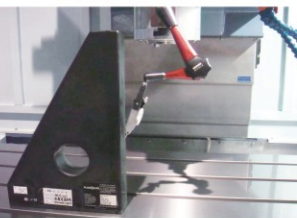


Electric control box

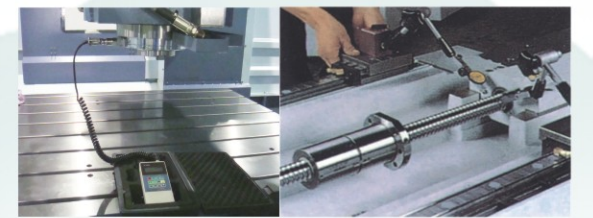
The CE safety standard distribution cabinet ensures no interference, Fully enclosed constant temperature control, extending the service life of electrical appliances.



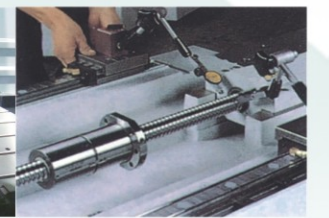
Follow the circular two axis synchronous compensation



Finished product geometric accuracy testing



Spindle vibration detection



Precision ball screw

High precision CS3 grade Taiwan ball screw ensures Overall accuracy of the machine tool.

Machine tool accessories



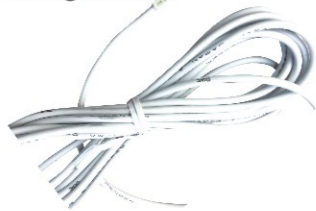
Fully enclosed servo arm type tool magazine



Using Japanese SMC pneumatic components



Using aluminum alloy tool sleeves



Using Japanese SMC sensors



Spindle oil cooler



High efficiency chain plate chip conveyor

Processing examples



Configuration table

●Standard configuration ○special configuration △Not supported ▲need consult

configuration name	Drilling and tapping center (T series)	Parts processing center (V series)	Hard rail processing center (VMC series)	Horizontal machining center (JH series)	Gantry machining center (VMC series)	Engraving and milling machine (DX series)	Five axis machining center (QVF series)
Full cover sheet metal	●	●	●	●	●	●	●
Automatic lubrication system	●	●	●	●	●	●	●
Circulating cooling system	●	●	●	●	●	●	●
System operation manual	●	●	●	●	●	●	●
System program Manual	●	●	●	●	●	●	●
Maintenance manual	●	●	●	●	●	●	●
Certificate of conformity	●	●	●	●	●	●	●
Transmission line	●	●	●	●	●	●	●
Telescopic protective cover	●	●	●	●	●	●	●
Tools and toolbox	●	●	●	●	●	●	●
Horizontal adjustment screws and pads	●	●	●	●	●	●	●
Laser detection table	●	●	●	●	●	●	●
Electronic handwheel	●	●	●	●	●	●	●
LED work lights	●	●	●	●	●	●	●
LED warning light	●	●	●	●	●	●	●
Pressing plate	●	●	●	●	●	●	●
Rigidity tapping function	●	●	●	●	●	●	●
Spindle air curtain device	●	●	●	●	●	●	●
Electrical box air conditioner	●	●	●	●	●	●	●
Spindle oil cooler	●	●	●	●	●	●	●
Automatic power off function	○	○	○	○	○	○	○
Spindle center water outlet	○	○	○	○	○	△	○
Chip removal machine	○	○	○	●	●	○	●
Clamping arm type tool magazine (21 pieces)	●	△	△	△	△	△	△
Knife arm type tool magazine (24 pieces)	△	●	○	○	○	△	●
Chain type tool magazine	△	△	○	○	○	△	○
Bamboo hat style knife magazine	△	△	△	△	△	○	△
BF, ZF gearbox	△	▲	○	○	○	△	△
Full tooth gear head	△	▲	○	○	○	△	△
Four axis rotary table	○	○	○	○	○	○	●
Five axis rotary table	○	○	○	○	○	○	●
MITSUBISHI M80B system	●	●	●	●	●	○	▲
MITSUBISHI M80A system	○	○	○	○	○	○	▲
FANUC oi-MF (5)	●	●	●	●	●	○	▲
FANUC oi-MF (1)	○	○	○	▲	▲	○	▲
Taiwan SYNTEC system	○	○	○	○	○	●	○
Germany SIEMENS Systems	○	○	○	○	○	○	○
HUAZHONG System	○	○	○	○	○	○	○
Column elevation	▲	▲	▲	▲	▲	▲	▲



Parameter table of sliding guide series

Model/Unit	VMC-850B	VMC-850C	VMC-1167	VMC-1168	VMC-1270	VMC-1380	VMC-1580	VMC-1890B
X-axis stroke (mm)	800	800	1100	1100	1200	1300	1500	1800
Y-axis stroke (mm)	500	500	600	700	700	800	800	900
Z-axis stroke (mm)	550	700	700	700	700	700	800	800
Spindle end face to work table distance (mm)	105-655	110-810	110-810	110-810	110-810	100-800	85-885	115-835
Distance from spindle center to column guide rail (mm)	550	575	654	735	765	850	865	950
Workbench size (mm)	1050*500	1000*530	1200*600	1300*650	1360*710	1400*800	1700*810	2000*900
Maximum load of workbench (kg)	600	600	800	1200	1000	1500	1500	16000
Width of T-shaped groove on workbench (mm)	5-18	5-18	5-18	5-18	5-18	5-18	5-22	5-22*165
Spindle taper hole	BT40 Φ150	BT40 Φ150	BT40 Φ150	BT40 Φ150	BT50 Φ155	BT50 Φ155	BT50 Φ155	BT50 Φ190
Maximum spindle speed (rpm)	8000	8000	8000	8000	8000	8000	8000	8000
Spindle/motor specifications (kw)	7.5	7.5	11	11	15	15	15/18.5	18.5
Three axis/motor specifications (kw)	2*2*2	2*2*2	3*3*3*	3*3*3	3*3*3	3*3*3	4.5*4.5*4.5	4.5*4.5*7
Three axis maximum movement speed (m/min)	16/16/16	16/16/16	16/16/16	16/16/16	12/12/12	12/12/12	12/12/12	12/12/12
XYZ screw specifications (mm)	Φ40/10	Φ40/10	Φ40/10	Φ40/10	Φ40/10	XYZ: Φ50/10	X: Φ40/10 YZ: Φ50/10	Φ50/12
X-axis guide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail
Y-axis guide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail
Z-axis guide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail
Cutting speed (mm/min)	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy (mm)	±0.005	±0.005	±0.005	±0.005	±0.006	±0.006	±0.006	±0.006
Repetitive positioning accuracy (mm)	±0.004	±0.004	±0.003	±0.004	±0.005	±0.005	±0.005	±0.005
Air pressure (kg/cm ²)	≥6	≥6	≥6	≥6	≥6	≥6	≥6	≥6
Power (KVA)	20	20	25	25	30	30	40	40/45
Mechanical weight (kg)	5500	6000	8000	9000	9500	10000	11000	15000
Machine tool overall dimension (L*W*H)	2600*2350*2600	2600*2350*2600	3200*2700*2900	3600*3000*2850	3800*3200*2900	3900*3000*3100	4300*3300*3500	4900*3800*3500



Parameter table for two wire one hard series

Model/Unit	VMC-850L	VMC-1167L	VMC-1168L	VMC-1270L	VMC-1380L	VMC-1580L	VMC-1890L
X-axis stroke (mm)	800	1100	1100	1200	1300	1500	1800
Y-axis stroke (mm)	500	600	700	700	800	800	900
Z-axis stroke (mm)	500	700	700	700	700	800	720
Spindle end face to work table distance (mm)	110-610	95-795	110-810	110-810	100-800	85-885	115-835
Distance from spindle center to column guide rail (mm)	560	654	735	765	850	865	950
Workbench size (mm)	1000*500	1200*600	1300*650	1360*710	1400*800	1700*800	2000*900
Maximum load of workbench (kg)	450	800	1200	1000	1500	1500	1600
Width of T-shaped groove on workbench (mm)	5-18	5-18	5-18	5-18	5-18	5-18	5-22
Spindle taper hole	BT40 Φ150	BT40 Φ150	BT40 Φ150	BT50 Φ155	BT50 Φ155	BT50 Φ155	BT50 Φ190
Maximum spindle speed (rpm)	8000	8000	8000	8000	8000	8000	8000
Spindle/motor specifications (kw)	7.5	11	11	15	15	18.5	18.5/22
Three axis/motor specifications (kw)	2*2*2	3*3*3*	3*3*3	3*3*3	3.5*3.5*3.5	4.5*4.5*4.5	4.5*4.5*7
Three axis maximum movement speed (m/min)	24/24/16	24/24/16	24/24/16	18/18/12	18/18/12	18/18/12	15/15/12
XYZ screw specifications (mm)	Φ40/12	XY: Φ40/12 Z: Φ40/10	XY: Φ40/12 Z: Φ40/10	Φ40/10	XYZ: Φ50/12	X: Φ40/10 YZ: Φ50/10	Φ55/12
X-axis guide rail	35	45	45	45	45	55	55
Y-axis guide rail	45	45	35	45	35(Four tracks)	45(Four tracks)	45(Four tracks)
Z-axis guide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail	Slide rail
Cutting speed (mm/min)	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy (mm)	±0.005	±0.005	±0.005	±0.006	±0.006	±0.006	±0.006
Repetitive positioning accuracy (mm)	±0.004	±0.003	±0.004	±0.005	±0.005	±0.005	±0.005
Air pressure (kg/cm ²)	≥6	≥6	≥6	≥6	≥6	≥6	≥6
Power (KVA)	20	25	25	30	30	40	45/50
Mechanical weight (kg)	5500	8500	9000	9500	10000	11000	15000
Machine tool overall dimension (L*W*H)	2600*2350*2600	3200*2700*2900	3600*3000*2850	3800*3200*2900	3800*3000*3100	4300*3300*3500	4900*3800*3500

Standard accessories		Selective control system	Selective accessories	
Fully enclosed protective cover	Electrical box air conditioner	M80 -MITSUBISHI M80B system	Chip removal machine	BT40/BT50 knife handle
Program manual and operation manual	Work status warning light	FANUC 0I-MF	Pressing plate	Fifth axis (fourth axis plus tilt axis)
Automatic lubrication system	Certificate of conformity, maintenance manual	828D -SIEMENS 828D	Tool magazine (24-30 pieces)	Tool unloading seat
Transmission line or network cable	Handheld electronic handwheel	818B -HUAZHONG 818B	10000/12000/15000 High-speed spindle	Gearbox
Circulating cooling system	Laser watch, CF card	22MA -SYNTEC 22MA	Spindle center water outlet system	Flat nose pliers
Horizontal adjustment screws and pads	Toolbox and tools		Fourth axis (CNC indexing plate)	
Quartz work light	Spindle oil cooler			

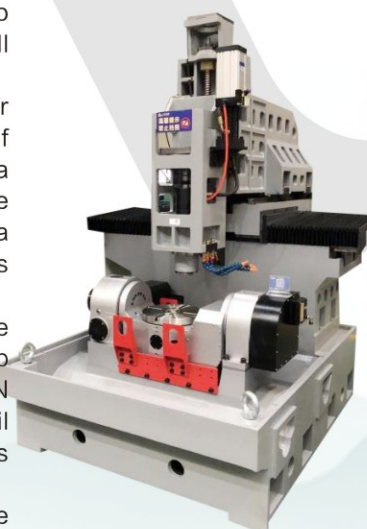


Five axis high-precision machining center



High rigidity High speed High accuracy

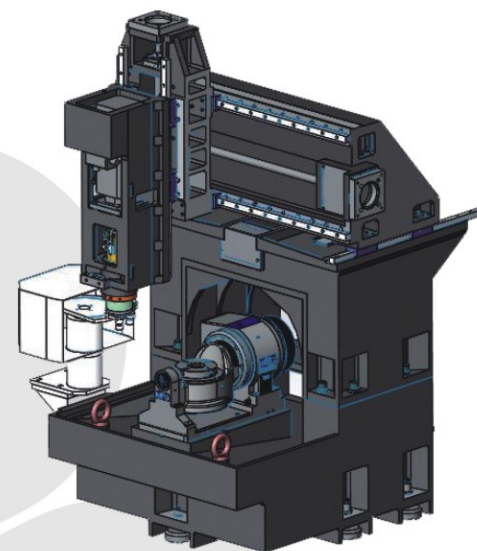
- ◎ The machine tool bed, column, sliding plate, crossbeam, and spindle box are all designed with reinforced structures. The column is fixed on the bed, and the machine tool castings are all made of resin sand castings. After two manual aging treatments, the stability is good, the strength is high, and all accuracy is stable and reliable.
- ◎ The QVF-650 five axis machining center adopts a spindle servo motor directly connected to high-speed spindle components, with a wide range of stepless speed changes and a maximum speed of 20000 rpm. Adopting a separate oil cooling system for circulating cooling of high-speed spindle components. Ensure that the main transmission system maintains a constant temperature, thereby ensuring that the machine tool maintains stable working accuracy.
- ◎ The diameter of the cradle turntable is 650mm, and both the B and C axes are driven by torque motors. The B and C CNC axes are fully closed-loop controlled rotating axes, and the absolute angle encoder from HEIDENHAIN in Germany is used as the position detection component. The turntable oil cooling system is used for constant temperature cooling of the B and C axes to ensure the optimal torque output of the torque motor.
- ◎ The tool magazine adopts a cam type (disc type) robotic arm tool magazine with a capacity of 24 pieces. The tool magazine has the characteristics of fast tool changing speed, bidirectional arbitrary tool selection, and accurate and reliable tool changing.
- ◎ The machine tool is equipped with a Siemens 840D control system, which has complete functions, reliable performance, and convenient operation, and has been widely adopted by domestic users.



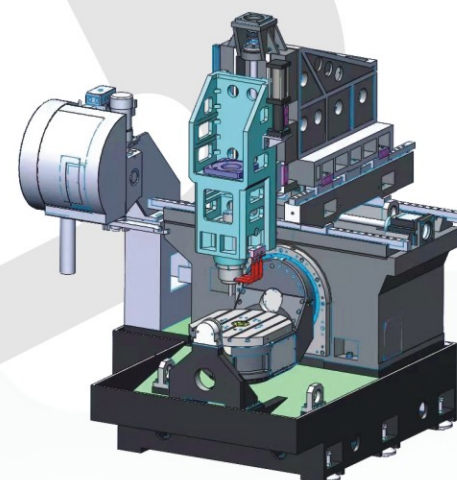
QVF-320



Parameter table of five axis high-precision machining center



QVF-170



QVF-650

Model/Unit	QVF-170	QVF-320	QVF-650
Workbench size (mm)	Φ 170	Φ 320	650
X-axis stroke (mm)	600	600	820
Y-axis stroke (mm)	200	320	520
Z-axis stroke (mm)	300	360	460
Maximum load of workbench (kg)	50	200	300
T-groove dimension (mm)	4-12*90°	8-14*45°	5 - 14
Spindle end face to work table distance (mm)	150-450	220-580	220-680
Distance from spindle center to column guide rail (mm)	140	183.5	187
XYZ axis positioning accuracy (mm)	± 0.005/300	± 0.005/300	± 0.005/300
XYZ axis repeated positioning accuracy (mm)	± 0.003/300	± 0.003/300	± 0.003/300
BC axis positioning accuracy (sec)	± 5	± 5	± 5
BC axis repeated positioning accuracy (sec)	± 4	± 4	± 4
Spindle motor power (kw)	5.5	7.5-11	15
Spindle speed (rpm)	BT-30 Φ 100	BBT-40 Φ 120	BBT-40 Φ 150
Spindle speed (rpm)	20000	12000	20000
Three axis/motor (nm)	16/16/16	16/16/16	16/16/20
Three axis rapid movement (mm/min)	30/30/30	36/36/36	24/24/24
XYZ rail specifications	30/30/30(pin roller)	35/35/35(pin roller)	45/45/45(pin roller)
XYZ screw rod specifications	3210/3210/3210	4012/4012/3212	4508/4508/4508
Mechanical weight (kg)	4500	7500	11000

Standard accessories

Fully enclosed protective cover	Program manual and operation manual
Automatic lubrication system	Transmission line or network cable
Circulating cooling system	Horizontal adjustment screws and pads
Quartz work light	Electrical box air conditioner
Work status warning light	Certificate of conformity, maintenance manual
Handheld electronic handwheel	Laser watch, CF card
Toolbox and tools	Spindle oil cooler
Automatic chip removal machine	Oil water separation device
Pressing plate	Tool magazines (24 pieces)

Selective Accessories

Spindle center water outlet system
BBT40 knife handle
Oil mist recovery device
Automatic measuring head
Tool setting gauge

Selective control system

SIEMENS 840D
HUAZHONG 848D
SYNTEC 220MA-5
HEIDENHAIN



High speed engraving and milling machine



Taiwan SYNTEC 22MA system (Standard)



Japan ITSUBISHI E80 system (Selective)



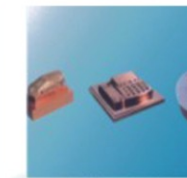
Control system



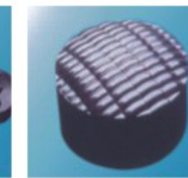
Imported bearings from Japan



High speed electric spindle



Red copper electrode



Car lamp steel mold



Watchcase electrode
Diamond embedded steel watch case



Precision ball screw



Taiwan linear guide rail



Coupling



Industrial model



Graphite bone slice



Mobile phone model



Parameter table of high speed engraving and milling machine

Model/Unit	DX-650	DX-870	DX-1011	DX-1280	DX-1210 (TZ)
Workbench size (mm)	600*500	800*700	1000*1000	1200*800	820*1300
Front and rear stroke of workbench (mm)	600	800	1000	800	1250
Spindle left and right stroke (mm)	500	700	1100	1200	1050
Spindle up and down stroke (mm)	250	330	500	500	600
Maximum load of workbench (kg)	300	400	800	950	800
T-groove size (mm)	5-18*100	5-18*115	7-20*160	7-20*160	5-18*160
Distance from spindle nose end face to workbench (mm)	50-310	50-380	50-550	50-550	150-750
Machine tool positioning accuracy (mm)	±0.005	±0.005	±0.006	±0.006	±0.006
Machine tool repeated positioning accuracy (mm)	±0.003	±0.003	±0.004	±0.004	±0.004
Spindle power (kw)	5.5	5.5/7.5	11	11	11
Spindle cone hole and diameter (mm)	ER25/φ125	ER25/φ125	BT40/φ150	BT40/φ150	BT40/φ150
Maximum tool diameter (mm)	φ16	φ16	φ25	φ25	φ25
Spindle speed (rpm)	24000	24000	12000	12000	12000
Gantry width (mm)	760	760	1100	900	1050
Screw rod model	3205	3208	4010	4010	4010
Maximum movement speed (mm/min)	10000	10000	10000	10000	18000
Three axis servo motor power (kw)	X0.85 Y0.85 Z0.85	X1.3 Y1.3 Z1.3	X2 Y2 Z2	X2 Y2 Z2	X2 Y2 Z3
Three axis cutting speed (mm/min)	1-6000	1-6000	1-6000	1-6000	1-6000
Spindle cooling method	Oil-cooled	Oil-cooled	Oil-cooled	Oil-cooled	Oil-cooled
Mechanical weight (kg)	3500	4000	6500	8500	8000
Overall dimensions of machine tool (mm)	2200*1900*2500	2400*2500*2600	3030*2200*2600	3600*2500*2800	3600*2500*2800

Standard steel accessories

- Fully enclosed protective cover
- Automatic lubrication system
- Circulating cooling system
- Quartz work light
- Work status warning light
- Handheld electronic handwheel
- Toolbox and tools
- Oil mist recovery device
- Automatic chip removal machine
- Program manual and operation manual
- Transmission line or network cable
- Horizontal adjustment screws and pads
- Electrical box air conditioner
- Certificate of conformity, maintenance manual
- Laser watch, CF card
- Spindle oil cooler
- Oil water separation device
- Tool magazines (24 pieces)

Selective Accessories

- Spindle center water outlet system
- BBT40 knife handle
- Tool unloading seat
- Automatic measuring head
- Platen
- Tool setting gauge

Selective control system

- MITSUBISHI E80
- SIEMENS 840D
- HUAZHONG 848D
- SYNTEC 220MA-5
- HEIDENHAIN



Horizontal machining center



Technical characteristics



Good choice for precision molds and product processing

The rapid displacement speed of the XYZ axis is

32/36/36m/min

Spindle speed: **6000RPM**

Tool change speed T~T:**5.5 s**

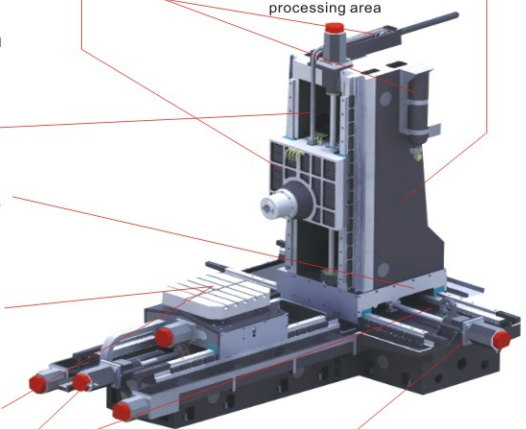
BT-50 Precision spindle

1. Resin sand castings, all of which have undergone computer-controlled electric furnace tempering treatment to ensure that the machine can last for a long time.
2. The machine body is designed with oil-water separation and spiral chip removal structure, making the machine tool more user-friendly and with excellent performance preservation.
3. The motor seat, bearing seat, and machine body grinding shovel are combined and designed with no cushion blocks to ensure the machine tool is equipped with long-term accuracy maintenance.
4. The three-axis adopts high-precision, high-speed, and can withstand high loads Japanese or European and American brand ball lines. The sliding rail and ball screw ensure dynamic accuracy and durable service life.
5. The machine adopts an enlarged track design, and the span of the guide rails is increased for all three axes, demonstrating excellent performance during cutting dynamic accuracy. All three axes are equipped with grating rulers for installation, and the lubricating oil circuit adopts a built-in design.
6. The three-axis bearings are Japanese NSK or German FAG brands, and all three axes are equipped with ball screws using bearings to reduce thermal deformation and improve machining stability.
7. The machine tool ultimately undergoes laser interferometer inspection and laser circular inspection, providing high-quality circular inspection cutting, faster displacement, and finer forward and backward milling segment differences, making it more efficient than traditional milling machines for cutting sharpness.
8. The body is designed with oil-water separation and spiral chip removal structure, which increases the strength of the pin groove and has a built-in longitudinal structure ribs can be lifted as a whole machine.
9. The workbench adopts a rotating workbench imported from Taiwan, with strong load-bearing capacity and high indexing accuracy, which can be used during work. When the center of gravity of the workpiece is offset by 150mm, it is still stably processed.
10. Enlarge the cutting outlet, easy cutting, no leakage of cutting fluid, optimize the discharge pin, a mechanical structure that can be centrally discharged.
11. Three-axis full stroke design, with the work clamp directly installed on the Z-axis bed, ensuring stable workbench during processing fixed, providing higher stability and redesigning all axial drag chains for longer lifespan and simpler maintenance. The X-direction motor is positioned to the right, providing convenience for the installation of the tool magazine.
12. The three-axis motor seat, bearing seat, and machine body grinding and scraping are matched, adopting a design without pads, ensuring that the three points of the assembly of the safety screw are concentric.

The spindle box is designed with high rigidity optimization, adding a slider for better support. At the same time, the length of the nose can also be increased by 100mm according to actual needs.

Y-axis balance: Adopting a hydraulic balance system, the accumulator is independently supplied, bringing more reliable stability.

Dynamic column design brings greater free space to the processing area.

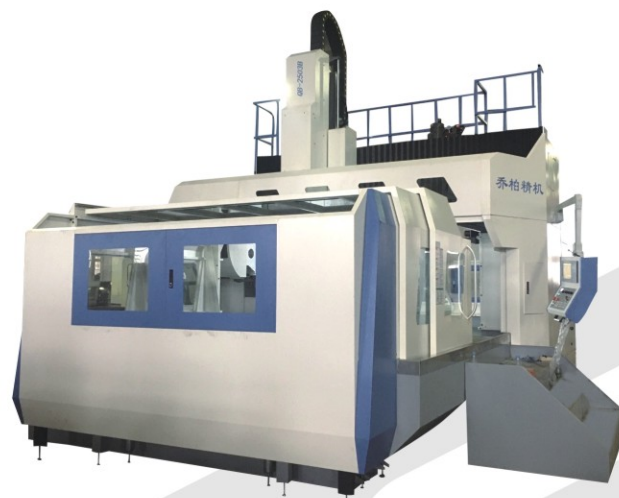


Adopting Japanese precision scraping method and manually operated by dedicated personnel, ensuring a corner area of every square inch, maintain optimal geometric accuracy and retention of the fuselage.

Specification and model	QH-865L (Cross slide circular table)	QH-970L (Cross slide circular table)	QH-1075L (Cross slide circular table)	QH-1290 (Cross slide circular table)	QH-1290L (Cross slide circular table)	QH-1814 (Cross slide circular table)	QH-1814L (Cross slide circular table)	QH-1610L (Inverted T-shaped second line)	QH-1615L (Inverted T-shaped second line)	QH-1810L (Inverted T-shaped second line)	QH-1815L (Inverted T-shaped second line)	QH-630A (Positive T-shaped second line)	QH-6363 (Positive T-shaped second line)	YTH-500 (Inverted T-shaped)	YTH-630 (Inverted T-shaped)	YTH-800 (Inverted T-shaped)	YTH-1000 (Inverted T-shaped)
X-axis stroke (mm)	800	1100	1000	1200	1200	1800	1800	1600	1600	1800	1800	1100	1050	700	1050	1600	1600
Y-axis stroke (spindle box moves up and down) (mm)	600	700	750	900	900	1400	1400	1000	1000	1000	1500	900	900	600	750	1000	1000
Z-axis stroke (mm)	500	550	600	700	700	900	900	1000	1500	1000	1000	1100	1050	500	900	1000	1000
Spindle center to workbench (mm)	125-625	-55-645	70-820	150-1050	70-970	160-1560	10-1410	220-1220	220-1720	250-1250	220-1720	80-980	0-900	90-690	120-870	120-1120	120-1120
Spindle nose end to workbench center (mm)	100-700	150-700	50-650	120-820	150-850	200-1100	200-1100	180-1180	180-1180	370-1370	180-1180	100-1200	160-1210	120-700	130-1030	200-1200	200-1200
Workbench size (mm)	1000 × 500	500 × 500	1300 × 600	1360 × 700	1360 × 700	2000 × 900	2000 × 900	1800 × 900	1800 × 1500	2000 × 900	2000 × 900	630 × 630	630 × 630	500 × 500	630 × 700	800 × 800	1000 × 1000
T-shaped groove on workbench (mm)	5-18 × 90	/	5-18 × 120	5-18 × 152.5	5-18 × 152.5	5-22 × 165	5-22 × 165	5-22 × 165	5-18 × 165	5-18 × 165	5-22 × 165	5-18 × 100	5-18 × 100	5-22	5-22	5*22*200	5*22*200
Maximum load of workbench (kg)	450	800	800	1600	1000	1600	1600	3500	3500	4000	4000	1200	1000 × 2	400	1500	2000	2200
Minimum indexing of workbench	/	/	/	/	/	/	/	/	/	/	/	0.001° / 1°	0.001° / 1°	1°	1°	1°	1°
Number of workbenches	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1
Maximum spindle speed (rpm)	8000	8000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	8000	6000	6000	6000
Spindle taper hole	Bt40ε150	Bt40ε150	Bt50ε190	Bt50ε190	Bt50ε190	Bt50ε190	Bt50ε190	Bt50ε190	Bt50ε190	Bt50ε190	Bt50ε190	Bt50 ε 190	Bt50ε190	BT-40/150	BT-50/190	BT-50/190	BT-50/190
Spindle motor power (kw)	7.5	11	11	15	15	18.5	18.5	18.5	18.5	18.5	18.5	18.5	22	15	15/18.5	18.5	18.5
Three axis motor power	2/2/2	3/3/3	3/3/3	3/3/3	3/3/3	4.5/4.5/4.5	4.5/4.5/4.5	7/4.5/7	7/4.5/7	7/4.5/7	7/4.5/7	4.5/4.5/4.5	4.5/4.5/4.5	3/3/3	4.5/4.5/4.5	4.5/4.5/4.5	4.5/4.5/4.5
X, Y, Z-axis guide rail specifications	35/Hard Rail/35	MSA45S, Rectangular quenching, MSA45LS	MSA45S, Rectangular quenching, MSA45LS	X, Y, Z Rectangular quenched guide rail	MSA45S, Rectangular quenching, MSA45LS	X, Y, Z Rectangular quenched guide rail	MSA45S, Rectangular quenching, MSA45LS	X, Y, MSA55 Z Rectangular quenched guide rail	X: 5512, Y: 5512 Z: 5512	X, Z: 55Roler Y: Rectangular quenched guide rail	X, Y: 55Roler Z: Rectangular quenched guide rail	5010	RUE55, RUE55 RUE55	45/45/45	45/45/50	55/55/55	55/55/55
Three axis fast movement speed (m/min)	24/24/24	24/16/24	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	12/12/12	24	24	30/30/24	24/24/24	16/16/12	16/16/12
Cutting feed rate (m/min)	1-10000	1-8000	1-8000	1-8000	1-8000	1-8000	1-8000	1-8000	1-8000	1-8000	1-8000	1-10000	1-10000	1-10000	1-10000	1-10000	1-10000
Positioning accuracy (mm)	±0.005	±0.005	±0.005	±0.005	±0.005	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005/300	±0.005	±0.005	±0.005	±0.005	±0.005	±0.005
Repetitive positioning accuracy (mm)	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004	±0.004
Air pressure (kg/cm ²)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Power (KVA)	18	25	25	30	30	38	38	42	42	42	42	40	45	30	40	40	40
Mechanical weight (kg)	5500	7000	7000	10000	9000	14500	14000	12000	13500	12500	14000	12000	12500	7000	8000	20000	20000



Gantry machining center



Parameter Table of gantry machining center

MODEL	VMC-1210B	VMC-1610B	VMC-2011B	VMC-1612B	VMC-1612C	VMC-2012B	VMC-2012C	VMC-2016B	VMC-2016C	VMC-2516B	VMC-1614B	VMC-2014B	VMC-2013B	VMC-3013B	VMC-2015B	VMC-2515B	VMC-2518B	VMC-4018B	VMC-3020B	VMC-4020B	VMC-3021B	VMC-4021B	VMC-3022B	VMC-4022B	VMC-5022B	VMC-6022B	
Workbench																											
Workbench size (mm)	900 × 1400	900 × 1800	900 × 2200	1000 × 1600	1000 × 1600	1000 × 1600	1000 × 2000	1300 × 2000	1300 × 200	1300 × 2500	1200 × 1700	1200 × 2100	1200 × 2100	1200 × 3000	1400 × 2000	1400 × 2500	1600 × 2500	1600 × 4000	1800 × 3000	1800 × 4000	1800 × 3000	1800 × 4000	2000 × 3000	2000 × 4000	2000 × 5000	2000 × 6000	
T-groove size (mm)	7-22 × 125	7-22 × 125	7-22 × 125	7-22 × 140	7-22 × 140	7-22 × 140	7-22 × 140	7-22 × 170	7-22 × 170	7-22 × 170	7-22 × 170	7-22 × 170	7-22 × 150	7-22 × 150	7-22 × 170	7-22 × 170	9-22 × 180	9-22 × 180	9-22 × 180	9-22 × 180	9-22 × 180	9-22 × 180	9-22 × 200	9-22 × 200	9-22 × 200	9-22 × 200	
Maximum load (kg)	1.6	2	4	2	2	3	3	4	4	5	3.5	3.5	3	5	5	6	5	8	8	10	9	12	12	16	20	25	
Stroke																											
Three axis stroke (mm)	1200 × 1100 × 800	1600 × 1100 × 800	2000 × 1200 × 800	1600 × 1300 × 800	1600 × 1300 × 800	2000 × 1300 × 800	2000 × 1300 × 800	2000 × 1650 × 800	2000 × 1650 × 800	2500 × 1650 × 800	2000 × 1500 × 800	2000 × 1500 × 800	2200 × 1400 × 800	3200 × 1400 × 800	2200 × 1650 × 800	2700 × 1650 × 800	2700 × 1800 × 800	4200 × 1800 × 800	3200 × 2000 × 800	4200 × 2000 × 800	3200 × 2100 × 1000	4000 × 2100 × 1000	3200 × 2600 × 1000	4200 × 2600 × 1000	5200 × 2600 × 1000	6200 × 2600 × 1000	
Distance from spindle nose end to workbench (mm)	140-940	140-940	50-850	90-990	150-950	190-990	150-950	250-1050	205-1005	250-1050	150-950	150-950	70-870	70-870	70-870	70-870	170-970	170-970	170-970	200	2100	2100	2300	2300	2300	2300	2300
Gantry width (mm)	1100	1100	1200	1300	1300	1300	1300	1660	1660	1660	1500	1500	1400	1400	1650	1650	1800	1800	2000	2000	2100	2100	2300	2300	2300	2300	
Transmission mode	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	XYZ axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	2:1 (optional with three-axis direct transmission)	2:1 (optional with three-axis direct transmission)	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	X, Y, Z axis direct connection X: Belt transmission ratio 2.5:1 Y, Z axis direct connection	
Z-axis counterweight	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance
Spindle																											
Spindle speed (rpm)	8000	8000	8000	6000	12000	6000	12000	6000	12000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
Spindle specification	BT-50	BT50	BT50	BT50	BT40	BT50	BT40	BT50	BT40	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50
Spindle diameter (mm)	155	155	155	190	150	190	150	190	150	190	190	190	190	190	190	190	190	190	190	190	190	190	200	200	200	200	
Reduction ratio (high, low)	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	
Standard spindle	Belt	Belt	Belt	Belt	direct transmission	Belt	direct transmission	Belt	direct transmission	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt
Quick movement																											
Three axis cutting feed rate (mm/min)	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	
Three axis rapid movement (m/min)	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	
Accuracy																											
Positioning accuracy (mm)	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	
Repeat position accuracy (mm)	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300
Drive Motor																											
Spindle drive motor (kw)	15	15/18.5	18.5	18.5	11	18.5	11	18.5	11	18.5	18.5	18.5	18.5	18.5	22	22	22	22	22	22	22	22	22	22	22	22	22
X, Y, Z drive motor (kw)	3	3	7/4.5/4.5	4.5/4.5/4.5	4.5/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5
X, Y, Z ball screw (mm)	XYZ:5010	XYZ:5010	X:direct transmission (R50) Y,Z:direct transmission (R50)	XYZ:direct transmission (R50)	XYZ:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:direct transmission (R50) Y,Z:direct transmission (R50)	X:6310 YZ:5010	X:8016 YZ:5010	X:8310 YZ:5010	X:6316 YZ:5010	X:6316 YZ:5010	X:8020 YZ:5010	X:8016 YZ:5010	X:8020 YZ:5010	X:8016 YZ:5010	X:8020 YZ:5010	X:8016 YZ:5010	X:8020 YZ:5010	X:8016 YZ:5010	X:8020 YZ:5010	X:8016 YZ:5010
Track width/track number/slider number(mm)	XY:45*2 Z:Rectangular slide rail	XY:45*2 Z:Rectangular slide rail	XY:45*2 Z:Rectangular slide rail	X:45*6 Y:45*4 Z:Rectangular slide rail	X:45*6 Y:45*4 Z:45*6	X:45*6 Y:45*4 Z:Rectangular slide rail	X:45*6 Y:45*4 Z:45*6	X:55*6 Y:55*4 Z:Rectangular slide rail	X:55*6 Y:55*4 Z:45*10(Four tracks)	X:55*6 Y:55*4 Z:Rectangular slide rail	X:55*6 Y:55*4 Z:Rectangular slide rail	X:55*6 Y:55*4 Z:Rectangular slide rail	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2	XY:45*2
General specifications																											
Area (length × width × height) (mm)	4600 × 3200 × 4000	5300 × 3200 × 4000	6300 × 3200 × 4000	5300 × 3200 × 4000	5300 × 3200 × 4000	6300 × 3200 × 4000	6300 × 3200 × 4000	6300 × 3500 × 4200	6300 × 3500 × 4200	7000 × 3800 × 4200	5300 × 3600 × 4000	6300 × 3600 × 4000	6300 × 3500 × 4200	8300 × 3500 × 4200	6300 × 4000 × 4200	7300 × 4000 × 4200	7300 × 3800 × 4200	11000 × 4000 × 4200	7800 × 4500 × 4200	11000 × 4600 × 4200	8300 × 4600 × 4200	12000 × 5000 × 4400	10000 × 6000 × 4500	12500 × 6000 × 4500	15000 × 6000 × 4500	16000 × 6000 × 4500	
Net weight (kg)	12500	13500	15500	14000	13600	15000	14500	20000	20000	22000	13500	15500	18500	22500	19500	21500	21000	26000	23500	27000	28000	32000	29000	33000	38000	42000	



Technical characteristics of gantry machining center

- The gantry adopts HT300 high-strength resin sand casting, which has undergone secondary tempering and aging treatment. The material is stable and reliable, and the deformation is small.
- All large parts are processed on the imported pentahedron machining center with less clamping times, guaranteed workpiece size and tolerance fit.
- The machine tool uses a computer for finite element analysis (FEA), with a reasonable structure and better mechanical rigidity compared to the same machine weight.
- The machine tool base design with a spiral chip removal groove, which is convenient for sheet metal design and installation, and greatly improves the machine tool's leak resistance.
- The machine tool is equipped with three steps and stairs as standard, making it easy to load and unload materials and maintain the machine tool.
- The three-way servo motor is directly connected and can be equipped with an optional reducer, which can move quickly without crawling.
- All machine tools use imported well-known brand functional components.



Gantry machining center



Parameter table of gantry machining center

Standard accessories		Selective control system	Optional accessories	
Fully enclosed protective cover	Handheld electronic handwheel	MITSUBISHI M80	Chip conveyor	Pressure Plate
Pneumatic pulling force device	Toolbox and tools	FANUC	Knife Bank (24-30)	
Spindle device	Program manual and operation manual	SIEMENS	Bf, ZF gearbox	
Automatic Lubrication System	Transmission line or network cable		Spindle Center outlet system	
Circulating cooling system	Horizontal adjustment screws and pads		Full Gear Box	
Work light	Electric cabinet cooling system		Right Angle Head	
Steps and stairs	Spindle cooling system		Wanxiang head	

MODEL	VMC-3025B	VMC-4025B	VMC-5025B	VMC-6025B	VMC-3027B	VMC-4027B	VMC-5027B	VMC-6027B	VMC-8027B	VMC-3029B	VMC-4029B	VMC-5029B	VMC-6029B	VMC-8029B	VMC-4032B	VMC-5032B	VMC-6032B	VMC-8032B	VMC-4036B	VMC-5036B	VMC-6036B	VMC-8036B	VMC-4038B	VMC-5038B	VMC-6038B	VMC-8038B	
Workbench																											
Workbench size (mm)	2200 × 3000	2200 × 4000	2200 × 5000	2200 × 6000	2500 × 3000	2500 × 4000	2500 × 5000	2500 × 6000	2500 × 8000	2700 × 2000	2700 × 4000	2700 × 5000	2700 × 6000	2700 × 8000	2700 × 4000	2700 × 5000	2700 × 6000	2700 × 8000	2800 × 4000	2800 × 5000	2800 × 6000	2800 × 8000	2800 × 4000	2800 × 5000	2800 × 6000	2800 × 8000	
T-groove size (mm)	11-22 × 180	11-22 × 180	11-22 × 180	11-22 × 180	9-28 × 250	9-28 × 250	9-28 × 250	9-28 × 250	9-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	11-28 × 250	13-28 × 200	13-28 × 200	13-28 × 200	13-28 × 200	13-28 × 200	13-28 × 200	13-28 × 200	13-28 × 200	
Maximum load (kg)	10	15	18	20	15	19	23	27	32	17	20	25	30	35	20	25	30	35	20	25	30	35	20	25	30	35	
Stroke																											
Three axis stroke (mm)	3200 × 2500 × 1000	4200 × 2500 × 1000	5200 × 2500 × 1000	6200 × 2500 × 1000	3200 × 3000 × 1000	4200 × 3000 × 1000	5200 × 3000 × 1000	6200 × 3000 × 1000	8200 × 3000 × 1000	3200 × 3300 × 1000	4200 × 3300 × 1000	5200 × 3300 × 1000	6200 × 3300 × 1000	8200 × 3300 × 1000	4200 × 3300 × 1000	5200 × 3300 × 1000	6200 × 3300 × 1000	8200 × 3300 × 1000	4000 × 3600 × 1000	5000 × 3600 × 1000	6000 × 3600 × 1000	8000 × 3600 × 1000	4000 × 3800 × 1000	5000 × 3800 × 1000	6000 × 3800 × 1000	8000 × 3800 × 1000	
Distance from spindle nose end to workbench (mm)	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1050	250-1050	250-1050	250-1050	250-1050	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250	250-1250
Gantry width (mm)	2500	2500	2500	2500	2700	2700	2700	2700	2900	2900	2900	2900	2900	2900	3200	3200	3200	3200	3600	3600	3600	3600	3800	3800	3800	3800	
Transmission mode	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Belt, transmission ratio 2.51 Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	X: Direct connector, 4:1 reducer Y: Belt, transmission ratio 2.51 Z: Gear, transmission ratio 2:1	
Z-axis counterweight	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance	Oil pressure + nitrogen balance
Spindle																											
Spindle speed (rpm)	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000	
Spindle specification	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	BT50	
Spindle diameter (mm)	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	
Reduction ratio (high, low)	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	1: 1; 1: 1.5	
Standard spindle	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt	Belt
Quick movement																											
Three axis cutting feed rate (mm/min)	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	10-7000	
Three axis rapid movement (m/min)	8/10/12	8/10/12	8/10/12	6/10/12	8/10/12	8/10/12	8/10/12	6/10/12	6/10/12	8/10/12	8/10/12	8/10/12	6/10/12	6/10/12	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10	8/10/10
Accuracy																											
Positioning accuracy (mm)	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	±0.003/300	
Repeat position accuracy (mm)	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	±0.002/300	
Drive Motor																											
Spindle drive motor (kw)	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	
X,Y,Z drive motor (kw)	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	7/4.5/4.5	
X,Y,Z ball screw (mm)	X:R8016 Y:R6310 Z:5010 XY:55*2	X:R8020 Y:R6310 Z:5010 XY:55*2	X:R8016 Y:R6310 Z:5010 XY:55*2	X:R10020 Y:R6310 Z:5010 XY:55*2	XY:R6316 Z:R5010 XY:45*2	X:R8020 Y:R6316 Z:R5010 XY:45*2	X:R8016 Y:R6316 Z:R5010 XY:45*2	X:R10020 Y:R6316 Z:R5010 XY:45*2	X:R10040 Y:R6316 Z:R5010 XY:45*2	XY:R6316 Z:R5010 XY:45*2	X:R8020 Y:R6316 Z:R5010 XY:45*2	X:R8016 Y:R6316 Z:R5010 XY:45*2	X:R10020 Y:R6316 Z:R5010 XY:45*2	X:R10040 Y:R6316 Z:R5010 XY:45*2	XY:R6316 Z:R5010 XY:45*2	X:R8020 Y:R6316 Z:R5010 XY:45*2	X:R8016 Y:R6316 Z:R5010 XY:45*2	X:R10020 Y:R6316 Z:R5010 XY:45*2	X:R10040 Y:R6316 Z:R5010 XY:45*2	XY:R6316 Z:R5010 XY:45*2	X:R8020 Y:R6316 Z:R5010 XY:45*2	X:R8016 Y:R6316 Z:R5010 XY:45*2	X:R10020 Y:R6316 Z:R5010 XY:45*2	X:R10040 Y:R6316 Z:R5010 XY:45*2	XY:R6316 Z:R5010 XY:45*2	X:R8020 Y:R6316 Z:R5010 XY:45*2	
Track width (mm)	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	Z:Rectangular slide rail	
General specifications																											
Area (length × width × height)(mm)	10000*6000*4500	12500*6000*4500	15000*6000*4500	16000*6000*4500	10000*6000*4500	12500*6000*4500	14000*6000*4500	16000*6000*4500	18000*6000*4500	10000*8000*5000	12500*8000*5000	14700*8000*5000	17000*8000*5000	19000*8000*5000	12500*6500*4500	15000*8000*5000	14500*8000*5000	20000*8000*5000	12500*6500*5000	14500*6500*5000	16500*6500*5000	18500*6500*5000	12500*7000*5000	14500*7000*5000	16500*7000*5000	18500*7000*5000	
Net weight (kg)	34000	39000	45000	52000	32000	36500	41500	47500	55000	34000	36000	43000	49000	57000	41000	46000	52000	60000	51000	58000	65000	79000	51500	58000	65000	79000	



High precision CNC lathe

Main technical characteristics

QC-45L

The Best Choice for Automotive Parts and Military Products

The rapid displacement speed of the

YZ axis is **36/36**m/min

Maximum spindle speed **4000**RPM

Taiwan precision spindle with **6**-inch precision chuck



Effective stainless steel protection and high rigidity structural design

The enclosed waterproof design effectively protects the normal operation of the screw rod and guide rail components. All sliding plates, spindle tables, turrets, and guide rail base contact surfaces are equipped with long shovels scraped to achieve optimal assembly accuracy, structural rigidity, and balanced load.



Optimized hydraulic scheme design

Independent hydraulic station design for maximum maintenance and convenient operation, effectively improving the heat dissipation effect of the hydraulic system.



Adopting high-precision NSK bearings from Japan



Quality assurance system

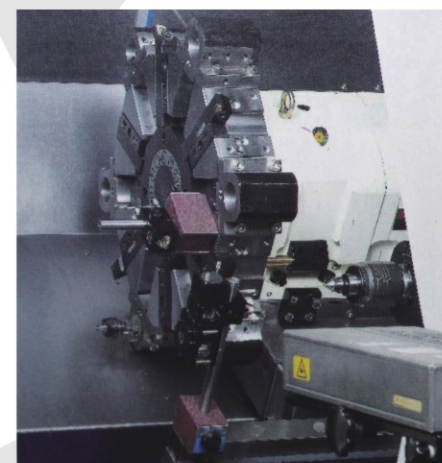
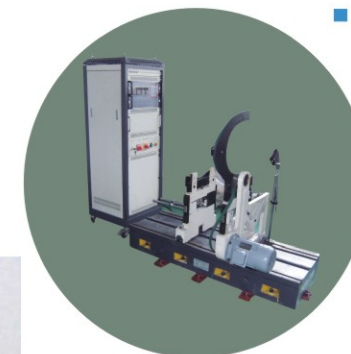
Spindle

High speed and high precision Taiwan spindle with large diameter, P4 grade precision bearing, high stability, low noise, high precision, and other advantages.



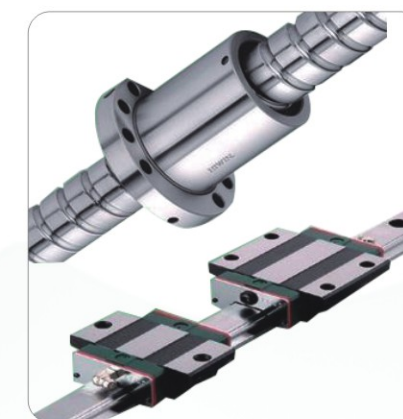
Dynamic balance inspection of spindle motor

High speed running balance inspection of the main shaft, Ensure that the spindle is free from deflection.

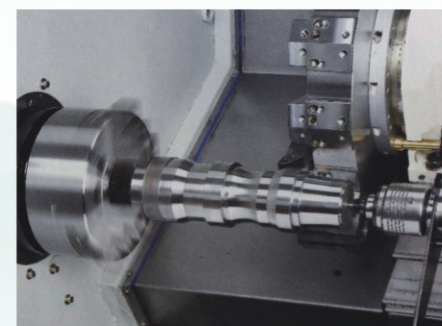


Laser inspection

All machines are produced under the ISO 9001 quality assurance system. All machines undergo final inspection of finished products on the production line, including actual cutting, laser measurement, etc. Implement programming for over 100 hours of actual machine testing and operation before all machines are shipped.



High quality Taiwan linear guide rail and screw rod



Inspection of standard turning parts

All machines shall be inspected by standard turning parts after completion, To ensure the accuracy of turning.



Rail parallelism inspection

Precision linear slide rail, after installation, it is necessary to verify the parallelism and operation of the two rails true straightness to ensure the accuracy of the track after installation.



High precision CNC lathe

Machine parts



■ Taiwan lathe turret



■ Efficient chain chip removal machine



■ Bar conveyor



■ Hydraulic chuck

SAMPLE PROCESSING



Parameter table of QC series oblique bed line rail CNC lathe

Models		QC-460L Turret milling with power cutters	QC-460L Knife tower tail block machine	QC-460L Knife Row machine	QC-5052 Knife Tower tail block machine	QC-5075 Knife Tower tail block machine	QC-4550 Knife Tower tail block machine	QC-4558 Knife Tower tail block machine	QC-4563 Knife Tower tail block machine
Processing range	Maximum turning diameter of the bed (mm)	Φ460	Φ460	Φ420	Φ500	Φ500	Φ500	Φ580	Φ650
	Maximum processing disc diameter (mm)	Φ360	Φ360	Φ360	Φ500	Φ500	Φ480	Φ580	Φ630
	Maximum processing workpiece length (mm)	390	420	200	520	750	580	1000	1000
	Maximum bar through-hole diameter (mm)	Φ46	Φ46	Φ46	Φ52	Φ52	Φ72	Φ72	Φ72
Spindle	Main nose end model	A2-5	A2-5	A2-5	A2-6	A2-6	A2-8	A2-8	A2-8
	Spindle through-hole diameter (mm)	Φ56	Φ56	Φ56	Φ66	Φ66	Φ87	Φ87	Φ87
	Three jaw chuck specifications	6"	6"	6"	8"	8"	10"	10"	10"
Main parameter	X-axis stroke (mm)	200	200	410	270	270	250	350	350
	Y-axis stroke (mm)	450	450	320	610	610	620	1120	1120
	Z-axis stroke (mm)	60							
	Spindle motor power (kw)	7.5/11	7.5/11	5.5-7.5	11	11	11-15	11-15	11-15
	Maximum spindle speed (rpm)	4200	4200	4500	4200	4200	2800	2600	2600
	XZ axis servo motor power (kw)	1.5	1.5	1.5	2.0/2.0	2.0/2.0	3.5/3.5	3.5/3.5	3.5/3.5
	Y-axis servo motor power (kw)	8N.m							
	X/Z axis lead screw specifications	3210/3610	3210/3610	3210/3210	3210/4010	3210/14010	3206/14010	4006/5010	4006/5010
	X/Z axis rail specifications	35	35	35	45	45	45	55	55
	Repetitive positioning accuracy(mm)	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Working roundness (mm)	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
Optional turret (special configuration)	Optional turret (special configuration)	12T	12T	Row knife	He Fu Knife Tower/ hydraulic knife tower	He Fu Knife Tower/ hydraulic knife tower	He Fu Knife Tower/ hydraulic knife tower	He Fu Knife Tower/ hydraulic knife tower	He Fu Knife Tower/ hydraulic knife tower
	Power head specifications	BMT40/ER25							
	Power head drive motor (N.m)	12							
	Maximum speed of power head (rpm)	4000							
	Recommended height dimension of turret center (mm)	80	80		100	100	80	100	100
Tailstock part	Sleeve diameter	Φ80	Φ80		Φ80	Φ80	Φ100	Φ100	Φ100
	Sleeve stroke (mm)	100	100		80	80	120	120	120
	Maximum stroke of tailstock (mm)	430	430		480	480	670	1250	1250
Other specifications	Tailstock sleeve tapered hole	Number Four Morse	Number Four Morse		Number Five Morse	Number Five Morse	Number Five Morse	Number Five Morse	Number Five Morse
	Total electrical power (kVA)	20	15	15	25	25	25	25	25
Machine size (mm)	Machine size (mm)	2350*1700*1880	2350*1700*1730	2100*1500*1720	2500*1550*1600	2800*1600*1680	2700*1250*1680	3250*1400*1900	3250*1400*1900
	Machine weight (kg)	3800	3500	2800	4000	4300	4500	5800	5800

Standard equipment

- Cooling system
- Automatic lubrication system
- Hydraulic unit
- Hydraulic chuck
- Fully enclosed protective cover
- Warning light
- Foot switch
- Horizontal adjustment pad iron
- Toolbox
- Tool seat
- Instructions

Selective equipment

- Automatic feeder
- Automatic chip conveyor
- Special power tools
- Special fixture
- Automatic door
- Taiwan turret

Selective control system

- Japan MITSUBISHI E80
- Taiwan SYNTEC
- Japan FANUC
- Germany SIEMENS 840D