



## LCR-270 数控车床

### LCR-270 CNC Lathe

LCR-270数控车床适用于小型轴，套类零件圆周加工。机床的性能及技术指标已达到国际一流水平，机床的优良品质完全可满足批量及大批量生产的机械制造各行各业的需要。

LCR-270数控车床采用一体成型床身结构，吸震力强，稳定性高。导轨采用硬化工字型滑轨，提供了高刚性、稳定性及耐久性。无齿轮主轴台能降低震动和减少温升，为使高速强劲的主轴能长时间稳定切削得到保证。VAC主轴马达可实现高转速、大功率、大扭矩。

刀架采用大型曲齿连接器并结合油压定位系统、夹紧方式，可耐重切削。高精度、高刚性的进给轴装置。高精度伺服驱动的高速快进。

LCR-270 CNC lathe is suitable for the circumference machining of small shaft and sleeve parts. The performance and technical parameters have reached the international top-class, and the good quality of this lathe can fully meet the requirements of mass production for a variety of industries in machinery manufacturing.

LCR-270 CNC lathe applies one-piece forming bed structure with strong vibration absorbing ability and high stability. Hardened I-shape slide rail is adopted in guide way to provide high rigidity, stability and durability. Non-gear transmission of spindle can reduce vibration and temperature rise, which ensures the high-speed and powerful spindle can cut stably for long time. VAC motor for main spindle can achieve high rotation speed, high power and high torque.

The tool holder applies large curved tooth couplings combined with hydraulic positioning system, clamping method in order to have stand heavy cutting. The feed axes with high precision and high rigidity, the high rapid feed running with high precision servo drive.

#### 技术参数

#### Technical parameters

	项目 ITEM	单位 UNIT	LCR-270
能力 Capability	床身上最大回转直径 Max. swing diameter on bed	mm	Φ450
	最大加工直径 Max. machining diameter	mm	Φ270
	最大加工长度 Max. machining length	mm	280
移动量 Moving mass	X轴行程 X-axis stroke	mm	155
	Z轴行程 Z-axis stroke	mm	320
主轴 Spindle	主轴转速 Spindle rotating speed	min-1 (rpm)	100~4200
	主轴端 Spindle nose		JIS A2-6
刀架 Tool holder	刀架类型 Type of tool holder		V8 NC刀架 V8 NC tool holder
进给 Feed	快速进给速度 Rapid feed speed	m/min	X:15 Z: 20
	切削进给速度 Cutting feed speed	mm/rev	X,Z: 0.001~1,000.000
电机 Motor	主轴电机 Motor of main spindle	kW	7.5/5.5 (30分/连续)(30min/continuous)
数控系统 Control System (NCS)			OSP-P300L-R



## LBR-370 系列数控车床及复合车削中心

### LBR-370 Series of CNC Lathe & Composite Turning Center

LBR-370系列数控车床及复合车削中心适用于各类轴、套、盘类零件的直线、曲线、斜线、弧线圆周、台阶加工，能满足各类高温合金、钛合金、耐热合金、不锈钢、铸铁以及复合材料的铸锻件毛坯的粗精重切削、高速、高精度加工。

该机床采用床身、底座分离结构，使床身受底座热变形、振动的影响降到最小。底座采用30°倾斜面结构，床身采用有限元分析法设计的高刚性的对称矩形箱形构造，既可实现强力切削，也可保证稳定的加工精度。

该机床采用淬硬磨削滑动导轨结构，该滑动导轨结构具有高刚性、高寿命、高稳定性及吸震性好等特点。

该机床采用自动两档切换绕组内置式宽域交流伺服电机主轴，保证了主轴旋转精度的高稳定性。

LBR-370M型车削中心采用紧凑型高刚性复合V12NC刀架，采用NC交流伺服分度结构，刀架无须抬起动作，所有12个刀位均可根据加工需要安装L（车削）或M（铣削）用刀具。

LBR-370 Series of CNC lathe & composite turning center can be used in the line, curve, slash, arch circumference and step machining of various parts of shaft, sleeve, and plates, etc. It can meet the requirements of rough, finishing and heavy cutting and high speed, high precision machining of castings and forgings raw materials of various high-temperature alloys, Titanium alloys, heat-resistant alloys, stainless steel, cast iron and composite materials. The lathe applies the structure of bed separating from base, which minimizes the influence of base heat on the bed to deform and vibrate. The base is designed with a 30° inclined plane and the bed is constructed in the shape of symmetric rectangular box with high rigidity designed by the Finite Element Method, which not only can enable powerful cutting but also ensure stable machining precision.

Hardened grinding sliding rail is used in the lathe, which presents the characteristics of high rigidity, long service life, high stability, and good vibration-absorbing ability, etc.

The main spindle adopts winding built-in wide area AC servo motor with automatic two-shifting is used in the lathe, which ensures the high stability of spindle rotation precision.

LBR-370M turning center adopts compact and high rigidity composite V12NC tool holder, and adopts NC AC servo indexing structure. There is no need for tool holder to lift because tools for L (turning) or M (milling) can be installed to all the 12 tool places according to machining needs.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	LBR-370		LBR-370M		
		中心距500 Center distance	中心距1000 Center distance	中心距500 Center distance	中心距1000 Center distance	
能力 Capability	床身上最大回转直径 Max. swing diameter on bed	mm	Φ530	Φ530		
	横向滑鞍上最大回转直径 Max. swing diameter of horizontal saddle	mm	Φ420	Φ420		
	最大加工直径 Max. machining diameter	mm	Φ370	Φ340		
	最大加工长度 Max. machining length	mm	500	1000	500	1000
移动量 Moving mass	X轴行程 X-axis stroke	mm	260(185+75)		260(170+90)	
	Z轴行程 Z-axis stroke	mm	520	1020	520	1020
	C轴移动量 C-axis moving mass	mm	-			
主轴 Spindle	主轴转速 Spindle rotating speed	min <sup>-1</sup> (rpm)	45~4,500[38~3,800]		45~4,500[38~3,800]	
	主轴端 Spindle nose		JIS A2-6[JIS A2-8]		JIS A2-6[JIS A2-8]	
刀架 Tool holder	刀架类型 Type of tool holder		V12 NC刀架 V12 tool holder		复合V12 NC刀架 Composite V12 tool holder	
	回转刀具主轴转速 Spindle rotation speed of rotating tool	min <sup>-1</sup> (rpm)	-			
进给 Feed	快速进给速度 Rapid feed speed	m/min	X: 20 Z: 25		X: 20 Z: 25C: 200min <sup>-1</sup> (rpm)	
	切削进给速度 Cutting feed speed	mm/rev	X,Z: 0.001~1,000.000		X,Z: 0.001~1,000.000	
电机 Motor	主轴电机 Motor of main spindle	kW	VAC 15/11 [22/15] (20分/连续) (20min/continuous)		VAC 15/11 [22/15] (20分/连续) (20min/continuous)	
数控系统 Control System (NCS)			OSP-P300L-R			



## MXR-460V 立式加工中心

### MXR-460V Vertical Machining Center

MXR-460V立式加工中心广泛适用于汽车制造，机床制造，发电动力机械，模具等机械加工行业的应用，高速可靠的完成中小型箱体、阀体及各种复杂零件加工中的钻、铣、镗、攻丝等工作。机床可以根据加工的需要在工作台上配置数控转台构成第四轴，实现四轴三联动的加工。

机床采用VAC电主轴，功率扭矩大，主轴适应范围广。BT40主轴输出扭矩95Nm，转速8000rpm，X、Y、Z三向快速进给为36m/min和30m/min，切削进给达30m/min。

机床采用脂润滑，环保型机床，避免了机床漏油现象的发生。

高精度：定位精度±0.004/全行程、重复定位精度：±0.0015。

MXR-460V vertical machining center can be widely used in the application of machining industry, such as automobile manufacturing, machine tool manufacturing, power machinery of power generation, die & mold, etc. It is able to stably complete the drilling, milling, boring, tapping and other work in machining small and medium-sized housing, valve body and a variety of complex parts with high speed and reliability. NC rotary table can be configured on the table according to the needs of machining to build the 4<sup>th</sup> axis so as to achieve the machining of 4 axes with 3-axes-combined moving. The lathe is equipped with a VAC electric spindle with large torque power and the spindle can be used widely. The output torque of BT40 spindle is 95Nm with 8000rpm of rotation speed. The rapid feed in direction X, Y and Z are 36m/min and 30m/min, with cutting feed of 30m/min.

This is an environmental protection machine by applying grease lubrication for the avoidance of oil leakage.

The positioning precision is ±0.004 for the whole stroke, repeated positioning precision is ±0.0015.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MXR460	
移动量 Moving mass	X轴移动量 X-axis moving mass	mm	762
	Y轴移动量 Y-axis moving mass	mm	460
	Z轴移动量 Z-axis moving mass	mm	450
工作台 Table	工作台面至主轴端面 Table surface to spindle nose	mm	160-610
	工作台面尺寸 Size of table surface	mm	1,000x460
主轴 Spindle	转速 Rotating speed	min <sup>-1</sup> (rpm)	50-8,000
	主轴驱动电机 Drive motor of main spindle	kW	VAC 11/7.5 (10分钟/连续) (10 min/continuous)
进给速度 Feed speed	快速进给速度(X,Y,Z) Rapid feed speed (X,Y,Z)	m/min	X,Y:36 Z:30
	切削进给速度(X,Y,Z) Cutting feed speed (X,Y,Z)	mm/min	1-30,000
自动刀具交换系统 ATC	刀柄形式 Type of tool shank		MAS2型 BT40
ATC	刀库容量 Magazine capacity	把/pc	20
数控系统 Control System (NCS)			OSP-P300M-R



## MXR-560V 立式加工中心

### MXR-560V Vertical Machining Center

MXR-560V立式加工中心广泛适用于汽车制造，机床制造，发电动力机械，模具等机械加工行业的应用，高速可靠的完成中小型箱体、阀体及各种复杂零件加工中的钻、铣、镗、攻丝等工作。机床可以根据加工的需要在工作台上配置数控转台构成第四轴，实现四轴联动的加工。

机床采用VAC电主轴，功率扭矩大，主轴适应范围广。BT50主轴输出扭矩198Nm，转速6000rpm，X、Y、Z三向快速进给为36m/min和30m/min，切削进给达30m/min。

机床采用脂润滑，环保型机床，避免了机床漏油现象的发生。

高精度：定位精度±0.004/全行程、重复定位精度：±0.0015。

MXR-560V vertical machining center can be widely used in the application of machining industry, such as automobile manufacturing, machine tool manufacturing, power machinery of power generation, die & mold, etc. It is able to stably complete the drilling, milling, boring, tapping and other work in machining small and medium-sized housing, valve body and a variety of complex parts with high speed and reliability. NC rotary table can be configured on the table according to the needs of machining to build the 4<sup>th</sup> axis so as to achieve the machining of 4 axes with 3-axes-combined moving. The lathe is equipped with a VAC electric spindle with large torque power and the spindle can be used widely. The output torque of BT50 spindle is 198Nm with 6000rpm of rotation speed. The rapid feed in direction X, Y and Z are 36m/min and 30m/min, with cutting feed of 30m/min.

This is an environmental protection machine by applying grease lubrication for the avoidance of oil leakage. The positioning precision is ±0.004 for the whole stroke, repeated positioning precision is ±0.0015.

#### 技术参数

项目 ITEM	单位 UNIT	MXR560
移动量 Moving mass	X轴移动量 X-axis moving mass	mm 1,050
	Y轴移动量 Y-axis moving mass	mm 560
	Z轴移动量 Z-axis moving mass	mm 450
	工作台面至主轴端面 Table surface to spindle nose	mm 160-610
工作台 Table	工作台面尺寸 Size of table surface	mm 1,300x560
	转速 Rotating speed	min <sup>-1</sup> (rpm) 50-6,000
主轴 Spindle	主轴驱动电机 Drive motor of main spindle	VAC 15/11 (10分钟/连续) (10 min/continuous)
	快速进给速度(X,Y,Z) Rapid feed speed (X,Y,Z)	m/min X,Y:36 Z:30
进给速度 Feed speed	切削进给速度(X,Y,Z) Cutting feed speed (X,Y,Z)	mm/min 1-30,000
	自动刀具交换系统 ATC	刀柄形式 Type of tool shank
ATC	刀库容量 Magazine capacity	把/pc 20
数控系统 Control Sytem (NCS)		OSP-P300M-R

#### Technical parameters



## MAR-H 系列卧式加工中心

### MAR-H Series Horizontal Machining Center

MAR-H系列卧式加工中心广泛适用于汽车制造，机床制造，发电动力机械，模具等机械加工行业的应用，高速可靠的完成中小型箱体、阀体及各种复杂零件加工中的钻、铣、镗、攻丝等工作。

MAR-H系列卧式加工中心采用精密坐标镗床式T型整体式床身，通过有限元分析方法设计的铸铁厚床身，床身三点支撑定位保证机床稳定可靠。

主轴采用日本原装内置式大功率高速电主轴，可以保证主轴结构更加简单可靠，同时大大降低运转噪音。主轴前轴承采用一个高精度双列圆柱滚动轴承和两个成组高精度止推球轴承，可承受强力切削、重力切削的传统布局。安装BT50刀柄，主轴功率20/15Kw(10分/连续)，最大扭矩可达466Nm。

MAR-H series horizontal machining center can be widely used in the application of machining industry, such as automobile manufacturing, machine tool manufacturing, power machinery of power generation, die & mold, etc. It is able to stably complete the drilling, milling, boring, tapping and other work in machining small and medium-sized housing, valve body and a variety of complex parts with high speed.

MAR-H series horizontal machining center is equipped with a precise coordinates boring style T-shape integral bed. The cast iron thick bed is designed by the Finite Element Method. The three-point support positioning of bed ensures the stability and reliability of lathe.

The built-in high-power are high-speed electric motor originally made in Japan is used as the main spindle, which ensures simpler and more reliable spindle structure and meanwhile greatly reduces the operating noise. The front bearings of spindle applies one high precision double row cylindrical rolling bearing and two grouping high precision thrust ball bearings, which can withstand the traditional layout of powerful and heavy cutting. BT50 tool shank is installed; the spindle power is 20/15Kw (10min/continuous) and the maximum torque is up to 466Nm.

#### 技术参数

项目 ITEM	单位 UNIT	MAR-630H	MAR-500H
移动量 Moving mass	X轴行程 (立柱左右移动) X-axis stroke (column moves left and right)	mm 1000	700
	Y轴行程 (主轴头上下移动) Y-axis stroke (Spindle head moves up and down)	mm 800	800
	Z轴行程 (工作台前后移动) Z-axis stroke (Table moves back and forth)	mm 810	700
工作台 Table	工作台面大小 Size of table surface	mm 630×630	500×500
	最大承载重量 Maximum load capacity	kg 1200	800
	分度角度 Indexing angle	度/Degree 1 (OP.0.001)	1 (OP.0.001)
主轴 Spindle	最大承载工件尺寸 Size of Max. load work piece	mm Φ1000 × 900	Φ800 × 900
	主轴转速 Spindle rotating speed	r/min(rpm) 50~5,000 (OP.50~12,000)	50~5,000 (OP.50~12,000)
进给速度 Feed speed	快速进给速度(X,Y,Z) Rapid feed speed (X,Y,Z)	mm/min 40,000	40,000
	切削进给速度(X,Y,Z) Cutting feed speed (X,Y,Z)	mm/min 1~40,000	1~40,000
电机 Motor	主轴电机 (10分钟/连续) Motor of main spindle (10min/continuous)	kW 20/15	20/15
	刀柄类型 Type of tool shank	MAS403 BT50	MAS403 BT50
ATC	刀具容纳把数 Number of tools	把/pc 40 (OP.60)	40 (OP.60)
数控系统 Control Sytem (NCS)		OSP-P300M-R	OSP-P300M-R

#### Technical parameters