

高精精密纵切数控车床

J42Y/J42AY 系列

车铣中心

J42Y TURNING AND MILLING CENTER

主轴：高精、高速、高稳定性
High Precision, High Speed, High Stability

本机床采用机械主轴的形式。并经过精确的动平衡校正，具有良好的回转精度和稳定性，抗振性强。标准配置C轴，分度精度达到0.001°，主轴采用高速角接触球轴承+圆柱滚子轴承结构，具有良好的刚性和高达5000r/min的转速。

This machine tool adopts the form of a mechanical spindle. And after accurate dynamic balance correction, has good rotation accuracy and stability, strong vibration resistance. The standard configuration of C axis, the separation accuracy reaches 0.001, the spindle adopts high speed angular contact ball bearing + cylindrical roller bearing structure, with good rigidity and speed up to 5000 r/min.

主机：高刚性、高抗振结构
Machine Host: High Rigidity, High Anti Vibration Structure

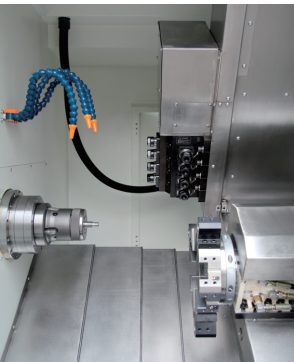
J42Y车铣中心采用整体式30°斜床身结构，平床鞍，整体式立柱，均采用优质铸铁，经过多次时效处理，通过优化的结构设计和工艺方法使机床具有良好的刚性、抗振性和精度。

J42Y milling center adopts integral 30 inclined bed body structure, flat bed saddle, integral column, all adopt high quality cast iron, through the optimized structure design and process method, the machine tool has excellent rigidity, vibration resistance and precision.

刀具：十六个刀位，准确定位
Tools: Sixteen tool positions, accurate positioning

J42Y车铣中心采用八工位刀盘，四+四联动力头，车铣钻镗共计16个刀位，最多可扩至20个刀位，满足市场大多数零件加工需求，一次装夹可完成零件除翻面以外的所有车铣钻镗工序，极大的提高加工效率和零件质量。

The J42Y turning and milling center adopts an eight station cutterhead, four+four power heads, with a total of 16 cutting positions for turning, milling, drilling, and boring, which can be expanded to a maximum of 20 cutting positions, meeting the processing needs of most parts in the market. One clamping can complete all turning, milling, drilling, and boring processes of parts except for flipping, greatly improving processing efficiency and part quality.



选择配置 Optional configuration

- 5寸/6寸卡盘
自动卸料装置
5-inch/6-inch chuck
automatic
unloading device
- 零件传输装置
parts conveyer
- 符合用户需求的特殊配置
special configuration
that meets user needs



机床规格参数 MACHINE SPECIFICATION PARAMETER

项目ITEM	J42Y	J42AY
加工范围 Capacity	最大回转直径 Max swing diameter	φ400mm
	最大加工直径 Max process diameter	φ200mm
	最大加工长度 Max process length	200mm
	主轴通孔直径 Spindle through hole diameter	φ45mm
主轴 Spindle	主轴端部规格 Spindle nose type	A2-5
	工件夹持方式 Clamp type	CL-42A5
	主轴转速范围 Spindle speed	5-5000m/min
快移速度 Rapid feed	X/Y/Z轴快移速度 X/Y/Z Axis traverse	20/15/20m/min
行程 Travel	X/Y/Z轴移动量 X/Y/Z Axis travel	350/200/400mm
刀具配置 Tool configuration	配置形式 Configuration form	车铣钻镗 Turning, milling, drilling, and boring
	配置数量 Configuration quantity	侧铣头4+4.8工位卧式刀塔 Side milling head 4+4.8-station horizontal turret
	刀方规格 tool size	20x20
	夹持规格 Clamping specifications	ER20
	镗铣刀规格 Boring and milling tool specifications	φ13mm
	刀具驱动功率 Tool driving power	FANUC 1.3KW SYNTEC 1.2KW
	刀具最大转速 Maximum tool speed	3000r/min
电机 Motor	主轴电机 Spindle motor	5.5/7.5KW
	进给电机 Feed motor X/Y/Z	FANUC1.8/0.75/1.2KW SYNTEC1.3/0.85/1.3KW
其它 Others	冷却马达 Cooling motor	0.55KW
	电器容量 Power capacity	15KVA
	外形尺寸 (长×宽×高) Machine size(L×W×H)	2200×1820×2075mm
	主轴中心高度 Spindle center height	1185mm
	机床重量 Machine weight	约3200KG
		约3500KG

车铣中心系列

高性价比自动化加工

STN45/45M

平床身转塔数控车床

FLAT BED TURRET CNC LATHE

平床身结构，刀架箱体和滑鞍一体化设计，结构紧凑，整体刚性足。

Flat bed head box structure and integrated design compact integral rigid sliding saddle

主轴采用高刚性主轴轴承配置，具有良好的刚性和精度，端跳、径跳 ≤ 0.003 ，转速高达5000r/min。

High rigid spindle bearing spindle configuration has good rigidity and accuracy of jump diameter 0.003 or less, rotating speed of 5000 r/min.

STN45采用8工位伺服刀塔，赫氏三齿盘定位，油压锁紧，防水、防腐性能优良，分度、定位、锁紧快速可靠。STN45M采用12工位动力刀塔，可安装BMT45刀座，实现车铣复合加工。

STN45 with 8 location servo tool turret, Hector's three gear plate positioning, hydraulic lock, waterproof, dust prevention performance is good, indexing, positioning, locking fast and reliable. STN45M adopts a 12 station servo power turret, which can be installed with BMT45 tool holder to achieve turning and milling composite processing.



平床身转塔系列

项目ITEM		STN45	STN45M
加工范围 Capacity	最大回转直径 Max swing diameter	φ450mm	φ540mm
	最大加工直径 Max process diameter	φ200mm	φ200mm
	最大加工长度 Max process length	260mm	200mm
	主轴通孔直径 Spindle through hole diameter	φ45mm	φ45mm
行程Travel	X/Z轴行程 axis traverse	130/260mm	130/230mm
主轴 Spindle	主电机功率 (连续/30min) Spindle motor	5.5/7.5KW	5.5/7.5KW
	主轴端部形式 Spindle nose type	φ140mm	φ140mm
	主轴最高转速 Max spindle speed	5000r/min	5000r/min
	卡盘尺寸 Chuck size	6 " (中空) (Hollow)	6 " (中空) (Hollow)
刀塔 Turret	刀塔形式 Turret type	伺服刀塔 servo motor	伺服动力刀塔 Servo powered turret
	刀具容量 Tool capacity	8	12
	刀具尺寸 Tool size	20×20/ (φ32mm)	20×20/ (φ32mm)
尾座Tailstock	顶尖锥度 Center taper	MT4 (选配Optional)	MT4 (选配Optional)
快移速度 Rapid feed	X/Z轴快进速度 axis traverse	20/24m/min	20/24m/min
冷却系统 Coolant System	容积 Capacity tank	100L	100L
	功率 Power	0.37kW	0.37kW
其它 Others	占地面积 (长/宽/高) Machine size (L/W/H)	2000×1550×1700mm	2000×1650×1700mm
	机床重量 Machine weight	约2300KG About 2300KG	约2400KG About 2400KG

高性价比自动化加工

STN50/50M

数控车床

STN50 series CNC lathe

高刚性、高精度的主轴设计可以轻松实现强力重切削:
High rigidity high precision of the spindle design can easily implement strong heavy cutting:

STN50数控车床采用了先进的45°混合式斜床身结构，主轴本着高速、重载、高精度的方针设计，可以轻松实现强力重切削。

STN50 spindle of CNC lathe design principle of high speed, overload, high precision, the Swiss company's patented technology manufacturing that has able easily implement strong heavy cutting. In spindle parts assembly, main shaft bearing pre-tightening force using specialized equipment and

快速分度的高刚性刀塔:
Rapidly indexing high rigidity turret:

STN50数控车床刀台采用伺服分度、三齿盘定位的结构，不仅具有良好的刚性，而且还具有很高的分度速度。刀塔换刀动作可以和坐标轴运动同时进行，进一步提高了机床的工作效率。



STN50 CNC lathe cutter adopts servo degree and tooth plate positioning structure, not only has good rigidity, but also has the very high index speed, Turret motion and coordinate indexing action movement at the same time will improve the efficiency of the machine tool further

伺服程控尾座（选配）: servo tailstock:

STN50系列数控车床可以配置伺服尾座，尾座由伺服电机直接驱动，尾座行程和尾座推力可以在程序中任意设定，伺服尾座在轴类零件无人化加工时具有独到的使用场合。

STN50 series servo tailstock of nc lathe can be configured, the tailstock directly driven by servo motor, the tailstock stroke and tailstock thrust can be arbitrarily set in the program, the servo tailstock in axial parts without the use of humanization process in unique occasion.

项目ITEM		STN50	300/500	STN50M	300/500
加工范围 Capacity	床身上最大回转直径 Swing over bed	φ495mm		φ590mm	
	最大车削直径 Max machining diameter	φ330mm		φ300mm	
	最大车削长度 Max machining length	285/520mm		240/475mm	
进给 Travel feed	X/Z轴行程 X/Z axis travel	STN50 (300)	185/325mm	STN50M (300)	180/270mm
	X/Z轴最大快移速度 axis traverse traverse	STN50 (500)	185/550mm	STN50M (500)	180/500mm
主轴 Spindle	X/Z轴最大快移速度 axis traverse traverse	30/36m/min		30/32m/min	
	主电机功率（连续/30min） Spindle motor	7.5/11KW		7.5/11KW	
	主轴端部形式 Spindle nose type	A2-6		A2-6	
	主轴通孔直径 Max spindle through diameter	φ62mm		φ62mm	
	主轴最高转速 Max spindle speed	4500rpm		4500rpm	
刀塔 Turret	卡盘尺寸 Chuck size	8寸		8寸	
	刀塔形式 Turret type	伺服刀塔 servo motor		伺服动力刀塔 Servo powered turret	
	刀具容量 Tool capacity	12		12	
	刀具分度时间（one/full） Indexing time	0.18/0.5 S		0.18/0.5 S	
	刀具尺寸（车刀/镗孔刀） Tool size	20x20/（φ32mm）		20x20/（φ32mm）	
尾座 Tailstock	尾座形式 Tailstock type	可编程伺服尾座 Programmable tailstock		可编程伺服尾座 Programmable tailstock	
	尾座锥孔形式 Tailstock quill taper hole	MT4		MT4	
	尾座最大移动量 Max tailstock travel	335/530mm		~470mm	
冷却系统 coolant system	容积 Capacity	150L		150L	
其它 Others	电源容量（30分钟/连续额定） Power capacity (30minutes keep working)	18KVA		18KVA	
	机床尺寸（长/宽/高） Machine size(L/W/H)	STN50 (300)	2100×1670×1765mm	STN50M (300)	2200×1750×1930mm
	机床重量 Machine weight	STN50 (500)	2400×1670×1765mm	STN50M (500)	2500×1780×2030mm
	机床重量 Machine weight	约4000/4500KG About 4000/4500KG		约4000/4800KG About 4000/4800KG	

斜床身转塔系列

T7Y

车铣中心

TURNING AND MILLING CENTER

主轴：大通孔、高精、高速、高稳定性

Spindle: Large Through-Hole, High Precision, High Speed, High Stability

本机床采用机械主轴的形式。经过精确的动平衡校正，具有良好的回转精度和稳定性，抗振性强。主轴采用高速角接触球轴承+圆柱滚子轴承结构，具有良好的刚性和高达4500r/min的转速。

This machine adopts the form of a mechanical spindle. After precise dynamic balance correction, it has good rotational accuracy and stability, and strong vibration resistance. The spindle adopts high-speed angular contact ball bearing and cylindrical roller bearing structure, which has good rigidity and a speed of up to 4500r/min.

主机：高刚性、高抗振结构

Machine Host: High Rigidity, High Anti Vibration Structure

T7Y数控车床采用整体式30°斜床身结构，采用优质铸铁多次时效，保证基础件抗变形、抗振能力；Z轴导轨大跨距设计，提高床鞍抗偏摆能力；床鞍和滑板与丝杆螺母座一体化设计，减少连接环节，进一步增强移置部件的受力和抗振性能；这一系列的针对性设计使机床具有远超市场上同级别机型的良好抗振性、精度及其长久使用的稳定性。

T7Y CNC lathe adopts an integral 30° inclined bed structure, and adopts high-quality cast iron for multiple aging times to ensure the anti-deformation and anti-vibration ability of the basic parts; The large span design of the Z-axis guide rail improves the anti-deflection ability of the saddle; The integrated design of the saddle and the slide plate with the screw nut seat reduces the connection links and further enhances the force and vibration resistance of the displaced parts. This series of targeted design makes the machine have good vibration resistance, accuracy and long-term stability that far exceed the same level of models on the market.

刀具：快速换刀，定位精确

Tools: Quick Tool Change, Precise Positioning

T7Y车铣中心采用正交Y轴（硬轨）带十二工位动力刀塔，伺服转位，齿盘定位，换刀速度快，定位精准，满足市场大多数零件车铣钻攻的加工需求。

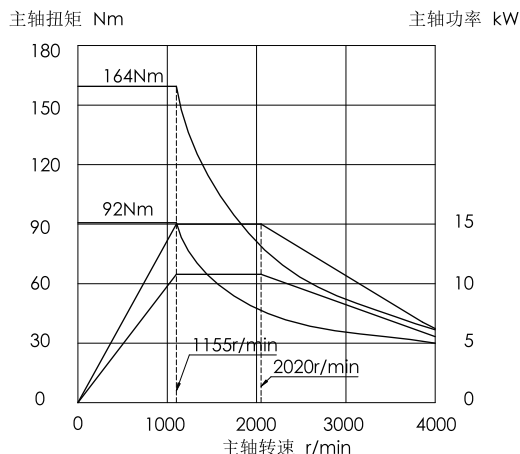
T7Y milling center adopts an orthogonal Y-axis (hard rail) with a twelve station power turret, servo indexing, tooth disc positioning, fast tool changing speed, accurate positioning, and meets the processing needs of most parts milling and drilling in the market.

进给：准确定位、高精进给

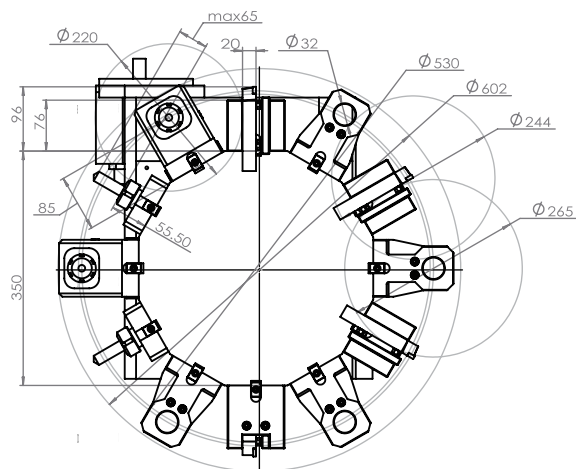
Feed: Accurate Positioning And High-Precision Feeding

X、Z轴导轨采用高精度直线滚柱形滚动导轨，Y轴采用硬轨形式，抗振性好，承载力强。三轴进给轴均采用高刚性滚珠丝杠，在保证进给精度的同时提供极高的丝杆刚性。

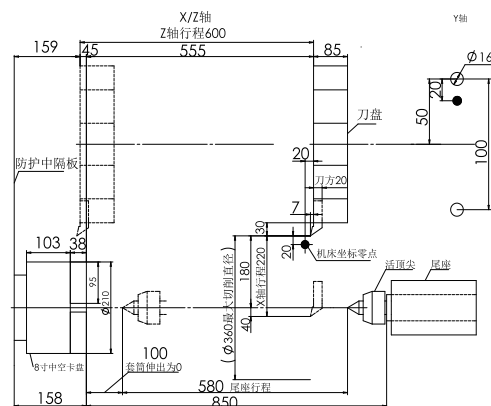
The X-axis and Z-axis guide rails are made of high-precision linear roller-shaped rolling guides, and the Y-axis is in the form of hard rails, which has good vibration resistance and strong bearing capacity. The three-axis feed shaft adopts high-rigidity ball screws, which provide extremely high screw rigidity while ensuring the feed accuracy.



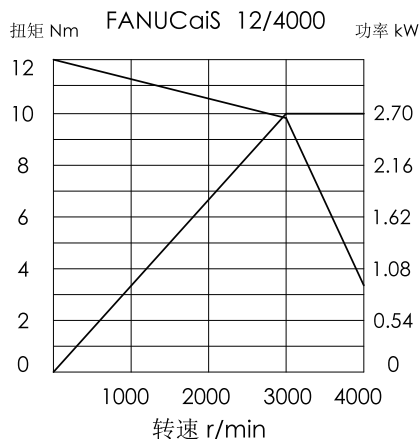
主軸扭矩圖
Spindle torque diagram



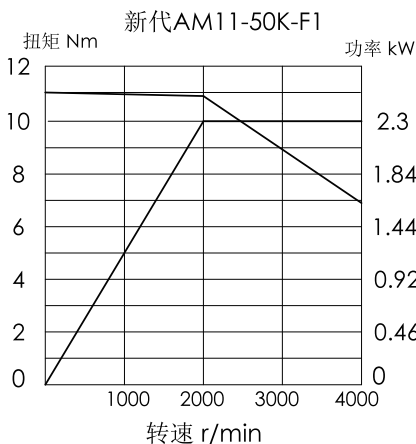
刀具干涉圖
Tool interference diagram



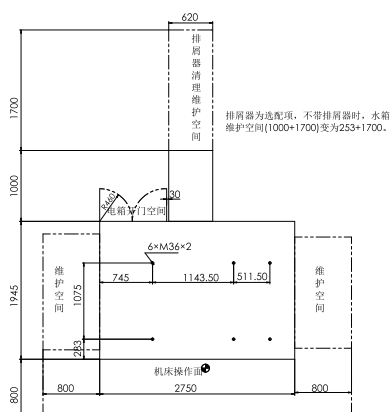
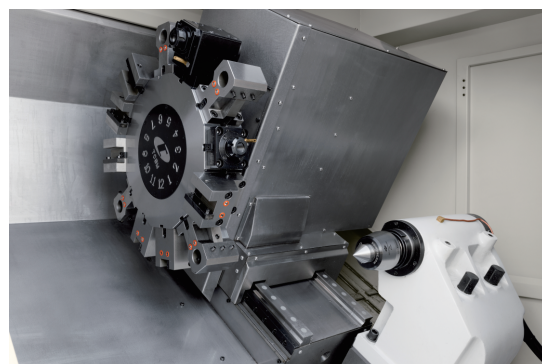
机床行程圖
Machine tool stroke diagram



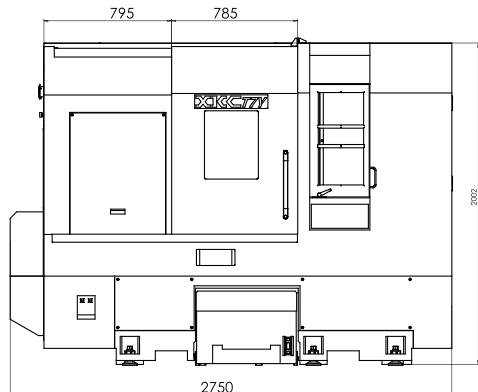
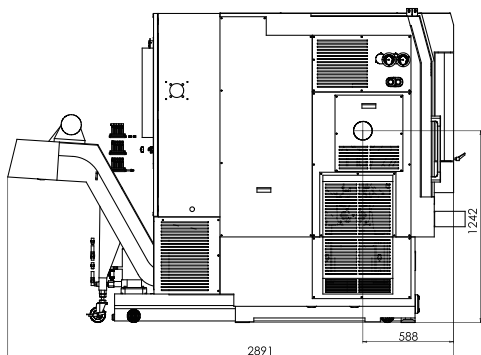
動力軸功率扭矩圖
Power and torque diagram of power shaft



動力軸功率扭矩圖
Power and torque diagram of power shaft



地脚安装图
Foundation installation diagram



机床外形图
Machine Tool Outline Drawing

项目ITEM		T7Y 标配新代 (选配发那科) Standard SYNTEC (Optional FANUC)
加工范围 Capacity	床身上最大回转直径 Max swing diameter over bed	φ650mm
	过床鞍最大回转直径 Swing over cross slide	φ350mm
	最大车削直径 Max turning diameter	φ350mm
	最大车削长度 Max turning length	550mm
主轴 Spindle	主轴头型式 (ISO)Spindle nose	A2-6
	液压卡盘尺寸 Hydraulic chuck dimensions	8寸
	主轴通孔直径 Spindle bore diameter	Φ62mm
	最大棒料直径 (卡盘) Spindle through bar diameter (chuck)	φ51mm
	主轴转速 Spindle speed	45-4500r/min
	主电机功率(连续/30分钟) Spindle motor (Continuous/30 minutes)	11/15kw
尾座 Tailstock	尾座形式 Tailstock form	液压尾座Hydraulic tailstock
	套筒直径 Tailstock diameter	φ90mm
	套筒伸缩行程 Tailstock quill travel	100mm
	尾座体最大行程 Max stroke of tailstock body	520mm
	顶尖锥度 Center taper	MT No.5
床鞍 Carriage	倾斜角度 Slant angle	30°
	移动距离 Travel X/Y/Z	220/100/600mm
	快速移动速度 Rapid traverse rate X/Y/Z	20/10/24m/min
	最大进给速度 Max feed speed	8000mm/min
	滚珠丝杠直径 Ball screw diameter X/Y/Z	Φ32×10/Φ32×10/Φ40×12mm
	进给电机功率 Feed motor power X/Y/Z	2.4/1.1/2.4KW (FANUC 1.8/1.8/1.8KW)
刀架 Turret	驱动形式 Driving form	伺服动力刀塔Servo powered turret
	刀位数 Number of stations	12
	刀具尺寸 (车削/镗孔) Tool size(Turning/and boring)	20×20/Φ32mm
冷却 Cooling	电机功率/扬程 Motor power /lift	0.55/40 kW/m
	冷却箱容积 Cooling tank volume	150L
其它 Others	电源 Power capacity	25KWA
	体积 (长×宽×高) Machine size(L×W×H)	2750×2020×2100mm
	总重量 Machine weight	约5000KG About 5000KG

T7SY

双主轴车铣中心

DOUBLE SPINDLE TURNING AND MILLING CENTER

主轴：大通孔、高精、高速、高稳定性

Spindle: Large Through-Hole, High Precision, High Speed, High Stability

本机床采用双机械主轴的形式。经过精确的动平衡校正，具有良好的回转精度和稳定性，抗振性强。主轴采用高速角接触球轴承+圆柱滚子轴承结构，具有良好的刚性和高达4500r/min的转速。

This machine adopts the form of double mechanical spindles. After precise dynamic balance correction, it has good rotational accuracy and stability, and strong vibration resistance. The spindle adopts high-speed angular contact ball bearing + cylindrical roller bearing structure, which has good rigidity and a speed of up to 4500r/min.

主机：高刚性、高抗振结构

Machine Host: High Rigidity, High Anti Vibration Structure

T7SY数控车床采用对列双主轴、对列刀塔形式，底座为整体式30°斜床身结构，X/Y/Z双进给系统；Z轴导轨大跨距设计，提高床鞍抗偏摆能力；床鞍和滑板与丝杆螺母座一体化设计，减少连接环节，进一步增强移置部件的受力和抗振性能；这一系列的针对性设计使机床具有远超市场上同级别机型的良好抗振性、精度及其长久使用的稳定性。

T7SY CNC lathe adopts a dual spindle and dual turret form, with a base of an integral 30° inclined bed structure and an X/Y/Z dual feed system; Z-axis guide rail with large span design, improving the anti deflection ability of the bed saddle; The integrated design of the bed saddle, skateboard, and screw nut seat reduces the connection links and further enhances the stress and vibration resistance performance of the moving parts; This series of targeted designs endows the machine tool with excellent vibration resistance, accuracy, and long-term stability that far exceed the same level of models on the market.

刀具：快速换刀，定位精确

Tools: Quick Tool Change, Precise Positioning

T7SY车铣中心采用正交Y轴（硬轨），双十二工位动力刀塔，伺服转位，齿盘定位，换刀速度快，定位精准，一次送料可以完成零件外径及两面的车铣钻攻加工。

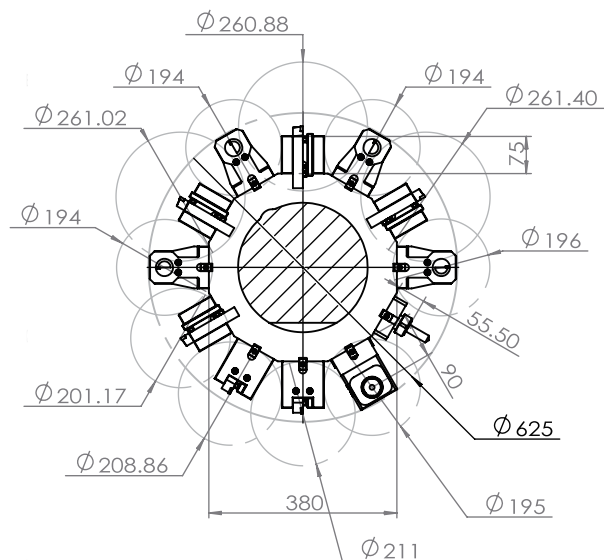
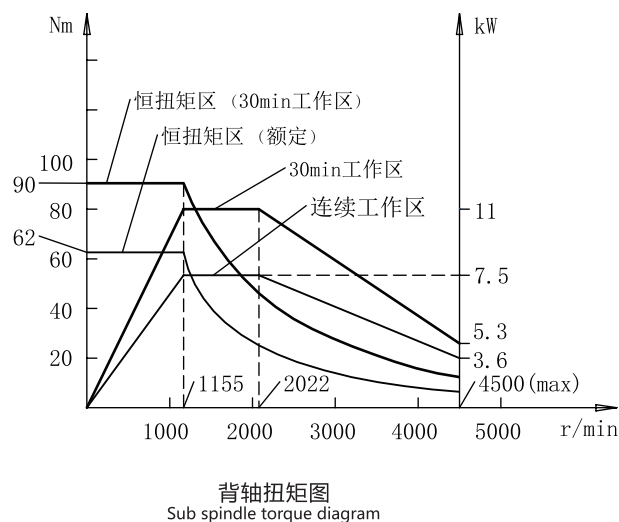
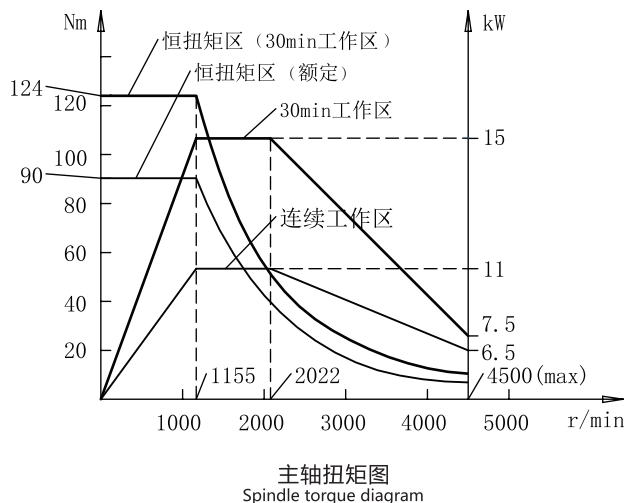
T7SY turning and milling center adopts an orthogonal Y-axis (hard rail), dual twelve station power turret, servo indexing, gear disc positioning, fast tool changing speed, accurate positioning, and can complete turning, milling, drilling and tapping of the outer diameter and both sides of the part with one feeding.

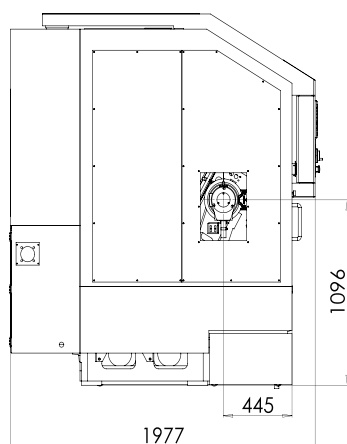
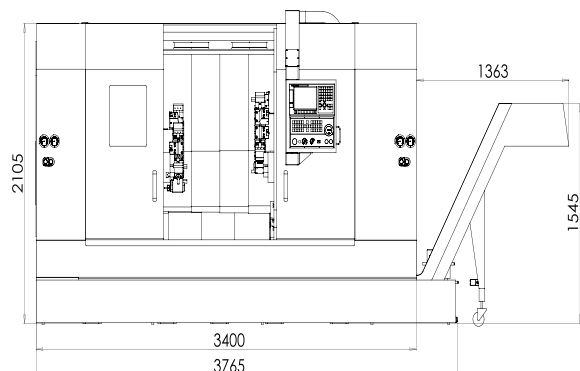
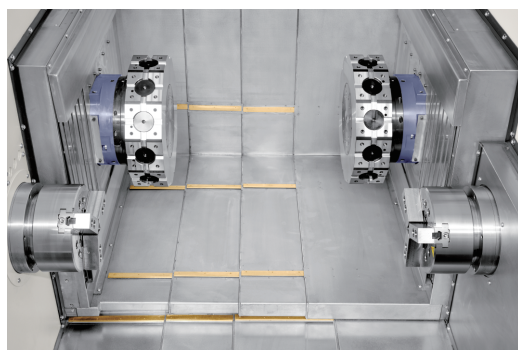
进给：准确定位、高精进给

Feed: Accurate Positioning And High-Precision Feeding

X、Z轴导轨采用高精度直线滚柱形滚动导轨，Y轴采用硬轨形式，抗振性好，承载力强。三轴进给轴均采用高刚性滚珠丝杠，在保证进给精度的同时提供极高的丝杠刚性。

The X-axis and Z-axis guide rails are made of high-precision linear roller-shaped rolling guides, and the Y-axis is in the form of hard rails, which has good vibration resistance and strong bearing capacity. The three-axis feed shaft adopts high-rigidity ball screws, which provide extremely high screw rigidity while ensuring the feed accuracy.





机床外形图
Machine Tool Outline Drawing

项目ITEM		标配新代系统（选配发那科系统） Standard SYNTEC system (Optional FANUC system) T7SY
加工范围 Capacity	床身上最大回转直径 Max swing diameter over bed	Φ270mm
	最大车削直径 Max turning diameter	Φ250mm
	最大车削长度 Max turning length	750mm(双轴) (Two axes)
主轴 Spindle	主轴头型式 (ISO) Spindle nose	A2-6
	液压卡盘尺寸 Hydraulic chuck dimensions	8寸 8-inch
	主轴通孔直径 Spindle bore diameter	Φ62mm
	最大棒料直径 (卡盘) Spindle through bar diameter (chuck)	Φ51mm
	主轴转速 Spindle speed	45-4500r/min
	主电机功率(连续/30分钟) Spindle motor (Continuous/30 minutes)	11/15kw
背轴 Sub spindle	主轴头型式 (ISO) Spindle nose	A2-6
	液压卡盘尺寸 Hydraulic chuck dimensions	8寸 8-inch
	主轴通孔直径 Spindle bore diameter	Φ62mm
	最大棒料直径 (卡盘) Spindle through bar diameter (chuck)	Φ51mm
	主轴转速 Spindle speed	45-4500r/min
	主电机功率(连续/30分钟) Spindle motor (Continuous/30 minutes)	7.5/11kw
左床鞍 Left bed saddle	倾斜角度 Slant angle	30°
	移动距离 Travel X/Y/Z	220/100/400mm
	快速移动速度 Rapid traverse rate X/Y/Z	20/10/24mm
	最大进给速度 Maximum feed rate	8000mm/min
	滚珠丝杠直径 Ball screw diameter X/Y/Z	Φ32×10/Φ32×10/Φ40×12mm
	进给电机功率 Feed motor power X/Y/Z	2.4/1.1/2.4kw(FANUC1.8/1.2/1.8kw)
右床鞍 Right bed saddle	倾斜角度 Slant angle	30°
	移动距离 Travel X/Y/Z mm	220/100/400
	快速移动速度 Rapid traverse rate X/Y/Z	20/10/24 m/min
	最大进给速度 Max feed speed	8000mm/min
	滚珠丝杠直径 Ball screw diameter X/Y/Z	Φ32×10/Φ32×10/Φ40×12
	进给电机功率 Feed motor power X/Y/Z	2.4/1.1/2.4kw(FANUC1.8/1.2/1.8kw)
左/右刀塔 left/Right turret	驱动形式 Driving form	伺服动力刀塔 Servo powered turret
	刀位数 Number of stations	12
	刀具尺寸 (车削/镗孔) Tool size(Turning/and boring)	20×20/Φ32mm
冷却 Cooling	电机功率/扬程 Motor power /lift	0.55/40 kW/m
	冷却箱容积 Cooling tank volume	150L
其它 Others	电源 Power capacity	25KVA
	体积 (长×宽×高) Machine size(L×W×H)	3800×2000×2200mm
	总重量 Machine weight	约6500KG About 5000KG