

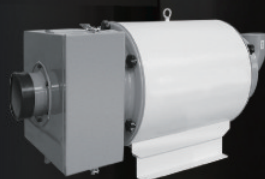
「Eco-friendly」

绿色意味着更多



为了推进节能的目的

- + M30自动关机功能
- + 机内照明自动熄灭功能
- + 自动运行程式结束后排屑自动停止
- + 电柜温度未达设定温度点热交换器不启动
- + 标准LED照明灯及报警灯设计
- + 推荐使用蓄压储气筒
- + 设置屏幕节能模式
- + 设置睡眠模式让机床在一定时间处于低能耗状态
- + 智能主轴减速提升能源利用率



为了人类和地球，创造舒适的生产环境

To create a comfortable production environment for humanity and the Earth

杭州上翔精密机械有限公司
Hangzhou Shangxiang Precision Machinery Co., Ltd

地址：浙江省杭州市萧山区瓜沥镇工农村1058号



上翔机械
SHANGXIANG JIXIE

※注：由于本公司技术不断的研发改良，样本中部分机型参数，技术规格如有变更，具体规格以业务商谈时为准，样本中的图片参数仅供参考。



上翔机械
SHANGXIANG JIXIE

PRECISION MACHINE

铸造经典品质，引领智造行业！
SHANGXIANG CNC

2017⁺
成立

1000⁺
案例见证

100⁺
辐射行业

主营产品

立式加工中心系列
卧式加工中心系列
龙门加工中心系列
五轴加工中心系列
双主轴立式加工中心系列
钻攻加工中心系列
卧式数控车床系列





铸造经典品质，引领智造行业！
CASTING CLASSIC QUALITY, LEADING THE INTELLIGENT MANUFACTURING INDUSTRY

PRECISION

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标准配件及选购配件
Standard and optional accessories



杭州上翔精密机械有限公司是一家集自动化、数控机床研发设计、生产、技术服务于一体的科技型企业。公司坐落与美丽的杭州钱塘江畔国家自由贸易试验区杭州萧山经济技术开发区。自成立以来引进日本、德国等高端技术和人才团队，凭借专业水平、成熟技术和高效管理。在数控机床、自动化领域迅速崛起!目前已成为多家名企在生产、制造、服务方面、自主研发各类自动化设备数控加工中心。广泛应用于汽车、环保、食品、光伏机加等众多领域，上翔以一流的产品质量和精湛的技术服务，受到了客户的一致好评。

追求科技创新，不断为客户提供满意的高科技产品，是上翔人矢志不渝的初心和企业发展的最大动力。杭州上翔精密机械有限公司，秉承：创新、品质、服务的核心精神，以创新为根本，视品质为命脉，做服务为宗旨，竭为广大客户提高品质和无微不至的贴心服务，实现合作共赢!

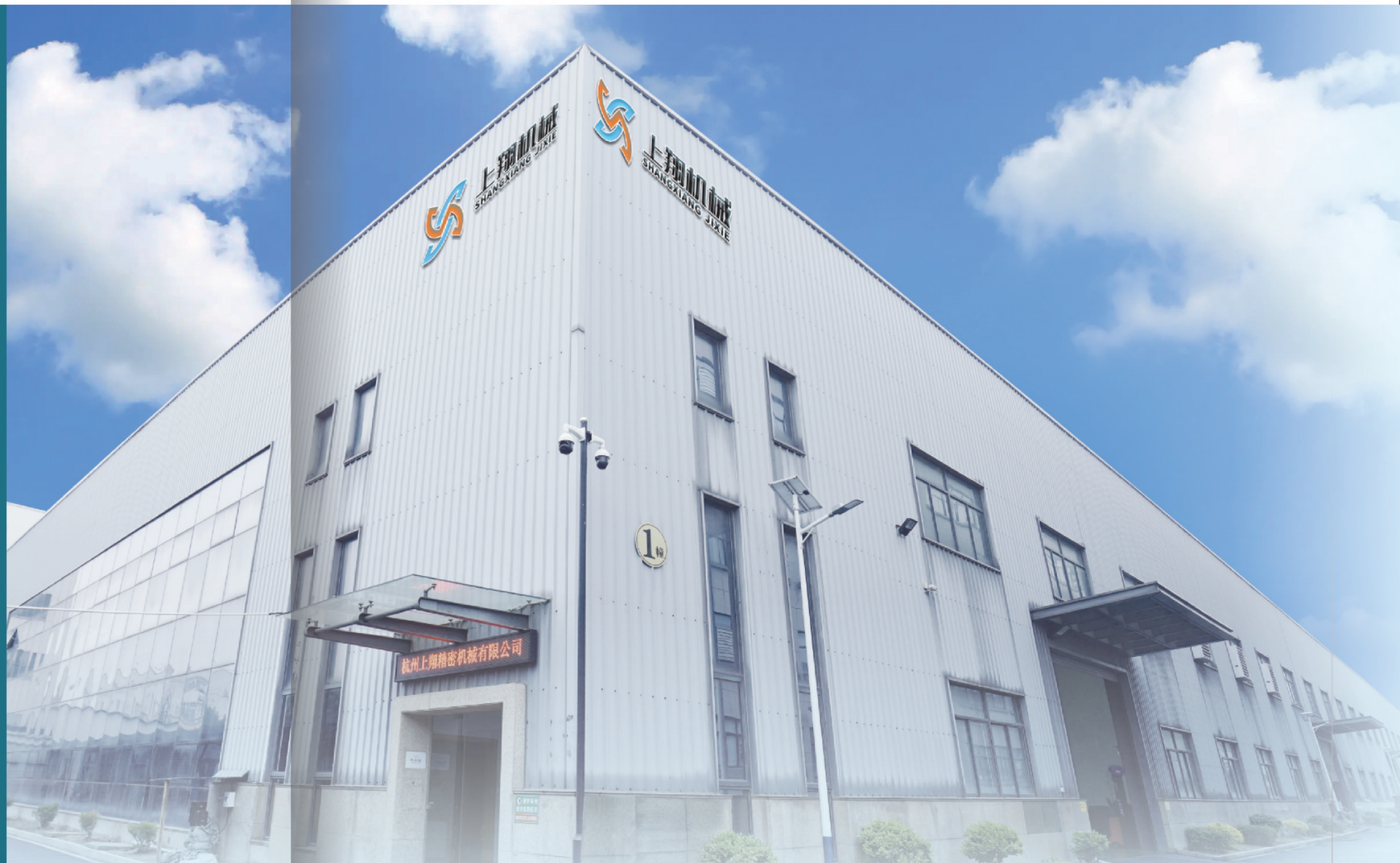
Hangzhou Shangxiang Precision Machinery Co., Ltd. is a technology-based enterprise that integrates automation, CNC machine tool research and development design, production, and technical services. The company is located in the beautiful Hangzhou Qiantang River National Free Trade Pilot Zone, Hangzhou Xiaoshan Economic and Technological Development Zone. Since its establishment, we have introduced high-end technologies and talent teams from Japan, Germany, and other countries, relying on professional expertise, mature technology, and efficient management. Rapid rise in the field of CNC machine tools and automation! At present, it has become a CNC machining center for various automation equipment independently developed by multiple well-known enterprises in production, manufacturing, and service. Widely used in various fields such as automobiles, environmental protection, food, photovoltaic machining, etc., Shangxiang has received unanimous praise from customers for its first-class product quality and exquisite technical services.

Pursuing technological innovation and continuously providing customers with satisfactory high-tech products is the unwavering original aspiration of Shangxiang People and the greatest driving force for enterprise development. Hangzhou Shangxiang Precision Machinery Co., Ltd. adheres to the core spirit of innovation, quality, and service, with innovation as the foundation, quality as the lifeline, and service as the purpose. We strive to improve quality and provide meticulous and considerate services for our customers, achieving win-win cooperation!



上翔科技: 铸造经典品质，引领智造行业!

Shangxiang Technology: Casting Classic Quality, Leading the Intelligent Manufacturing Industry!





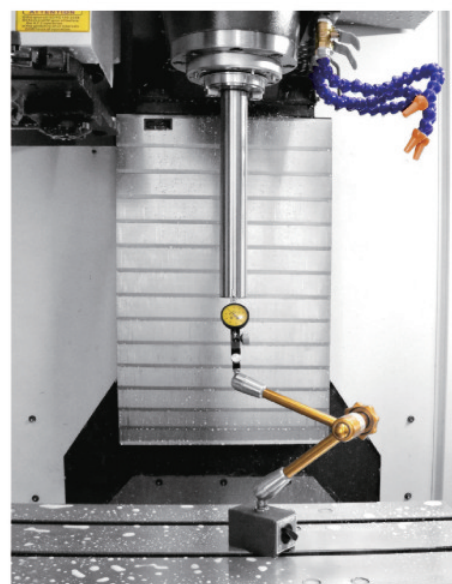
TESTING EQUIPMNT

铸造经典品质 引领智造行业

高效益，来源于高标准。新思维科技坚守“领先技术、卓越品质、匠心精神”，每一台整机的诞生，都需要历经严格的检验与测试。确保每台机器的最佳性能。

High efficiency comes from high standards. New Thinking Technology adheres to the spirit of leading technology, excellent quality, and craftsmanship. The birth of each complete machine requires strict inspection and testing. Ensure the optimal performance of each machine.

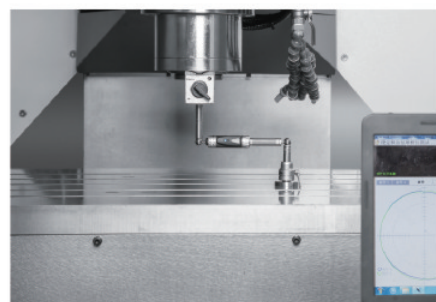
8项⁺ 检测标准



▲ 主轴偏摆检测
Spindle Runout Detection



▲ 镭射检验
Laser inspection
采用英国Renishaw球杆仪做循环测试，出机前全检，确保机械精度
Using the British Renishaw club tester for cyclic testing, conduct a full inspection before leaving the machine to ensure mechanical accuracy



▲ 球杆仪真圆度检测
Ball club instrument roundness detection

检测机床两轴联动运动的真圆度及机械几何精度，确保机器三维空间之运动精度。

Detect the true roundness and mechanical geometric accuracy of the two axis linkage motion of the machine tool, ensuring the motion accuracy of the machine in three-dimensional space



▲ 主轴动平衡检测
Main spindle dynamic balance detection

主轴、马达均经过严格的动平衡校正，使主轴高速运转时避免产生共振现象，确保机床稳固，减低噪音。

The spindle and motor have undergone strict dynamic balance correction to avoid resonance during high-speed operation, ensuring the stability of the machine tool and reducing noise.



▲ 三坐标检测
Three coordinate detection

利用精密桥式三坐标并配合其他关联检测仪器对产品进行全尺寸检测，判断产品尺寸误差是否在公差范围之内。

Using precision bridge type three coordinate system and other related testing instruments to conduct full size inspection of the product, and determine whether the product size error is within the tolerance range.



▲ 标准加工件检测
Standard machining part inspection

每一台机器，须经精密仪器检验测试外，还需要做符合国际标准的动态切削试验。

Each machine needs to undergo precision instrument inspection and testing, as well as dynamic cutting tests that comply with international standards.



▲ 主轴拉力检测
Main spindle tension detection

检测主轴的拉力，确保加工时刀具夹紧力。

Check the pulling force of the spindle to ensure the tool clamping force during machining.



▲ 主轴热伸长检测
Main spindle thermal elongation detection

测量主轴温度和延伸量数据，计算主轴热延伸量，数据用于整机调试，有利于提高定位精度及工件合格率。

Measure the spindle temperature and elongation data, calculate the spindle thermal elongation, and use the data for whole machine debugging, which is beneficial for improving positioning accuracy and workpiece qualification rate.



HIGH SPEED VERTICAL MACHINING CENTER

VMC-1160L

高速立式加工中心系列

■ 设备亮点

+ 线轨 Track

采用台湾上银、银泰P级滚柱或德国力士乐滚珠线轨，X/Y/Z线轨宽度45mm。

Using Taiwan Shangyin, Intime P-grade rollers or German Rexroth ball track, the X/Y/Z track width is 45mm.

+ 丝杆 Lead screw

三轴采用台湾上银、银泰外径40*12mm C3研磨级预拉螺母丝杆，消除反向间隙，三轴位移36m/min。

The three-axis adopts Taiwan Shangyin and Yintai, with an outer diameter of 40 * 12mm, C3 grinding grade pre tensioning nut screw, eliminating reverse clearance, and a three-axis displacement of 36m/min.



■ 光机特点

+ 结构 Structure

结构设计为多年成熟稳定的“人”字型立柱结构，加强刚性和抗弯、抗扭性能；超宽底座设计，降低机床重心，提升机床的稳定性。

The structural design is a mature and stable "human" shaped column structure, which enhances rigidity, bending and torsion resistance; The ultra wide base design reduces the center of gravity of the machine tool and enhances its stability.

+ 铲刮工艺 Scraping process

所有铸件配合面采用现配铲刮工艺，不用等高块配，保证结合面结合点更实。

All casting mating surfaces adopt the on-site scraping process, without the need for equal height block matching, ensuring a more solid bonding point on the mating surface.

■ 选购配置

+ 可选配BT-50主轴，刚性强，实现高效重切加工。

+ 可选配光栅尺，实现全闭环控制和精度补偿，使精度稳定、持续。

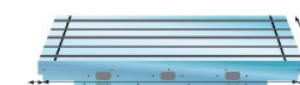
+ Optional BT-50 spindle, strong rigidity, achieving efficient re cutting processing.

+ Optional grating ruler for full closed-loop control and accuracy compensation, ensuring stable and continuous accuracy.



工作台尺寸 Workbench size

1200×600mm



主轴转速

10000rpm

Spindle speed

机器尺寸

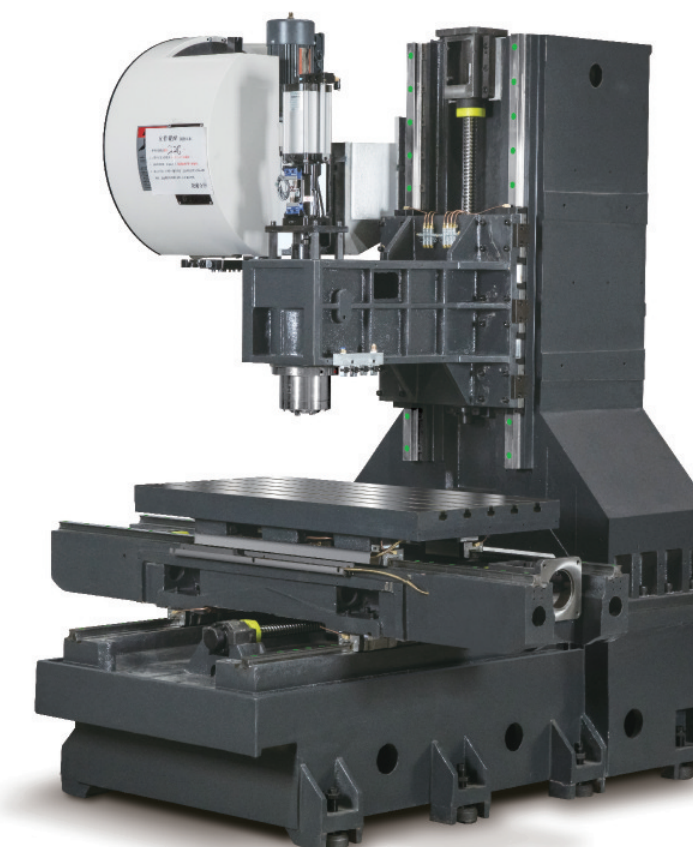
3000×2250×2500mm

Machine dimensions

快速进给

36/36/36m/min

Rapid feed





HIGH SPEED VERTICAL MACHINING CENTER

VMC-1165L

高速立式加工中心系列

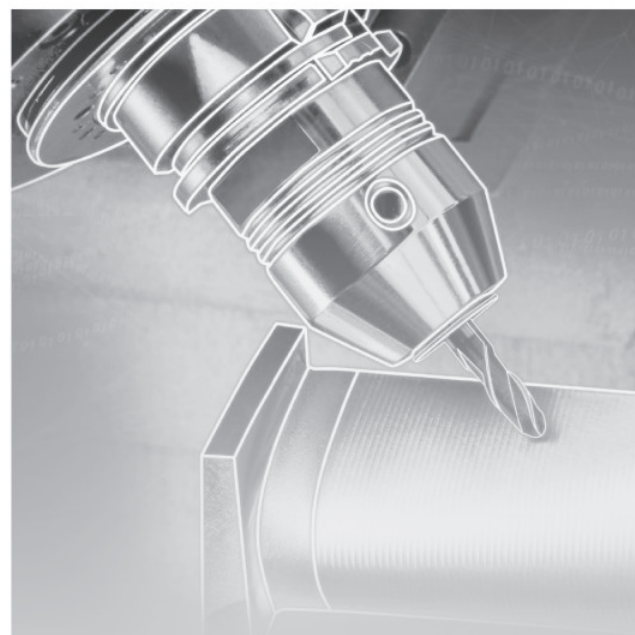
■ 设备亮点

- + **履带式排屑机升级** Upgrade of tracked chip conveyor
自动履带式排屑，省去人工除屑的人力成本和停机损失，设计排屑机的水不会直接漏到水箱上，经过精密过滤再流到水箱上，避免细屑漏到水箱堵水箱和难清理。

Automatic track type chip removal eliminates the labor cost and downtime loss of manual chip removal. The design of the chip removal machine prevents water from directly leaking into the water tank, and after precise filtration, it flows back into the water tank to prevent fine chips from leaking into the water tank, blocking it and making it difficult to clean.

- + **后护罩升级带冲屑装置** Upgraded rear cover with chip flushing device
Y轴后护罩由单层升级为成双层带斜度，增强刚性，不易变形，增加冲屑功能，减少Y后护罩堆积铁屑，降低护罩故障。

The Y-axis rear cover has been upgraded from a single layer to a double layer with a slope, enhancing its rigidity and preventing deformation. It also has a chip punching function, reducing the accumulation of iron chips in the Y-axis rear cover, and reducing cover failures.



■ 光机特点

- + **铸件** Structure

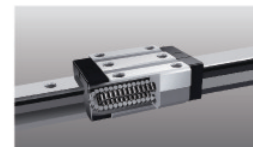
机床床身采用精密HT300高牌号铸铁，传动部件的三轴电机座、尾端轴承座等不直接共享床身的铸件，独立设计另选用球墨铸铁材料，主轴电机板采用加硬钢料研磨加工，加强精度稳定性和传动刚性。

The machine bed is made of precision HT300 high-grade cast iron, and the three-axis motor seat, tail end bearing seat, and other castings that do not directly share the bed body are independently designed and made of ductile iron material. The spindle motor plate is ground with hardened steel material to enhance accuracy stability and transmission stiffness.

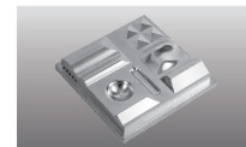
- + **铲刮工艺** Scraping process

关键接触面皆经过严谨的手工铲花工艺，以确保极致精度与均衡负载。

All key contact surfaces undergo rigorous manual scraping techniques to ensure ultimate accuracy and balanced load.



• 选用P级精密导轨



• 加工件展示

■ 选购配置

- + 可选配丝杆螺母油冷，不需要用户恒温车间也可保证丝杆热稳定性，保证产品位置度形位公差稳定性。
- + 可选配光栅尺，实现全闭环控制和精度补偿，使精度稳定、持续。

Optional screw nut oil cooling can ensure the thermal stability of the screw without the need for a constant temperature workshop, ensuring the stability of product position, shape, and positional tolerances.

Optional grating ruler for full closed-loop control and accuracy compensation, ensuring stable and continuous accuracy.

工作台尺寸
1200×650mm



主轴转速
10000rpm

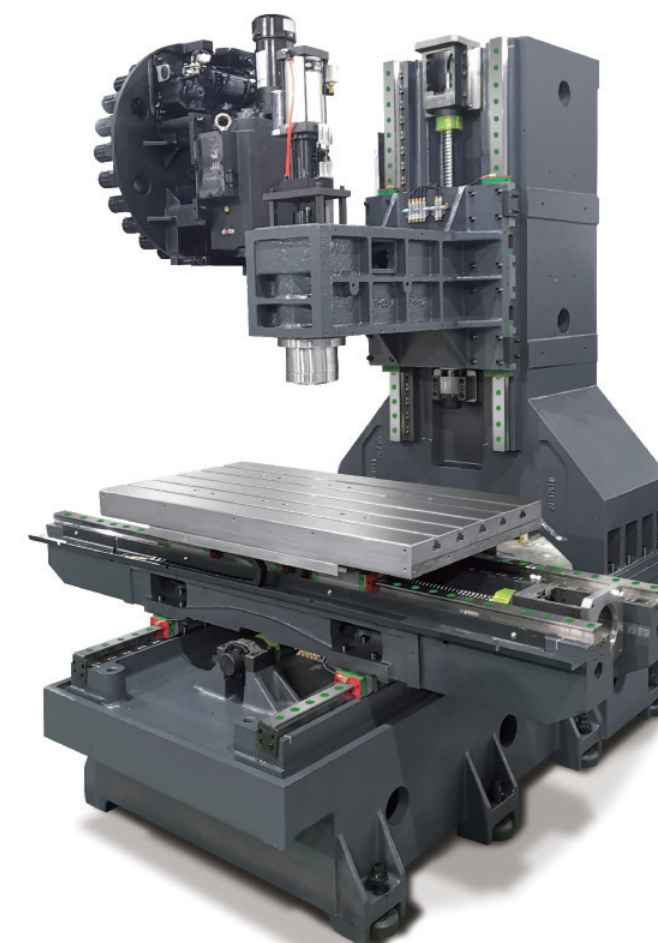
Spindle speed

机器尺寸
3100×2350×2600mm

Machine dimensions

快速进给
36/36/36m/min

Rapid feed





HIGH SPEED VERTICAL MACHINING CENTER

VMC-1370L

高速立式加工中心系列

■ 设备亮点

+ 丝杆 Lead screw

三轴采用台湾上银、银泰外径50×10mm C3研磨级预拉螺母丝杆，消除反向间隙，提供出色的机床定位精度和刚性。

The three-axis adopts Taiwan Shangyin and Yintai with an outer diameter of 50 × 10mm C3 grinding grade pre tensioning nut screw, eliminating reverse clearance and providing excellent machine positioning accuracy and rigidity.

+ 主轴 Spindle

主轴标配内置切削液环喷功能，全方位冷却和润滑加工的刀具和工件并及时把屑冲走。

The spindle comes standard with a built-in cutting fluid ring spray function, which cools and lubricates the cutting tools and workpieces in all directions and promptly washes away chips.



■ 光机特点

+ 油雾收集器(选配) Oil mist collector (optional)

节能环保装备，保护机床，保持车间空气干净。我们也倡议使用低污染清洁油品，并减少油污排放；共同致力于推动节能低污染的设计理念，利于资源节约、保护环境整洁。

We also advocate the use of low pollution clean oil products and reduce oil pollution emissions; We are committed to promoting the design concept of energy conservation and low pollution, which is conducive to resource conservation and environmental protection.

+ 冷却系统 Cooling system

主轴头内置独立冷却系统，控制主轴头温度在合理范围，减小主轴热延伸，并通过特有的方法抵消主轴的热延伸，确保加工精度；主轴鼻端有独特迷宫吹气装置，有效保护主轴。

The spindle head is equipped with an independent cooling system to control the temperature of the spindle head within a reasonable range, reduce the thermal extension of the spindle, and use unique methods to offset the thermal extension of the spindle, ensuring machining accuracy; The nose end of the spindle has a unique maze blowing device, effectively protecting the spindle.



• 油雾收集器(选配)



• 主轴中心出水(选配)

■ 选购配置

+ 可选配BT-50主轴，刚性强，实现高效重切加工。

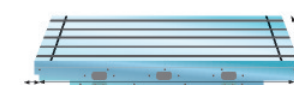
+ 可选配光栅尺，实现全闭环控制和精度补偿，使精度稳定、持续。

+ Optional BT-50 spindle, strong rigidity, achieving efficient re cutting processing.

+ Optional grating ruler for full closed-loop control and accuracy compensation, ensuring stable and continuous accuracy.

工作台尺寸 Workbench size

1500×700mm



主轴转速

6000/8000rpm

Spindle speed

机器尺寸

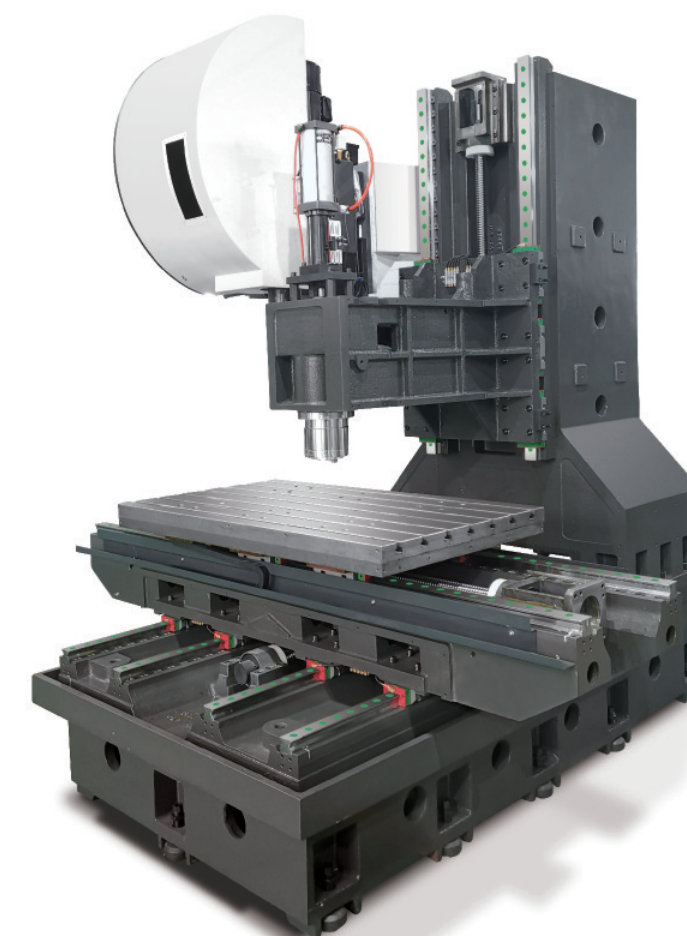
3600×2550×2650mm

Machine dimensions

快速进给

30/30/24m/min

Rapid feed



TECHNICAL PARAMETERS OF VERTICAL MACHINING CENTERS
立式加工中心系列技术参数

机床型号	Model	单位	VMC-855L	VMC-1160L	VMC-1165L	VMC-1370L	VMC-1380L	VMC-1580L	VMC-1890L
行程	trip	Unit							
X轴行程	X-axis travel	mm	800	1100	1100	1300	1300	1500	1800
Y轴行程	Y-axis travel	mm	550	600	650	750	800	800	900
Z轴行程	Z-axis travel	mm	550	600	720	730	800	800	1000
工作台	Worktable								
工作台尺寸	Workbench size	mm	1000×550	1200×600	1200×650	1500×700	1500×800	1700×810	2000×900
T型槽(数目-尺寸×距离)	T-shaped groove (number size distance)	mm	5-18×90	5-18×100	5-18×120	5-18×110	5-18×147.5	5-18×147.5	5-18×147.5
工作台最大承载	Maximum load capacity of workbench	kg	600	800	1000	1100	1300	1500	2000
主轴端面至工作台距离	Distance from spindle end face to workbench	mm	120-670	120-720	95-845	200-930	145-875	85-885	85-885
200-1200									
伺服主轴	Servo spindle								
主轴规格	Main spindle specifications	BT	40	40	40	40	50	50	50
主轴转速	Spindle speed	rpm	10000	10000	10000	8000	6000	6000	6000
主轴功率(额定)	Main spindle power (rated)	kw	7.5	11	11	15	15	18.5	18.5
进给轴向	Feed axis								
最大快移速度(X/Y/Z)	Maximum fast movement speed (X/Y/Z)	m/min	48/48/48	36/36/36	36/36/36	30/30/24	20/20/20	20/20/20	20/20/20
滚珠螺杆直径/螺距(X/Y/Z)	Ball screw diameter/pitch (X/Y/Z)	mm	4016	4012	4012	4012	5010	5010	5010
电机扭矩(X/Y/Z)	Motor torque (X/Y/Z)	N.m	11/11/20	20/20/20	20/20/20	20/20/27	27/27/27	27/27/27	36/36/36
线轨宽度(X/Y/Z)	Track width (X/Y/Z)	mm	35/45/45	45/45/45	45/45/45	45/45/45	45/45/45	45/45/45	45/45/45
刀具	Too l								
刀库容量	Tool magazine capacity	-	24/30	24/30	24/30	24/30	24/30	24/30	24/30
最大刀具长度	Maximum tool length	mm	300	300	300	300	500	500	500
最大刀具直径(满刀/邻空刀)	Maximum tool diameter (full tool/adjacent empty tool)	mm	78/150	78/150	78/150	78/150	110/200	110/200	110/200
最大刀具重量	Maximum tool weight	kg	8	8	8	8	15	15	15
精度	Accuracy								
定位精度JIS	Positioning accuracy JIS	mm	± 0.006/300	± 0.006/300	± 0.006/300	± 0.007/300	± 0.007/300	± 0.007/300	± 0.007/300
重复定位精度JIS	Repeated positioning accuracy JIS	mm	± 0.004/300	± 0.004/300	± 0.004/300	± 0.005/300	± 0.005/300	± 0.005/300	± 0.005/300
其它	Others								
电源容量	Power capacity	KVA	20	25	25	25	35	35	35
所需气压	Required air pressure	kgf/cm²	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8
机器约重	Machine approximate weight	kg	5200	6500	6700	7000	9500	11000	11000
机器尺寸	Machine dimensions	mm	2700×2200×2500	3000×2250×2500	3100×2350×2600	3600×2550×2650	3700×2550×2650	3950×2650×2750	4350×2950×2950
控制系统	control system		FANUC-0i-MF PLUS/MITSUBISHI-M80B/SYNTEC-22MA/SIEMENS-828D/840D		FANUC-0i-MF PLUS/MITSUBISHI-M80B/SYNTEC-22MA/SIEMENS-828D/840D				

※注：由于本公司技术不断的研发改良，样本中部分机型参数，技术规格如有变更，具体规格以业务商谈时为准，样本中的图片参数仅供参考。
※ Note: Due to the continuous R&D and improvement of the company's technology, if there is any change in some model parameters and technical specifications in the

sample, the specific specifications shall be subject to the business negotiation, and the picture parameters in the sample are for reference only.



HIGH RIGIDITY HORIZONTAL MACHINING CENTER

HQ-63S

高刚性卧式加工中心

■ 设备亮点

+ 优化性能 Lead screw

具有高速度、高精密、高可靠性结构，拥有同类设备中的高刚性，大功率、大扭矩、重切削特点，可充分发挥高生产和高精度的加工性能。

+ It has a high speed, high precision, and high reliability structure, with the high rigidity, high power, high torque, and heavy cutting characteristics of similar equipment, which can fully leverage the high production and high-precision processing performance.



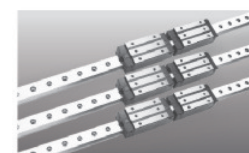
■ 光机特点

- + 底座采用“L”型布局，经有限元素分析，优化铸件筋型布置结构，提高整体性能指标，全行程不产生颠覆力矩。
- + 广泛应用于汽车、航空航天、电子行业、各类箱体、壳体类零件加工。
- + 精密转台，超高的定位与重复定位精度，保证工件加工精度。

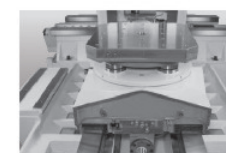
- + The base adopts "L" type layout. Through finite element analysis, the casting rib layout structure is optimized, and the overall performance index is improved. The whole stroke does not produce overturning moment.

It is widely used in automobile, aerospace, electronic industry, various types of box, shell parts processing.

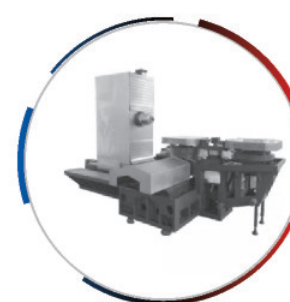
- + Precision turntable, ultra-high positioning and repeated positioning accuracy, to ensure the workpiece processing accuracy.



• C3级大推力丝杆

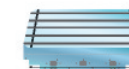


• 过硬的工作台



可选双工位
Optional Double Station

工作台尺寸
630×700mm



Workbench size

主轴转速
6000rpm



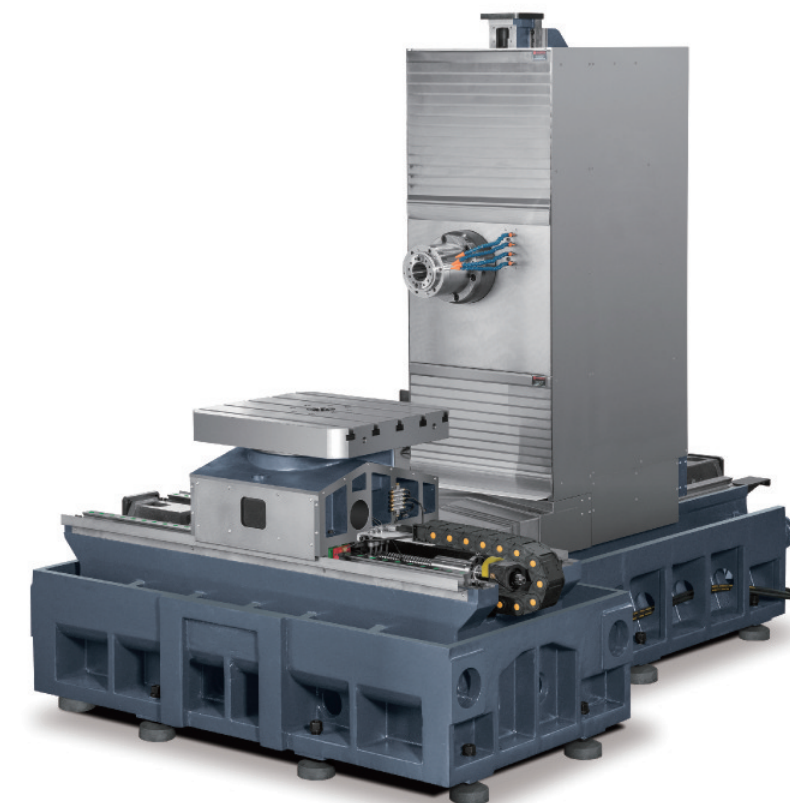
Spindle speed

机器尺寸
5400×3200×3200mm

Machine dimensions

快速进给
24/24/24/10m/min

Rapid feed



TECHNICAL PARAMETERS OF HORIZONTAL MACHINING CENTER
卧式加工中心系列技术参数

机床型号	Model	单位	HQ-63S	HQ-63SD	HQ-80S	HQ-80SD	HQ-100S	HT-65S	HT-65SD	HT-80S	HT-80SD
工作台	Worktable	Unit									
工作台尺寸	Workbench size	mm	630 × 700	630 × 700	800 × 800	800 × 800	1000 × 1000	650 × 650	650 × 650	800 × 800	800 × 800
工作台数量	Number of workbenches	—	1	2	1	2	1	1	2	1	2
工作台分度	Workbench indexing	—	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360	0.001° /1° × 360
T型槽(数目-尺寸×距离)	T-shaped groove (number size distance)	mm	5-22 × 125	5-22 × 125	5-22 × 160	5-22 × 160	5-22 × 200	—	—	5-18 × 147.5	5-18 × 147.5
工作台最大承载	Maximum load capacity of workbench	kg	1200	1200	1500	1500	2000	1200	1200	1800	1800
最大工件回转直径	Maximum workpiece rotation diameter	mm	Φ 1100	Φ 1000	Φ 1600	Φ 1500	Φ 1800	Φ 1100	Φ 1100	Φ 1400	Φ 1400
行程	trip										
工作台左右移动 (X)	Workbench moves left and right (X)	mm	1050	1050	1600	1600	1800	1100	1100	1200	1200
主轴上下移动 (Y)	Main spindle up and down movement (Y)	mm	750	750	1050	1050	800	900	900	900	900
工作台/立柱前后移动 (Z)	Front and rear movement of workbench/column (Z)	mm	900	900	1200	1200	800	1100	1100	1000	1000
主轴中心线至工作台面距离	Distance from the centerline of the spindle to the workbench	mm	0-750	0-750	50-1100	50-1100	120-1120	80-980	80-980	100-1000	100-1000
主轴端面至工作台中心距离	Distance from spindle end face to workbench center	mm	150-1050	150-1050	200-1400	200-1400	200-1200	100-1200	100-1200	180-1180	180-1180
主轴	spindle										
主轴规格	Main spindle specifications	BT	50	50	50	50	50	50	50	50	50
主轴转速	Spindle speed	rpm	6000	6000	6000	6000	6000	6000	6000	6000	6000
主轴功率(额定)	Main spindle power (rated)	kw	18.5	18.5	18.5	18.5	18.5	18.5	22	22	22
主轴电机最大扭矩	Maximum torque of spindle motor	N.m	236	236	236	236	236	236	286	286	286
进给	Feed axis										
最大快移速度(X/Y/Z/B)	Maximum fast moving speed (X/Y/Z/B)	m/min	24/24/24/10	24/24/24/10	24/24/24/10	24/24/24/10	24/24/24/10	40/40/40/10	40/40/40/10	40/40/40/10	40/40/40/10
滚珠螺杆直径/螺距(X/Y/Z)	Ball screw diameter/pitch (X/Y/Z)	mm	4012/4012/5012	4012/4012/5012	5512/5512/5512	5512/5512/5512	5512/5512/5512	5010/5010/5010	5010/5010/5010	5016/5016/5016	5016/5016/5016
电机扭矩(X/Y/Z/B)	Motor torque (X/Y/Z/B)	N.m	27/27/27/11	27/27/27/11	27/36/36/20	27/36/36/20	36/36/36/20	30/30/30/12	30/30/30/12	38/38/38/22	38/38/38/22
线轨规格(X/Y/Z)	Rail specifications (X/Y/Z)	mm	45/45/55	45/45/55	55/55/55	55/55/55	55/55/55	55/55/55	55/55/55	55/55/55	55/55/55
刀库	ATC										
刀库容量	Tool magazine capacity	—	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40
最大刀具长度	Maximum tool length	mm	500	500	500	500	500	500	500	500	500
最大刀具直径(满刀/邻空刀)	Maximum tool diameter (full tool/adjacent empty tool)	mm	110/200	110/200	110/200	110/200	110/200	110/200	110/200	110/200	110/200
最大刀具重量	Maximum tool weight	kg	15	15	15	15	15	18	18	18	18
精度	Accuracy										
定位精度JIS	Positioning accuracy JIS	mm	± 0.008/300	± 0.008/300	± 0.008/300	± 0.008/300	± 0.008/300	± 0.006/300	± 0.006/300	± 0.006/300	± 0.006/300
重复定位精度JIS	Repeated positioning accuracy JIS	mm	± 0.005/300	± 0.005/300	± 0.005/300	± 0.005/300	± 0.005/300	± 0.004/300	± 0.004/300	± 0.004/300	± 0.004/300
其它	Others										
电源容量	Power capacity	KVA	40	40	45	45	45	40	40	45	45
所需气压	Required air pressure	kgf/cm ²	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8	0.6 ~ 0.8
机器约重	Machine approximate weight	kg	11500	13500	15500	17500	16000	14000	16500	16000	18500
机器尺寸	Machine dimensions	mm	5400 × 3200 × 3200	6700 × 3200 × 3200	5900 × 4300 × 3950	7500 × 4300 × 3950	6100 × 4400 × 4000	5400 × 3200 × 3200	6900 × 3200 × 3200	6100 × 4300 × 4300	7600 × 4300 × 4300
控制系统	control system		FANUC—0i—MF PLUS/MITSUBISHI—M80B/SYNTEC—22MA/SIEMENS—828D/840D			FANUC—0i—MF PLUS/MITSUBISHI—M80B/SYNTEC—22MA/SIEMENS—828D/840D					

※注：由于本公司技术不断的研发改良，样本中部分机型参数，技术规格如有变更，具体规格以业务商谈时为准，样本中的图片参数仅供参考。
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HIGH PERFORMANCE GANTRY MACHINING CENTER

GMC-2015/4029

高性能龙门加工中心

■ 设备亮点

- + 滑轨 Slide**
全系列X/Y/Z轴采用高刚性滚柱型线性滑轨，轴向系统兼具重载与快速移动等特色。
The entire series of X/Y/Z axes adopts a high rigidity roller type linear slide rail, and the axial system combines features such as heavy load and fast movement.
- + 铲刮工艺 Scraping process**
关键接触面皆经过严谨的手工铲花工艺，以确保极致精度与均衡负载。
All key contact surfaces undergo rigorous manual scraping techniques to ensure ultimate accuracy and balanced load.
- + 主轴 Spindle**
模组化的主轴设计，可搭配齿轮式或直连式主轴，满足精密模具或零件之加工需求。
Modular spindle design can be paired with gear type or direct connected spindle to meet the machining needs of precision molds or parts.

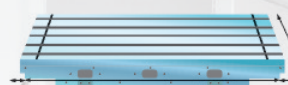
高速度高精度齿轮传动
主轴齿轮：齿轮为8000rpm
以上最高研磨级

主轴规格
BT50/φ190

Main spindle specifications

最高转速
6000rpm

Maximum speed



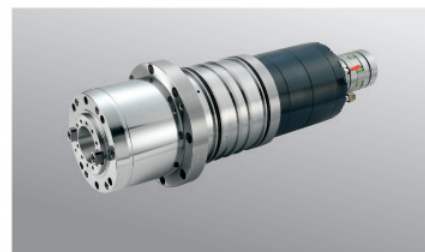
工作台尺寸
2015x1200mm

Workbench size

PRECISION SPINDLE

精密主轴

极佳的精度及刚性
Excellent precision and rigidity



● 主轴组 SPINDLE SET

钰铭精机所用主轴均为台湾原装进口。采用FAG/NSK轴承装配。可与齿轮传动输出之超大扭力完美结合；精度及刚性表现极佳。配置主轴油温冷却系统，确保主轴寿命及加工精度。

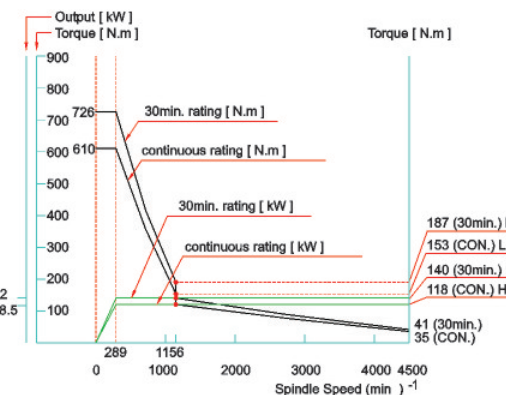
The spindles used by Yuming Precision Machine are all imported from Taiwan. Assembled using FAG/NSK bearings. Can be paired with teeth the perfect combination of super large torque output from wheel drive; Excellent accuracy and rigidity performance. Configure spindle oil temperature Cooling system to ensure spindle life and machining accuracy.



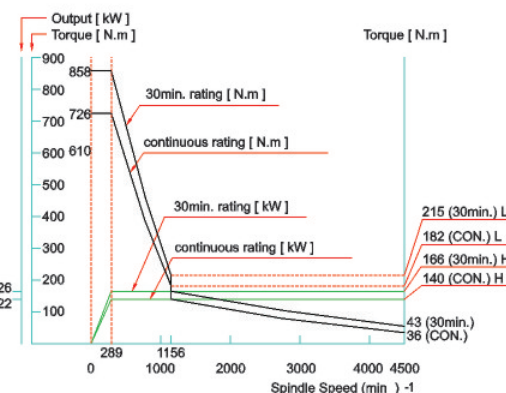
Spanner Code	A	B	C	D
E.M. (mm)	134.6	126	145.75	145.75
Ejection path (mm)	1	1	1	1
Max pull force (N)	25,000	25,000	25,000	25,000
Max Stroke (mm)	6	6	6	6
medium transfer	axial transfer			

Tool Standard	Code
DIN 69871/69872 ISO 7388/1/1 Type A	A
ANSI B 5.50-78 ISO 7388/1/2 Type B	B
MAS 403-1982 BT/PT 2 (30°)	C
MAS 403-1982 BT/PT 1 (45°)	D

18.5/22kw 4500rpm (STANDARD)



22/26kw (OPTION)



HARD RAIL

硬轨

进口标准，性能稳定，性价比高
Imported standard, stable performance, high cost-effectiveness

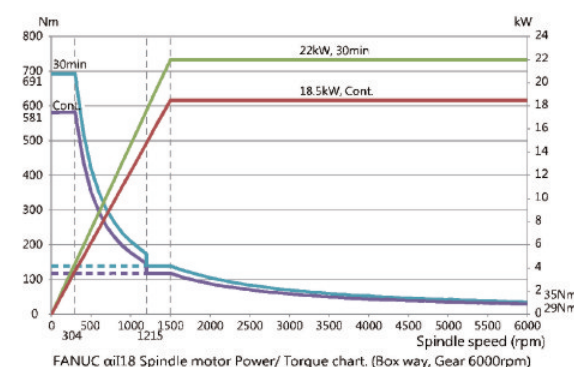
FANUC 控制器

STANDARD CONFIGURATION ※ 标准配置

序号 No.	马达形式 Motor Type	主轴转速 (rpm) Spindle Speed	主轴形式 Spindle Type	最大功率 (KW) Max. Power	最大扭矩 (N.m) Max. Torque	刀具形式 Tool Type
※ 1	FANUC αil 18	6,000	齿轮式 (Geared)	18.5/ 22(Cont./ 30min.)	581/ 691(Cont./ 30min.)	ISO 50
2	FANUC αil 22	6,000	齿轮式 (Geared)	22/ 26(Cont./ 30min.)	691/ 817(Cont./ 30min.)	ISO 50
3	FANUC αil 18	4,000	齿轮式 (Geared)	18.5/ 22(Cont./ 30min.)	748.7/ 890(Cont./ 30min.)	ISO 50
4	FANUC αil 22	4,000	齿轮式 (Geared)	22/ 26(Cont./ 30min.)	890/ 1052(Cont./ 30min.)	ISO 50

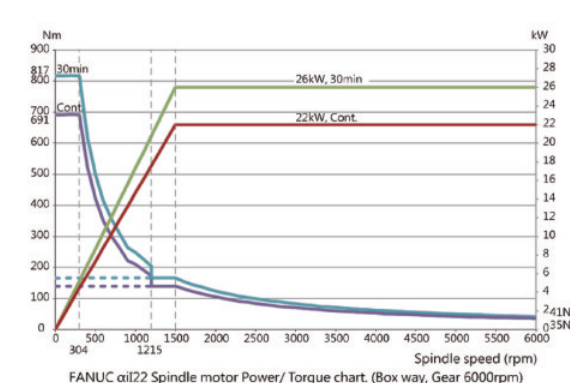
1. 齿轮式 ISO 50 αil18 / 主轴 6,000RPM (标准配置)

Geared ISO50 αil18 / Spindle 6,000RPM (Standard)



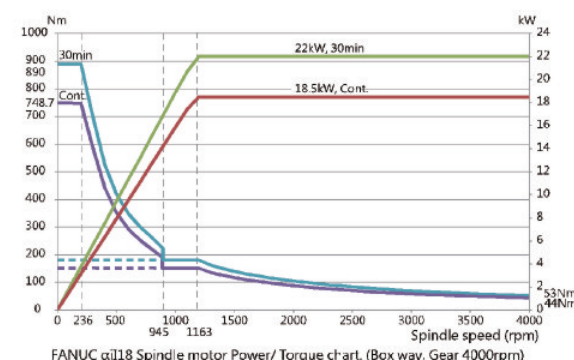
2. 齿轮式 ISO 50 αil22 / 主轴 6,000RPM

Geared ISO50 αil22 / Spindle 6,000RPM



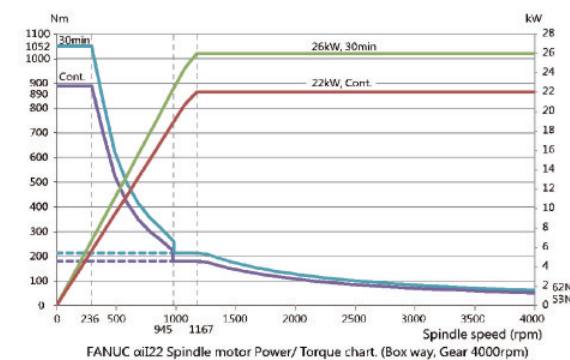
3. 齿轮式 ISO 50 αil18 / 主轴 4,000RPM

Geared ISO50 αil18 / Spindle 4,000RPM



4. 齿轮式 ISO 50 αil22 / 主轴 4,000RPM

Geared ISO50 αil22 / Spindle 4,000RPM

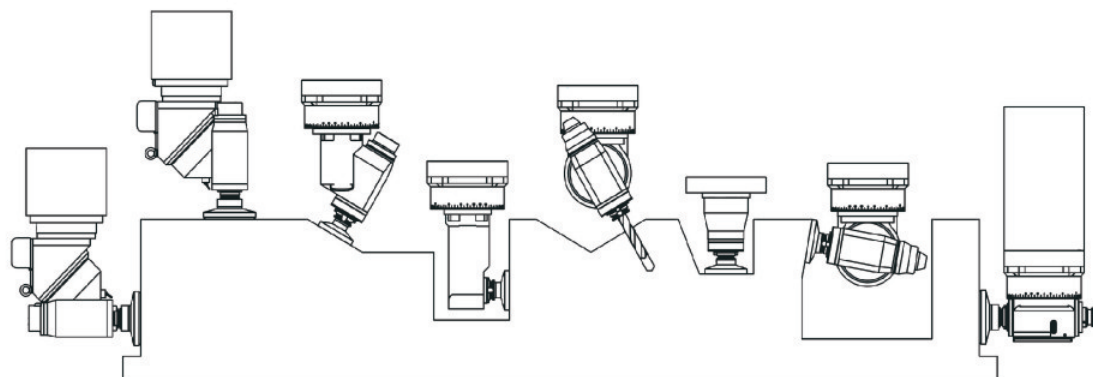




SPINDLE HEAD ACCESSORIES

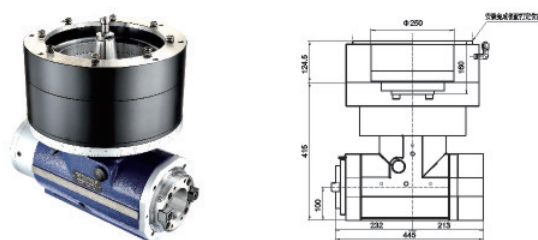
主轴头附件

规格多样，品质保障，性价比高
Diverse specifications, guaranteed quality, and high cost-effectiveness



半自动侧铣头 Semi-automatic Side Milling Head

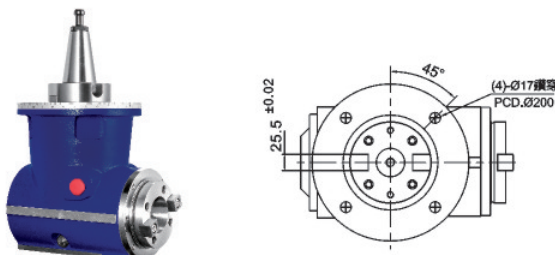
参数 Parameters



半自动侧铣头 Semi-automatic side milling head
最大转速Max. speed: 3000r.p.m
盘径Disk diameter: $\Phi 320 \times \Phi 320$ mm
最大刀盘直径Max. tool disk diameter: $\Phi 250$ mm
锥孔/齿数比Taper hole/tooth count ratio: BT-50/1:1
最大扭矩Max. torque: 1000N.m
5度一分割，自动回转 5-degree split and auto rotation
刀具碟簧锁刀、液压松刀 Disc spring locking and hydraulic tool release
手动安装头座、自动转头
Manual mounting of headstock and automatic head turning

手动侧铣头 Manual Side Milling Head

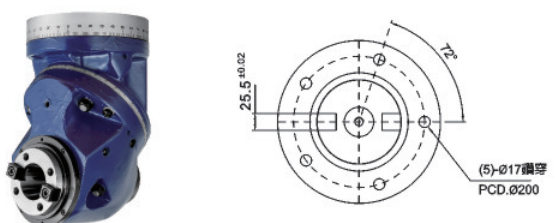
参数 Parameters



手动侧铣头 Manual Side Milling Head
最大转速Max. speed: 2500r.p.m
盘径Disk diameter: $\Phi 250/\Phi 300$ mm
最大刀盘直径Max. tool disk diameter: $\Phi 200$
锥孔/齿数比Taper hole/tooth count ratio: BT-50/1:1
最大功率Max. power: 38KW

45°万向铣头 45° Universal Milling Head

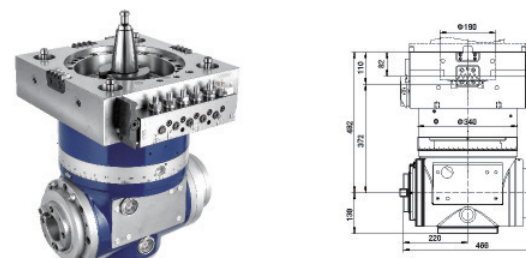
参数 Parameters



45° 万向铣头 45° Universal Milling Head
最大转速Max. speed: 2000r.p.m
盘径Disk diameter: $\Phi 250$ mm
最大刀盘直径Max. tool disk diameter: $\Phi 200$
锥孔/齿数比Taper hole/tooth count ratio: BT-50/1:1
最大功率Max. power: 38KW

全自动侧铣头 Full-automatic Side Milling Head

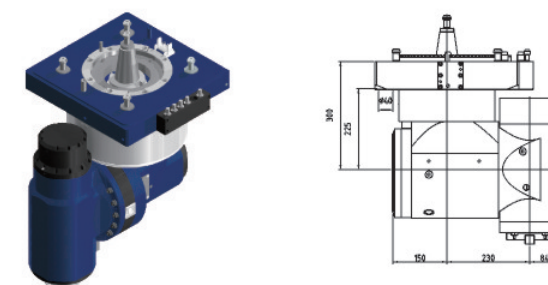
参数 Parameters



全自动侧铣头 Full-automatic Side Milling Head
最大转速Max. speed: 2000r.p.m
盘径Disk diameter: $\Phi 400 \times \Phi 400$ mm
最大刀盘直径Max. tool disk diameter: $\Phi 200$
锥孔/齿数比Taper hole/tooth count ratio: BT-50/1:1
最大扭矩Max. torque: 1500N.m

全自动万向铣头 Full-automatic Universal Milling Head

参数 Parameters



全自动万向铣头 Full-automatic Universal Milling Head
最大转速Max. speed: 3000r.p.m
盘径Disk diameter: $\Phi 400 \times \Phi 400$ mm
最大刀盘直径Max. tool disk diameter: $\Phi 200$
锥孔/齿数比Taper hole/tooth count ratio: BT-50/1:1
最大功率Max. power: 30KW
最大扭矩Max. torque: 1000N.m

正齿轮式主轴 Spur Gear Spindle

参数 Parameters



主轴转速Spindle speed: 6000/2500r.p.m
轴承规格Bearing specifications: $\Phi 90/7018 \times 5$ 个
静态拉刀Static clamping: 1800kbf
承载扭矩Load torque: 110N.N.m
承箱润滑: ISO 32齿轮油 Gearbox lubrication: ISO 32 gear oil
主轴段数: 二段式高低档
Number of spindle segments: Two-segment high and low gears
高低档位High and low gears: 1:1.1/1:4.4
换挡开关Shift switch: RCA+HV-PM10
换挡气压Shift air pressure: 3.5 ± 0.5 Bar
定位开关Positioning switch: PNP_NO

TECHNICAL PARAMETERS OF GANTRY MACHINING CENTER
龙门加工中心系列技术参数

机床型号			GMC-2012B	GMC-2015B	GMC-2515B	GMC-2517B	GMC-3022B	GMC-4022B	GMC-4025B	GMC-4029B	GMC-6029C	GMC-8032C
加工范围	Machine range	单位										
门宽	Door width	mm	1200	1650	1650	1800	2300	2300	2500	2900	2900	3200
X轴行程	X-axis travel	mm	2100	2200	2700	2700	3200	4200	4200	4200	6200	8000
Y轴行程	Travel Y-axis	mm	1200	1650	1650	2000	2600	2600	2800	3300	3300	3800
Z轴行程	Z-axis travel	mm	800	800	800	800	1000	1000	1000	1000	1250	1250
主轴端面至工作台面距离	Distance from spindle end face to worktable	mm	70-870	70-870	70-870	250-1050	250-1250	250-1250	250-1250	250-1250	250-1500	250-1500
工作台	Workbenches											
工作台尺寸	Workbench size	mm	1000×2000	1400×2000	1400×2500	1400×2700	2000×3000	2000×4000	2200×4000	2700×4000	2700×6000	2800×8000
T型槽尺寸	T-groove size	mm	22	22	22	22	22	22	22	28	28	28
最大承重	Max capacity	kg	3000	3000	5000	5000	10000	12000	16000	23000	30000	35000
主轴	Spindle											
主轴规格	Main spindle specifications	BT	50	50	50	50	50	50	50	50	50	50
主轴转速	Spindle speed	rpm	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
主轴功率(额定)	Main spindle power (rated)	kw	18.5	18.5	18.5	18.5	22	22	22	22	26	26
主轴电机最大扭矩	Maximum torque of spindle motor	N.m	170	170	170	170	240	240	240	240	270	560
进给	Feed											
最大快移速度(X/Y/Z)	Maximum fast moving speed (X/Y/Z)	m/min	16/16/16	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	10/10/10	2008/8/10
最大切削速度	Maximum cutting speed	m/min	8	8	8	8	8	8	8	8	8	6
刀具	ATC											
刀库容量	Tool magazine capacity	-	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40	24/30/40
最大刀具长度	Maximum tool length	mm	500	500	500	500	500	500	500	500	500	500
最大刀具直径(满刀/邻空刀)	Maximum tool diameter (full tool/adjacent empty tool)	mm	110/200	110/200	110/200	110/200	110/200	110/200	110/200	110/200	110/200	110/200
最大刀具重量	Maximum tool weight	kg	15	15	15	15	15	15	15	15	15	15
滑块丝杆型号	Model of slider screw											
X轴	X-axis	mm	45#-2	45#-2	45#-2	55#-2	45#-3	45#-3	45#-3	45#-3	45#-3	45#-4
Y轴	Y-axis	mm	45#-2	45#-2	45#-2	55#-2	45#-3	45#-3	45#-3	45#-3	45#-3	55#-2
Z轴	Z-axis	mm	硬轨	硬轨	硬轨	硬轨	硬轨	硬轨	硬轨	硬轨	硬轨	硬轨
丝杆型号X/Y/Z	Lead screw model X/Y/Z	mm	Φ63/Φ50/Φ50	Φ63/Φ50/Φ50	Φ63/Φ50/Φ50	Φ63/Φ50/Φ50	Φ63/Φ63/Φ50	Φ80/Φ63/Φ50	Φ80/Φ63/Φ50	Φ80/Φ63/Φ63	Φ100/Φ63/Φ63	Φ100/Φ80/Φ63
其他	Others											
电源容量	Power capacity	KVA	40	40	45	45	55	55	55	55	55	55
所需气压	Required air pressure	kgf/cm²	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8
机器约重	Machine approximate weight	kg	12500	14500	15500	24500	30500	34000	43000	48000	62000	88000
机器尺寸	Machine dimensions	mm	5600×3200×4000	5600×3800×4000	7000×4300×4000	7500×4300×4300	9000×5000×6000	12200×5000×6000	12200×5500×6000	12200×5800×6000	15800×6500×6200	17800×6600×6200
控制系统	control system	FANUC-0i-MF PLUS/MITSUBISHI-M80B/SYNTEC-22MA/SIEMENS-828D/840D										

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CRADLE FIVE AXIS MACHINING CENTER MACHINE

CMU-650B

摇篮五轴加工中心

■ 设备亮点

- + **多面加工** Multifaceted processing
多面加工，使用性强广泛应用于汽车手板精密五金等行业
Multi sided processing with strong usability, widely used in industries such as automotive handboards and precision hardware

- + **大摇臂支撑转台设计** Large rocker arm
大跨距一体式铸造成型，A轴+30°~120°摆动，结合C轴±360°运动，满足复杂曲面连续加工应用的需求
Large span integrated casting molding, A-axis+30°~120° swing, combined with C-axis ± 360° movement, meets the needs of complex curved surface continuous processing applications

- + **丝杆** Lead screw
三轴采用进口高精度滚珠丝杆，进口导轨及轴承，摩擦阻力小，反应灵敏，保证机床运行精度
The three-axis adopts imported high-precision ball screw, imported guide rails and bearings, with low friction resistance and sensitive response, ensuring the accuracy of machine tool operation

- + **5轴联动加工 VS 3+2加工**
5-axis linkage machining VS 3+2 machining
在五轴联动加工中，机床的三个直线轴(X、Y和Z)和两个旋转轴(A和C)都同时动作，对零件进行复杂的加工。
3+2，机床执行3轴铣削程序，刀具锁定在倾斜位置使用其两个旋转轴。
该工艺也称为五轴定位加工，它依靠第四和第五轴将刀具定位在固定位置，而不是在加工过程中连续操作刀具。

For the five-axis linkage processing, three linear axes (X, Y and Z) and two rotating axes (A and C) of the machine act at the same time to carry out complicated processing of parts.

For the 3+2 axis processing, the machine executes the 3-axis milling program, and the tool is locked in the inclined position while the two rotating axes work.

This process, also known as five-axis positional machining, relies on the fourth and fifth axes to orient the tool in a fixed position rather than manipulates it constantly in the machining process.



■ 光机特点

- + **铸件** foundry goods
机床基础件采用优质树脂砂铸铁材质，通过二次时效消除内应力，确保床身整体刚性与精度持久性

The basic components of the machine tool are made of high-quality resin sand cast iron material, which eliminates internal stress through secondary aging, ensuring the overall rigidity and accuracy durability of the bed body

- + **冷却系统** Cooling system

主轴头内置独立冷却系统，控制主轴头温度在合理范围，减小主轴热延伸，并通过特有的方法抵消主轴的热延伸，确保加工精度；主轴鼻端有独特迷宫吹气装置，有效保护主轴。

The spindle head is equipped with an independent cooling system to control the temperature of the spindle head within a reasonable range, reduce the thermal extension of the spindle, and use unique methods to offset the thermal extension of the spindle, ensuring machining accuracy; The nose end of the spindle has a unique maze blowing device, effectively protecting the spindle.



• 油雾收集器(选配)

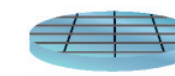


• 主轴中心出水(选配)

■ 选购配置

- + 可选配BBT40-18000主轴，刚性强，实现高效重切加工。
- + 可选配光栅尺，实现全闭环控制和精度补偿，使精度稳定、持续。
- + Optional BBT40-18000 spindle, with strong rigidity, achieving efficient re cutting processing.
- + Optional grating ruler for full closed-loop control and accuracy compensation, ensuring stable and continuous accuracy.

工作台尺寸 Workbench size
Φ650mm



主轴转速
12000/18000rpm

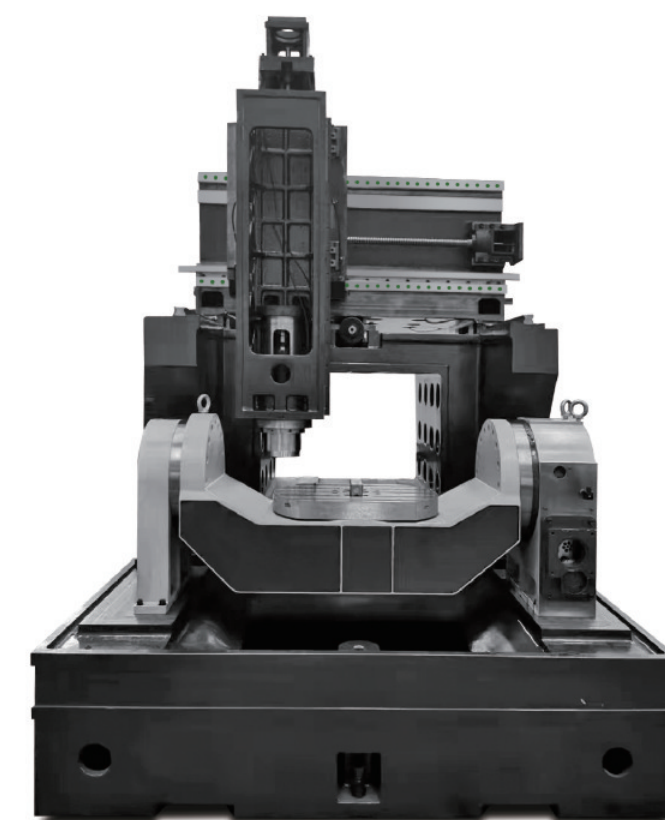
Spindle speed

机器尺寸
3650×3200×3250mm

Machine dimensions

快速进给
24/24/24m/min

Rapid feed

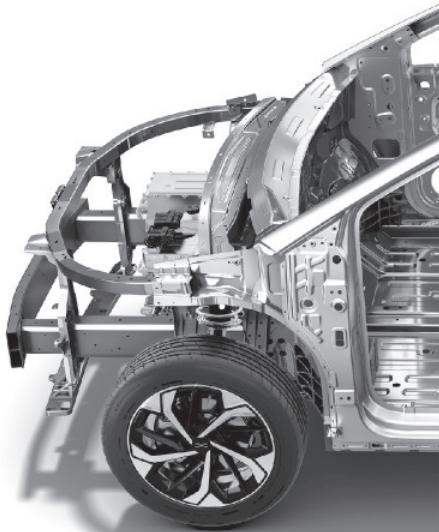
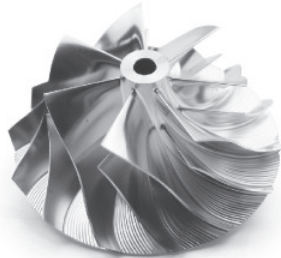


TECHNICAL PARAMETERS OF FIVE AXIS MACHINING CENTER
五轴加工中心系列技术参数

机床型号	Model	单位	YMU-380	CMU-400	CMU-500	CMU-650
工作台	Work head	Unit				
工作台尺寸	Workbench size	mm	Φ250	Φ400	Φ500	Φ650
工作台数量	Number of workbenches	-	1	1	1	1
工作台分度	Workbench indexing	-	0.001°	0.001°	0.001°	0.001°
工作台最大承载	Maximum load capacity of workbench	kg	60	200	280	300
最大工件回转直径	Maximum workpiece rotation diameter	mm	Φ400	Φ480	Φ560	Φ680
行程	Trip					
工作台左右移动 (X)	Workbench moves left and right (X)	mm	600	700	800	820
主轴上下移动 (Y)	Main spindle up and down movement (Y)	mm	450	360	520	520
工作台/立柱前后移动 (Z)	Front and rear movement of workbench/column (Z)	-	450	400	500	500
A(B)轴行程(倾斜轴)	A (B) axis travel (tilt axis)	-	±120°	±110°	±110°	±110°
C轴行程	C-axis travel	mm	±360°	±360°	±360°	±360°
主轴	Spindle					
主轴规格	Main spindle specifications	BT	40	40	40	40
主轴转速	Spindle speed	rpm	12000	12000	12000	12000/18000
主轴功率(额定)	Main spindle power (rated)	kw	7.5	7.5	11	11/7.5
主轴电机最大扭矩	Maximum torque of spindle motor	N.m	42	42	70	70/43
进给	Feed					
最大快移速度 (X/Y/Z)	Maximum fast moving speed (X/Y/Z)	m/min	24/24/24	24/24/24	24/24/24	24/24/24
最大快移速度 (B/C)	Maximum fast moving speed (B/C)	rpm	189/200	50/100	30/50	30/50
滚珠螺杆直径/螺距 (X/Y/Z)	Ball screw diameter/pitch (X/Y/Z)	mm	2816/2816/3216	4016/4016/4016	4012/4012/4012	4012/4012/4012
电机扭矩 (X/Y/Z/B/C)	Motor torque (X/Y/Z/B/C)	N.m	27/27/27/259/30	27/27/27/510/180	27/36/36/830/250	27/36/36/830/250
线轨规格 (X/Y/Z)	Rail specifications (X/Y/Z)	mm	30/30/35	35/35/35	35/45/45	35/45/45
刀具	ATC					
刀库容量	Tool magazine capacity	-	24/30	24/30	24/30	24/30
最大刀具长度/重量	Maximum tool length/weight	mm/kg	300/8	300/8	300/8	300/8
最大刀具直径(满刀/邻空刀)	Maximum tool diameter (full tool/adjacent empty tool)	mm	78/150	78/150	78/150	78/150
精度	Accuracy					
定位精度JIS (X/Y/Z)	Positioning accuracy JIS (X/Y/Z)	mm	±0.008/300	±0.008/300	±0.008/300	±0.008/300
重复定位精度JIS(X/Y/Z)	Repeated positioning accuracy JIS (X/Y/Z)	mm	±0.005/300	±0.005/300	±0.005/300	±0.005/300
定位精度JIS (B/C)	Positioning accuracy JIS (B/C)	mm	6" /6"	10" /10"	10" /10"	10" /10"
重复定位精度JIS(B/C)	Repeated positioning accuracy JIS (B/C)	mm	4" /4"	5" /5"	5" /5"	5" /5"
其他	Others					
电源容量	Power capacity	KVA	25	30	45	45
所需气压	Required air pressure	kgf/cm²	0.6~0.8	0.6~0.8	0.6~0.8	0.6~0.8
机器约重	Machine approximate weight	kg	4500	4800	5200	5600
机器尺寸	Machine dimensions	mm	2700×2300×2650	3200×3200×3200	3600×3200×3250	3650×3200×3250
控制系统	control system		海德汉640/西门子840/新代220/华中848	海德汉640/西门子840/新代220/华中848		

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■ 适用产品



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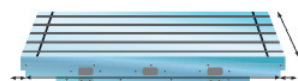
DUAL SPINDLE VERTICAL MACHINING CENTER

X2-R55

双主轴立式加工中心

设备亮点

- 设计理念 Design concept**
如何帮客户节省操作工人(省人), 节省设备投入资金(省钱), 节省设备占地空间(省空间)。
How to help customers save operators (save manpower), equipment investment (save money), and equipment space (save space).
- 两个主轴同时加工2件同样的产品, 效率翻倍。**
Processing two identical products on two main axes simultaneously doubles the efficiency.
- 相对于2台机床, 减少了操作工人, 机器越多省人越明显。**
Compared to two machine tools, reducing the number of operators, the more machines there are, the more people are saved.



工作台尺寸 Workbench size

1500×700mm

主轴转速 Spindle speed

6000/8000rpm

机器尺寸 Machine dimensions

3600×2550×2650mm

快速进给 Rapid feed

30/30/24m/min



性能升级 Performance Upgrade

- 相对于2台机床, 减少了操作工人, 机器越多省人越明显。**
Compared to two machine tools, reducing the number of operators, the more machines there are, the more people are saved.

工件展示 Workpiece Display



机床规格

项目	单位	X2-R40	X2-R55	X2-R65	X2-R80
加工范围					
行程范围 (X/Y/Z)	mm	800/550/550	1100/600/600	1300/700/700	1100/600/600
主轴鼻端至工作台面距离	mm	150-700	120-720	120-820	120-720
主轴中心至立柱轨道面距离	mm	605	660	770	660
工作台尺寸	mm	1000×500	1200×600	1400×700	1700×600
工作台最大载重	kg	600	1000	1200	1500
主轴					
主轴数量	N	2	2	2	2
主轴中心距 (可定制)	/	400±0.05	550±0.05	650±0.05	800±0.05
传动结构	RPM	8000/12000	8000/12000	8000/12000	8000/12000
主轴功率	kW	7.5-11	11-15	11-15	11-15
主轴内孔锥度	BT	BT40	BT40	BT40	BT40
进给					
G00快速进给(X/Y/Z)	m/min	48/48/32	32/32/32	32/32/32	32/32/32
G01切削进给	mm/min	1-10000	1-10000	1-10000	1-10000
伺服电机规格	N.m	22/22/22B/22B	22/22/22B/22B	22/30/22B/22B	22/30/22B/22B
电机连接方式	/	直联	直联	直联	直联
丝杆导轨					
滚珠丝杆规格	mm	4016	4012	4012	4012
X/Y/Z轴线轨规格	mm	35滚柱/45滚柱/35滚柱*4	45滚柱/45滚柱/45滚柱*4	45滚柱/45滚柱*3/45滚柱*4	45滚柱/45滚柱*4/45滚柱*4
精度					
定位精密	mm	±0.005/300	±0.005/300	±0.005/300	±0.005/300
重复定位精密	mm	±0.003/300	±0.003/300	±0.003/300	±0.003/300
刀库					
刀库结构	/	刀臂式	刀臂式	刀臂式	刀臂式
刀库容量	pcs	24	24	24	24
换刀时间	s	2.2	2.2	2.2	2.2
最大刀具重量	kg	8	8	8	8
其他					
空气压力	kg/mm	6-8	6-8	6-8	6-8
电源容量	kW	20	20	20	20
机器重量 (约)	kg	7200	9000	11600	13500
机器外形尺寸 (约)	mm	2600×2860×2800	2550×3450×2900	3050×4050×3100	2550×4850×2900

HIGH RIGIDITY HORIZONTAL MACHINING CENTER

YM-T700

高刚性钻攻加工中心

■ 设备亮点

+ 优化性能 Lead screw

独特机头设计，针对攻小牙优势更突出；可实现高速、高精度攻牙、钻孔、铣削；先进技术的紧凑设计。

Unique head design, with more prominent advantages for attacking small teeth; Can achieve high-speed and high-precision tapping, drilling, and milling; Compact design with advanced technology.

可选配BT40-12000rpm主轴。

Optional BT40-12000rpm spindle.

+ 适用范围 scope of application

适用于3C产品、医疗器械、小型精密零部件、通讯产品，高效钻孔攻牙。

Suitable for 3C products, medical devices, small precision components, communication products, efficient drilling and tapping.

工作台尺寸 Workbench size

800×420mm

主轴转速 Spindle speed

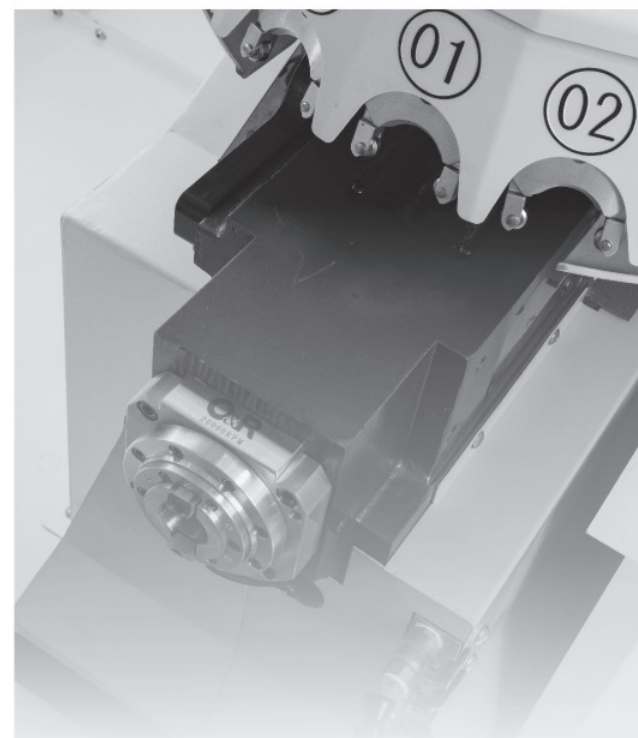
20000rpm

机器尺寸 Machine dimensions

1900×2350×2500mm

快速进给 Rapid feed

48/48/48/m/min



■ 光机特点

+ 底座、鞍座、工作台、立柱、主轴箱等主结构铸件采用高级铸铁并经二次退火处理，确保结构高刚性、高稳定性。

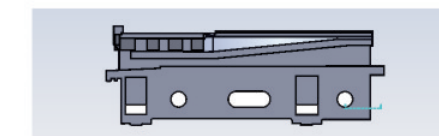
+ 大跨距底座，有效分散重力及加工承受力，让力线最佳化，负载更重的工件。

+ The base, saddle, workbench, column, headstock and other main structural castings are made of high-grade cast iron and undergo secondary annealing treatment to ensure high rigidity and high stability.

+ The large-span base can effectively disperse the gravity and processing force, optimize the force line, and load heavier workpieces.

以底座拓扑分析为例，我们考虑重力效应下，鞍座与工作台各不同位置时之强度，达到行程范围内无死角之高刚性值。

Taking the topology analysis of the base as an example, we consider the strength of the saddle and workbench at different positions under the effect of gravity, achieving a high rigidity value without dead angles within the travel range.



加入运动重心条件，将前地脚位置内移：大幅度的提升底座动刚性数值。Add the condition of the center of gravity and move the front foot position inward: significantly increase the dynamic rigidity value of the base.

Base Example	立柱 Column	原始设计 Original Design	拓扑优化 Topology optimization
动刚性(Hz) dynamic rigidity		233	271.5 (↑ 16.5%)
静刚性(um) static rigidity		12.3	9.1 (↓ 26.0%)

机床型号			YM-T600	YM-T700	YM-T1100
基础规格	Basic specifications	单位			
X、Y、Z 轴行程	X、Y、Z axis travel	mm	600×400×350	700×400×350	1100×400×300
主轴鼻端到工作台面	Spindle nose end to workbench	mm	145×495	145×495	120×420
工作台尺寸	Workbench size	mm	700×420	800×420	1200×400
工作台最大载重	Maximum load capacity of workbench	kg	300	300	300
T型槽尺寸(宽×槽数×间距)	T-groove size (width x number of grooves x spacing)	mm	3×14×125	3×14×125	3×14×125
主轴	spindle				
转速	speed	rpm	20000	20000	20000
电机功率 MITSUBISHI	Motor power MITSUBISHI	Kw	5.5 / 3.7	5.5 / 3.7	5.5
锥度	taper	-	BT30	BT30	BT30
进给轴	Feed Shaft				
X、Y、Z 电机功率	X、Y、Z motor power	KW	1.5 / 1.5 / 3.0	1.5 / 1.5 / 3.0	1.8 / 1.8 / 3.0
X、Y、Z 轴快速进给	X、Y and Z-axis rapid feed	m / min	48×48×48	48×48×48	48×48×48
X、Y、Z 导轨规格	X、Y and Z guide rail specifications	mm	30 / 30 / 30 滚珠	30 / 30 / 30 滚珠 / 滚柱	30 / 30 / 30 滚珠 / 滚柱
X、Y、Z 丝杆规格	X、Y and Z screw specifications	-	3216 / 3216 / 3216	3216 / 3216 / 3216	4012 / 3216 / 3216
刀库	ATC				
换刀机构型态	Type of tool changing mechanism	-	夹臂式	夹臂式	夹臂式
刀库容量	Tool magazine capacity	支	21 / 16	21 / 16	21 / 16
最大刀径	Maximum cutting diameter	mm	60 / 80	60 / 80	60 / 80
最大刀长/刀重	Maximum blade length/weight	mm/kg	250/3	250/3	250/3
换刀时间(刀到刀)	Tool change time (knife to knife)	sec	1.6	1.6	1.8
其他	OTHERS				
空气压力机	Air press	kgf/cm ²	6	6	6
电力需求	Electricity demand	KVA	15	15	20
机床净重	Net weight of machine tool	T	3.5	4.0	5.0
外观尺寸(长×宽×高)	Appearance dimensions (L x W x H)	mm	1860×2300×2500	1900×2350×2500	2450×2400×2500

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HIGH EFFICIENCY HORIZONTAL CNC LATHE

TS-1500

高效率卧式数控车床

■ 设备亮点

+ 优化性能 Lead screw

机床采用全封闭防护，保证加工过程中工作人员人身安全，并且使加工过程中的冷却液和铁屑得到安全充分的回收，确保工作场所的干净整洁。

The machine tool adopts fully enclosed protection to ensure the personal safety of workers during the processing, and to ensure the safe and sufficient recovery of coolant and iron filings during the processing, ensuring a clean and tidy workplace.

+ 导轨 Rail

机床采用高品质线性导轨，确保了更高精度更快进给，更小的磨损，更好的使用寿命。

The machine tool adopts high-quality linear guide rails, ensuring higher accuracy, faster feed, less wear, and better service life.



■ 光机特点

+ 刀塔 Turret

配80中心高伺服刀塔，可配动力刀塔。

Equipped with 80 center high servo turret, can be equipped with power turret.

+ 主轴 Spindle

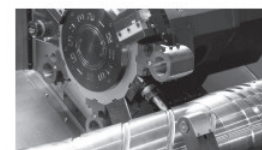
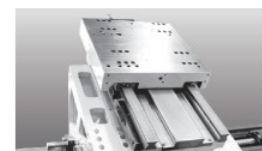
主轴箱多模式设计，有效起到散热功能。

Multi mode design of the spindle box effectively plays a role in heat dissipation.

+ 床身 Lathe bed

整体式（床身与底座一体化）铸铁斜床身结构，防震性能好，整体刚性高。

Integrated (bed and base integrated) cast iron inclined bed structure with good shock resistance and high overall rigidity.



■ 45°倾斜式床身

+ YM系列的设计采用FEM(有限元法)分析，具有45度倾斜式床身结构，同时提高了加工精度和切削性能，还通过扩大安装面积，在吸振和加工稳定性方面彰显卓越性能。

+ The design of the YM series adopts FEM (finite element method) analysis, with a 45 degree inclined bed structure, which improves machining accuracy and cutting performance. It also demonstrates excellent performance in vibration absorption and machining stability by expanding the installation area

最大床身旋径
420mm

Maximum bed rotation diameter

主轴转速
4000rpm

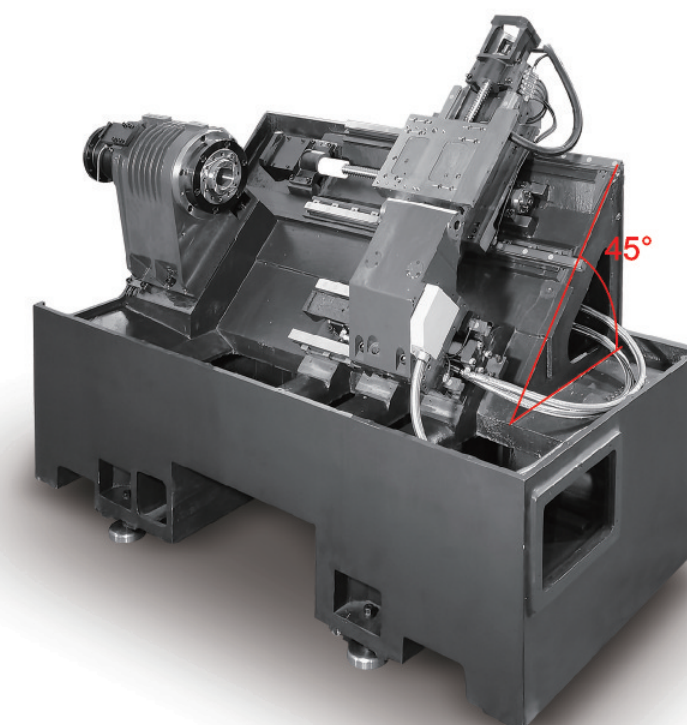
Spindle speed

机器尺寸
1900×1450×1600mm

Machine dimensions

快速进给
24/24/24m/min

Rapid feed





HIGH EFFICIENCY HORIZONTAL CNC LATHE

TS-200

高效率卧式数控车床

■ 设备亮点

+ 优化性能 Lead screw

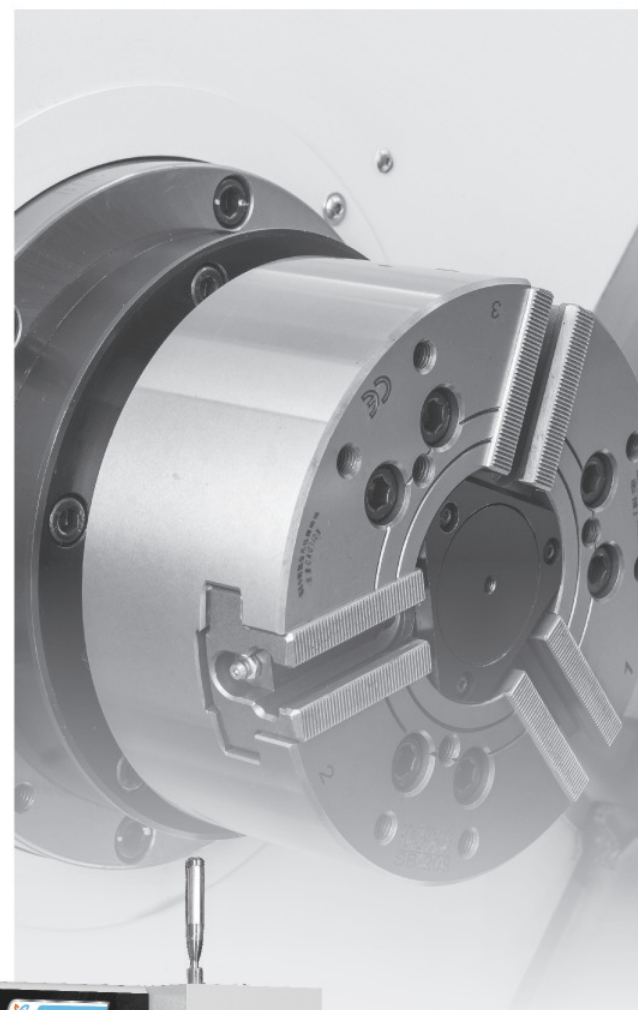
机床采用全封闭防护，保证加工过程中工作人员人身安全，并且使加工过程中的冷却液和铁屑得到安全充分的回收，确保工作场所的干净整洁。

The machine tool adopts fully enclosed protection to ensure the personal safety of workers during the processing, and to ensure the safe and sufficient recovery of coolant and iron filings during the processing, ensuring a clean and tidy workplace.

+ 导轨 Rail

采用45重型滚柱导轨系统，提供最优抗阻挠性和刚性，优点是更大重载切削能力，更长使用寿命。

Adopting a 45 heavy-duty roller guide system, it provides optimal resistance and rigidity, with the advantage of greater heavy-duty cutting capacity and longer service life.



■ 光机特点

+ 床身 Lathe bed

机床床身所采用高质量铸件，具有优异的刚性和热稳定性。床身内多孔设计，主电机内藏室，有效节约空间。

The machine bed is made of high-quality castings, which have excellent rigidity and thermal stability. The porous design inside the bed and the main motor compartment effectively save space.

+ 尾座 Tailstock

尾座采用矩形硬轨设计，使尾座性能升级。

The tailstock adopts a rectangular hard rail design, which upgrades the performance of the tailstock.

+ 刀塔 Turret

采用多加强筋，额外加强30°整体斜床身设计。配100中心高伺服刀塔，可配动力刀塔。

Adopting multiple reinforcement ribs and an additional 30° overall inclined bed design. Equipped with 100 center high servo turrets, can be equipped with power turrets.

■ 配件展示



气缸盖 cylinder head



曲轴 crank shaft



传动轴 transmission shaft



飞轮 fly wheel



活塞 piston



主轴 spindle



联轴器 liner



驱动轴 drive shaft

最大床身旋径
480mm

Maximum bed rotation diameter

主轴转速
4500rpm

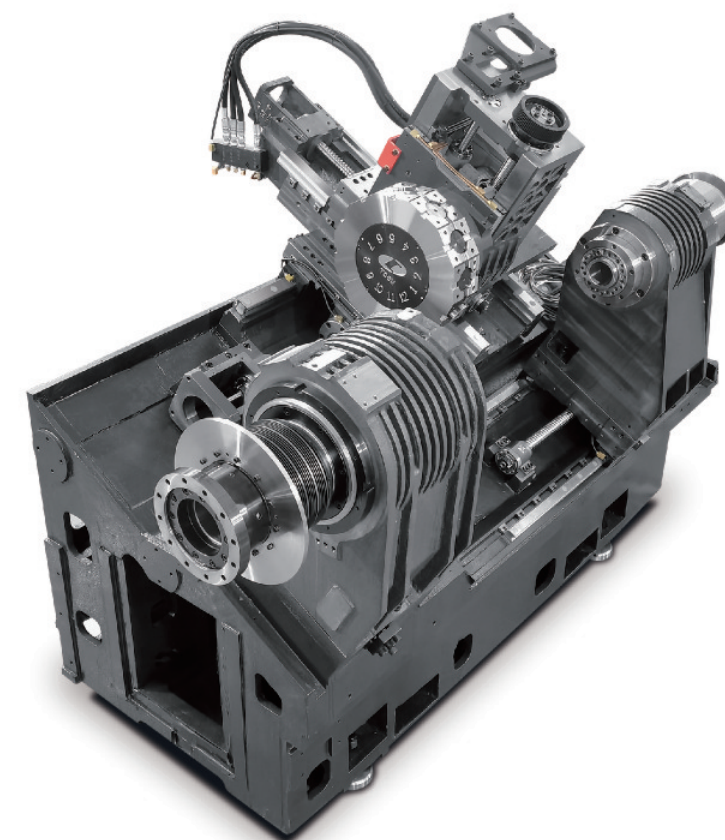
Spindle speed

机器尺寸
2070x1580x1750mm

Machine dimensions

快速进给
20/20/20m/min

Rapid feed



TECHNICAL PARAMETERS OF HORIZONTAL CNC LATHE 卧式数控车床系列技术参数

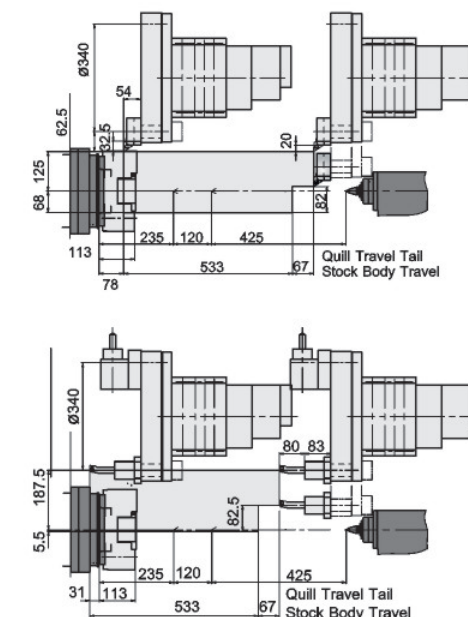
机床型号	Model	单位	TS-150D刀塔	TS-200	TS-200M	TS-250	TS-250M
主轴	Worktable	Unit					
主轴鼻端形式	Spindle nose end form	—	A2-5	A2-6	A2-6	A2-8	A2-8
主轴通孔直径	Main spindle through-hole diameter	mm	55	61	61	87	87
三爪卡盘夹持能力	Three jaw chuck clamping capacity	mm	6 " / Φ 150	8 " / Φ 210	8 " / Φ 210	10 " / Φ 254	10 " / Φ 254
拉杆动作形式	Rod action form	—	液压	液压	液压	液压	液压
驱动系统 FANUC-TF	Drive system FANUC-TF						
主轴电机功率	Spindle motor power	kW	5.5/7.5	11 / 15	11 / 15	15/ 18.5	15/ 18.5
主轴最高转速	Maximum spindle speed	rpm	4000	4500	4500	3500	3500
X/Y/Z轴伺服电机功率	X/Y/Z axis servo motor power	kW	1.7/-/1.7	1.8/2.5/ —	1.8/2.5/ —	1.8/2.5/ —	1.8/2.5/ —
加工范围	Machine range						
最大床身旋径	Maximum bed rotation diameter	mm	420	480	500	650	650
最大加工工件长度/直径	Maximum length/diameter of processed workpiece	mm	400/ Φ 200	450/ Φ 260	420/ Φ 280	650/ Φ 480	650/ Φ 480
最大拉杆通孔直径	Maximum pull rod through-hole diameter	mm	Φ 46	Φ 52	Φ 52	Φ 75	Φ 75
X/Z轴	X/Z axis						
X轴行程	X-axis travel	mm	150	220 / 150	220 / 150	660 / 650	660 / 650
Z轴行程	Z-axis travel	mm	420	480 / 450	460 / 420	280 / 260	280 / 260
Y轴行程	Travel Y-axis	mm	—	/	/	/	/
X/Z轴快移速率	X/Z-axis fast movement rate	m/ min	24	20	20	18-30	18-30
精度	Accuracy						
定位精度	positioning accuracy	mm	± 0.005	± 0.005	± 0.005	± 0.005	± 0.005
重复定位精度	Repetitive positioning accuracy	mm	± 0.003	± 0.003	± 0.003	± 0.003	± 0.003
动力刀塔	Power knife tower						
中心高	Center height	mm	80	80	80	100	100
刀塔驱动形式	Knife tower drive form	—	伺服刀塔	伺服刀塔	动力伺服刀塔	伺服刀塔	动力伺服刀塔
刀位数	Knife number	—	8	8/12	12	12	12
方刀座规格	Specification of square knife holder	mm	25	25	20/25	25	25
镗刀座规格	Boring tool holder specifications	mm	Φ 32	32/40	32	40	40
动力刀座规格	Power knife holder specifications	—	—	20/25	BMT45	—	—
动力刀座转速	Power knife holder speed	rpm	—	/	4000	—	—
其他	OTHERS						
切削水箱容量	Cutting water tank capacity	L	80	120	120	150	150
切削水水压力	Cutting water pressure	kg	2	2.3	2.3	2.8	2.8
电压	voltage	V	$380 \pm 10\%$	$380 \pm 10\%$	$380 \pm 10\%$	$380 \pm 10\%$	$380 \pm 10\%$
功率	power	kVA	15	22	22	25	25
长x宽x高	Length x width x height	mm	1900x1450x1600	2070x1580x1750	2070x1580x1750	2800x1800x1960	2900x1800x1960
重量	weight	kg	1900	3000	3100	4800	4800

※注：由于本公司技术不断的研发改良，样本中部分机型参数，技术规格如有变更，具体规格以业务商谈时为准，样本中的图片参数仅供参考。

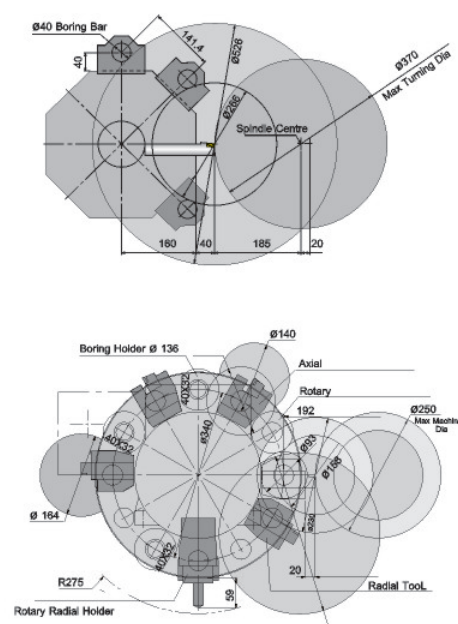
※ Note: Due to the continuous R&D and improvement of the company's technology, if there is any change in some model parameters and technical specifications in the sample,

the specific specifications shall be subject to the business negotiation, and the picture parameters in the sample are for reference only.

■ 加工范围图 单位 / Unit:mm



■ 加工范围图 单位 / Unit:mm





PURCHASE CONFIGURATION

标准配件及选购配件

性能更优化



光栅尺

可增购三轴光栅尺，提高加工精确度，减少环境温度变化产生的误差可以加工更精密的产品。

Additional three-axis grating rulers can be purchased to improve machining accuracy and reduce errors caused by environmental temperature changes, enabling the processing of more precise products.

多维加工

随着技术的革新，三维加工已经很难满足加工需求，第四轴与第五轴应运而生，解决了多角度的加工困难，提高生产效率。

With the innovation of technology, 3D machining has become difficult to meet machining needs. The fourth and fifth axes have emerged, solving the difficulties of multi angle machining and improving production efficiency.

自动刀具量测系列

TS27R依刀具长短值、刀径、刀具磨损侦测，经量测后自动输入控制器做补偿，操作方便。

TS27R detects tool length, tool diameter, and tool wear, and automatically inputs them into the controller for compensation after measurement, making operation convenient.

主轴中心出水

可增购主轴中心出水系统，切削液通过主轴中心刀尖喷出，作用于工件与刀具切削刃，将切削热源带走，确保加工品质。

An additional spindle center water outlet system can be purchased, where cutting fluid is sprayed out through the spindle center tool tip and acts on the workpiece and cutting edge of the tool, taking away the cutting heat source and ensuring machining quality.

工件量测系统

Workpiece measurement system

- 通过仪器装置和工件间的接触讯号，进行工件测量。

Measure the workpiece through the contact signal between the instrument device and the workpiece.

红外线检知装置

Infrared detection device

油脂润滑

grease lubrication

机内采用高亮度LED光源，通透明亮节能

- High brightness LED light source is used inside the machine, which is transparent, bright, and energy-saving

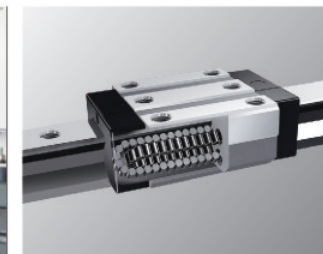
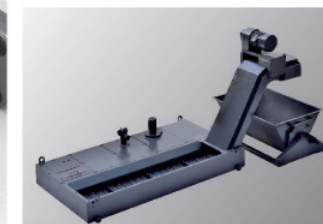
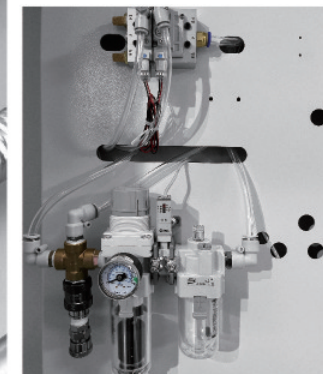
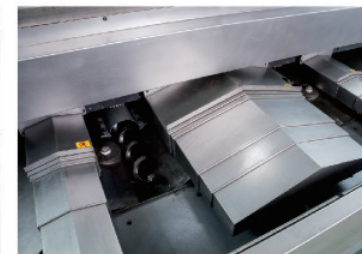
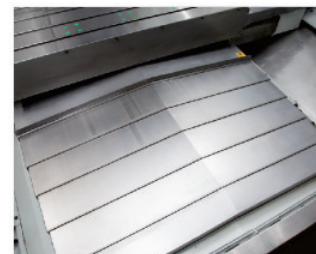
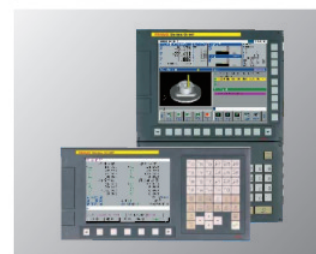
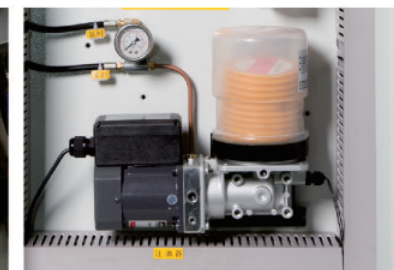
便利的气枪，清理夹治具或工件上的残屑，快速方便

- Convenient air gun for cleaning debris on fixtures or workpieces, fast and convenient

清洗水枪快速维护机台清洁与保养工作

- Quick maintenance of the cleaning water gun machine cleaning and maintenance work.

整机零部件展示 Display of complete machine components



选购配置 Purchasing configurations

10000/12000rpm直结式主轴
自动刀长测量系统
油雾收集分离系统
三菱/西门子/广数
全齿齿轮头或ZF齿轮箱
三轴光栅尺

第四轴旋转工作台
主轴中心出水
工件测量系统
油水分离系统
自动安全门系统

10000/12000rpm direct connection spindle
Automatic tool length measurement system
Oil mist collection and separation system
Mitsubishi/Siemens/Guangshu
Full tooth gear head or ZF gearbox
Three-axis grating ruler

Fourth axis rotating workbench
Spindle center water outlet
Workpiece measurement system
Oil water separation system
Automatic safety door system