

TAIKAN VERTICAL MACHINING CENTER

HIGH-END INTELLIGENT EQUIPMENT
INTEGRATED SOLUTIONS SERVICE PROVIDER



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Taikan Sunshine Service



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15

Taikan is established in 2005
15th anniversary

500

Shenzhen's top 500 enterprises ranked 242nd in 2019

100

Shenzhenbaoan district
Top 100 enterprises in added value
Top 100 enterprises in output value
Top 100 enterprises in paying tax
Top 100 enterprises in innovation

HIGH-END INTELLIGENT EQUIPMENT
INTEGRATED SOLUTIONS SERVICE PROVIDER

COMPANY PROFILE

Taikan based on the machine tool and supporting industries. With big, strong and do for a long time, in the future, it will develop high precision, high efficient, intelligent and complete development, vigorously developing the fields of robots and intelligent equipment. Products will be widely used in the 3C industry, military, energy, environmental protection and automotive industries etc. We are committed to promoting people's life quality by products' quality, and bringing high efficient, green and innovative processing, and service experience to the world industries

Academician (Expert) workstation

The first academician expert workstation in Shenzhen

Engineering Lab

With an area of 1,300 square meters and a total investment up to 30 million yuan, it is equipped with material analysis room, functional component testing room, precision measurement room, comprehensive laboratory, vibration testing room, mechanical performance testing room and EMC testing room.

Innovation base

Shenzhen headquarters innovation direction: Intelligent Machine Tools, Automation Solutions
Suzhou Innovation Direction: Parts Machine, Mold Machine, Gantry Processing Center

Qualification honor

National high-tech enterprises
Famous brand in Guangdong Province.
Top 500 manufacturers in Guangdong province
Cultivating enterprises of strategic emerging industries in Guangdong province
Abide by the contract and credit enterprises in Guangdong province
Famous brand in Shenzhen

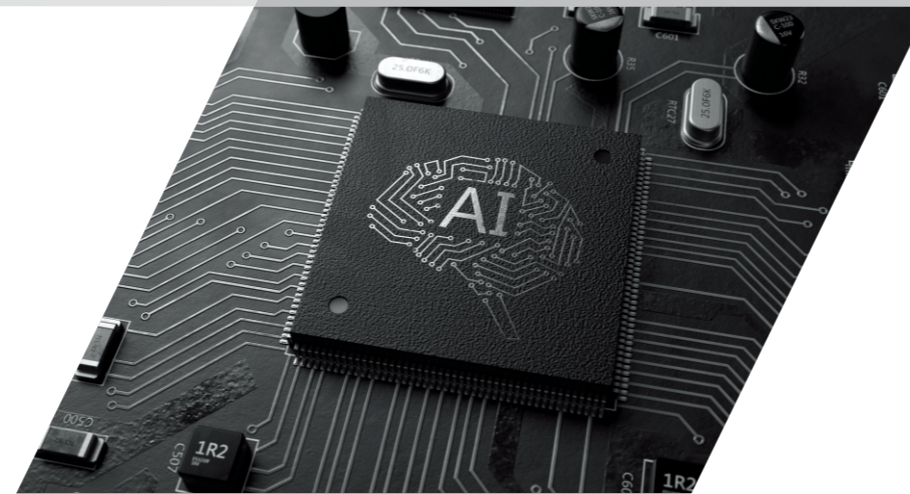
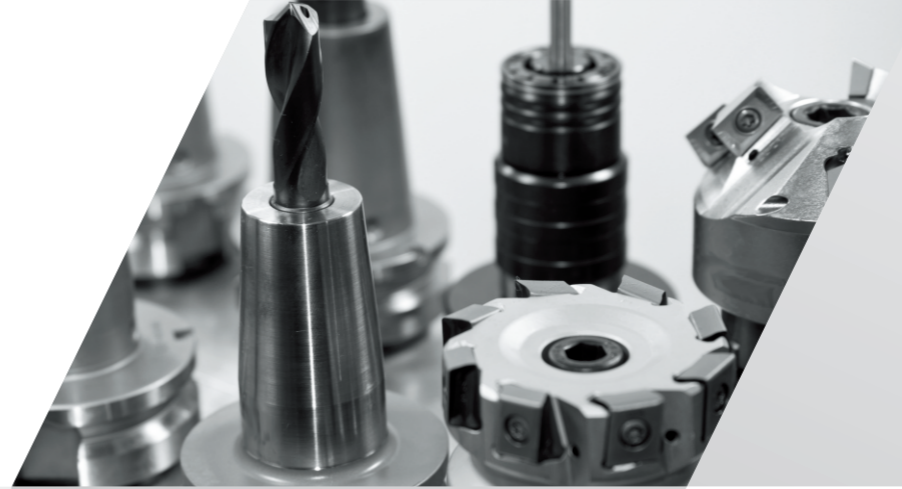
Awarded mayor quality in Shenzhen
Top 100 quality enterprises in Shenzhen
2nd prize of science and technology progress award in Shenzhen
ISO9001:2008 Quality management system certification
ISO14000 Environmental Management System Certification

TECHNOLOGY RESEARCH AND DEVELOPMENT

As a national high-tech enterprise, our company always takes technical innovation, product upgrading, technology improvement as key development targets. Put large funds to support R&D, and cooperate with national famous universities and research institutes. Obtain significant scientific and technological achievements and got more than 500 technology patents.

We have technical consultants consist of authoritative industry experts from China, Taiwan, Korea, Malaysia, Germany etc, and industry leading more than 400 people R&D team. Through science and research activities, we have cultivated a group of researchers with both integrity and ability to establish strong foundation for company's long-term development.

400+ R&D Staff 500+ Patent technology 4 pcs R&D Center



Casting technology for CNC machine bed

Make the machine maintain the geometric accuracy, movement precision and positioning accuracy in long-term by specially designed machine casting structure. Based on finite element analysis and modal analysis, through multiple optimizations, we designed high rigidity and superior vibration resistance machine structure. Applying symmetrical and heat balance design to improve the machine deformation, so as to make higher precision.

Intelligent control technology

Through intelligent system design, Taikan machine can carry high speed and high precision control, such as pre-read 30 program segments to calculate route automatically, large pre-read content make sure accurate calculation. The system can calculate acceleration and deceleration time automatically during machining based on program route. According to calculated route angle, it can get best speed control on the corner. Before machining the corner, the system automatically calculates best machining speed to make sure the accuracy according to angular dimension and machining speed. During machining, the system automatically selects the smooth route generated by vector precision interpolation. By the use of feed-forward control, the system can reduce machining allowance by the control time delay, improve machining precision.

AI tool life management technology

In the process of cutting the tool life management is very important. Taikan developed a tool life management combining Mitsubishi and Fanuc control system, including tool cutting time automatic statistics, display, and alarm, and upload these related data to the server. Take use of the tool life management to monitor the tool usage, and status, and launch the backup tool when the usage status reached the setting value, so as to prevent tool broken or other issues.

ATC tool change speed up technology

Taikan improves the operating speed based on the traditional automatic tool change equipment or faster action mechanism and drive components. Design tool magazine and tool change method and position according to high speed machine tool.

...
SEIKO
MANUFACTURING



...
SUNSHINE SERVICE



3^{pcs}

3 modern production base

100000⁺ m²

plant area of 10000 square meters

2500⁺

production around 2500+ per month

PRECISION ASSEMBLY

Precision assembly is the most important step of the machining center. In order to ensure the accuracy of the product. Our company hold all the assembly 100% complete by ourselves to ensure the accuracy and quality of the product. To make sure the accuracy of each machine, we grasp every details of each steps, refine assembly all must undergo a rigorous inspection an record for each step before continuing to the next process.

- Pedestal Shove spark
- Guide rail correction
- Bearing seat correction
- Tailstock correction

PRODUCT TESTING

The manufacturing process including manufacturing, testing, inspection, performance test etc are strictly controlled in accordance with the highest standards, to ensure the perfect quality and performance well.

- Spindle temperature test
- Inspection of spindle inspection rod
- Laser detection
- Spindle pull test
- Geometric accuracy test
- spindle vibration detection
- Telescopic ballbar system roundness test

Sales Network

The sales and service network covers Vietnam, Thailand, Malaysia, Philippines, Indonesia, Pakistan, India, South Korea, Iran, Saudi Arabia, Mexico, Argentina, Brazil, Peru, Russia, Germany, France, Turkey, Spain, Czech republic ,etc. In China, we have branches and offices in BEIJING, TIANJIN, HEBEI, SHANDONG, HENAN, SHANXI, SICHUAN, CHONGQING, ZHEJIANG, JIANGSU, SHANGHAI, HUBEI, HUNAN, GUANGDONG and nearly 100 partners. Dedicated to providing comprehensive, convenient and efficient sales service for customers.

Taikan provides professional after-sales service teams for customers with full network service, multiple after-sales repair methods to ensure timely and high- efficient service, 24-hour service hotline, sunshine service warranty platform. Whatever , we strive to do better.

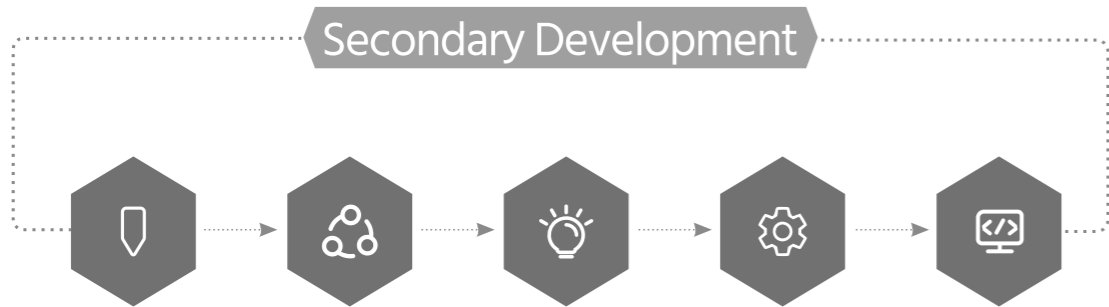
Service aim

heart and soul, fast, efficient, cheap, value-added service to every customer forever!

Service Features

- 01 VIP 24-hours service
- 02 Within 10mins response to maintenance
- 03 All day factory tour service
- 04 Baby-sister Type Training
- 05 Precision parts repair service quickly

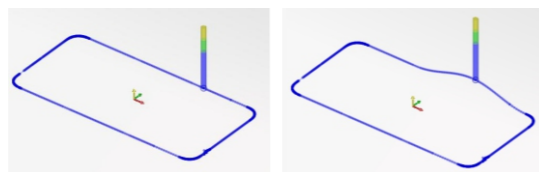
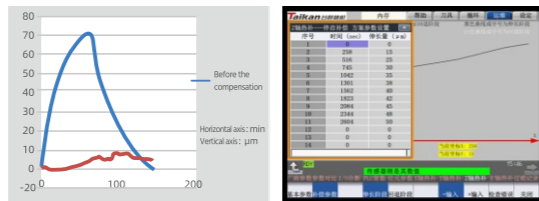
FEATURES OF CNC SYSTEM



Tool	Operation and maintenance	Help
Fast tool changing Tool by hand Life management Automatic Tool Tool measurement	1/O Diagnosis Bit parameter Machine tool debugging PLC constant perature compensation Tool magazine management	PLC alarm information and solutions G code M code macro definition User screen definition
Setting	Programme	
Functional form Permission to login (model, name, factory number, Parameter version, PLP version, etc.)	Rights management Machine information Common programming External interface Measure following DXF programming Measuring group	

Real-time dynamic control of machine thermal extension (Patent registering)

Solve the machine thermal extension that can be controlled effectively without an engine to achieve stable continuous processing for long time and improve accuracy and yield, and reduce cost and increase efficiency.



Programs can be slightly adjusted to ensure no quality issues during product processing

Fast Dialog Programming

Provide custom image that can generate quickly procedures of simple processing and probe calibration. Multiple program groups can be inserted to choose many processing modes. It makes processing more quickly and efficiently for users

Intelligent Follow Measurement Control (Patent registering)

Solve differences of shape in processing parts and quality of chamfering to achieve on-machine measurement and real-time correction.

Intelligent tools management

[MDIReset the programming] Achieve to set batch tool life management parameters by defining the script file to note the tool purpose, and add pictures to the specified folder to view the tool location



Select different tool Numbers to display different machining locations. Tool length wear can be loaded into an image

Intelligent tools management

Fast tool change, Manual fast tool setting, defining the script file to note the tool purpose, and add pictures to the specified folder to view the tool location



Taikan Machine Tool Cloud Device Management Platform

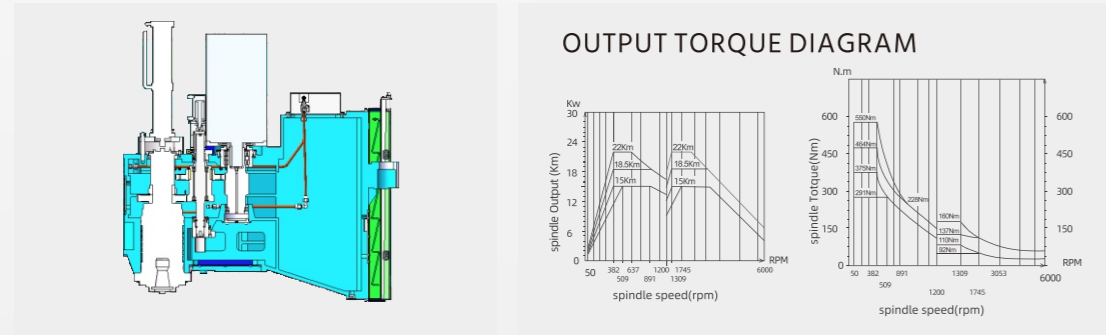
Connect internet to realize Machine Tool Cloud Device Management Platform on the workshop equipment



1. BT50 GEAR HEAD

The cylinder drives the middle shift gear up and down to realize the automatic shift of high and low gears. The transmission ratio between high-grade spindle motor and spindle is 1:1, The maximum rotation speed of the main shaft can reach 6000 rpm, the low gear is 1:4, the main shaft is in the state of low speed and high torque, and the maximum torque can reach 550Nm.

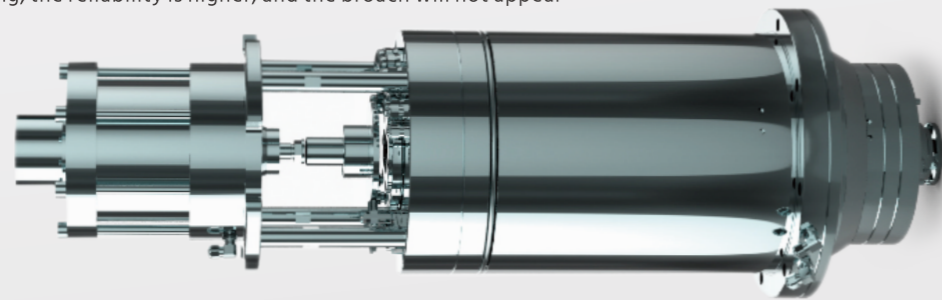
This set of gear is developed and manufactured by the most professional ogic in Japan, and the gear is lubricated and cooled by an independent oil cooler.



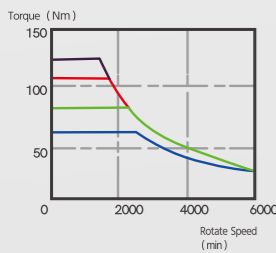
2. Motorized spindle

The 15000rpm or 20000rpm spindle of the built-in motor structure design can minimize the vibration when rotating at high speed, and play an excellent performance when processing high-precision products such as molds;

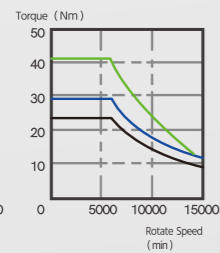
With internal cooling design, the temperature can be fully controlled; with external cutting cylinder, the failure rate is lower than that of the integrated design of traditional electric spindle and cutting cylinder; with hydraulic cutting, the reliability is higher, and the broach will not appear



Torque characteristic diagram of low speed coil



Torque characteristic diagram of high speed coil



INTRODUCTION TO MAIN FUNCTIONAL PARTS



3. Tool magazine



ATC tool change is controlled by encoder, which is faster than common tool magazine, and tool setting is 1.2s



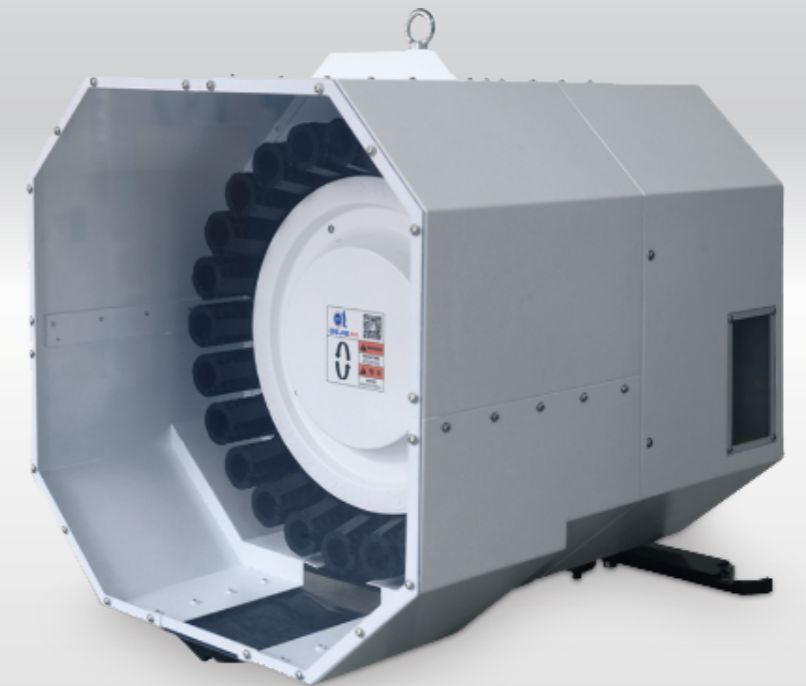
Fully enclosed design to prevent iron chips from splashing during processing



With big and heavy tool functions

The frequency converter is used to control the cutter wall and cutter head movement, and the angle encoder is used to feed back the position of cutter arm. Compared with the traditional contactor control mode, it has the following advantages.

01. There is no need for mechanical brake disc for the cutter arm motor and cutter head motor, so as to avoid the failure point caused by the brake pad with the use loss.
02. The angle encoder signal is stable, and the tool unclamp signal can be allocated in advance according to the needs to improve the tool change efficiency
03. The frequency converter can control the cutter wall to select the speed at will, so the standard has the function of automatic speed reduction of heavy cutter and automatic speed reduction + automatic separation of large diameter cutter





STANDARD VERSION

HIGH SPEED AND HIGH EFFICIENCY VERTICAL MACHINING CENTER



HIGH SPEED

Meet the needs of rapid cutting and batch processing
 Suitable for 5g communication 3C products, toy products,
 hardware, valve body processing, especially aluminum alloy parts
 processing effect and efficiency is the best.

HIGH SPEED AND HIGH EFFICIENCY VERTICAL MACHINING CENTER

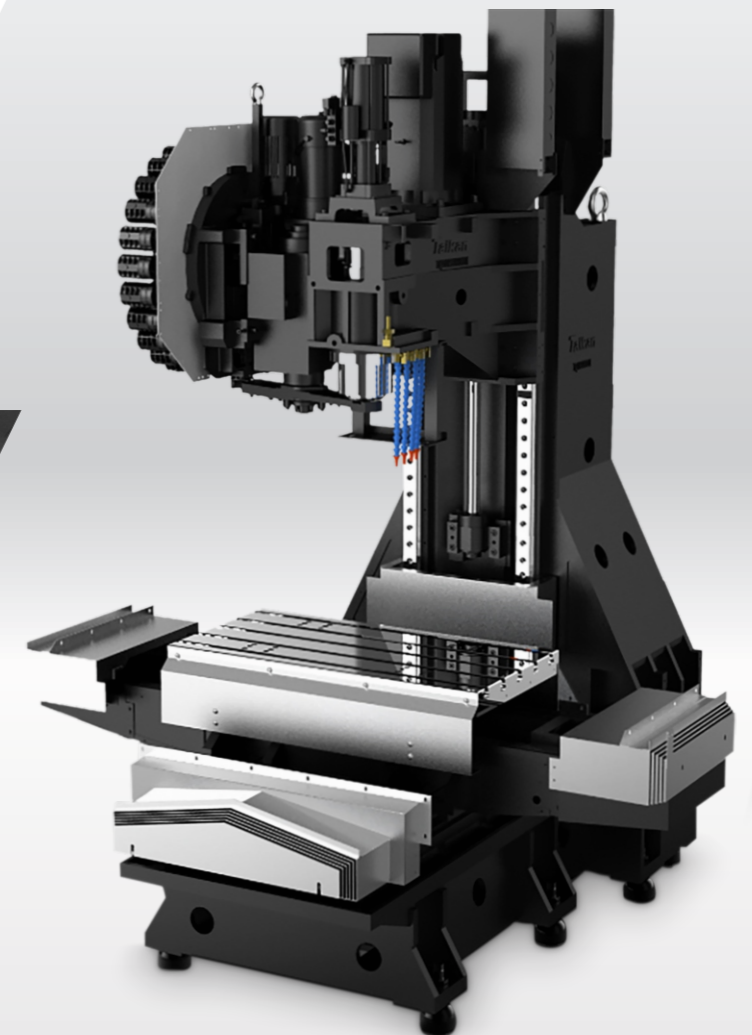
T-V856S

PRODUCT DESCRIPTION



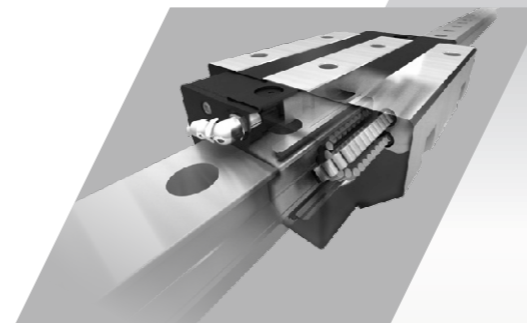
T-V856S linear guide type vertical machining center is a small and medium-sized machine tool, which can automatically and continuously finish milling, drilling, boring, expanding, stranding, tapping and other processes after a clamping. The machine tool is suitable for small and medium-sized box type, plate type, plate type, valve type, shell type, mold and other complex parts in a variety of

small and medium-sized batch processing. The machine tool adopts high-precision Wire rail and screw rod, machine tool has better dynamic response, high-speed cutting and low-speed non creeping, and is widely used in 5g, precision parts, 3C products, hardware, auto parts, and medical equipment industries;



HIGH SPEED AND HIGH EFFICIENCY VERTICAL MACHINING CENTER

T-V856S



PRODUCT ADVANTAGE

The layout of the whole machine continues to follow the form of T-V856, adopting the classic C-type structure of VMC, the working table realizes the left and right movement of x-axis, the saddle achieves the front and back movement of y-axis, and the spindle box achieves the up and down movement of z-axis. The bed adopts super large stable base, high rigid large span herringbone column, high-speed cutting without vibration and deformation.

New optimized structural design of the five basic castings, all made of high-quality resin sand molding and high-strength cast iron materials. In combination with heat treatment measures, they ensure high rigidity and stability of the machine tool. Through advanced design methods such as finite element analysis and modal analysis, the performance of the whole machine is improved by more than 20% compared with T-V856.

A new appearance of professional industrial design, full enclosed protection, simple and generous appearance, pleasant operation, convenient maintenance, and meets the requirements of ergonomics.

Wider working table design with 1000mm × 500mm, Y axis stroke is increased to 550mm, a large processing range, meeting the needs of customers for larger processing space, and the versatility is stronger.

For X / Y / Z axis support system, the original ball guide rails are all upgraded to roller guide rails with high rigidity and high bearing capacity; the roller guide rails are in line contact with the sliders and guide rails through rollers, which is superior to the point contact of ball guide rails. When they bear the same load, they achieve less elastic deformation and meet the high-precision application of heavy load machining.

For X / Y / Z three-axis drive system of the machine tool and the "fixed + supported" structure of the original screw support structure are all upgraded to the "fixed + supported" structure, so as to reduce the thermal displacement caused by the friction heat of the screw and realize high-precision machining. With the hot displacement control module (option), the hot displacement of the screw can be effectively controlled within 0.02mm; the preheating time of the equipment can be cancelled and the utilization rate of the equipment can be improved.

The tool magazine adopts the 24 arm type tool magazine of the platform group, which is reliable in quality and stable in performance. The encoder control is more stable than the traditional tool magazine, and can realize 1.2sec rapid tool change.

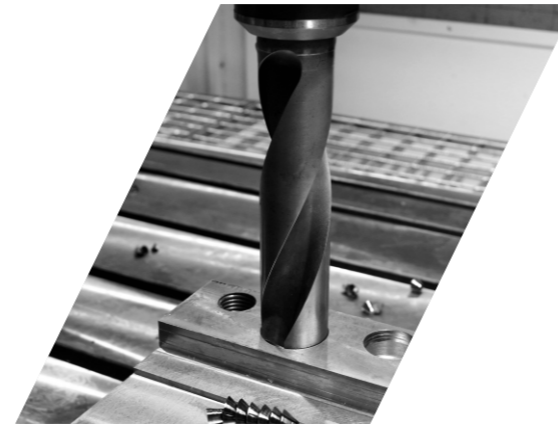
The main shaft adopts the high-speed main shaft unit of the platform group, with the standard BT40-12000r / min straight coupling. The front end of the main shaft adopts the labyrinth design, with the air curtain protection function, to prevent the cutting fluid from entering the main shaft bearing. Standard equipped with water cooler, give full play to the advantages of large specific volume of water-cooled medium (special water-based mixture), take more heat, better cooling effect, so as to achieve the maximum speed of spindle thermal extension within 0.01mm.

Bearings adopt Japan NSK/Germany FAG, electric components adopt Schneider, pneumatic components adopts SMC.

Equipped with positive displacement and forced lubricating oil system and optimized lubricating control method, it can not only ensure the good lubrication of all moving parts of the machine tool, but also increase the interval of oil filling under the standby state of the machine tool, realize energy conservation and environmental protection, and reduce maintenance costs.

CONFIGURATION TABLE

ITEM	T-V6	T-V856S	T-V1055S	T-V1165S	T-V1270
Bt40 BELT TYPE 8000rpm	/	OPT	OPT	OPT	OPT
Bt40 BELT TYPE 10000rpm	/	OPT	OPT	OPT	OPT
BT40 DIRECT TYPE 12000rpm	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
BT40 DIRECT TYPE 15000rpm	OPT	OPT	OPT	OPT	OPT
BBT40 Motorized spindle 15000rpm	OPT	OPT	OPT	OPT	OPT
HSK-A63 motorized spindle 18000rpm	/	OPT	OPT	OPT	OPT
CTS 2MPa/5MPa	OPT	OPT	OPT	OPT	OPT
Mitsubishi M80B	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
FANUC 0i-MF(5)	OPT	OPT	OPT	OPT	OPT
SIEMENS 828D	OPT	OPT	OPT	OPT	OPT
HUAZHONG CNC	OPT	OPT	OPT	OPT	/
THE-4TH AXIS	OPT	OPT	OPT	OPT	OPT
ROOLER GUIDE	/	STANDARD	STANDARD	STANDARD	STANDARD
24T ARM TYPE ATC	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD
30T ARM TYPE ATC	/	OPT	OPT	OPT	OPT
OIL COOLER	STANDARD	STANDARD	STANDARD	STANDARD	STANDARD



CONFIGURATION TABLE

ITEM	T-V1375S	T-V1475S	T-V1585S	T-V1685S
Bt50 BELT TYPE 6000rpm	STANDARD	STANDARD	STANDARD	STANDARD
BT50 DIRECT TYPE 8000RPM	OPT	OPT	OPT	STANDARD
BT50 MOTORIZED SPINDLE 8000RPM	OPT	OPT	OPT	OPT
HSK-A100MOTORIZED SPINDLE 12000RPM	OPT	OPT	OPT	OPT
BBT40 MOTORIZED 15000RPM	OPT	OPT	OPT	OPT
HSK-A63 MOTORIZED 18000RPM	OPT	OPT	OPT	OPT
BT50 gear head	OPT	OPT	OPT	OPT
CTS 2MPa/5MPa	OPT	OPT	OPT	OPT
FANUC 0i-MF(5)	STANDARD	STANDARD	STANDARD	STANDARD
MITSUBISHI M80B	OPT	OPT	OPT	OPT
The 4th axis	OPT	OPT	OPT	OPT
ROOLER GUIDE	STANDARD	OPT	STANDARD	OPT
24T ARM type ATC	STANDARD	STANDARD	STANDARD	STANDARD
OIL COOLER	STANDARD	STANDARD	STANDARD	STANDARD

PARAMETER TABLE

Item	Des	单位	T-V6	T-V856S	T-V1055S	T-V1165S	T-V1270	
Traveling	X axis	mm	600	800	1000	1100	1200	
	Y axis	mm	390	550	550	650	700	
	Z axis	mm	450	600	600	580	650	
	The distance from spindle end face to working table	mm	190-640	125-725	100-700	140-720	150-800	
Working table	Working table size	mm	700*400	1000*500	1100*500	1200*600	1300*650	
	Maximum loading	kg	300	450	450	800	1000	
Spindle	Max spindle speed	rpm	Direct type12000	Direct type12000	Direct type12000	Direct type12000	Direct type12000	
	Spindle power	kw	3.7/5.5	7.5/11	7.5/11	7.5/11	7.5/11	
	主轴扭矩	N.m	23.6/35	35.8/70	35.8/70	35.8/70	35.8/70	
Guide	X axis	/	2-25	2-35	2-45	2-45	2-45	
	Y axis	/	2-30	2-45	2-45	2-45	2-45	
	Z axis	/	2-35	2-45	2-45	2-45	2-45	
	Tool magazine capacity	/	24	24	24	24	24	
Tool	Spindle taper	/	BT40	BT40	BT40	BT40	BT40	
	Maxi tool dia. (With/without adjacent tool)	mm	Φ75/Φ150	Φ75/Φ150	Φ75/Φ150	Φ75/Φ150	Φ75/Φ150	
	Maxi tool length	mm	250	250	250	250	250	
	Max tool weight	kg	7	7	7	7	7	
Feeding rate	x/y/z rapid speed rate	m/min	48/48/48	48/48/48	48/48/48	36/36/36	36/36/36	
	x/y/z feeding rate	mm/min	1-10000	1-10000	1-10000	1-10000	1-10000	
Accuracy	Positioning accuracy	mm	0.005	0.008	0.008	0.010	0.010	
	Repeatability	mm	0.003	0.005	0.005	0.007	0.007	
Size	Machine size (length*width*height)	mm	2100*2580*2670	2240*3100*2900	2500*3100*2900	2700*3300*2950	3000*3400*3160	
	Machine weight	kg	3500	5200	5800	7200	8000	
Power source	Power supply(380VAC,50HZ)	KVA	15	25	25	30	30	
	Gas source	flow	L/min	280(ANR)	280(ANR)	280(ANR)	280(ANR)	280(ANR)
		pressure	MPa	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8

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PARAMETER TABLE

Item	Des	Unit	T-V1375S	T-V1475S	T-V1585S	T-V1685S	
Traveling	X axis	mm	1350	1400	1500	1650	
	Y axis	mm	750	750	850	850	
	Z axis	mm	650	650	720	720	
	The distance from spindle end face to working table	mm	100-750	100-750	100-820	100-820	
Working table	Working table size	mm	1400*750	1500*750	1600*850	1750*850	
	Maximum loading	kg	1250	1250	1750	1750	
Spindle	Max spindle speed	rpm	Belt type6000	Belt type6000	Belt type6000	Belt type6000	
	Spindle power	kw	15/18.5	15/18.5	15/18.5	15/18.5	
	主轴扭矩	N.m	143/191	143/191	143/191	143/191	
Guide	X axis	/	2-45	2-45	2-45	2-45	
	Y axis	/	4-45	4-45	4-45	4-45	
	Z axis	/	2-55	2-55	2-55	2-55	
Tool	Tool magazine capacity	/	24	24	24	24	
	Spindle taper	/	BT50	BT50	BT50	BT50	
	Maxi tool dia. (With/without adjacent tool)	mm	Φ105/Φ210	Φ105/Φ210	Φ105/Φ210	Φ105/Φ210	
	Maxi tool length	mm	300	300	300	300	
Feeding rate	Max tool weight	kg	18	18	18	18	
	x/y/z rapid speed rate	m/min	24/24/20	24/24/20	24/24/20	24/24/20	
Accuracy	x/y/z feeding rate	mm/min	1-10000	1-10000	1-10000	1-10000	
	Positioning accuracy	mm	0.012	0.012	0.015	0.015	
Size	Repeatability	mm	0.008	0.008	0.008	0.008	
	Machine size (length*width*height)	mm	3900*2840*3320	3900*2840*3320	4290*3120*3350	4290*3120*3350	
	Machine weight	kg	11000	11500	13000	13500	
Power source	Power supply(380VAC,50HZ)	KVA	40	40	40	40	
	Gas source	flow	L/min	280(ANR)	280(ANR)	280(ANR)	280(ANR)
		pressure	MPa	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8

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ADVANCED VERSION

HIGH SPEED HIGH PRECISION VERTICAL MACHINING CENTER

HIGH SPEED

It can meet the needs of high accuracy and stable batch processing connections. It is suitable for small and medium-sized precision parts and mold processing, and is widely used in precision parts, auto parts, medical equipment, precision molds and other industries.

HIGH SPEED AND PRECISION VERTICAL MACHINING CENTER

T-V1165H

PRODUCT ADVANTAGE

The three-axis screw adopts the central oil cooling and double nut configuration to eliminate the hot extension and reverse clearance of the screw, thus improving the processing accuracy of the product. As the screw rod is fully cooled, the wear caused by heating is reduced, the service life of the screw rod is improved, and the stability of the machine is improved.

The three-axis adopts No. 45 roller linear guide way, which has high rigidity and good vibration absorption effect, can meet the needs of light tool surface for precision molds.

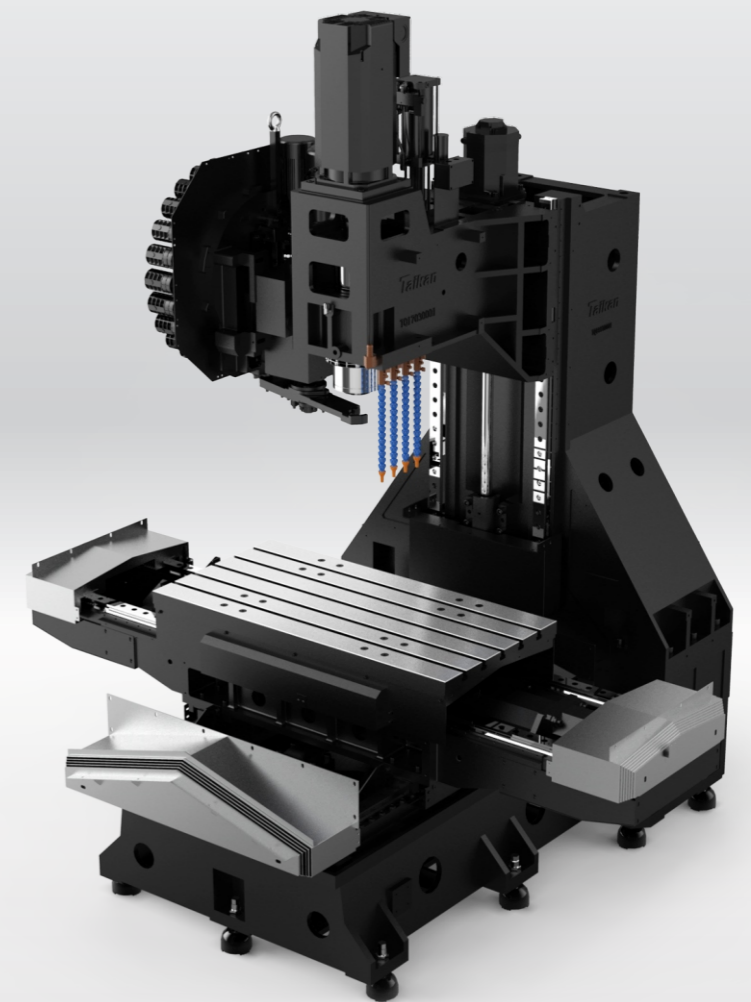
Constant temperature cooling design of nose end direct spindle, low temperature rise, good thermal extension.

Equipped with high-speed and high-precision M80A, or FANUC (package 3 or 1), with mold function, it can meet the requirements of complex surface machining.

The spindle adopts BBT form (optional), the end face and the radial force are simultaneously stressed, which increases the cutting rigidity of the tool.

Bearings adopt Japan NSK/Germany FAG, electric components adopt Schneider, pneumatic components adopts SMC.

The tool magazine is controlled by encoder, with stable performance, fast tool changing speed and tool setting for 1.2 seconds.



HIGH SPEED AND PRECISION VERTICAL MACHINING CENTER

T-V1165H



CONFIGURATION TABLE

ITEM	T-V856H	T-V1165H	ITEM	T-V1375H	T-V1585H
Bt40 belt type 8000rpm	OPT	OPT	Bt50 belt type 6000rpm	STANDARD	STANDARD
BT40 belt type 10000rpm	OPT	OPT	BT50 direct type 8000rpm	OPT	OPT
BT40 direct type 12000rpm	STANDARD	STANDARD	BT50 electric 8000rpm	OPT	OPT
BT40 electric 15000rpm	OPT	OPT	BT40 electric 15000rpm	OPT	OPT
HSK-A63 electric 18000rpm	OPT	OPT	HSK-A63 electric 18000rpm	OPT	OPT
CTS 2MPa/5MPa	OPT	OPT	BT50 gear head	OPT	OPT
Mitsubishi M80A	STANDARD	STANDARD	CTS 2MPa/5MPa	OPT	OPT
FANUC0I-MF(3 or 5)	OPT	OPT	Mitsubishi M80A	OPT	OPT
Siemens828D	OPT	OPT	FANUC0I-MF(3 or 5)	STANDARD/OPT	STANDARD/OPT
4th axis	OPT	OPT	Siemens828D	OPT	OPT
Roller linear guide way	STANDARD	STANDARD	4th axis	OPT	OPT
24TDISC tool magazineBT40	STANDARD	STANDARD	Roller linear rail	STANDARD	STANDARD
30TDISC tool magazineBT40	OPT	OPT	24TDISC tool magazineBT50	STANDARD	STANDARD
Spindle cooling	STANDARD	STANDARD	Spindle cooling	STANDARD	STANDARD
Screw center cooling	STANDARD	STANDARD	Screw center cooling	STANDARD	STANDARD

PARAMETER TABLE

Item	Parameter	Unit	T-V856H	T-V1165H	T-V1375H	T-V1585H	
Traveling	X axis	mm	800	1100	1300	1500	
	Y axis	mm	550	650	750	850	
	Z axis	mm	600	580	650	720	
Working table	The distance from spindle end face to working table	mm	125-725	140-720	100-750	100-820	
	Working table size	mm	1000*500	1300*600	1400*750	1600*850	
Spindle	Maximum loading	kg	450	800	1250	1750	
	Max spindle speed	rpm	Direct type12000	Direct type12000	Belt type6000	Belt type6000	
Spindle	Spindle power	kw	7.5/11	7.5/11	15/18.5	15/18.5	
	Torque	N.m	35.8/70	35.8/70	143/191	143/191	
Guide	X axis	/	2-35	2-45	2-45	2-45	
	Y axis	/	2-45	2-45	4-45	4-45	
	Z axis	/	2-45	2-45	2-55	2-55	
Tool	Tool magazine capacity	/	24	24	24	24	
	Spindle taper	/	BT40	BT40	BT50	BT-50	
	Maxi tool dia. (With/without adjacent tool)	mm	Φ75/Φ150	Φ75/Φ150	Φ105/Φ210	Φ105/Φ210	
	Maxi tool length	mm	250	250	300	300	
	Max tool weight	kg	7	7	18	18	
Feeding rate	x/y/z rapid speed rate	m/min	36/36/36	30/30/30	20/20/16	20/20/16	
	x/y/z feeding rate	mm/min	1-10000	1-10000	1-10000	1-10000	
Accuracy	Positioning accuracy	mm	0.008	0.010	0.012	0.015	
	Repeatability	mm	0.005	0.007	0.008	0.008	
Size	Machine size(length*width*height)	mm	2240*3100*2900	2700*3300*2950	3900*2840*3320	4290*3120*3350	
	Machine weight	kg	5200	7500	11000	13000	
Power source	Power supply(380VAC,50HZ)	KVA	25	30	40	40	
	Gas source	flow	L/min	280(ANR)	280(ANR)	280(ANR)	280(ANR)
		pressure	MPa	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8



X、Y LINEAR GUIDE WAY, Z BOX WAY

HIGH PRECISION AND HIGH EFFICIENCY VERTICAL MACHINING CENTER



HIGH SPEED

It can meet the requirements of workpiece processing with high precision and large cutting amount, suitable for the processing of small and medium-sized precision parts and molds, and widely used in precision parts, auto parts, medical devices, precision molds and other industries.

HIGH PRECISION HIGH EFFICIENCY VERTICAL MACHINING CENTER

T-1585L

PRODUCT ADVANTAGE

Z axis adopts rectangular hard rail, which has high cutting rigidity. Under heavy cutting condition, it still has good dynamic performance, good shock absorption effect and stable machining quality. Three-axis adopts No.45 roller guide, Yaxis 4-track and xaxis 6-slide design, which effectively reduces the suspension deformation of the saddle, improves the load capacity and heavy cutting rigidity.

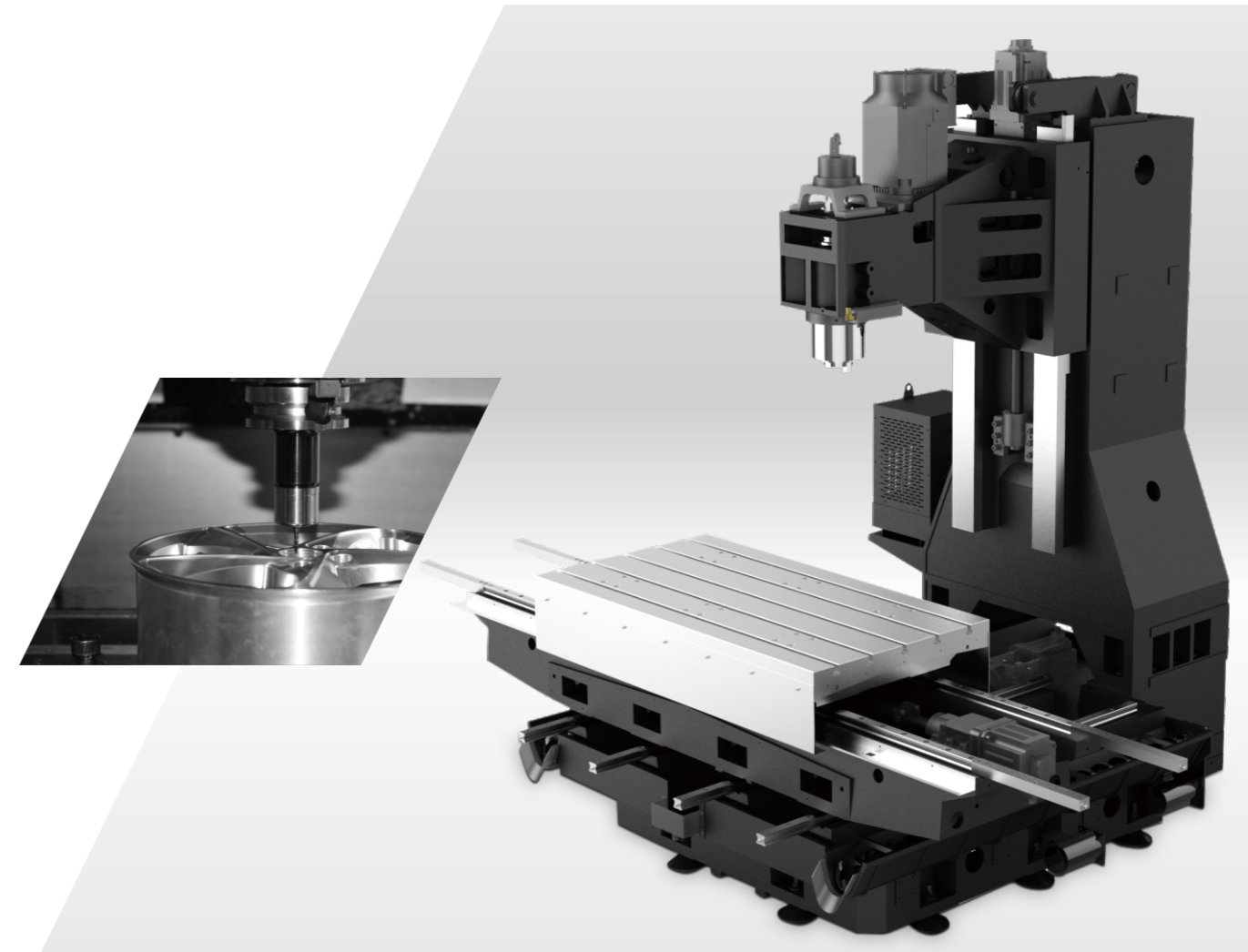
Three-axis screw adopts the central oil cooling and double nut configuration to eliminate the hot extension and reverse clearance of the screw, so as to improve the processing accuracy of the product. As the screw is fully cooled, the wear caused by the heating is reduced, the service life of the screw rod is improved, and the long-term stability is maintained.

Equipped with high-speed and high-precision M80A, or FANUC (package3 or 1), with mold function, it can meet the requirements of complex surface machining.

The spindle adopts BBT form (optional), the end face and the radial force are simultaneously stressed, which increases the cutting rigidity of the tool.

Bearings adopt Japan NSK/Germany FAG , electric components adopt Schneider, pneumatic components adopts SMC.

The machine tool adopts double screw chip removal, which is automatic, humanized and efficient.



HIGH PRECISION HIGH EFFICIENCY VERTICAL MACHINING CENTER

T-1585L



CONFIGURATION TABLE

ITEM	T-850L	T-1060L	ITEM	T-1375L	T-1585L
Bt40 belt type 8000rpm	STANDARD	STANDARD	Bt50 belt type 6000rpm	STANDARD	STANDARD
BT40 belt type 10000rpm	OPT	OPT	BT50 direct type 8000rpm	OPT	OPT
BT40 direct type 12000rpm	OPT	OPT	BT50 electric 8000rpm	OPT	OPT
BBT40 electric 15000rpm	OPT	OPT	HSK-A100 electric 12000rpm	OPT	OPT
HSK-A63 electric 18000rpm	OPT	OPT	BBT40 electric 15000rpm	OPT	OPT
CTS 2MPa/5MPa	OPT	OPT	HSK-A63 electric 18000rpm	OPT	OPT
FANUC 0I-MF(3)	OPT	OPT	BT50 gear head	OPT	OPT
FANUC 0I-MF(5)	OPT	OPT	CTS 2MPa/5MPa	OPT	OPT
Mitsubishi M80A	STANDARD	STANDARD	FANUC0I-MF(3 or 5)	STANDARD/OPT	STANDARD/OPT
Siemens828D	OPT	OPT	Mitsubishi M80A	OPT	OPT
4th axis	OPT	OPT	Siemens828D	OPT	OPT
Roller linear rail	STANDARD	STANDARD	4th axis	OPT	OPT
24TDISC tool magazineBT40	STANDARD	STANDARD	Roller linear rail	STANDARD	STANDARD
30TDISC tool magazineBT40	OPT	OPT	24TDISC tool magazineBT50	STANDARD	STANDARD
Spindle cooling	STANDARD	STANDARD	Spindle cooling	STANDARD	STANDARD
Screw center cooling	STANDARD	STANDARD	Screw center cooling	STANDARD	STANDARD

PARAMETER TABLE

Item	Parameter	Unit	T-850L	T-1060L	T-1375L	T-1585L
Traveling	X axis	mm	800	1050	1300	1500
	Y axis	mm	500	600	750	850
	Z axis	mm	530	580	650	720
	The distance from spindle end face to working table	mm	110-640	130-710	100-750	100-820
Working table	Working table size	mm	1000*500	1200*600	1400*750	1600*850
	Maximum loading	kg	600	800	1250	1750
Spindle	Max spindle speed	rpm	Belt type8000	Belt type8000	Belt type6000	Belt type6000
	Spindle power	kw	7.5/11	7.5/11	15/18.5	15/18.5
	Torque	N.m	35.8/70	35.8/70	143/191	143/191
Guide	X axis	/	2-35	2-45	2-45	2-45
	Y axis	/	2-45	2-45	4-45	4-45
	Z axis	/	Hard rail	Hard rail	Hard rail	Hard rail
Tool	Tool magazine capacity	PC	24	24	24	24
	Spindle taper	/	Bt40	Bt40	BT50	BT-50
	Maxi tool dia. (With/without adjacent tool)	mm	Φ75/Φ150	Φ75/Φ150	Φ105/Φ210	Φ105/Φ210
	Maxi tool length	mm	250	250	300	300
Feeding rate	Max tool weight	kg	7	7	18	18
	x/y/z rapid speed rate	m/min	30/30/20	30/30/20	20/20/15	20/20/15
Accuracy	x/y/z feeding rate	mm/min	1-10000	1-10000	1-10000	1-10000
	Positioning accuracy	mm	0.008	0.008	0.012	0.015
Size	Repeatability	mm	0.005	0.005	0.008	0.008
	Machine size(length*width*height)	mm	2200*3165*2900	2700*3300*2950	3900*2840*3320	4290*3120*3350
	Machine weight	kg	5000	7500	11000	13000
Power source	Power supply(380VAC,50HZ)	KVA	25	25	40	40
	Gas source	flow	L/min	280(ANR)	280(ANR)	280(ANR)
pressure		MPa	0.5~0.8	0.5~0.8	0.5~0.8	0.5~0.8

HIGH-SPEED ENGRAVING & MILLING MACHINE

C-650/C-870

This series of machine tools is suitable for small and medium-sized mold finishing, plastic, copper, aluminum alloy product processing. Widely used in shoe mold manufacturing, metallurgy processing, clocks and glasses processing, electronic parts, hardware, advertising, handicraft products and other industries;

Processed samples

■ ■ ■



Main features

- The machine adopts a gantry structure and is cast by Mihana high-grade cast iron. The internal dragon skeleton is strengthened. All cast iron is annealed to ensure high stability and no deformation.
- The machine is heavier than the equivalent model. The sealed outer cover and the double-sided door facilitate product processing and installation of fixtures.
- A control system for high-speed engraving and milling machines developed using Taikan technology. Such as servo motors, linear guides, couplings, screw assembly and other major components are imported from Japan, Switzerland, Germany, Taiwan. This reinforces high precision and high efficiency characteristics.
- Steel, copper, aluminum, graphite, plexiglass and other materials can be precision processed.
- The spindle can be cooled by itself during high-speed operation to ensure that heat will not damage the characteristics of the spindle.
- The precision ball screw and linear guide, and the coupling have precise measurements to ensure stability during processing and zero clearance when returning.
- This model can be equipped with a tool magazine according to customer needs to improve production efficiency.

■ ■ ■

SERIES PARAMETER TABLE

Items		Unit	C-650	C-870
Travel	X-axis	mm	600	700
	Y-axis	mm	500	800
	Z-axis	mm	260	320
Working table size		mm	500×600	800×700
Max. load		kg	350	300
Distance from spindle nose to table		mm	120-380	140-460
Spindle speed		rpm	3000-24000	3000-24000
Spindle collet/Spindle taper		#	ER25/BT30(No keyway)	ER25/BT30(No keyway)
Spindle lock method		#	Manual/pneumatic	Manual/pneumatic
Spindle cooling		#	Oil cooling	Oil cooling
X, Y, Z axis servo motor		kw	0.85/0.85/0.85	1.3/1.3/1.3
Spindle motor		kw	5.5/7.5	5.5/7.5
Rapid feed rate (X/Y/Z)		mm/min	10	15
Cutting feed		m/min	7.5	8
CNC system resolution		mm	0.001	0.001
Positioning accuracy		mm	0.008/0.008/0.008	0.008/0.008/0.008
Repeatability		mm	0.005/0.005/0.005	0.005/0.005/0.005
Tool setter		#	Standard	Standard
Lubrication system		#	Automatic lubrication system	Automatic lubrication system
Weight		kg	3200	3500
Dimensions (length*width*height)		mm	2080×1910×2480	2460×1850×2500

CUTTING PARAMETERS

	Drilling	Tapping	Heavy cutting	
Spindle motor				
7.5/11KW (BT40)	Material (S45C) Tools: D45mmU drill Spindle speed: 1200r/min Feed rate: 100mm/min Cutting depth: 100mm Material removal rate: 450cm ³ /min	Material (S45C) Tools: M22XP2.5 Spindle speed: 200r/min Feed rate: 500mm/min Material removal rate: 40mm	Material (S45C) Tools: D63mm Cutting width: 50.4mm Spindle speed: 1500r/min	Feed rate: 800mm/min Material removal rate: 5mm Material removal rate: 201.6cm ³ /min
		Material (AL6061) Tools: M27XP3 Spindle speed: 200r/min Feed rate: 600mm/min Material removal rate: 40mm	Material (AL6061) Tools: D80mm Cutting width: 64mm Spindle speed: 6000r/min	Feed rate: 5000mm/min Material removal rate: 6mm Material removal rate: 1920cm ³ /min
11/15KW (BT40)	Material (S45C) Tools: D50mmU钻 Spindle speed: 1200r/min Feed rate: 100mm/min Cutting depth: 100mm Material removal rate: 500cm ³ /min	Material (S45C) Tools: M27XP3 Spindle speed: 200r/min Feed rate: 600mm/min Material removal rate: 40mm	Material (S45C) Tools: D63mm Cutting width: 50.4mm Spindle speed: 1500r/min	Feed rate: 800mm/min Cutting depth: 6mm Material removal rate: 2419cm ³ /min
		Material (AL6061) Tools: M33XP3.5 Spindle speed: 100r/min Feed rate: 350mm/min Material removal rate: 40mm	Material (AL6061) Tools: D80mm Cutting width: 64mm Spindle speed: 6000r/min	Feed rate: 5000mm/min Cutting depth: 7mm Material removal rate: 2240cm ³ /min
15/18KW (BT50Belt spindle)	Material (S45C) Tools: D60mmU drill Spindle speed: 1000r/min Feed rate: 80mm/min Cutting depth: 100mm Material removal rate: 480cm ³ /min	Material (S45C) Tools: M33XP3.5 Spindle speed: 100r/min Feed rate: 350mm/min Material removal rate: 40mm	Material (S45C) Tools: D100mm Cutting width: 80mm Spindle speed: 600r/min	Feed rate: 500mm/min Cutting depth: 10mm Material removal rate: 400cm ³ /min
B240MGS A0101B Electric spindle	Material (S45C) Tools: D40mmU drill Spindle speed: 1000r/min Feed rate: 100mm/min Cutting depth: 100mm Material removal rate: 400cm ³ /min	Material (S45C) Tools: M16XP2 Spindle speed: 200r/min Feed rate: 400mm/min Cutting depth: 40mm	Material (S45C) Tools: D63mm Cutting width: 50.4mm Spindle speed: 1500r/min	Feed rate: 800mm/min Cutting depth: 4mm Material removal rate: 1613cm ³ /min
Bt50320 MGS-08A Electric spindle	Material (S45C) Tools: D60mmU drill Spindle speed: 1000r/min Feed rate: 80mm/min Cutting depth: 100mm Material removal rate: 480cm ³ /min	Material (S45C) Tools: M36XP4 Spindle speed: 100r/min Feed rate: 400mm/min Cutting depth: 40mm	Material (S45C) Tools: D100mm Cutting width: 80mm Spindle speed: 580r/min	Feed rate: 500mm/min Cutting depth: 7mm Material removal rate: 280cm ³ /min

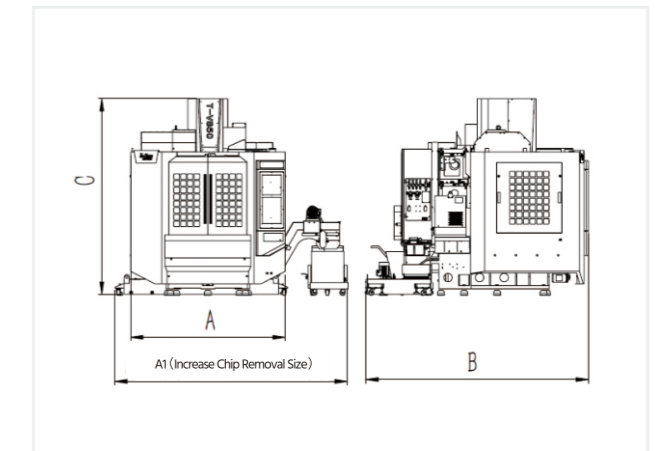
BRANDS OF MAIN PARTS

Item	Brands	Remark
System	Mitsubishi/FANUC/SIEMENS	Japan/Germany
Lead screw	PMI/HIWI/THK/INA	Taiwan/Japan/Germany
Guide	PMI/HIWI/THK/NSK	Taiwan/Japan
Spindle bearing	GMN/NSK/SKF/NTN	Japan/Germany
Spindle belt	UNITTA	Japan
Three-axis	NBK	Japan
Automatic lubrication pump	CHENYING	Taiwan
Pumps for CHIP fluid	CHENYING	China
Spindle oil cooler	Tongfei	China
Battery valve	SMC	Japan
Hydraulic station pump	Nachi	Japan
Bearing for screw	FAG/NSK	Germany/Japan
Pneumatic Components	SMC	Japan
Dryer	SMC	Japan
Isolation transformer	SuennLiang/Baojin	China
Wire	LAPP/Helukable	Germany
Connector	Mitsubishi/Fanuc/Saiyang	Japan/China
Heat exchanger	Tongfei	China
Operation panel	Saiyang	China
Band switch	Saiyang	China
Warning light	ONN/WERMA	China
Warning light	Saiyang	China
Contact and circuit breaker	Schneider	France

LIST OF MACHINE DIMENSIONS:

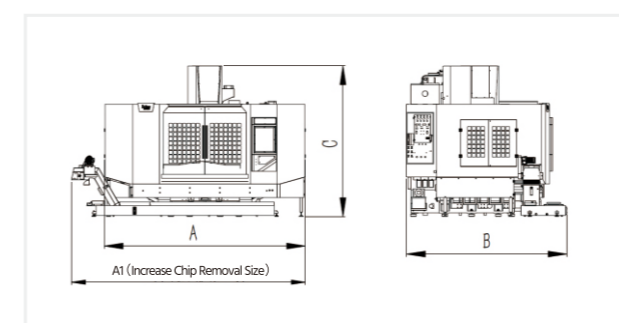
Model	T-V6	T-V856S T-V856H	T-V1055S	T-850L
A	2100	2240	2500	2200
B	2580	3100	3100	3165
C	2670	2900	2900	2900
A1		3500	3500	3300

Model	T-1060L	T-V1165S T-V1165H	T-V1265S	T-V1270
A	2700	2700	3000	3000
B	3300	3300	3300	3400
C	2950	2950	2950	3160
A1		3400	3400	3500

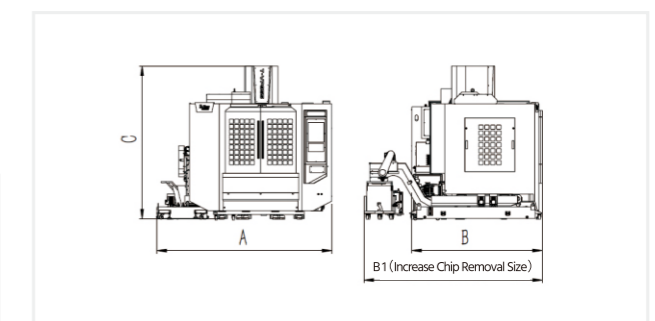


Model	T-V1375S T-V1375H	T-V1475S	T-V1585S T-V1585H
A	3900	3900	4290
B	2840	2840	3120
C	3320	3320	3350
A1	4450	4450	4990

Model	T-V1685S	T-1375L	T-1585L
A	4290	3900	4290
B	3120	2840	3120
C	3350	3320	3350
A1	4990	4450	4490



Model	C-650	C-870
A	2080	2460
B	1910	1850
C	2480	2500



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