

**High Stability, High Rigidity
Inventive & Intelligent Creation**



QUALITY COMES FROM CONFIGURATION, SERVICE COMES FROM HEART

DONGGUAN BAOKE PRECISION MACHINERY CO., LTD.
BAOFENG PRECISION MACHINERY(GUANGDONG)CO., LTD.
HUBEI BAOKE INTELLIGENT EQUIPMENT CO., LTD.
HONGKONG BAOFENG PRECISION MACHINERY CO., LTD.

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DONGGUAN BAOKE PRECISION MACHINERY CO., LTD.

QUALITY-ORIENTED, SERVICE FOREMOST, INTELLIGENT MANUFACTURING



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DONGGUAN BAOKE PRECISION MACHINERY CO., LTD., the registered brand is BAOFENG MACHINE

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Company honor

04

Honor is our recognition, belonging, responsibility, and motivation

3

Manufacturing technology and quality 05-06

The quality of machines is guaranteed by strict manufacturing technology and advanced testing equipment

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Product parameter 46-60

Various model, strict test setting for parameters, to ensure the accuracy of machine.

6

Production Base and Sales Area 61-62

3 production bases with 140000m² area, worldwide sales network and service network.



Dongguan Production Base	DONGGUAN BAOKE PRECISION MACHINERY CO.,LTD. V/VP/LP/Small gantry machine
Foshan Production Base	BAOFENG PRECISION MACHINERY(GUANGDONG)CO.,LTD V/T/E/UP/A series machine
Huangshi Production Base	HUBEI BAOKE INTELLIGENT EQUIPMENT CO.,LTD. HMC/Gantry machine/CNC lathe

Established in 2010 and headquartered in Dongguan, Guangdong Province, Baoke Precision Machinery (branded as Baofeng Machine) is a leading high-end CNC machine tool manufacturer integrating R&D, manufacturing, sales, and service. With the mission of delivering high-precision, cost-effective, and reliable machinery, we have built a global reputation over a decade, serving clients across 25 countries and regions with over 10,000 units delivered.

Manufacturing Excellence

Our three modern production bases span 140,000 square meters:

- Dongguan Base: Specializes in Five-axis machining centers, high precision vertical machining centers and small gantry machine.
- Foshan Base: Mainly used as a machine export workshop. Specializes in VMC, HMC and 5 axis machine.
- Huangshi Base: Specializes in DCMC, HMC and CNC lathe.

Innovation & Precision Assurance

Equipped with cutting-edge technologies such as Renishaw laser interferometers, Zeiss coordinate measuring machines, and G-TECH dynamic balancers, we ensure precision and stability in every machine. Our R&D team, comprising 70% technical experts, drives innovations in mechatronic systems and customized solutions for industries like automotive, 3C electronics, and mold manufacturing etc...

Global Service Network

With a wide range of product lines and flexible customization capabilities, we provide 24/7 technical support and tailored CNC solutions. Certified by ISO 9001 & CE, Baofeng Machinery combines rapid delivery, competitive pricing, and robust after-sales service to empower global partners in achieving manufacturing excellence.

Certificate of Honor



Manufacturing Process / Quality Inspection



01 Natural aging treatment

The cast iron undergoes high-temperature tempering and natural aging treatment to eliminate internal stress in casting, ensure continuously stable precision.

02 Machining

Divided into two parts: CNC machining and precision grinding. The machine guideway surfaces are all ground and processed by high-precision guideway grinders.

03 Manual scrapping process

All assembly surfaces of the machine are scrapped and manually processed to ensure geometric accuracy and contact stiffness

04 Ballscrew / Motor base inspection

Divided into linear guideway assembly, ballscrew assembly, bearing assembly, etc. Once an accessory is installed, it needs to be inspected and calibrated to ensure the accuracy of each component. This process is carried out by professional technicians, with testing equipment.

05 Machine accuracy inspection

The accuracy of each machine is inspected three times, that is inspecting for machine body, whole machine and before packing.

06 Taiwan G-tech dynamic balancer

Dynamic balance vibration detection and correction for spindle motor and spindle.

07 England Renishaw dual frequency laser interferometer

When detecting for the screw pitch error, the straightness of guideway in XX and YY directions can be tested at the same time, to ensure the processing and assembly accuracy of each part of machine, and to measure the real positioning and repeated positioning accuracy of machine.

08 German Carl Zeiss 3-coordinate measuring instrument

It is mainly used to test precision parts of machine tools, such as bearing seats, glands, motor flange plates, spindles, etc., as well as geometric tolerances and free-form surface tolerances of machined samples.

09 235 inspection standards

From machine body to whole machine, comply with 235 quality inspection standard to inspect for all processes, to ensure each machine to be high quality.

10 Machine packaging and shipping

A series high-speed and high-precision 5 axis machine

- ▶ A-axis is DDR torque motor with dual drive, C-axis is DDR torque motor with direct drive.
- ▶ Adopt FC30 high-intensity casting material + gantry type structure design, which enables high precision and high dynamics required for 5-axis machining.

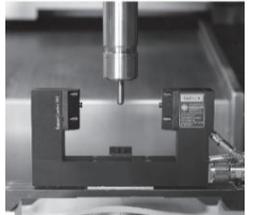


Siemens controller

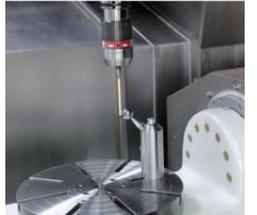
Heidenhain controller



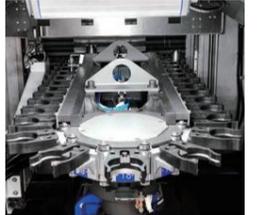
Torque motor



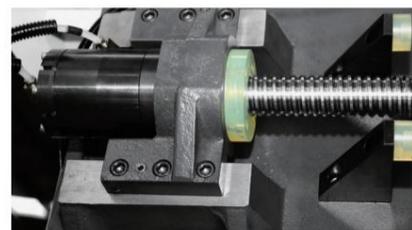
Laser tool setter



Workpiece's online measurement and rotary table center automatic calibration system



HSK-A63-32T Tool magazine



Three-axis hollow oil-cooled ballscrew



Fully closed-loop linear scale (X/Y/Z/A/C axis)



DD rotary table

Specification	Unit	BF-500A5	BF-630A5	BF-800A5
X axis travel	mm	600	900	1100
Y axis travel	mm	1000	1050	1250
Z axis travel	mm	500	650	
A axis rotary angle		-110---40°		-120--120°
C axis rotary angle		360°		
Distance from spindle nose to worktable	mm	110-610	120-770	
Maximum rotation diameter of workpiece		600	800	1000
Rotary table Dia.	mm	Φ500	Φ630	Φ800
Maximum load	kg	350	850	
T-slot width		12H8	14H8	
Reference aperture		Φ50H7		Φ50H8
Machine weight	kg	9500	18000	21500

5 axis BF-2618A5 Gantry Machining Center



2-axis milling head(Single side)



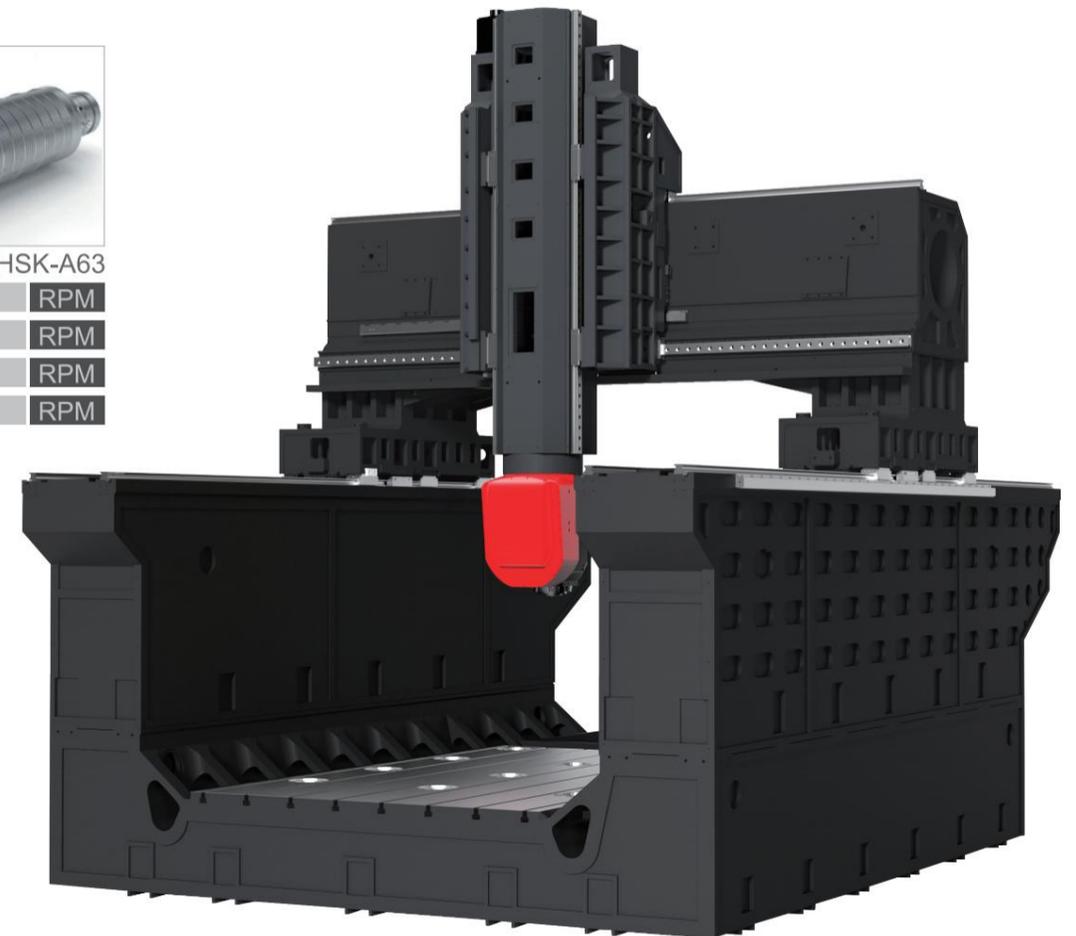
2-axis milling head(Double side)

- ▶ XYZ axis ballscrew exterior cycle cooling system
- ▶ XZ axis are dual drive design.
- ▶ AC axis are DDR direct-drive torque motor
- ▶ Moving gantry "fixed table" structure, maximum load 5000Kg/ m²



HSK-A100/HSK-A63

10000	RPM
12000	RPM
20000	RPM
24000	RPM



Specification	Unit	BF-2618A5	
Travel			
X axis	mm	2800	
Y axis	mm	1800	
Z axis	mm	1000	
Spindle nose to table	mm	400-1400	
Gantry width	mm	2340	
Worktable			
Table size	mm	2800x1800	
T-slot	mm	8-22x237	
Controller			
Standard controller (Siemens)		SINUMERIK ONE	
Spindle			
Driving type		Built-in	
Spindle speed	rpm	20000(MAX)	
Spindle taper and specification		HSK-T63	
Spindle motor power	kW	45	
Spindle motor torque	Nm	80/110	
3 axis			
X/Y/Z motor power	Nm	7.0/7.0/7.0	
X/Y/Z rapid feed	Nm	30/30/20	
Machine accuracy			
Positioning accuracy (dual direction)	mm	0.005/300	
Repeated positioning accuracy	mm	0.003/300	
Machine			
Air pressure	kg/cm ²	6~7bar	
Machine dimension:	Length	mm	6500
	Width	mm	3440
	Height	mm	4645
Weight(machine body)	kg	40000	

HT300

High strength resin sand gray cast iron

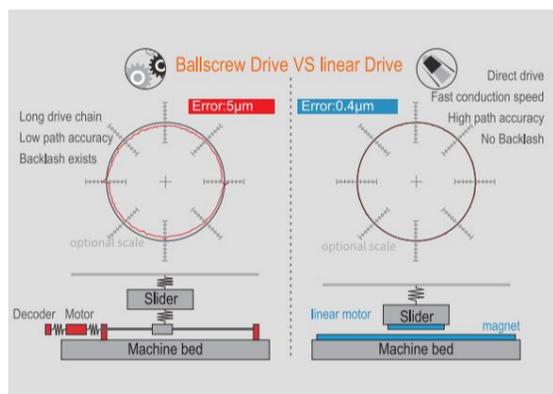
UP Series High Speed High Precision Machining Center

- ▶ The machine base and gantry beam are made of Schneberger mineral castings, which have excellent shock absorption and extremely low thermal sensitivity. They are the preferred base & beam material for super-precision machine tools.
- ▶ The three axis are driven by AC permanent magnet synchronous linear motors, and the moving and fixed windings are non-contact and wear-free. No transmission gap, the advantages of direct drive, standard use can achieve lifelong maintenance-free.
- ▶ Linear scale on X/Y/Z axis, fully closed loop measurement system.
- ▶ X/Y/Z rapid feed 60M/min, acceleration 10M/S².
- ▶ Fully enclosed metal cover, and equipped with an oil mist collector to recycle and filter oil mist, it is energy-saving and environmentally, to make safe production environment for both machine and operators.



X/Y/Z axis use direct drive linear motor.

- ▶ Rapid feed, high acceleration/deceleration
- ▶ No backlash, zero wear, permanent high precision.
- ▶ Simple structure, low maintenance cost.



Specifications	Unit	540UP
X Travel	mm	500
Y Travel	mm	400
Z Travel	mm	220
X Rapid feed	m/min	60
Y Rapid feed	m/min	60
Z Rapid feed	m/min	60
Max load on table	KG	300
Length	mm	2200
Width	mm	2010
Height	mm	2620
Spindle speed	rpm	30000

Standard configuration

- ▶ Workpiece blowing system
- ▶ Tool Chip flushing system
- ▶ Central lubrication system
- ▶ Spindle oil coolant
- ▶ Handwheel
- ▶ Guideway protection cover
- ▶ Full enclosed metal cover
- ▶ Alarming light
- ▶ Working light
- ▶ Rear chip flushing system
- ▶ Electric cabinet air conditioner
- ▶ Oil mist collector system
- ▶ X/Y/Z axes linear motor cooling system
- ▶ Head automatic locking cylinder balancing system
- ▶ Z-axis power failure backup function

Option

- ▶ Renishaw laser tool setter

UP Series High Speed High Precision Machining Center

- ▶ The spindle box adopts a slider movement design to ensure the consistency of Z-axis axial rigidity and accuracy;
- ▶ X axis adopts a gantry structure, which ensures the processing range while minimizing the spindle cantilever length;
- ▶ The gantry guideway adopts a stepped distribution, so that the center of gravity of X-axis operation is closer to the gantry casting;
- ▶ Equipped with high-speed and high-power HSK-A63 electric spindle, high torque, high rigidity and low vibration;
- ▶ 3 axis are equipped with linear scale for high-precision fully closed-loop position detection.



Specification	Unit	755UP	1312UP	1814UP
X axis travel	mm	700	1300	1800
Y axis travel	mm	550	1000	1400
Z axis travel	mm	500	700	
X rapid feed	m/min	30		15
Y rapid feed	m/min	30		15
Z rapid feed	m/min	30		15
Max load on table	kg	800	1800	4000
Length	mm	2900	4000	5075
Width	mm	2420	3000	3800
Height	mm	3000	3500	3900
Spindle speed	rpm	20000	18000	10000

HT300

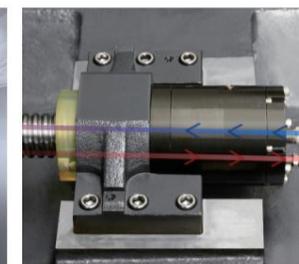
High strength resin sand gray cast iron



- ▶ Workpiece blowing system
- ▶ Tool chip flushing system
- ▶ Central lubrication system
- ▶ Spindle oil coolant
- ▶ Handwheel
- ▶ Heat exchanger
- ▶ Chip flushing system
- ▶ Guideway protection cover
- ▶ Full enclosed metal cover
- ▶ Alarming light
- ▶ Working light
- ▶ Rear chip flushing system
- ▶ Hollow oil-cooled ballscrew
- ▶ Electric cabinet air conditioner
- ▶ Ming Ji tool setter



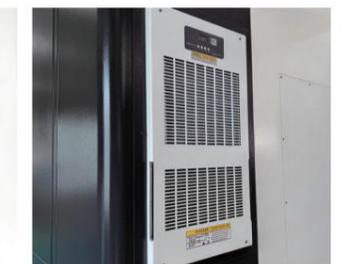
Stainless steel chassis



Hollow oil-cooled ball screw



HSK-A63-24T frequency tool magazine



Electric cabinet air conditioner

VP Series High Speed High Precision Machining Center

- ▶ Fully-supported box-type base structure, Y axis is above to X axis, to ensure the table always maintains full support in whole machining range of X/Y axis, and to avoid the overhang problem when table moves to far left or right.
- ▶ The machine bed dimensions such as the span of 3 axis linear guideway, sliders distance, the distance from spindle center to Z-axis guideway surface, etc., all strictly follow 1:1 ultra-wide and ultra-large structure with the equidistant distance between action point and support point.



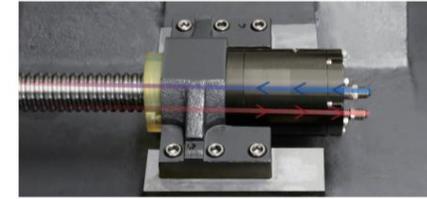
Standard configuration

- ▶ Workpiece blowing system
- ▶ Tool chip flushing system
- ▶ Central lubrication system
- ▶ Spindle oil coolant
- ▶ Handwheel
- ▶ Heat exchanger
- ▶ Guideway protection cover
- ▶ Dual screw+chain type chip conveyor
- ▶ Alarming light
- ▶ Working light

Option

- ▶ BBT40-15000RPM direct drive spindle
- ▶ BBT50-10000RPM direct drive spindle
- ▶ HSK-A63-15000RPM direct drive spindle
- ▶ BT40-24T/30T tool magazine
- ▶ HSK-A63-24T/30T tool magazine
- ▶ BT50-24T/30T tool magazine
- ▶ Coolant through spindle

Two-sides fully-supported box-type base structure



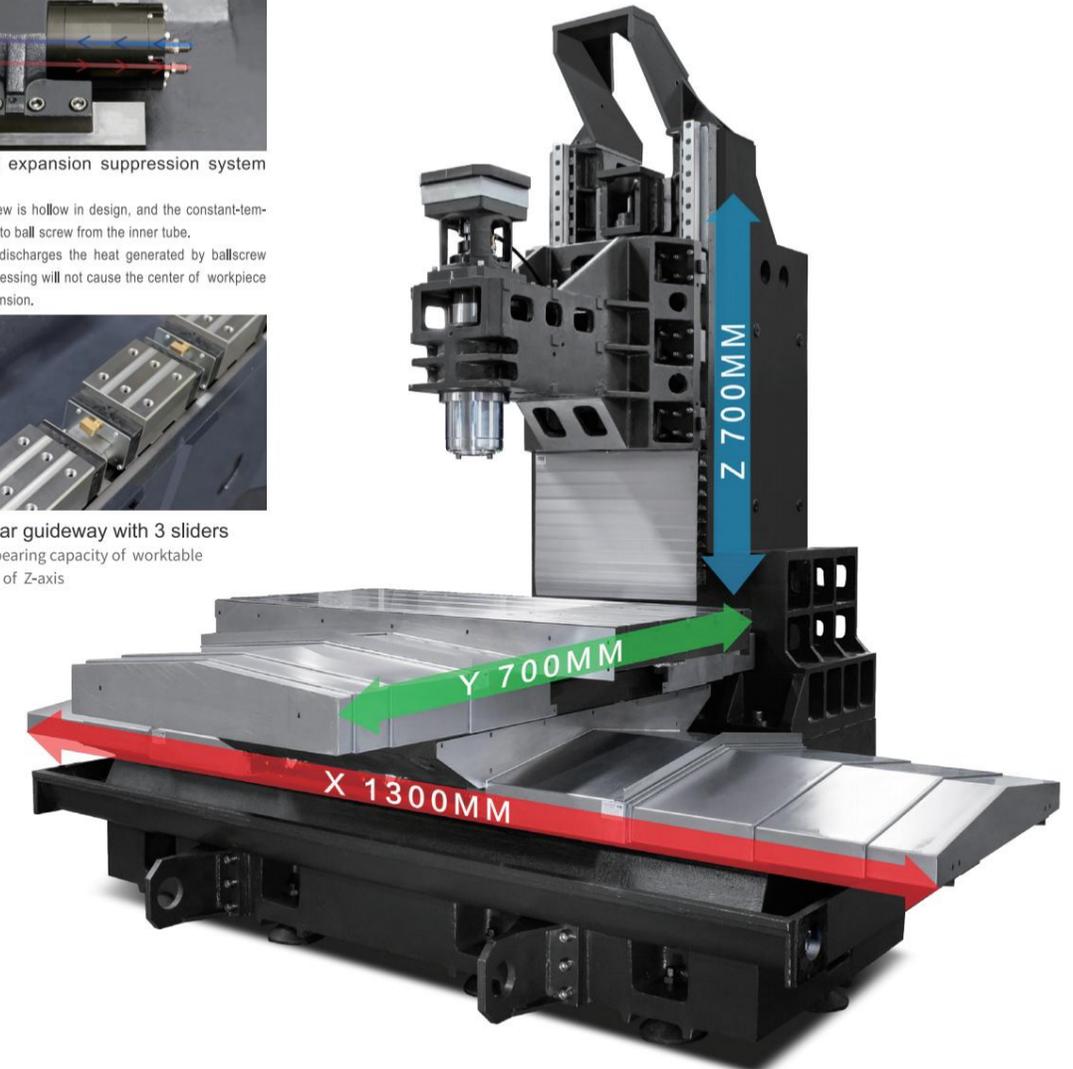
Ball screw thermal expansion suppression system (optional)

The large-diameter ball screw is hollow in design, and the constant-temperature cooling oil is sent to ball screw from the inner tube. The tail end returns and discharges the heat generated by ballscrew movement. Long-term processing will not cause the center of workpiece to drift due to thermal expansion.

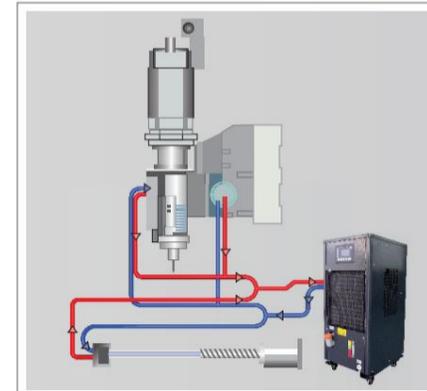


X/Z axis roller linear guideway with 3 sliders

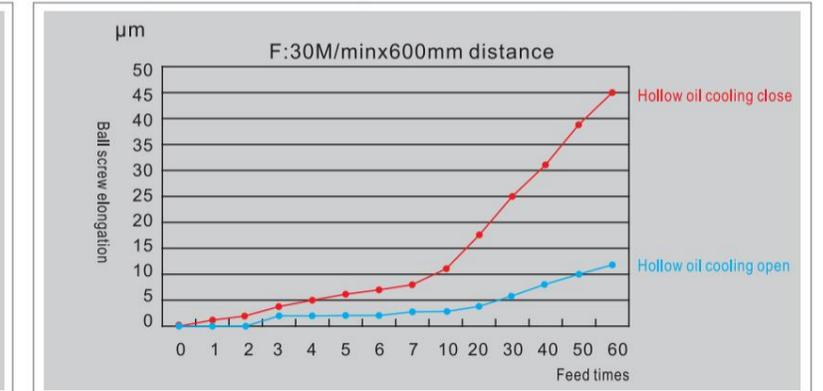
Ensure the large load-bearing capacity of worktable and the cutting rigidity of Z-axis



Innovative design concept servo axis and spindle thermal temperature rise suppression system



Spindle and 3 axis ball screw cooling device



Comparison table of positioning accuracy with ball screw cooling device and without ball screw cooling device

V Series Linear Guideway Machining Center

► This series of models adopt a high-rigidity structure supported by a large span, high precision linear guideway and ball screw design with locking preload is for X/Y/Z axis, it is fast, strong, and stable processing performance, that is suitable for high-precision parts and mold processing. It can be widely used in automobiles, machinery, instrumentation, textiles, and electronic instrument industries.



Larger and wider span herringbone design
The interior adopts dense and thickened rib arrangement, compared with ordinary columns, the body's rigidity, torsion resistance and bending resistance are enhanced. The contact area with the base is increased, the processing more stable accordingly.



Standard configuration

- ▶ Workpiece blowing system
- ▶ Tool Chip flushing system
- ▶ Central lubrication system
- ▶ Spindle oil coolant
- ▶ Handwheel
- ▶ Heat exchanger
- ▶ Guideway protection cover
- ▶ Full enclosed metal cover
- ▶ Alarming light
- ▶ Working light

Option

- ▶ BBT40-15000rpm direct drive spindle
- ▶ HSK-A63-15000rpm direct drive spindle
- ▶ BT40-24T/30T disc type tool magazine
- ▶ HSK-A63-24T/30T disc type tool magazine
- ▶ Coolant through spindle
- ▶ Dual screw + chain type chip conveyor

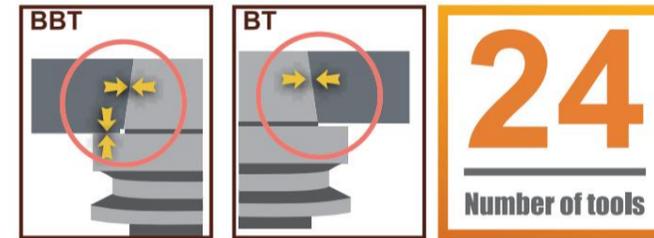


Y-axis has 4 linear guideway
X-axis support is more stable, it can improve processing stability.

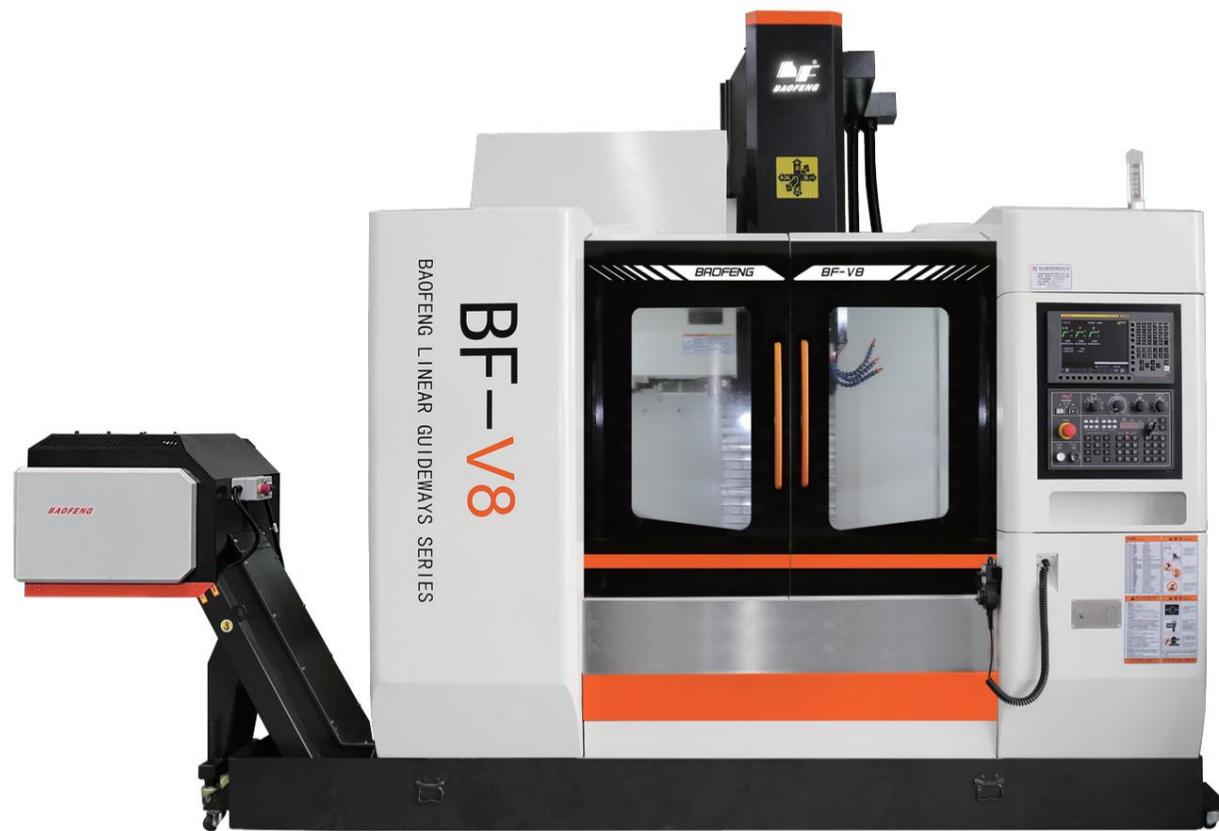
X-axis and Z-axis use the linear guideway with 3 sliders
Ensure the large load capacity of worktable and cutting rigidity of the Z-axis.

V Series Linear Guideway Machining Center

- ▶ Direct drive BBT40-12000rpm, high speed and high rigidity spindle.
- ▶ The machine structure uses Finite Element Analysis (FEA) to optimize the structural design.
- ▶ All parts are made of HT300 high-grade castings, after in-mold 48H thermal insulation + high-temperature annealing stress relief treatment, It is to ensure rigidity and stable precision.



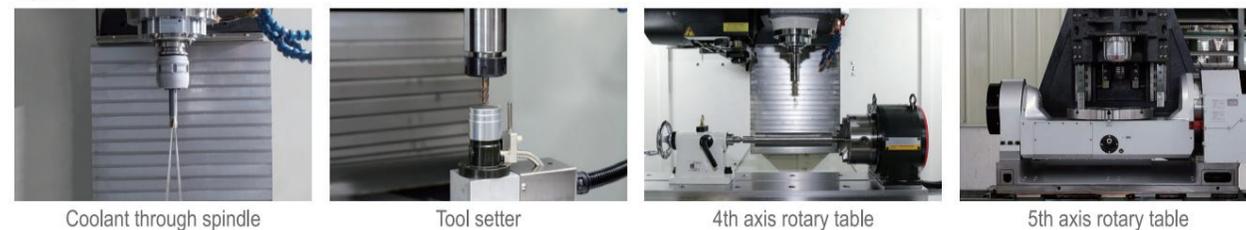
The difference between BBT and BT
BBT is bonded on both sides, providing high rigidity and low vibration during high-speed rotation.



Standard configuration

- | | | |
|------------------------------|-----------------------------------|-----------------------------|
| ▶ Workpiece blowing system | ▶ Handwheel | ▶ Guideway protection cover |
| ▶ Tool Chip flushing system | ▶ Heat exchanger | ▶ Full enclosed metal cover |
| ▶ Central lubrication system | ▶ Chip flushing system | ▶ Alarming light |
| ▶ Spindle oil coolant | ▶ BT40-24T Arm type tool magazine | ▶ Working light |

Option

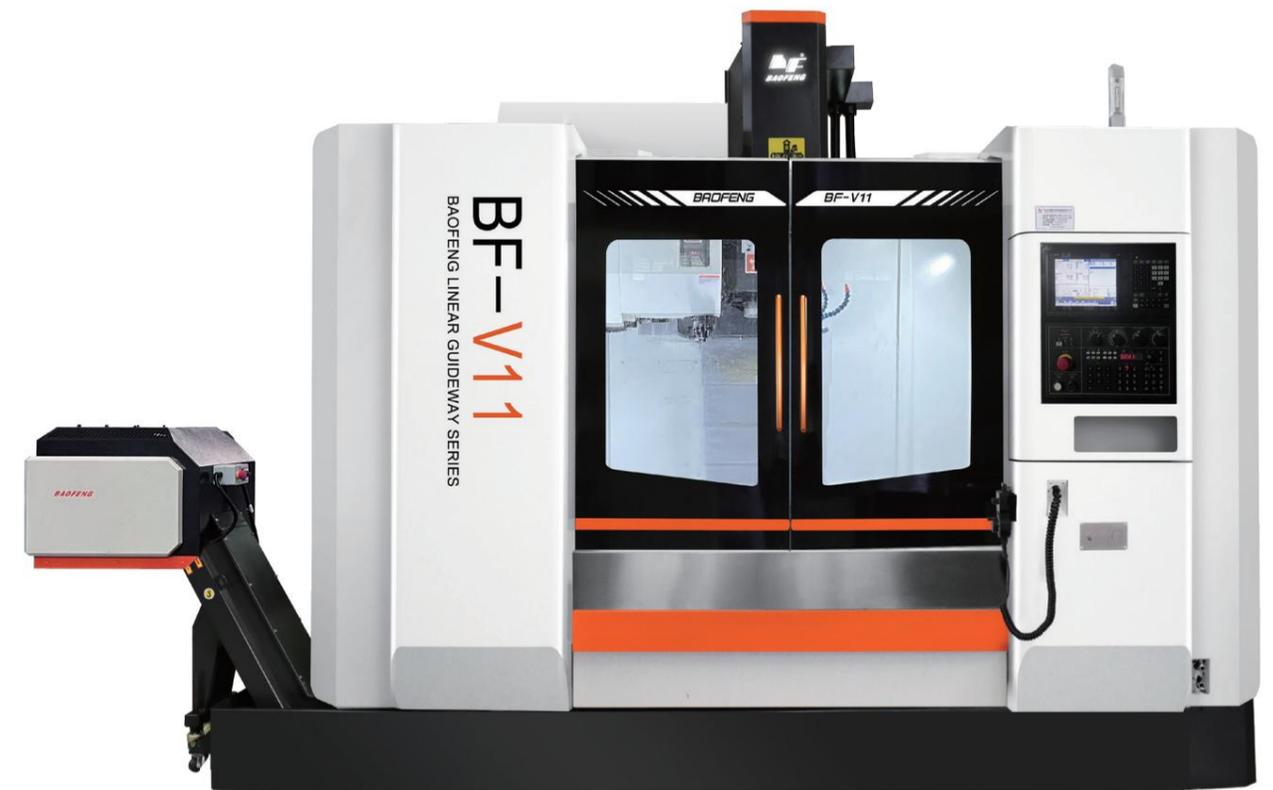


Coolant through spindle

Tool setter

4th axis rotary table

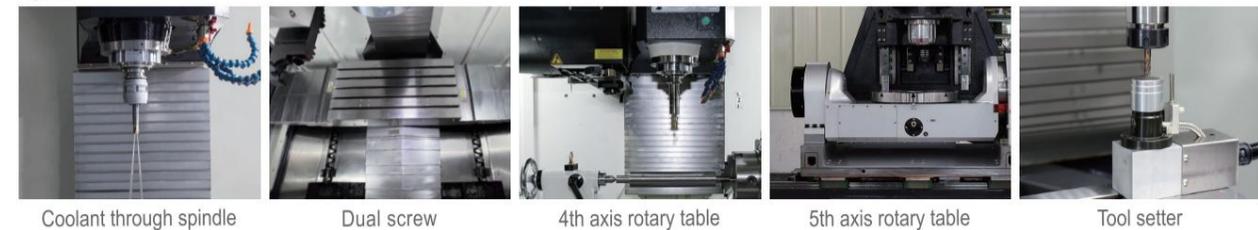
5th axis rotary table



Standard configuration

- | | | |
|------------------------------|-----------------------------------|-----------------------------|
| ▶ Workpiece blowing system | ▶ Handwheel | ▶ Full enclosed metal cover |
| ▶ Tool Chip flushing system | ▶ Heat exchanger | ▶ Alarming light |
| ▶ Central lubrication system | ▶ BT40-24T arm type tool magazine | ▶ Working light |
| ▶ Spindle oil coolant | ▶ Guideway protection cover | |

Option



Coolant through spindle

Dual screw

4th axis rotary table

5th axis rotary table

Tool setter

Max. worktable load (KG)	V6	V8	V10	V11	V13
	400	600	700	900	1000

Rapid feed rate (M/min)	V6	V8	V10	V11	V13
	X 48	X 36	X 36	X 36	X 30
	Y 48	Y 36	Y 36	Y 36	Y 30
	Z 48	Z 36	Z 36	Z 36	Z 30

Travel (mm)	V6	V8	V10	V11	V13
	X 600	X 800	X 1000	X 1150	X 1300
	Y 500	Y 550	Y 600	Y 650	Y 750
	Z 500	Z 550	Z 600	Z 650	Z 700



Direct drive spindle
 Spindle motor axis through coupling directly drives the spindle.
 It has the advantages of short start and stop time, high tapping accuracy, high speed and low vibration.

HT300
 High strength resin sand gray cast iron

T Series Drilling & Tapping Machining Center

- ▶ Large A-shaped column, X/Y/Z axis rapid speed 48M/min, acceleration up to 1G.
- ▶ Rigid tapping speed S4000rpm, specification M10 (AL6061).
- ▶ The back-flushing with a powerful chip removal device, no need to stop the machine for cleaning.
- ▶ Improved tool exchange structure, (T-T) tool exchange time 1.7S.



Z-axis extended slider

Standard servo tool magazine for quick tool change(T-T): 1.7 seconds

Tool holder cleaning function before tool exchange

Standard configuration



FANUC

MITSUBISHI

HNC

SIEMENS

- | | | | |
|------------------------------|-----------------------|-------------------------------|--------------------------------|
| ▶ Workpiece blowing system | ▶ Spindle oil coolant | ▶ Chassis chip removal system | ▶ Alarming light |
| ▶ Tool Chip flushing system | ▶ Handwheel | ▶ Guideway protection cover | ▶ Working light |
| ▶ Central lubrication system | ▶ Heat exchanger | ▶ Full enclosed metal cover | ▶ BT30-21T servo tool magazine |

Option



BT30 side milling tool holder

Oil mist collector

Tool setter

4th axis rotary table

5th axis rotary table

21
Number of tools

High speed, high efficiency
Ideal for mass production processing!



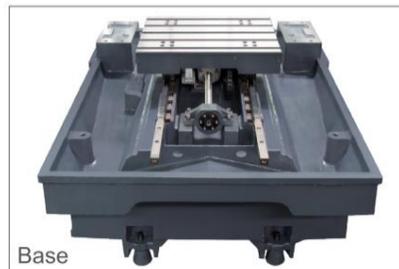
E Series Engraving & Milling Machine Center

- ▶ High-density ribs structure, small deformation and strong load capacity
- ▶ The surface is high-frequency quenched (harder and more wear-resistant)
- ▶ Precision grinding to ensure minimal flatness and roughness
- ▶ The machine has a compact appearance and small footprint
- ▶ The machine structure has been optimized through finite element analysis and has strong rigidity and stable structure
- ▶ The lightweight design Z-axis moving part provides excellent responsiveness during processing



Column

Integrated casting double-layer reinforced gantry structure to improve rigidity and torsional strength



Base

Double-layer ribs box-type base ensures high stability and rigidity



Spindle

High-speed and high-precision electric spindle, spindle deflection controlled at $\pm 0.001\text{mm}$

Standard configuration ♦ Syntec 22MA ♦ Mitsubishi E80



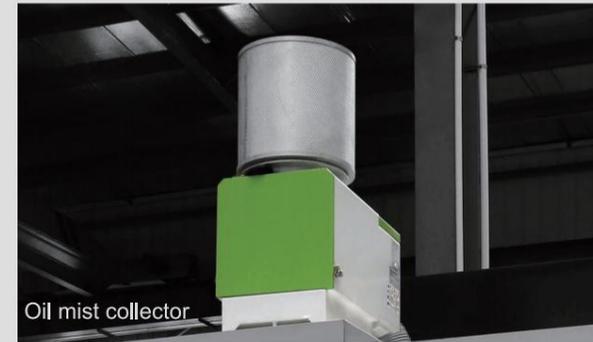
Tool Setter



Working light

- ▶ Workpiece blowing system
- ▶ Tool chip removal system
- ▶ Automatic centralized lubrication system
- ▶ Spindle oil coolant
- ▶ Handwheel
- ▶ Guideway protection cover
- ▶ Full enclosed metal cover
- ▶ Alarming light
- ▶ Working light
- ▶ Tool setter

Option



Oil mist collector



BT30-12T umbrella type tool magazine

BT30 Spindle

HT300

High strength resin sand gray cast iron



L Series XY Axis Linear Guideway Z Axis Box Way Machining Center

- ▶ XY axis linear guide way and Z axis box way ensure high accuracy and cutting strength.
- ▶ Box-shaped base and large-span A-shaped column ensure good accuracy.
- ▶ The precision ballscrew adopts a double-nut design, and the support seats at both ends are locked with 5 ball bearings and pre-tensioned to offset the thermal elongation error of ballscrew to ensure the thermal stability of machine.
- ▶ All lubrication systems adopt distribution valves to ensure uniform oil supply to all lubrication points, keep good lubrication for machine, and extend service life of machine.



ATC adopts advanced tool clamping technology
Tool change time 2.3 s (T to T)



- | | | | |
|--|-----------------------|-----------------------------|-----------------|
| ▶ Workpiece blowing system | ▶ Spindle oil coolant | ▶ Guideway protection cover | ▶ Working light |
| ▶ Tool chip removal system | ▶ Handwheel | ▶ Full enclosed metal cover | |
| ▶ Automatic centralized lubrication system | ▶ Heat exchanger | ▶ Alarming light | |

Standard configuration



FANUC



MITSUBISHI

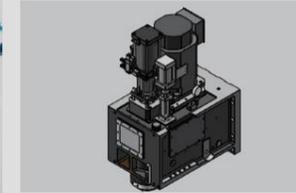


SIEMENS

Option



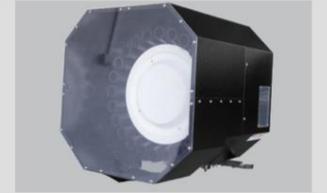
CTS



BF Gearbox(optional for 1375L and bigger machines)



Tool setter



Arm type tool magazine

24
Number of tools



B Series XYZ Axis Box Way Machining Center

- ▶ Adopt high strength Meehanite cast iron and high-temperature tempering and aging treatment to eliminate internal stress and ensure long-term maintenance of mechanical accuracy.
- ▶ Worktable surface and 3-axis sliding guide rails are heat-treated in high-frequency, with a hardness as high as HRC50 and excellent wear-resistance.
- ▶ The sliding surface of the 3-axis guideway are pasted with Japanese Turcite-B wear-resistant sheet, which is carefully scraped by professional technicians to achieve better anti-wear effect and smaller friction.



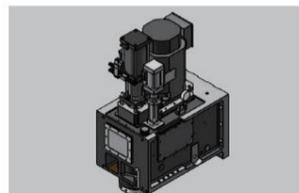
Standard configuration

▶ Workpiece blowing systems	▶ Spindle oil coolant	▶ Guideway protection cover	▶ Working light
▶ Cutting fluid cooling system	▶ Handwheel	▶ Full enclosed metal cover	
▶ Central lubrication system	▶ Heat exchanger	▶ Alarming light	

Option



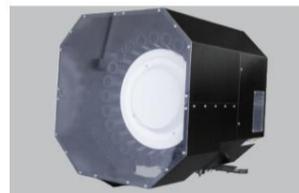
Coolant through spindle



BF Gearbox(optional for 1375L and bigger machines)



Tool setter



Arm type tool magazine



High Speed High Precision Horizontal Machining Center



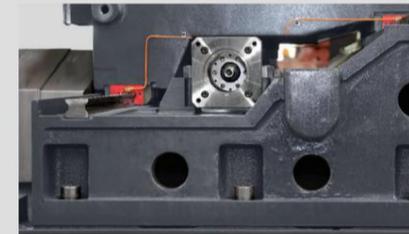
- ▶ T-base, full support structure for each axis.
- ▶ Large capacity tool magazine, high machining adaptability.
- ▶ Single worktable or dual pallets changer for option.
- ▶ Fully automatic chip removal to reduce cleaning downtime.
- ▶ Super wide range of processing, suitable for machining all kinds of mechanical parts.



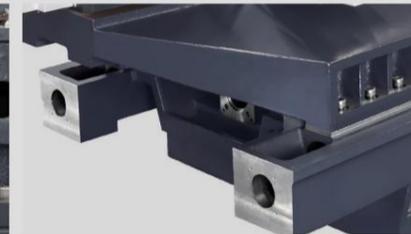
- Standard positive T-type structure.
- Gear-driven high-torque spindle.
- Large capacity tool magazine.
- Dual pallets changer

Standard configuration

▶ Workpiece blowing system	▶ Spindle oil coolant	▶ Guideway protection cover	▶ Working light	▶ Dual screw + chain type chip conveyor
▶ Cutting fluid cooling system	▶ Handwheel	▶ Full enclosed metal cover	▶ Automatic chip removal system	▶ BT50-30T tool magazine
▶ Central lubrication system	▶ Heat exchanger	▶ Alarming light	▶ 630x630 dual pallet exchanger	▶ Safe door



The X-axis parallel rail adopts step distribution to enhance the rigidity of the column when cutting in the Z-axis direction.



The base adopts large span support to ensure the stability of the whole machine. The key parts have passed finite element analysis to ensure the stability and rigidity of the mechanism.



The column adopts large triangular structure design, which provides better vibration resistance and smoother machining.



Standard configuration



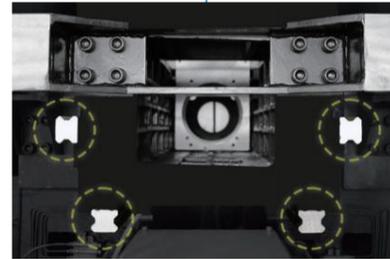
High Speed Heavy Cutting Horizontal Machining Center

- | | | | |
|--|--------------------------------------|-----------------------------|---------------------------------|
| ▶ Workpiece blowing system | ▶ Spindle temperature control system | ▶ Guideway protection cover | ▶ Working light |
| ▶ Tool chip removal system | ▶ Handwheel | ▶ Full enclosed metal cover | ▶ Automatic chip removal system |
| ▶ Automatic centralized lubrication system | ▶ Heat exchanger | ▶ Alarming light | |



V Series High Speed High Precision Double Column Machining Center

► Double column machining center with 3-linear guideway have mature manufacturing capabilities and advanced technical skills. Its high rigidity structure combined with powerful spindle cutting performance can meet high-speed and high-precision processing of various heavy parts and molds, and is widely used in general mechanical parts, processing of automobile molds, stamping molds, transportation molds, precision mechanical parts, large electronic product casings, etc.

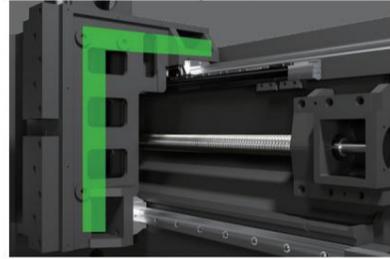


Z axis 4 linear guideway

Z-axis 4-linear guideway is located in four directions and receives force at equal intervals, effectively improving cutting capabilities.



Base, worktable, and gantry beam all adopt a box-shaped double-layer rib structure;

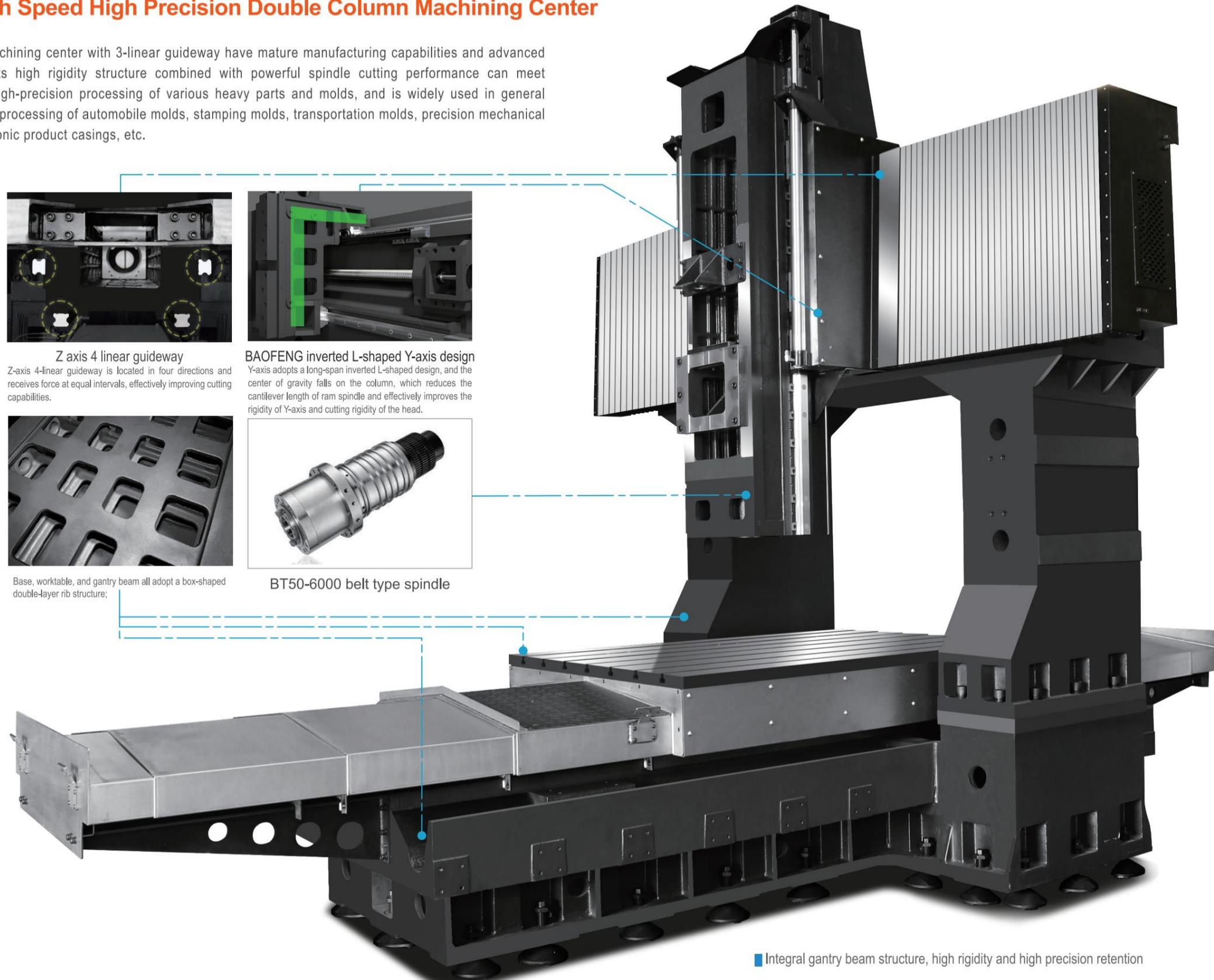


BAOFENG inverted L-shaped Y-axis design

Y-axis adopts a long-span inverted L-shaped design, and the center of gravity falls on the column, which reduces the cantilever length of ram spindle and effectively improves the rigidity of Y-axis and cutting rigidity of the head.



BT50-6000 belt type spindle



■ Integral gantry beam structure, high rigidity and high precision retention

Standard

BT50-6000 belt type spindle

Optional

- 1 .BBT50-10000 rpm direct drive spindle
- 2 .HSK-A63-18000 rpm built-in spindle



Manual side milling head



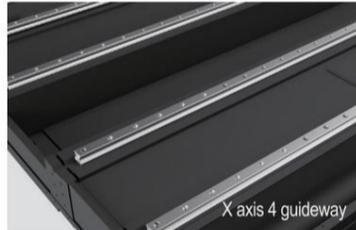
Automatic side milling head



Gear head

V Series High Speed High Precision Double Column Machining Center

The machine design adopts large-span support to achieve the best anti-deformation structure of casting. The body design has undergone FEA to ensure stability and rigidity.



X axis 4 guideway

- | | |
|------------------------------|---------------------------------------|
| ▶ Workpiece blowing system | ▶ Dual screw+chain type chip conveyor |
| ▶ Tool chip flushing system | ▶ Guideway protection cover |
| ▶ Central lubrication system | ▶ Standard metal cover |
| ▶ Spindle oil coolant | ▶ Alarming light |
| ▶ Handwheel | ▶ Working light |
| ▶ Heat exchanger | |



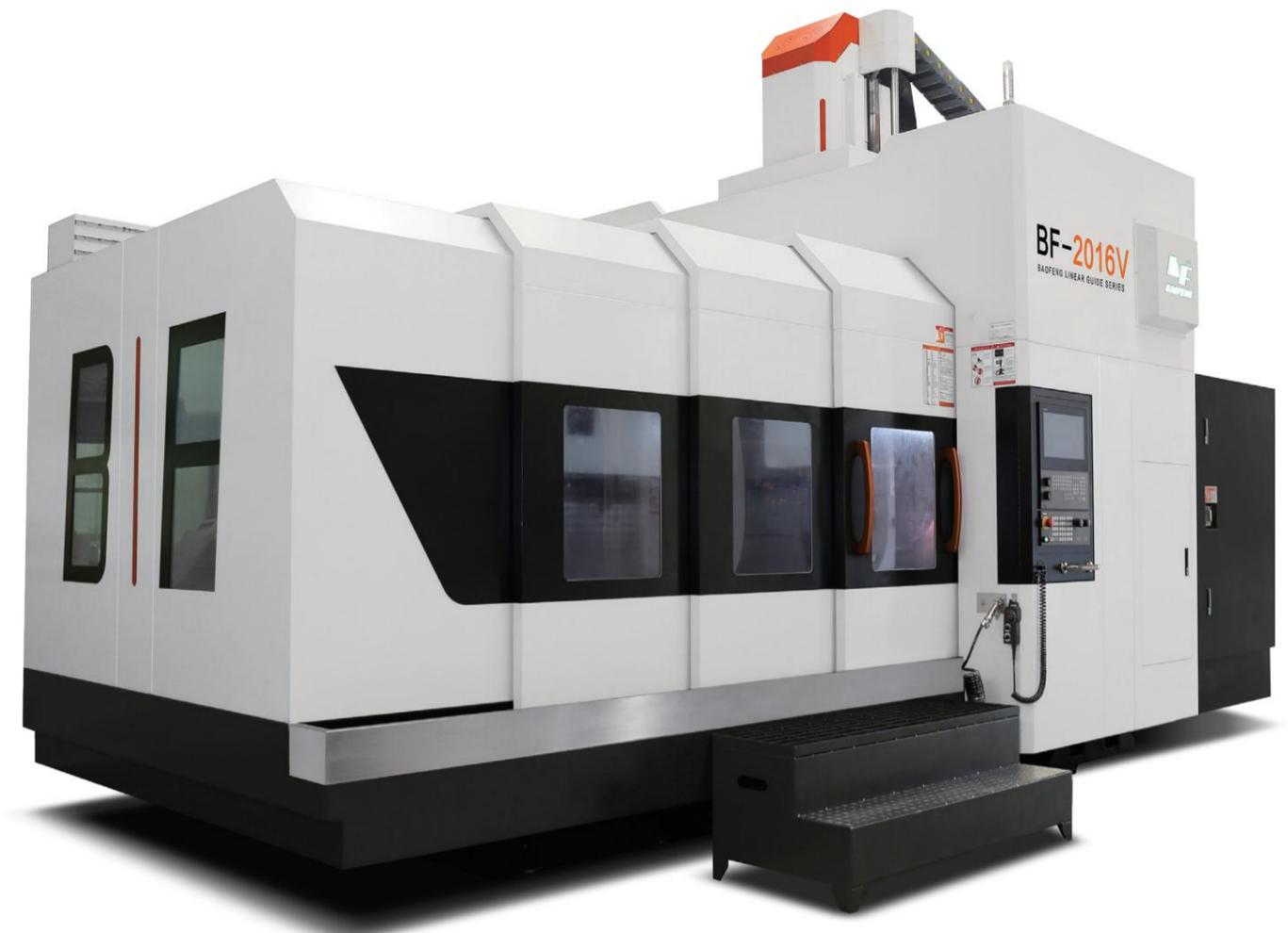
Manual side milling head



Automatic side milling head



Standard metal cover



Full enclosed metal cover



High-Low Gear head
Spindle can optional high-low gear head

3-axis servo motor
Direct drive structure, avoiding the reversal acceleration disturbance caused by synchronous belt drive.

- | | | |
|------------------------------|---------------------------------------|------------------------|
| ▶ Workpiece blowing system | ▶ Handwheel | ▶ Standard metal cover |
| ▶ Tool chip flushing system | ▶ Heat exchanger | ▶ Alarming light |
| ▶ Central lubrication system | ▶ Dual screw+chain type chip conveyor | ▶ Working light |
| ▶ Spindle oil coolant | ▶ Guideway protection cover | |

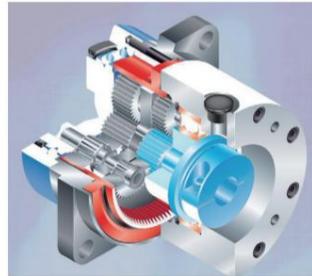


L Series High Speed Heavy Cutting Double Column Machining Center

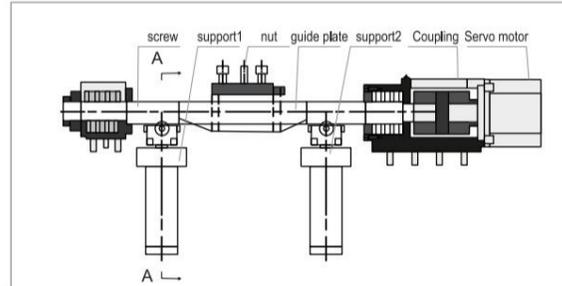
► L-series double column machine retain X/Y axis of high-speed and high-precision processing performance, Z-axis is fully adopted ring type of box way, and the guide way surface is properly widened and lengthened, so that the ability on heavy cutting has been significantly improved.



The gantry beam is designed with mouse cage type, it is Baofeng's unique patent, compared with traditional beam structure, the compression resistance and deformation resistance are greatly improved, and the structural defect of Y-axis sag caused by the load and self-weight of the long-span gantry beam is solved.



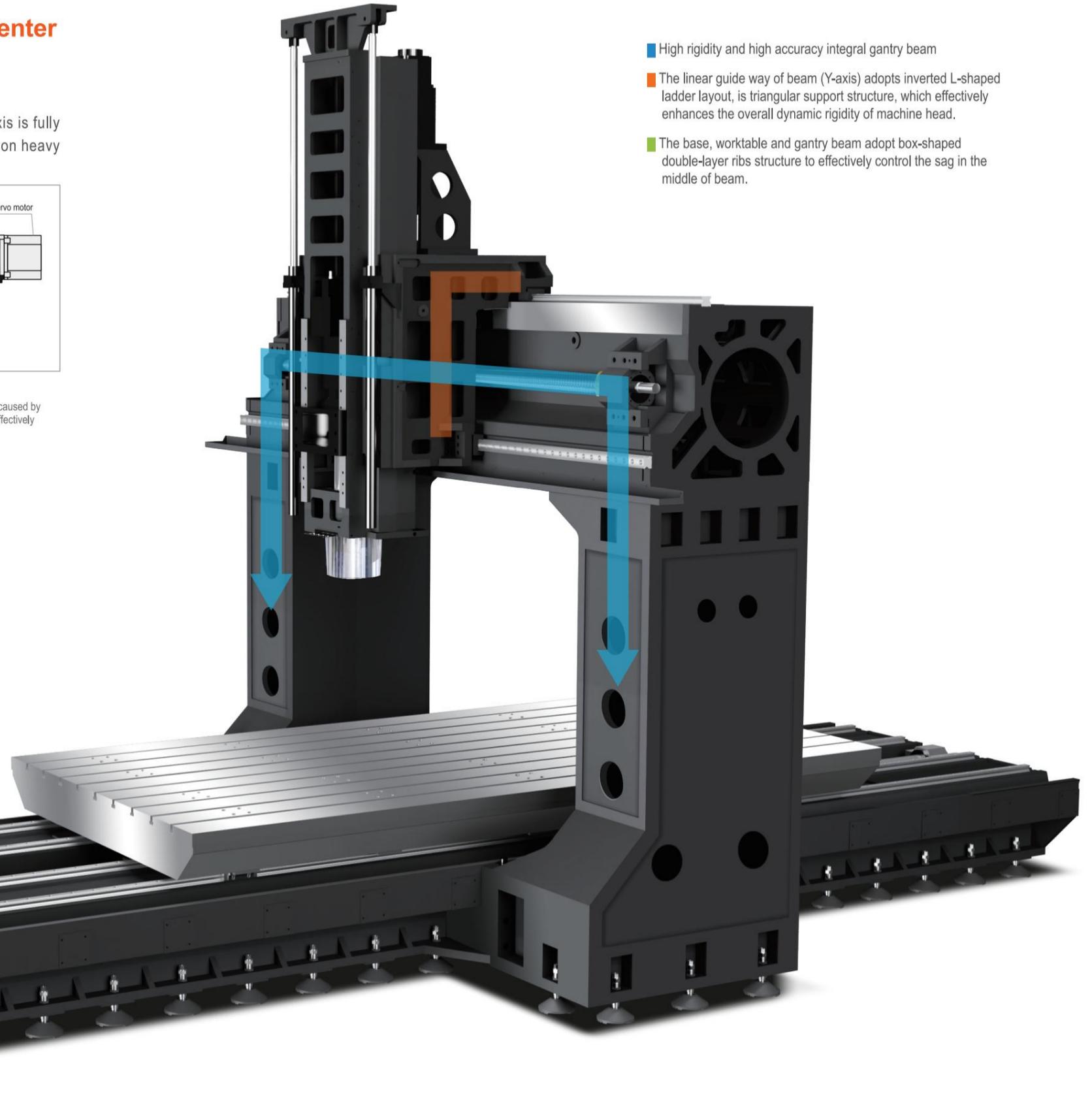
Reducer of X-axis is direct transmission, compared with ordinary belt drive, the rigidity is better, and the positioning accuracy will not change due to change of worktable load. When heavy cutting, it can avoid to happen elastic cutter-drawing.



Ball screw support structure

X-axis ball screw adopts auxiliary support design, which can avoid drop caused by ball screw's own weight and the shake caused by processing, so as to effectively improve the processing stability and accuracy preservation.

- High rigidity and high accuracy integral gantry beam
- The linear guide way of beam (Y-axis) adopts inverted L-shaped ladder layout, is triangular support structure, which effectively enhances the overall dynamic rigidity of machine head.
- The base, worktable and gantry beam adopt box-shaped double-layer ribs structure to effectively control the sag in the middle of beam.



HT300
High strength resin sand gray cast iron



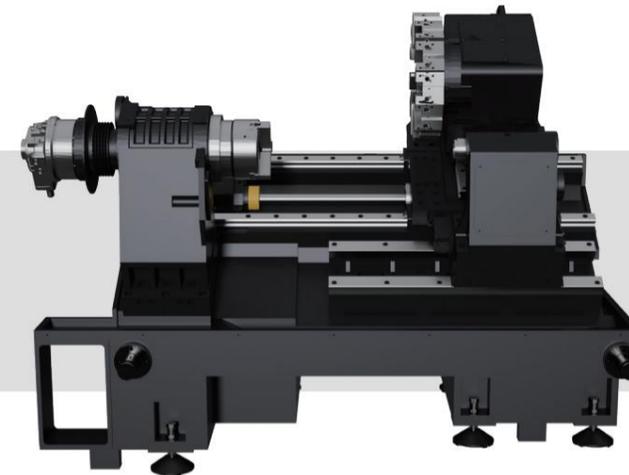
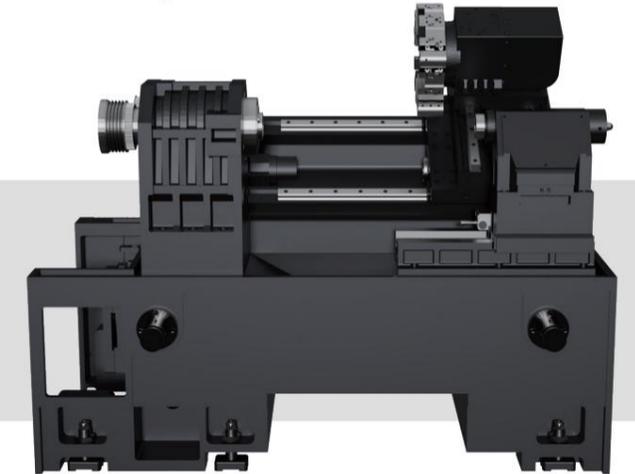
Slant-bed CNC Lathe Machine

Outer circle, boring, conical surface, ring groove, cutting, forming surface, end face, etc.
Equipped with power turret can realize drilling, tapping and other milling processes, finish turn-milling composite processing.



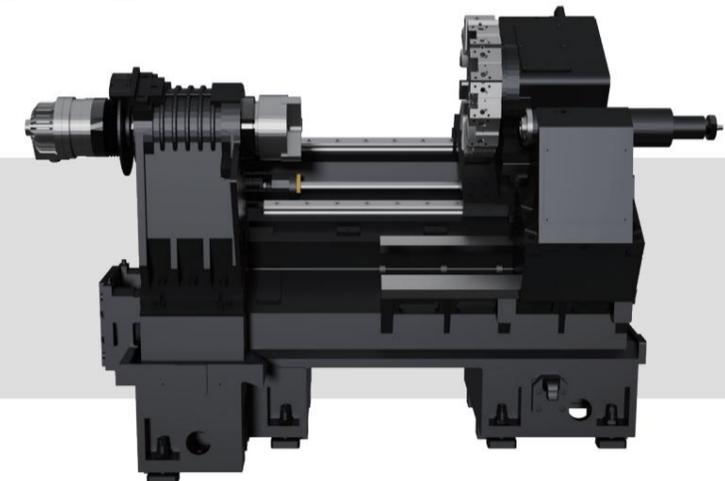
- ▶ Integrated rigid structure.
- ▶ Using high-rigidity turret with accurate indexing to ensure machining accuracy.
- ▶ Adopting 30° slant bed structure, and the bed guide way adopts oil-water separation structure to reduce environmental pollution.
- ▶ Spindle is supported by high-precision double-row cylindrical roller bearings and high-speed precision angular contact bearings, driven by servo motor and synchronous belt.
- ▶ X/Z axis feed system adopts pre-stretched ballscrew, with special bearing for supporting, which greatly improves the rigidity and thermal deformation resistance of ballscrew, and greatly improves feed accuracy.

▶ BF-36DW



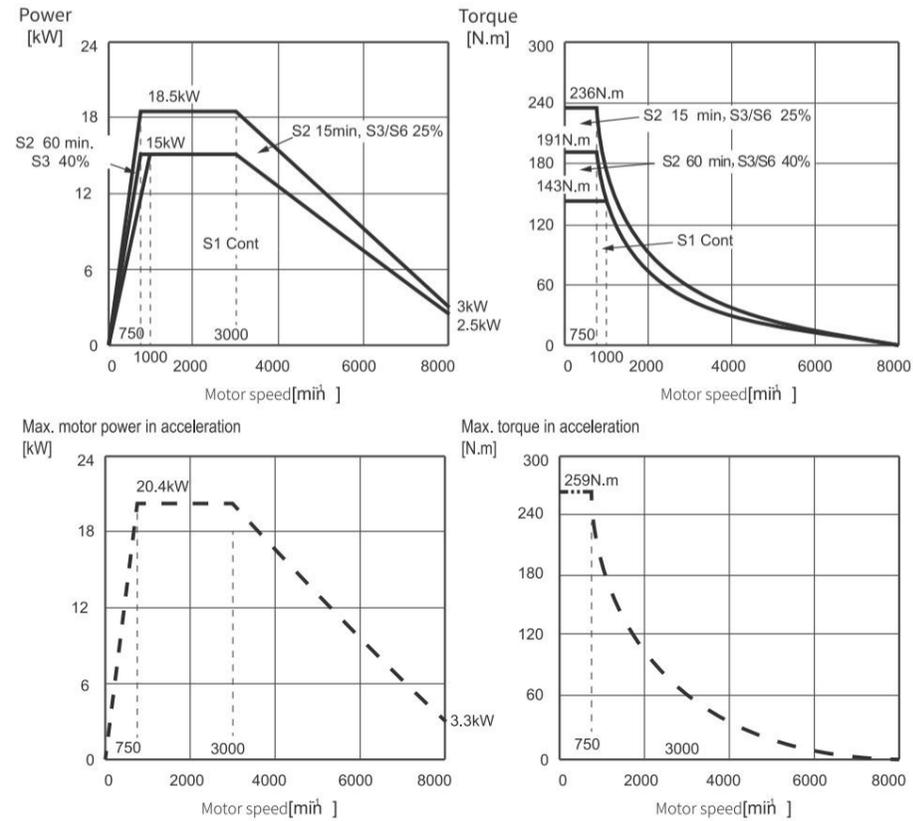
BF-46DW ◀

▶ BF-52DW



Spindle motor power/torque

► Spindle motor power 18.5kW, max. speed 8000r/min, max. torque 236Nm, can meet the requirement of high-rigidity cutting very well.



Adjacent tool change time	0.3S
Farmost tool change time	0.6S

Faster tool-change, higher efficiency

- The tool change speed is fast, and the farthest tool change speed can be within 1 second, which improves processing efficiency.
- Different millings can be carried out continuously based on the processing of lathe. Processing such as drilling, tapping, and milling keyway on circumference of the disc can also be completed at one time using the power turret.

Applications:



Axis components processing



U Drill punch hole processing



Lathe boring



External thread processing



Circumference drilling & tapping



Circumference keyslot processing

Slant-bed CNC Lathe Machine

Specifications	Unit	BF-36DW	BF-46DW	BF-52DW
Item				
Max.swing over bed	mm	500	400	650
Max.machining length	mm		500	500
Max.machining Dia.	mm	380	350	490
Max.swing over cross slide	mm		400	400
Spindle				
Spindle taper		A2-5 (6")	A2-6 (8")	
Bar bore	mm	42	65	65
Max.spindle speed	rpm	4000		
Spindle maximum output torque	Nm	191	236	
Spindle motor power	kW	11/15	15/18.5	
CNC controller				
Standard controller		0i-TF PLUS(3B)		
Axis				
X axis travel	mm	220	205	255
Z axis travel	mm	350	500	525
X feed motor power	kW	1.8	3.0	3.0
Z feed motor power	kW	1.8	3.0	3.0
X axis driver type		Direct drive		
Z axis driver type		Direct drive		
Rapid feed rate	m/min	20		
Tailstock				
Tailstock sleeve taper		Morse 4#	Morse 5#	
Tailstock sleeve Dia.	mm	80		
Tailstock sleeve travel	mm	80		
Tailstock travel	mm	400	435	
Turret				
Standard turret		12T Servo Turret		
Positioning				
Repeat positioning	mm	0.0075/0.01		
Machine				
Air pressure	kg/cm ²	6-7bar		
Machine dimension (Length)	mm	2415	2240	3880
(Width)	mm	1742	1692	2002
(Height)	mm	1680	1895	2048
Machine weight	kg	3600	4800	5000

A series high-speed and high-precision 5-axis machine

Item	Unit	BF-300B5	BF-500A5	BF-630A5	BF-800A5
Travel					
X axis travel	mm	490	600	900	1100
Y axis travel	mm	550	1000	1050	1300
Z axis travel	mm	430	500	650	
A/B axis angle range	mm	/	-110--40°	-120--120°	
C axis angle range	mm	/	360°		
Spindle nose to table surface		0-430	100-600	120-770	
Distance from table surface to A axis rotation center		/	428	424	
Worktable					
Rotary table Dia.	mm	Φ300	Φ500	Φ630	Φ800
Max.worktable load	kg	50	350	850	850
Dimension of T-slot		4-12H7	12H8	14H8	
Reference aperture		/	Φ50H7		Φ50H8
CNC controller					
Standard controller (Siemens)		SINUMERIK ONE			
Spindle					
Drive type		Direct Drive		Built-in	
Spindle speed	rpm	12000		18000	
Spindle taper		BBT40		HSK-A63	
Spindle motor power (Siemens)	kW	9		30	
Spindle motor torque (Siemens)	Nm	57		105	
5 axes					
X/Y/Z/A/C axis motor power (Siemens)	kW	2.9/2.9/3.55/5.3/2.2	2.9/2.9/3.55/3.1/1.6	6.4/6.4/6.4/8.1*2/6.3	6.4/6.4/6.4/9.6*2/9
X/Y/Z/A/C axis motor torque (Siemens)	Nm	22/26/253/105	22/22/22/543/363	40/40/40/1290*2/600	40/40/40/1539*2/860
X/Y/Z/A/C axis feed rate(Siemens)	m/min	36/36/36	24/24/24	20/20/20	
A axis rotation speed	rpm	20	20	20	
C-axis rotation speed	rpm	20	60	60	
Accuracy					
Positioning accuracy(bi-direction)	mm	0.005/300	0.003/300		
Repeat positioning	mm	0.003/300	0.002/300		
AC axis positioning accuracy	arc-sec	/	±5		
AC axis repeat positioning accuracy	arc-sec	/	3	4	
Machine					
Air pressure	kg/cm ²	6-7bar			
Machine dimension (Length)	mm	2250	3300	5360	5800
(Width)	mm	2600	3380	3720	4250
(Height)	mm	3160	3100	3900	
Machine weight	kg	6000	9500	18000	21500

UP series high-speed and high-precision machining center

Item	Unit	BF-540UP	BF-755UP	BF-1312UP	BF-1814UP
Travel					
X axis travel	mm	500	700	1300	1800
Y axis travel	mm	400	550	1000	1400
Z axis travel	mm	220	500	700	
Spindle nose to table surface	mm	170-390	180-680	150-850	200-900
Spindle center to column	mm	620	950	1200	1430
Worktable					
Table size	mm	500X400	850X550	1450x1000	1800x1200
Max.worktable load	kg	300	800	1800	4000
Dimension of T-slot	mm	3-14X100	5-18X100	5-18x150	7-18x160
CNC controller					
Standard controller (FANUC)		/	0i-MF Plus		
Standard controller (Mitsubishi)		/	M80A		M80B
Standard controller (Siemens)		828D SW28x			
Spindle					
Drive type		Buit-in			Direct Drive
Spindle speed	rpm	30000	20000	18000	10000
Spindle taper		HSK-E40	HSK-A63		BBT50
Spindle motor power (FANUC)	kW	/	11/13.75	18.5/23	15/18.5
Spindle motor torque (FANUC)	Nm	/	48/60	90	143
Spindle motor power (Mitsubishi)	kW	/	11/13.75	18.5/23	15/18.5
Spindle motor torque (Mitsubishi)	Nm	/	48/60	90	143
Spindle motor power (Siemens)	kW	11	20/25	30	17
Spindle motor torque (Siemens)	NM	8.5	48/60	105	162
Axis					
Axis feed motor-X/Y/Z(FANUC)	kW	/	3.0/3.0/3.0	3.0/3.0/3.0	
Axis torque-X/Y/Z(FANUC)	kW	/	20/45	22/45	36/90
Axis feed motor-X/Y/Z(Mitsubishi)	kW	/	3.0/3.0/3.0	4.5/4.5/4.5	7/7/7
Axis torque-X/Y/Z(Mitsubishi)	Nm	/	22.5/64	37.2/90	45/130
Axis feed motor-X/Y/Z(Siemens)	Nm	/	2.9/2.9/3.55	6.4/5.5/5.5	7.7/7.7/7.7
Axis torque-X/Y/Z(Siemens)	Nm	Axis linear motor XY:5180Nm Z:3450NM	22/66	40/30/30	48
Rapid feed rate-X/Y/Z(FANUC)	m/min	/	30/30/30		15/15/15
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	/	30/30/30		15/15/15
Rapid feed rate-X/Y/Z(Siemens)	m/min	60/60/60	30/30/30		15/15/15
Accuracy					
Positioning accuracy(bi-direction)	mm	0.003/300			
Repeat positioning	mm	0.002/300			
Machine					
Air pressure	kg/cm ²	6-7bar			
Machine dimension (Length)	mm	2200	2900	4000	5075
(Width)	mm	2010	2420	3000	3800
(Height)	mm	2620	3000	3500	3900
Machine weight	kg	4500	6500	12500	19500

VP series high-speed and high-precision machining center

Item	Unit	BF-650VP	BF-855VP	BF-1166VP	BF-1370VP
Travel					
X axis travel	mm	600	800	1100	1300
Y axis travel	mm	500	550	660	700
Z axis travel	mm	500	550	600	700
Spindle nose to table surface	mm	130-630	130-680	130-730	155-855
Spindle center to column	mm	520	622	710	755
Worktable					
Table size	mm	720X450	900X550	1250X650	1450X700
Max.worktable load	kg	400	800	1100	1500
Dimension of T-slot	mm	5-18X80	5-18x100	6-18X100	5-18x152
CNC controller					
Standard controller (FANUC)		0i-MF Plus			
Standard controller (Mitsubishi)		M80A			
Standard controller (Siemens)		828D SW28x			
Spindle					
Drive type		Direct Drive			
Spindle speed	rpm	12000			
Spindle taper		BBT40			
Spindle motor power (FANUC)	kW	11/15/18.5	15/18.5		
Spindle motor torque (FANUC)	Nm	52.5/95.5/118	95.5/118/159/191		
Spindle motor power (Mitsubishi)	kW	11/15/18.5	15/18.5		
Spindle motor torque (Mitsubishi)	Nm	22.5/64	77.8/106/118		
Spindle motor power (Siemens)	kW	9/17.1/21.2	15		
Spindle motor torque (Siemens)	Nm	57/108/135	96/143/240		
Axis					
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0			
Axis feed motor-X/Y/Z(Mitsubishi)	kW	3.0/3.0/3.0	3.0/3.0/4.5		
Axis feed motor-X/Y/Z(Siemens)	kW	2.9/2.9/3.55	5.5/5.5/5.5		
Axis torque-X/Y/Z(FANUC)	Nm	20/45	20/45		
Axis torque-X/Y/Z(Mitsubishi)	Nm	22.5/64	XY:22.5/64--Z:37.2/90		
Axis torque-X/Y/Z(Siemens)	Nm	22/66	30	30/90	
Rapid feed rate-X/Y/Z(FANUC)	m/min	30/30/30	30/30/30		
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	30/30/30	30/30/30		
Rapid feed rate-X/Y/Z(Siemens)	m/min	30/30/30	24/24/24	30/30/30	24/24/24
Accuracy					
Positioning accuracy(bi-direction)	mm	0.003/300			
Repeat positioning	mm	0.002/300			
Machine					
Air pressure	kg/cm ²	6-7bar			
Machine dimension (Length)	mm	2200	2600	3310	3235
(Width)	mm	2780	2800	3360	3300
(Height)	mm	2730	3030	3100	3300
Machine weight	kg	4500	6000	8000	10500

V series linear way machining center

Item	Unit	BF-V6	BF-V8	BF-858V	BF-V10	BF-V11	BF-1168V	BF-V13
Travel								
X axis travel	mm	600	800	850	1000	1150	1100	1300
Y axis travel	mm	500	550	550	600	650		750
Z axis travel	mm	500	550	800	600	650	800	700
Spindle nose to table surface	mm	130-630	130-680	130-930	110-710	130-780	130-930	120-820
Spindle center to column	mm	520	570		610	658		770
Worktable								
Table size	mm	720x450	900X500	1100x600	1200x650	1200X600	1450x700	
Max.worktable load	kg	400	600	700	900		1000	
Dimension of T-slot	mm	5-18x90	5-18x100			5-18x125		
CNC controller								
Standard controller (FANUC)		0i-MF Plus						
Standard controller (Mitsubishi)		M80						
Standard controller (Siemens)		828D SW28x						
Spindle								
Drive type		Direct Drive						
Spindle speed	rpm	12000						
Spindle taper		BBT40						
Spindle motor power (FANUC)	kW	11/15						15/18.5
Spindle motor torque (FANUC)	Nm	52.5/95.5/118						95.5/159/191
Spindle motor power (Mitsubishi)	kW	11/15						15/18.5
Spindle motor torque (Mitsubishi)	Nm	52.5/95.5/118						77.8/106/118
Spindle motor power (Siemens)	kW	9/17.1						20
Spindle motor torque (Siemens)	Nm	57/108/135						96
Axis								
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0						
Axis feed motor-X/Y/Z(Mitsubishi)	kW	3.0/3.0/3.0						4.5/4.5/4.5
Axis feed motor-X/Y/Z(Siemens)	kW	2.9/2.9/3.55						5.5/5.5/5.5
Axis torque-X/Y/Z(FANUC)	Nm	20/45						XY:20/45 Z:36/90
Axis torque-X/Y/Z(Mitsubishi)	Nm	22.5/64						37.2/90
Axis torque-X/Y/Z(Siemens)	Nm	22/66						30
Rapid feed rate-X/Y/Z(FANUC)	m/min	48/48/48			36/36/36			30/30/30
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	48/48/48			36/36/36			30/30/30
Rapid feed rate-X/Y/Z(Siemens)	m/min	48/48/48			36/36/36			30/30/30
Accuracy								
Positioning accuracy(bi-direction)	mm	0.003/300	0.005/300	0.003/300	0.005/300			
Repeat positioning	mm	0.002/300	0.003/300	0.002/300	0.003/300			
Machine								
Air pressure	kg/cm ²	6-7bar						
Machine dimension (Length)	mm	2200	2600	2790	3100	3200	3170	3500
(Width)	mm	2775	2750	2600	2700	2810	3200	3600
(Height)	mm	2730	3030	3160	3000	3290	3300	3100
Machine weight	kg	4500	5100	5800	6800	7000	7500	8000

L series XY axis linear way machining center

Item	Unit	BF-850L	BF-1270L	BF-1375L	BF-1375LP	BF-1580L	BF-1880LP
Travel							
X axis travel	mm	800	1200	1300	1300	1500	1800
Y axis travel	mm	500	700	750		800	
Z axis travel	mm	500	700				
Spindle nose to table surface	mm	160-660	110-810	160-860	120-820		130-830
Spindle center to column	mm	650	680	810	755	820	950
Worktable							
Table size	mm	1000x500	1300x700	1400x700	1450x700	1700x800	1800x800
Max.worktable load	kg	550	1000	1200	1500	1500	1500
Dimension of T-slot	mm	5-18x90	5-18x120	5-18x152		5-22x140	5-18x162
CNC controller							
Standard controller (FANUC)		0i-MF Plus					
Standard controller (Mitsubishi)		M80B		M80A	M80B	M80A	
Standard controller (Siemens)		828D					
Spindle							
Drive type		Belt drive		Gear box	Belt drive	Gear box	
Spindle speed	rpm	8000		6000			
Spindle taper		BT40		BT50			
Spindle motor power (FANUC)	kW	11/15/18.5		15/18.5			
Spindle motor torque (FANUC)	Nm	105/140/191		143/191/236			
Spindle motor power (Mitsubishi)	kW	11/15/18.5		15/18.5			
Spindle motor torque (Mitsubishi)	Nm	70/95.5/118		143/191/236			
Spindle motor power (Siemens)	kW	11/15		17			
Spindle motor torque (Siemens)	Nm	70		162			
Axis							
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0					
Axis feed motor-X/Y/Z(Mitsubishi)	kW	3.0/3.0/3.0		4.5/4.5/4.5		7.0/4.5/4.5	
Axis feed motor-X/Y/Z(Siemens)	kW	2.9/2.9/3.55		6.4/6.4/6.4			
Axis torque-X/Y/Z(FANUC)	Nm	20/45		36/90			
Axis torque-X/Y/Z(Mitsubishi)	Nm	22.5/64		37.2/90		X:45/130 YZ:37.2/90	
Axis torque-X/Y/Z(Siemens)	Nm	22/66		40			
Rapid feed rate-X/Y/Z(FANUC)	m/min	30/30/18		18/18/15			
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	30/30/18		18/18/15			
Rapid feed rate-X/Y/Z(Siemens)	m/min	24/24/18		18/18/15			
Accuracy							
Positioning accuracy(bi-direction)	mm	0.005/300		0.003/300	0.005/300	0.003/300	
Repeat positioning	mm	0.003/300		0.002/300	0.003/300	0.002/300	
Machine							
Air pressure	kg/cm ²	6-7bar					
Machine dimension (Length)	mm	2760	3560	3700	4000	4300	4500
(Width)	mm	2900	2760	3700	3500	3800	3500
(Height)	mm	2800	3300	3200	3600	3350	3300
Machine weight	kg	5000	8000	10000	11000	11000	13000

B series box way machining center

Item	Unit	BF-850B	BF-850C	BF-1270B	BF-1580B
Travel					
X axis travel	mm	800		1200	1500
Y axis travel	mm	500		700	800
Z axis travel	mm	500	700		
Spindle nose to table surface	mm	130-630	110-810		160-860
Spindle center to column	mm	510	575	735	810
Worktable					
Table size	mm	1050x500	1000x530	1300x650	1700x800
Max.worktable load	kg	800	1000	1300	1800
Dimension of T-slot	mm	5-18x90	5-18x100	/	5-22x135
CNC controller					
Standard controller (FANUC)		0i-MF Plus			
Standard controller (Mitsubishi)		M80			
Standard controller (Siemens)		828D			
Spindle					
Drive type		Belt drive			
Spindle speed	rpm	8000			
Spindle taper		BT40		BT50	
Spindle motor power (FANUC)	kW	11/15		15/18.5	
Spindle motor torque (FANUC)	Nm	105/140/191		143/191/236	
Spindle motor power (Mitsubishi)	kW	11/15		15/18.5	
Spindle motor torque (Mitsubishi)	Nm	70		143/191/236	
Spindle motor power (Siemens)	kW	11/15		/	
Spindle motor torque (Siemens)	Nm	70		/	
Axis					
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0			
Axis feed motor-X/Y/Z(Mitsubishi)	kW	3.0/3.0/3.0		4.5/4.5/4.5	
Axis feed motor-X/Y/Z(Siemens)	kW	2.9/2.9/3.55		/	
Axis torque-X/Y/Z(FANUC)	Nm	20/45		36/90	
Axis torque-X/Y/Z(Mitsubishi)	Nm	22.5/64		37.2/90	
Axis torque-X/Y/Z(Siemens)	Nm	22/66		/	
Rapid feed rate-X/Y/Z(FANUC)	m/min	15/15/12			
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	15/15/12			
Rapid feed rate-X/Y/Z(Siemens)	m/min	15/15/12		/	
Accuracy					
Positioning accuracy(bi-direction)	mm	0.005/300			
Repeat positioning	mm	0.003/300			
Machine					
Air pressure	kg/cm ²	6-7bar			
Machine dimension (Length)	mm	2600	2800	3500	4300
(Width)	mm	2250	2400	3600	3800
(Height)	mm	2800		3100	3350
Machine weight	kg	5000	6000	8000	11000

T series drilling and tapping machine

Item	Unit	BF-T6	BF-T7	BF-T10
Travel				
X axis travel	mm	600	700	1000
Y axis travel	mm	400	450	600
Z axis travel	mm	300	330	330
Spindle nose to table surface	mm	150-450	150-464	200-500
Spindle center to column	mm	420	480	420
Worktable				
Table size	mm	700x420	800x420	1100x500
Max.worktable load	kg	400		500
Dimension of T-slot	mm	3-14x125		3-14x125
CNC controller				
Standard controller (FANUC)		0i-MF Plus		
Standard controller (Mitsubishi)		M80		
Standard controller (Siemens)		828D		
Spindle				
Drive type		Direct Drive		
Spindle speed	rpm	20000		
Spindle taper		BT30		
Spindle motor power (FANUC)	kW	5.5		
Spindle motor torque (FANUC)	Nm	14.1/17.5/28.7		
Spindle motor power (Mitsubishi)	kW	5.5		
Spindle motor torque (Mitsubishi)	Nm	14.1/17.5		
Spindle motor power (Siemens)	kW	4.8		
Spindle motor torque (Siemens)	Nm	57/63		
Axis				
Axis feed motor-X/Y/Z(FANUC)	kW	2.5/2.5/2.7		2.5/2.5/2.7
Axis feed motor-X/Y/Z(Mitsubishi)	kW	1.5/1.5/3.0		2.0/2.0/3.0
Axis feed motor-X/Y/Z(Siemens)	kW	2.85/2.85/3.55		2.85/2.85/3.55
Axis torque-X/Y/Z(FANUC)	Nm	XY:8/32 Z:12/46		XY:8/32 Z:12/46
Axis torque-X/Y/Z(Mitsubishi)	Nm	XY:9/42 Z:22.5/64	XY:7.2/25.1 Z:22.5/64	XY:13.7/47 Z:22.5/64
Axis torque-X/Y/Z(Siemens)	Nm	XY:12/36 Z:22/66		/
Rapid feed rate-X/Y/Z(FANUC)	m/min	48/48/48	36/36/36	48/48/48
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	48/48/48	36/36/36	48/48/48
Rapid feed rate-X/Y/Z(Siemens)	m/min	48/48/48	36/36/36	48/48/48
Accuracy				
Positioning accuracy(bi-direction)	mm	0.003/300		
Repeat positioning	mm	0.002/300		
Machine				
Air pressure	kg/cm ²	6-7bar		
Machine dimension (Length)	mm	1800	3300	
(Width)	mm	2500		2400
(Height)	mm	2400	2650	2700
Machine weight	kg	3700	4000	4800

E series engraving and milling machine

Item	Unit	BF-600TP	BF-650E	BF-870E
Travel				
X axis travel	mm	600		800
Y axis travel	mm	400	500	700
Z axis travel	mm	500	250	350
Spindle nose to table surface	mm	150-650	70-330	40-390
Spindle center to column	mm	456	/	/
Worktable				
Table size	mm	700x420	600x500	800x600
Max.worktable load	kg	400		500
Dimension of T-slot	mm	3-14x135	5-16x100	
CNC controller				
Standard controller		0i-MF Plus(Fanuc)	22MA(Syntec)	
Standard controller (Mitsubishi)		M80B	E80	
Spindle				
Drive type		Direct Drive	Built-in	
Spindle speed	rpm	20000	24000	
Spindle taper		BT30	ER32	
Spindle motor power	kW	5.5(Fanuc)	7.5	
Spindle motor torque	Nm	14.1/17.5/28.7(Fanuc)	8	
Spindle motor power (Mitsubishi)	kW	5.5	7.5-24000 rpm	
Spindle motor torque (Mitsubishi)	Nm	14.1/17.5	8	
Axis				
Axis feed motor-X/Y/Z	kW	2.5/2.5/2.7(FANUC)	0.85/0.85/0.85(Syntec)	1.3/1.3/1.3(Syntec)
Axis feed motor-X/Y/Z(Mitsubishi)	kW	1.5/1.5/3.0	1.0/1.0/1.0	1.5/1.5/1.5
Axis torque-X/Y/Z	Nm	XY:8/32 Z:12/46(FANUC)	5.39/14.2(Syntec)	8.34/23.3(Syntec)
Axis torque-X/Y/Z(Mitsubishi)	Nm	XY: 9/42 Z: 22.5/64	4.8/16.7	7.2/25.1
Rapid feed rate-X/Y/Z	m/min	48/48/48	12/12/12	
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	154/154/303	12/12/12	
Accuracy				
Positioning accuracy(bi-direction)	mm	0.003/300	0.005/300	
Repeat positioning	mm	0.002/300	0.003/300	
Machine				
Air pressure	kg/cm ²	6-7bar		
Machine dimension (Length)	mm	1800	1850	2440
(Width)	mm	2500	2000	1930
(Height)	mm	2650	2330	2400
Machine weight	kg	3800	3500	4000

Linear way horizontal machining center

Item	Unit	BF-H50	BF-H6363	BF-H80	BF-H8080	BF-2516VH
Travel						
X axis travel	mm	1100	1300		1500	2600
Y axis travel	mm	750	850	900	1450	1600
Z axis travel	mm	620	950	1100	1200	1400
Spindle nose to table surface	mm	130-750	130-1080	220-1320	400-1600	250-1650
Spindle center to column	mm	30-780	50-900	0-950	0-1450	125-1725
Worktable						
Rotary table size	mm	500X500	630X630	800X800		1000X1000
Max.worktable load	kg	600	1200	2000		4000
Dimension of T-slot	mm	5-18X100	—	7-18X100	—	9-22X100
CNC controller						
Standard controller (FANUC)		Oi-MF Plus				
Standard controller (Mitsubishi)		M80B				
Standard controller (Siemens)		828D				
Spindle						
Drive type		Direct Drive	Belt Drive		Gear Drive	
Spindle speed	rpm	12000	6000			
Spindle taper		BBT40	BT50-190-45°		BT50-45°	BT50
Spindle motor power (FANUC)	kW	11/15	15/18.5		22/26	
Spindle motor torque (FANUC)	Nm	52.5/95.5/118	143/191/236		140/166/223/286	
Spindle motor power (Mitsubishi)	kW	11/15/18.5	15/18.5		22/26	
Spindle motor torque (Mitsubishi)	Nm	52.5/95.5/118	143/191/236		140/166/223	
Spindle motor power (Siemens)	kW	9/17.1/21.2	17/32.3/42.4		22	22/41.8/59.7
Spindle motor torque (Siemens)	Nm	57/108/135	162/308/405		140	140/266/380
Axis						
Axis feed motor-X/Y/Z/B(FANUC)	kW	3.0/3.0/3.0/3.0	3.0/3.0/3.0/3.0/3.0	3.0/3.0/3.0/3.0	7/4/7/3/3	6.0/7.0/6.0
Axis feed motor-X/Y/Z/B(Mitsubishi)	kW	3.0/3.0/3.0/2.0	7.0/7.0/7.0/3.0/3.0	7.7/7.7/7.7/3.0	7/7/7/3/3	7.0/7.0/7.0/3.0
Axis feed motor-X/Y/Z/B(Siemens)	kW	2.9/3.55/2.9/3.05	7.7/7.7/7.7/2.9/2.9	7.7/7.7/7.7/2.9	7.7/7.7/7.7/2.9/2.9	7.7/7.7/7.7/3.14
Axis torque-X/Y/Z(FANUC)	Nm	20/45	36/50	36/90	/	XZ:38/130 Y:30/83
Axis torque-X/Y/Z(Mitsubishi)	Nm	22.5/64	45/130		/	45/130
Axis torque-X/Y/Z(Siemens)	Nm	22/66	48/150		/	48/150
Rapid feed rate-X/Y/Z(FANUC)	m/min	36/36/36	24/24/24			15/15/15
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	36/36/36	24/24/24			15/15/15
Rapid feed rate-X/Y/Z(Siemens)	m/min	36/36/36	24/24/24			15/15/15
Accuracy						
Positioning accuracy(bi-direction)	mm	0.003/300	0.005/300			
Repeat positioning	mm	0.002/300	0.003/300			
Machine						
Air pressure	kg/cm ²	6-7bar				
Machine dimension (Length)	mm	3500	6800	6500	6000	6900
(Width)	mm	4600	4300	4150	3200	5750
(Height)	mm	3100	3370	3520	3900	4330
Machine weight	kg	7500	15000	16500	18500	28000

Heavy cutting horizontal machining center

Item	Unit	BF-LW1290	BF-1814L
Travel			
X axis travel	mm	1200	1800
Y axis travel	mm	900	1400
Z axis travel	mm	700	1200
Spindle nose to table surface	mm	150-850	200-1400
Spindle center to column	mm	70-970	160-1560
Worktable			
Table size	mm	1360x700	2000x900
Max.worktable load	kg	1000	1600
Dimension of T-slot	mm	5-18x122	5-122x165
CNC controller			
Standard controller (FANUC)		Oi-MF Plus	
Standard controller (Mitsubishi)		M80B	
Standard controller (Siemens)		/	
Spindle			
Drive type		Belt drive	
Spindle speed	rpm	8000	6000
Spindle taper		BT50	
Spindle motor power (FANUC)	kW	15/18.5	
Spindle motor torque (FANUC)	Nm	143/191/236	220/272
Spindle motor power (Mitsubishi)	kW	15/18.5	
Spindle motor torque (Mitsubishi)	Nm	143/191/236	
Spindle motor power (Siemens)	kW	/	/
Spindle motor torque (Siemens)	Nm	/	/
Axis			
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0	
Axis torque-X/Y/Z(FANUC)	kW	36/90	
Axis feed motor-X/Y/Z(Mitsubishi)	kW	4.5/4.5/4.5	
Axis torque-X/Y/Z(Mitsubishi)	Nm	37.2/90	
Axis feed motor-X/Y/Z(Siemens)	Nm	6.4/6.4/6.4	
Axis torque-X/Y/Z(Siemens)	Nm	40/120	
Rapid feed rate-X/Y/Z(FANUC)	m/min	15/15/15	
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	15/15/15	
Rapid feed rate-X/Y/Z(Siemens)	m/min	15/15/15	
Accuracy			
Positioning accuracy(bi-direction)	mm	0.005/300	
Repeat positioning	mm	0.003/300	
Machine			
Air pressure	kg/cm ²	6-7bar	
Machine dimension (Length)	mm	3800	4300
(Width)	mm	3200	3600
(Height)	mm	3300	4500
Machine weight	kg	10500	15000

V Series High Speed High Precision Double Column Machining Center

Item	Unit	1613V	2513V	1814V	2016V	3016V	2518V	3023V	4023V	3026V	4026V	5026V	6026V	4029V	5029V	6029V	6032V	8032V	6038V	8038V
Travel																				
X axis travel	mm	1600	2400	1800	2200	3200	2700	3200	4200	3200	4200	5200	6200	4200	5200	6200	6200	8200	6100	8100
Y axis travel	mm	1400		1400	1700		1900	2600		2600			2500	3200			3900		3800	
Z axis travel	mm	600	700	700	800	800	800	1000	1000				1000			1250		1250		
Spindle nose to table surface	mm	180-780		150-850	260-1060		150-950	236-1236		236-1236			236-1236			400-1650	600-1850	400-1650		
Gantry width	mm	1430		1430	1650		1860	2350		2650			2900			3250		3850		
Worktable																				
Table size	mm	1650X1100	2500X1100	1800x1200	2200x1300	3000x1300	2700x1500	3000x1800	4000x1800	3000x2200	4000x2200	5000x2200	6000x2200	4000x2400	5000x2400	6000x2400	6000x2600	8000x2600	6000X3200	8000X3200
Max.worktable load	kg	3000	4000	4000	5000	6000	8000	8000	10000	12000	15000	16000	18000	15000	16000	18000	20000	25000	22000	28000
Dimension of T-slot	mm	7-18X150		7-18x160	7-22x190		8-22x180	10-22x180		11-22x200			12-26x200			13-22X200		16-22X200		
CNC controller																				
Standard controller (FANUC)		0i-MF Plus		0i-MF Plus	0i-MF Plus		0i-MF Plus	0i-MF Plus		0i-MF Plus			0i-MF Plus			0i-MF Plus		0i-MF Plus		
Standard controller (Mitsubishi)		M80		M80	M80		M80	M80		M80			M80			M80		M80		
Standard controller (Siemens)		828D		828D	828D		828D	828D		828D			828D			828D		828D		
Spindle																				
Drive type		Direct drive		Direct drive	Direct drive		Direct drive	Direct drive		Direct drive			Direct drive			Direct drive		Direct drive		
Spindle speed	rpm	12000		10000	10000		10000	10000		10000			10000			10000		10000		
Spindle taper		BBT40-45°		BBT50-45°	BBT50-45°		BBT50-45°	BBT50-45°		BBT50-45°			BBT50-45°			BBT50-45°		BBT50-45°		
Spindle motor power (FANUC)	kW	15/18.5		15/18.5	15/18.5		15/18.5	22/26		22/26			22/26			22/26		22/26		
Spindle motor torque (FANUC)	Nm	95.5/118/159/191		143/191/236	143/191/236		143/191/236	140/166/223		140/166/223			140/166/223			140/166/223		140/166/223/286		
Spindle motor power (Mitsubishi)	kW	15/18.5		15/18.5	15/18.5		15/18.5	22/26		22/26			22			22/26/35		22/26/35		
Spindle motor torque (Mitsubishi)	Nm	77.8/106/118		143/191/236	143/191/236		143/191/236	140/166/223		140/166/223			140/166/223			140/166/223		140/166/223		
Spindle motor power (Siemens)	kW	9		17	17		17	22		22			22			22		22		
Spindle motor torque (Siemens)	Nm	57/108/135		162	162		162	140		140			140			140		140		
Axis																				
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0		3.0/3.0/3.0	3.0/3.0/3.0		6.0/3.0/3.0	6.0/7.0/7.0		6.0/7.0/7.0			6.0/7.0/7.0			6.0/7.0/7.0		6.0/7.0/7.0		
Axis feed motor-X/Y/Z(Mitsubishi)	kW	3.0/3.0/3.0	4.5/4.5/4.5	7.0/7.0/7.0	7.0/7.0/7.0		7.0/7.0/7.0	7.0/7.0/7.0		7.0/7.0/7.0			7.0/7.0/7.0			7.0/7.0/7.0		7.0/7.0/7.0		
Axis feed motor-X/Y/Z(Siemens)	kW	6.4/2.9/3.55		7.7/7.7/7.7	7.7/7.7/7.7		7.7/7.7/7.7	7.7/7.7/7.7		7.7/7.7/7.7			7.7/7.7/7.7			7.7/7.7/7.7		7.7/7.7/7.7		
Axis torque-X/Y/Z(FANUC)	Nm	36/90		36/90	36/90		X:38/130 YZ:36/90	X:38/130 YZ:30/83		X:38/130 YZ:30/83			X:38/130 YZ:30/83			X:38/130 YZ:30/83		X:38/130 YZ:30/83		
Axis torque-X/Y/Z(Mitsubishi)	Nm	37.2/90		45/130	45/130		45/130	45/130		45/130			45/130			45/130		45/130		
Axis torque-X/Y/Z(Siemens)	Nm	X:40/120 YZ:22/66	30/90	48	48		48	48		48			48			48		48		
Rapid feed rate-X/Y/Z(FANUC)	m/min	20/20/20	15/20/20	15/15/12	15/15/12		12/12/12	15/15/12		12/12/12			12/12/12			10/10/10		10/10/10		
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	20/20/20	15/20/20	15/15/12	15/15/12		12/12/12	15/15/12		12/12/12			12/12/12			10/10/10		10/10/10		
Rapid feed rate-X/Y/Z(Siemens)	m/min	20/20/20	15/20/20	15/15/12	15/15/12		12/12/12	15/15/12		12/12/12			12/12/12			10/10/10		10/10/10		
Accuracy																				
Positioning accuracy(bi-direction)	mm	0.005/300		0.005/300	0.005/300		0.005/300	0.005/300		0.005/300			0.005/300			0.005/300		0.005/300		
Repeat positioning	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		
Machine																				
Air pressure	kg/cm ²	6-7bar		6-7bar	6-7bar		6-7bar	6-7bar		6-7bar			6-7bar			6-7bar		6-7bar		
Machine dimension (Length)	mm	5210	6900	5650	6370	8600	7670	8440	10540	8450	10540	12880	16000	10540	12880	15000	15000	19000	15000	19000
(Width)	mm	3920	3870	4170	4320		4470	4970		5270			5300	5820			6570		7200	
(Height)	mm	3300		4000	4300		4300	5000		5000			5000			6200		6200		
Machine weight	kg	13000	18000	18000	19000	22000	21000	30500	33500	32000	36500	41000	49000	38500	43500	50000	52000	60000	58000	68000

L Series High Speed Heavy Cutting Double Column Machining Center

Item	Unit	2016L	3016L	2518L	3023L	4023L	3026L	4026L	5026L	6026L	4029L	5029L	6029L	6032L	8032L	6038L	8038L
Travel																	
X axis travel	mm	2200	3200	2700	3200	4200	3200	4200	5200	6200	4200	5200	6200	6200	8200	6100	8100
Y axis travel	mm	1700		1900	2600		2600		2600	2500	3200			3900		3800	
Z axis travel	mm	800		800	1000		1000		1000			1000		1250		1250	
Spindle nose to table surface	mm	250-1050		150-950	250-1250		250-1250		250-1250			250-1250		350-1600		400-1650	
Gantry width	mm	1650		1860	2350		2650		2650			2900		3250		3850	
Worktable																	
Table size	mm	2200X1300	3000x1300	2700x1500	3000x1800	4000x1800	3000x2200	4000x2200	5000x2200	6000x2200	4000x2400	5000x2400	6000x2400	6000x2600	8000x2600	6000X3200	8000X3200
Max.worktable load	kg	5000	6000	8000	8000	10000	12000	15000	16000	18000	15000	16000	18000	20000	25000	22000	28000
Dimension of T-slot	mm	7-22x190		8-22x180	10-22x180		11-22x200		11-22x200			12-26x200		13-22x200		16-22X200	
CNC controller																	
Standard controller (FANUC)		0i-MF Plus		0i-MF Plus	0i-MF Plus		0i-MF Plus		0i-MF Plus			0i-MF Plus		0i-MF Plus		0i-MF Plus	
Standard controller (Mitsubishi)		M80B		M80B	M80B		M80B		M80B			M80B		M80B		M80B	
Standard controller (Siemens)		828D		828D	828D		828D		828D			828D		828D		828D	
Spindle																	
Drive type		Belt drive		Belt drive	Belt drive		Belt drive		Belt drive			Belt drive		Belt drive		Belt drive	
Spindle speed	rpm	6000		6000	6000		6000		6000			6000		6000		6000	
Spindle taper		BT50		BT50	BT50		BT50		BT50			BT50		BT50		BT50	
Spindle motor power (FANUC)	kW	15/18.5		15/18.5	22/26		22/26		22/26			22/26		22/26		22/26	
Spindle motor torque (FANUC)	Nm	143/191/236		143/191/236	140/166/223/286		140/166/223/286		140/166/223/286			140/166/223/286		140/166/223/286		140/166/223/286	
Spindle motor power (Mitsubishi)	kW	15/18.5		15/18.5	22/26		22/26		22/26			22/26		22/26		22/26	
Spindle motor torque (Mitsubishi)	Nm	140/166/223		140/166/223	140/166/223		140/166/223		140/166/223			140/166/223		140/166/223		140/166/223	
Spindle motor power (Siemens)	kW	17		17	22		22		22			22		22		22	
Spindle motor torque (Siemens)	Nm	162		162	140		140		140			140		140		140	
Axis																	
Axis feed motor-X/Y/Z(FANUC)	kW	3.0/3.0/3.0		6.0/3.0/3.0	6.0/7.0/7.0		6.0/7.0/7.0		6.0/7.0/7.0			6.0/7.0/7.0		6.0/7.0/7.0		6.0/7.0/7.0	
Axis feed motor-X/Y/Z(Mitsubishi)	kW	7.0/7.0/7.0		7.0/7.0/7.0	7.0/7.0/7.0		7.0/7.0/7.0		7.0/7.0/7.0			7.0/7.0/7.0		7.0/7.0/7.0		7.0/7.0/7.0	
Axis feed motor-X/Y/Z(Siemens)	kW	7.7/7.7/7.7		7.7/7.7/7.7	7.7/7.7/7.7		7.7/7.7/7.7		7.7/7.7/7.7			7.7/7.7/7.7		7.7/7.7/7.7		7.7/7.7/7.7	
Axis torque-X/Y/Z(FANUC)	Nm	36/90		X:38/130 YZ:36/90	X:38/130 YZ:30/83		X:38/130 YZ:30/83		X:38/130 YZ:30/83			X:38/130 YZ:30/83		X:38/130 YZ:30/83		X:38/130 YZ:30/83	
Axis torque-X/Y/Z(Mitsubishi)	Nm	45/130		45/130	45/130		45/130		45/130			45/130		45/130		45/130	
Axis torque-X/Y/Z(Siemens)	Nm	48		48	48		48		48			48		48		48	
Rapid feed rate-X/Y/Z(FANUC)	m/min	15/15/12		12/12/12	12/12/12		12/12/12		12/12/12			12/12/12		10/10/10		15/15/12	
Rapid feed rate-X/Y/Z(Mitsubishi)	m/min	15/15/12		12/12/12	12/12/12		12/12/12		12/12/12			12/12/12		10/10/10		15/15/12	
Rapid feed rate-X/Y/Z(Siemens)	m/min	15/15/12		15/15/12	12/12/12		12/12/12		12/12/12			12/12/12		12/12/12		15/15/12	
Accuracy																	
Positioning accuracy(bi-direction)	mm	0.005/300		0.005/300	0.005/300		0.005/300		0.005/300			0.005/300		0.005/300		0.005/300	
Repeat positioning	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	
Machine																	
Air pressure	kg/cm ²	6-7bar		6-7bar	6-7bar		6-7bar		6-7bar			6-7bar		6-7bar		6-7bar	
Machine dimension (Length)	mm	6370	8600	7670	8440	10540	8450	10540	12880	16000	10540	12880	15000	15000	19000	15000	19000
(Width)	mm	4320		4470	4970		5270		5270	5300	5820			6570		7200	
(Height)	mm	4300		4300	5000		5000		5000			5000		6200		6200	
Machine weight	kg	19000	22000	21000	30500	33500	32000	36500	41000	49000	38500	43500	50000	52000	60000	58000	68000



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