

# 数控加工中心系列

CNC Machining Center

品牌/卓越/专注/领航/未来

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# 五轴加工中心 / MDK8511X5T2B

FIVE-AXIS MACHINING CENTER



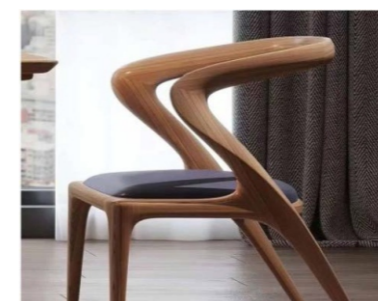
稳定 | 高效 | 安全 | 精密



## 功能特点 / Functional Characteristics

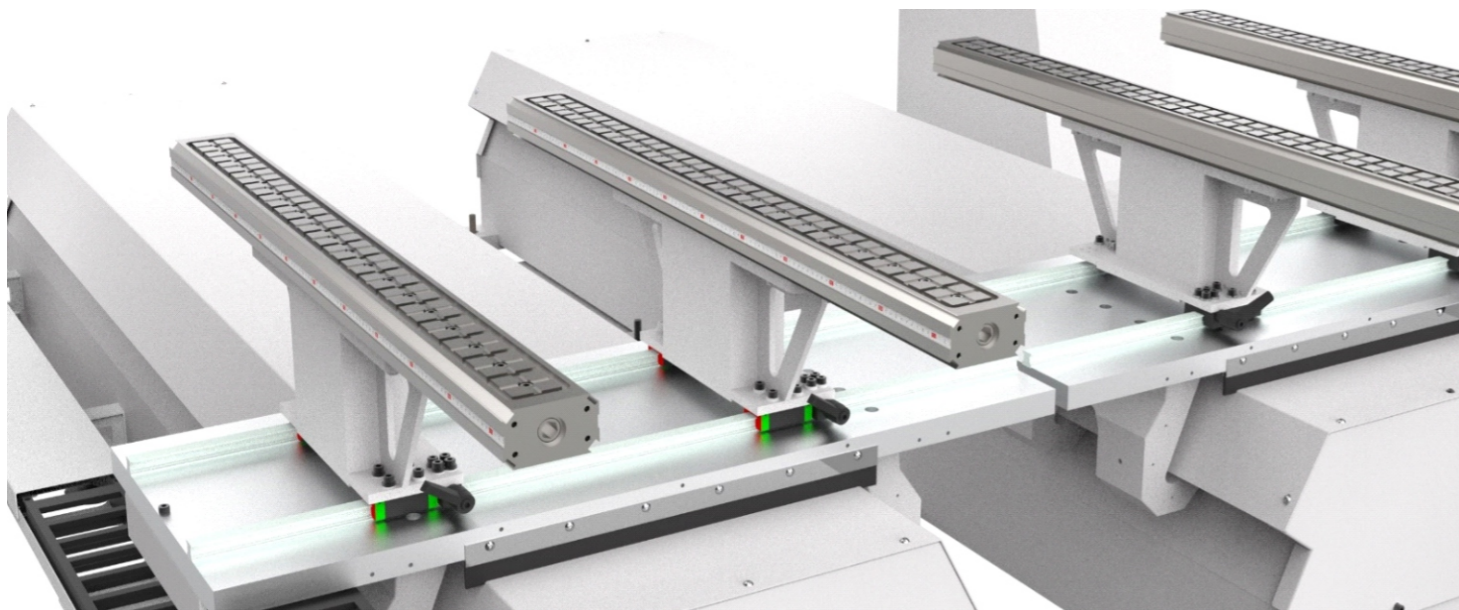
- > 一次装夹 可完成车削、铣削、钻孔、锯切、铣榫等多道工序；
- > 复杂曲面一次成型；
- > 适用于 家具生产、铸造木模、风力发电、汽车内饰、院校教学、航空航天等多行业；
- > Turning, milling, drilling, sawing, tenoning, etc. can be accomplished in one clamping;
- > Complex surface molding at one time;
- > Suitable for teaching in colleges and universities, furniture production, wind power generation, casting wood molds, automotive interiors, aerospace and other industries;

## 加工实例 / Example of processing



## 配置说明 / Configuration instructions

型号: size:	MDK8511X5T2B	MDK8511T
五轴最大加工尺寸: Maximum machining size:	单工位: 1130x1130x700mm 双工位: 2400x1130x700mm Single station: 1130x1130x700mm Double station: 2400x1130x700mm	
运动参数: kinematic parameters:	X轴: 3050mm 空程速度:40m/min X axis:3050mm Movement speed:40m/min	
	Y/V轴: 2200mm 空程速度:40m/min Y/V axis:2200mm Movement speed:40m/min	
	Z轴: 1000mm 空程速度:30m/min Z axis:1000mm Movement speed:40m/min	
	C轴(旋转轴): ±400° 空程速度:22.5 r/min C axis (rotary): ±400° Movement speed: 22.5 r/min	
驱动方式: Driving method:	X/Y/V/Z轴:台湾ABBA精密滚珠丝杆传动 X/Y/V/Z axis: Taiwan ABBA precision ball screw drive	
	电气配置: Electrical Configuration:	控制系统:意大利 OSAI Open Key 系列 Control System: Italy OSAI Open Key Series
主轴配置: Spindle configuration:	伺服驱动: 日本安川YASKAWA X系 Servo drive: Japan YASKAWA X series	维宏 WEIHONG
	主轴型式: 手动换刀 Spindle type: manual tool changer	
	主轴配置: 7.5kW 手动换刀主轴 x 2 Spindle configuration: 7.5kW manual tool change spindle x 2	
外型尺寸: Dimensions:	5500mmx3500mmx3700mm (含电气柜)	
	整机重量: Weight of the machine:	约5.5T



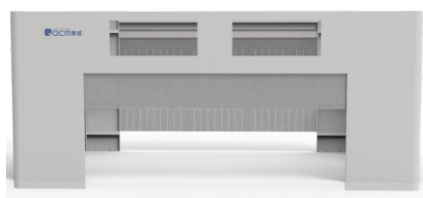
### 工作平台 / work platform

- > 双工作台的设计，实现交替加工/同动加工；  
左工位加工时，右工位可进行工件的装夹，减少上下料等待时间；  
同动加工，可实现大工件加工；
- > The design of double worktables enables alternate processing/simultaneous processing;
  - When the left station is processing, the right station can clamp the workpiece to reduce the waiting time for loading and unloading;
  - Simultaneous processing can realize processing of large workpieces;

### 夹具选择 / Fixture selection



- > 工业级安全防尘护罩，有效防止粉尘飞溅；
- > Industrial-grade safety dust shield, effectively preventing dust splash;



- > 自动上下料仓，节省人工上料时间，实现大批量生产连续性；
- > Automatic loading and unloading bin, saving manual loading time and realizing the continuity of mass production;



### 特点介绍 / Processing technology

- > 电气元件均使用国际知名品牌，保证设备长时间稳定运行；
- > Electrical components are all from internationally renowned brands to ensure long-term stable operation of the equipment;

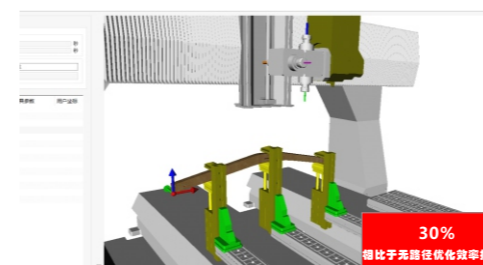


- > 五轴加工中心自动对刀，避免因手工测量误差引起的加工误差；  
可选配刀具直径测量仪；
- > Five-axis machining center automatic tool setting, avoiding machining errors caused by manual measurement errors;  
Optional tool diameter measuring instrument;

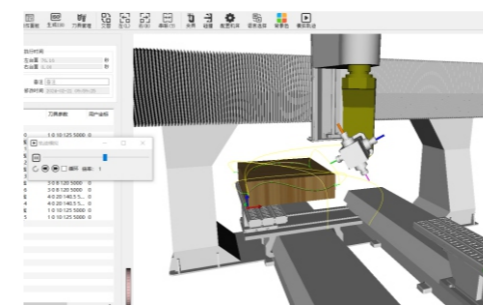
- > 设备操作使用无线手轮，让操作人员更好的观察设备运行状态，机床具备程序引导功能，方便操作人员试切运行。
- > The equipment is operated with a wireless handwheel, which allows the operator to better observe the running status of the equipment, and the machine is equipped with a program guide function, which is convenient for the operator to test cut the operation.



### 软件配置 / Processing technology



- > 五轴仿真优化；  
可1:1的模拟机床实际运行动作、可视化碰撞检查、优化加工路径、提高加工效率；
- > Five-axis simulation optimization;  
1:1 simulation of actual machine movements, visual collision check, optimization of machining paths, improved machining efficiency.



- > 兼容常见的CAM软件；  
与 NX UG、Powermill、SolidCAM、Alphacam等木工行业常用的编程软件完美兼容；
- > Support a variety of CAM software;  
Perfectly compatible with NX UG, Powermill, SolidCAM, Alphacam and other programming software commonly used in the woodworking industry;.

加工工艺 / Machining process



> Y轴工作台整体铸造，数控机床一次加工成型，精密、稳定；

> The Y-axis worktable is integrally cast and processed in one step by CNC machine tools, which is precise and stable;



> 机架与横梁采用高强度钢材焊接而成，经过力学分析设计，经高温退火、振动时效处理，机架稳定性高不易变形。

> The machine and the crossbeam are welded with high strength steel, after mechanical analysis and design, high temperature annealing and vibration aging treatment, the frame has high stability and is not easy to be deformed.



> 机架及零部件均由日本OKUMA五面龙门加工中心加工完成；

> The frame and parts are machined by OKUMA five-face gantry machining center from Japan;



> 所有部件均经由日本“三丰”三坐标测量仪检测合格后方可进行装配；

> All parts are tested by Japan "Mitutoyo" coordinate measuring machine before assembly;



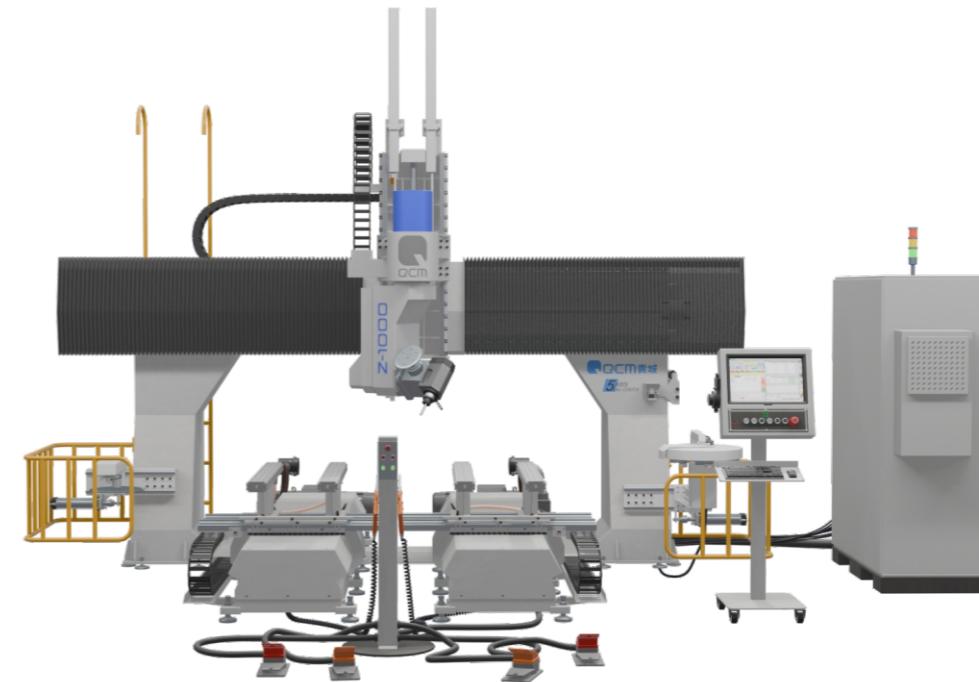
> 设备安装完成后经球杆仪、激光干涉仪等多种设备进行综合精度检测；

> Comprehensive accuracy testing by various equipment such as ball sensors and laser interferometers after the equipment installation is completed;

五轴加工中心 / MDH8511X5T2C  
FIVE-AXIS MACHINING CENTER



扫码可查看加工视频



主轴配置 / Spindle configuration



- > 主轴型式：自动换刀（水冷）+ 手动换刀  
Spindle type: automatic tool change (water-cooled) + manual tool change (air-cooled)
- > 主轴配置：10kW (HITECO) + 7.5kW 手动换刀主轴  
Spindle configuration: 10kW (HITECO) + 7.5kW manual tool change spindle
- > 主轴转速：24000r/min  
Spindle speed: 24000r/min
- > 刀库容量：8 + 1（锯片刀库）  
Tool magazine capacity: 8 + 1 (saw blade magazine)

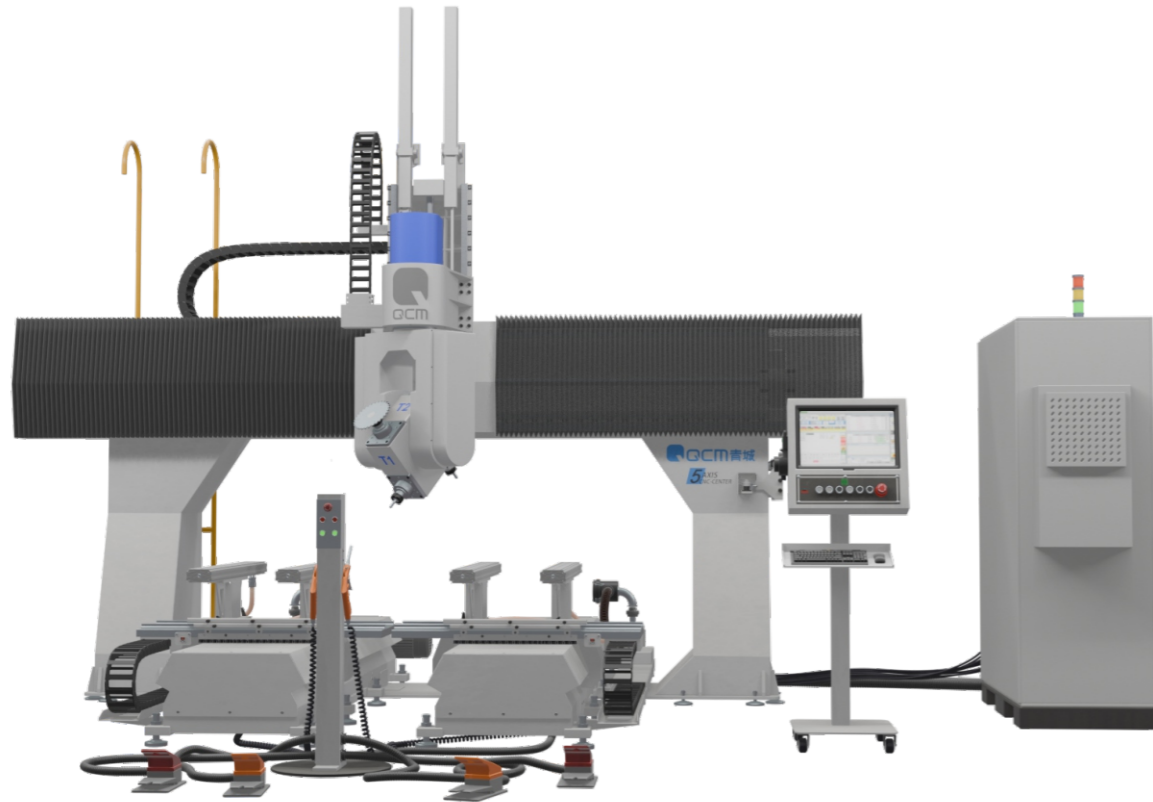
参数配置 / Configuration instructions

五轴最大加工尺寸： Maximum machining size:	单工位：1130x1130x700mm Single station: 1130x1130x700mm	双工位：2400x1130x700mm Double station: 2400x1130x700mm
运动参数： kinematic parameters:	X轴：3050mm 空程速度：40m/min X axis: 3050mm Movement speed: 40m/min	
	Y/V轴：2200mm 空程速度：40m/min Y/V axis: 2200mm Movement speed: 40m/min	
	Z轴：1000mm 空程速度：30m/min Z axis: 1000mm Movement speed: 40m/min	
驱动方式： Driving method:	C轴(旋转轴)：±400° 空程速度：22.5 r/min C axis (rotary): ±400° Movement speed: 22.5 r/min	
	A轴(旋转轴)：±120° 空程速度：22.5 r/min A axis (rotary): ±120° Movement speed: 22.5 r/min	
电气配置： Electrical Configuration:	X/Y/V/Z轴：台湾ABBA精密滚珠丝杆传动 X/Y/V/Z axis: Taiwan ABBA precision ball screw drive	
	控制系统：意大利 OSAI Open Key 系列 Control System: Italy OSAI Open Key Series	
	伺服驱动：日本安川YASKAWA X系 Servo drive: Japan YASKAWA X series	

## 五轴加工中心 / MDK8511T1 FIVE-AXIS MACHINING CENTER



扫码可查看加工视频



### 参数配置 / Configuration instructions

五轴最大加工尺寸: Maximum machining size:	单工位: 1130x1130x700mm Single station: 1130x1130x700mm	双工位: 2400x1130x700mm Double station: 2400x1130x700mm
运动参数: Kinematic parameters:	X轴: 3050mm 空程速度: 40m/min X axis: 3050mm Movement speed: 40m/min	
	Y/V轴: 2200mm 空程速度: 40m/min Y/V axis: 2200mm Movement speed: 40m/min	
	Z轴: 1000mm 空程速度: 30m/min Z axis: 1000mm Movement speed: 40m/min	
	C轴(旋转轴): ±400° 空程速度: 22.5 r/min C axis (rotary): ±400° Movement speed: 22.5 r/min	
驱动方式: Driving method:	A轴(旋转轴): ±360° 空程速度: 22.5 r/min A axis (rotary): ±360° Movement speed: 22.5 r/min	
	X/Y/V/Z轴: 台湾ABBA精密滚珠丝杆传动 X/Y/V/Z axis: Taiwan ABBA precision ball screw drive	
电气配置: Electrical Configuration:	控制系统: 意大利 OSAI Open Key 系列 Control System: Italy OSAI Open Key Series	
	伺服驱动: 日本安川YASKAWA X系 Servo drive: Japan YASKAWA X series	
	主轴型式: 手动换刀 9.6kW (风冷) * 4 Spindle type: manual tool change 7.5kW (air-cooled) * 4	

## 四轴加工中心 / MDH2412 FOUR-AXIS MACHINING CENTER



扫码可查看加工视频



### 加工实例 / Example of processing



### 参数配置 / Configuration instructions

四轴最大加工尺寸: Maximum machining size:	单工位: 1200x1300x700mm Single station: 1200x1300x700mm	双工位: 1200x1300x700mm Double station: 1200x1300x700mm
运动参数: Kinematic parameters:	X轴: 2900mm 空程速度: 45m/min X axis: 2900mm Movement speed: 45m/min	
	Y/V轴: 1300mm 空程速度: 40m/min Y/V axis: 1300mm Movement speed: 40m/min	
	Z轴: 890mm 空程速度: 20m/min Z axis: 890mm Movement speed: 20m/min	
	B轴(旋转轴): ±100° 空程速度: 15 r/min B axis (rotary): ±100° Movement speed: 15 r/min	
驱动方式: Driving method:	Y/V/Z轴: 台湾ABBA精密滚珠丝杆传动 Y/V/Z axis: Taiwan ABBA precision ball screw drive	
电气配置: Electrical Configuration:	控制系统: WEIHONG Control System: weihong	
	9kW - ISO - 自动换刀风冷主轴 9kW - ISO - Air-cooled spindle with automatic tool change	
	8工位伺服刀库 8-station servo tool changer	

## 数控双端铣榫中心 / MDK224B CNC Double-end tenoner



扫码可查加工视频



### 加工范围 / Configuration instructions



- > 使用亿图全伺服控制系统，模块化、参数化的简易交互界面；无需电脑编程；  
> Using Yitoo full servo control system, modular and parameterized easy interactive interface; no need for computer programming;
- > 自动伺服定宽，自动旋转角度；  
> Automatic servo width setting, automatic rotation angle;
- > 两端可同时加工不同榫型；可加工圆榫、腰圆榫、方榫、双斜度榫、粽角榫、抄手榫等；  
> Both ends can be machined with different mortise and tenon types at the same time; it can be machined with round mortise and tenon, waist round mortise and tenon, square mortise and tenon, double slant mortise and tenon, dumpling corner mortise and tenon, coping mortise and tenon and so on;

### 加工参数 / Configuration instructions

加工尺寸： machining size:	长度：180~2000mm Length: 180~2000mm	宽度：10~200mm Width: 10~200mm	厚度：10~80mm Thickness: 10~80mm
B轴摆角： machining size:	0° ~55°		
C轴摆角： machining size:	-55° ~0°		
铣榫主轴功率： Milling spindle power:	5.5kW x 2 (18000r/min)		
钻孔主轴功率： Drilling Spindle Power:	3.7kW x 2 (12000r/min)		

## 数控榫槽机 / MSK3724B CNC Drill Machine



扫码可查加工视频



### 加工范围 / Configuration instructions



- > 使用亿图全伺服控制系统，模块化、参数化的简易交互界面；无需电脑编程；  
> Using Yitoo full servo control system, modular and parameterized easy interactive interface; no need for computer programming;
- > 100000组记忆加工程序，适用于加工圆槽、方槽、样条槽、等多种槽形；  
> 100,000 sets of memorized machining programs for machining round, square, and spline grooves, and many other groove shapes;
- > 4轴X2主轴配置；多工位高速铣削、双工位加工、交替作业实现连续生产；  
> 4-axis X2 spindle configuration; multi-station high-speed milling, dual-station machining, and alternating operations for continuous production;

### 加工参数 / Configuration instructions

最大榫槽尺寸： Max working size:	长度：3400mm Length: 3400mm	宽度：25mm Width: 25mm	厚度：100mm Thickness: 100mm
最大夹料尺寸： Maximum clamp size:	长度：3400mm Length: 3400mm	宽度：180mm Width: 180mm	厚度：100mm Thickness: 100mm
最大加工速度： Max working speed:	30m/min		
铣榫主轴功率： Milling spindle power:	3.7kW x 4 (18000r/min)		
钻孔主轴功率： Drilling Spindle Power:	2.2kW x 4 (12000r/min)		