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BAOJI MACHINE TOOL GROUP CO.,LTD
宝鸡忠诚机床股份有限公司
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MTK20-B车削中心

Turning Center

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Design and specifications given herein are subject to change without prior（Version 202503）

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01 产品概况 Product Overview

MTK20-B是由高档数控系统控制的多刀架数控车削中心，机床采用双主轴、多刀架布局，可实现双主轴、多刀架的同时切削加工。机床具有双Y轴功能和C轴功能，能完成工件的强力铣削。该机床具备4轴联动功能，保证在一次装夹下完成复杂工件的全部或大部分工序的加工，特别适合于形状复杂工件的加工，能广泛适用于汽车、轻工、机械等行业对数控机床功能越来越高的要求。

MTK20-B is a multi-tool holder CNC turning center controlled by a high-grade CNC system. The machine adopts double spindle and multi-tool holder layout, which can realize the simultaneous cutting processing of double spindle and multi-tool holder. The machine has double Y-axis function and C-axis function, which can complete the strong milling of the workpiece. The machine tool has 4-axis linkage function, which ensures that all or most of the machining processes of complex workpieces can be completed under one clamping, especially suitable for the machining of workpieces with complex shapes, which can be widely applied to the increasingly high requirements of automobile, light industry, machinery and other industries on the functions of CNC machine tools.

02 性能优势 Performance advantages

● 床身及主体结构：整体式高强度铸铁床身，床身导轨采用高刚性滚柱导轨，对列式双主轴结构，可在高速旋转的情况下进行工件交换，具有大行程Y轴和纵横向铣削功能，可一次装夹完成对工件外圆、端面的车、铣、钻、攻的复合加工。

● 进给机构：机床三轴滚珠丝杠采用预拉伸螺母结构。支承轴承采用进口角接触专用轴承，大大提高了丝杠的刚度和抗热变形的能力，并使进给精确度大幅度提高。

● 主轴系统：双C轴功能，可在任一主轴上进行工件分度和曲面插补加工。

● 刀架：双16工位伺服动力刀架，可实现对工件的全部或大部分工序的加工，在很大程度上节省了装夹和加工时间，提高了加工效率。

● 排屑系统：链板式自动排屑器及运屑车。

● 冷却系统：冷却水箱采用分离式，移动、清洁方便。

● 润滑系统：导轨、滚珠丝杠副采用集中自动稀油润滑，各个节点配有定量式分油器，定时定量向各润滑部位注油，保证各滑动面均匀润滑，有效的减小摩擦阻力，提高了运动精度，保证了滚珠丝杠副和导轨的使用寿命。

● 系统配置：高档数控系统，集中式机床操作面板，使操作更加方便、快捷。

● 防护：整体式全封闭防护和斜床身结构，既防止冷却液飞溅、又保证操作安全、外观宜人。

● Bed and body structure: it adopts integral high-strength cast iron bed, bed guideway adopts high rigidity roller guideway, counter-array double spindle structure, which can be used for workpiece exchange under high-speed rotation, with large travel Y-axis and longitudinal and transversal milling functions, and it can be used to complete the compound machining of lathing, milling, drilling and tapping of the workpiece's outer circle and end face in a single clamping.

● Feeding system: The three-axis ball screw of the machine tool adopts pre-tensioned nut structure. The support bearing adopts imported angular contact special bearings, which greatly improves the rigidity and resistance to thermal deformation of the screw, and makes the feeding accuracy greatly improved.

● Spindle system: Double C-axis function, workpiece indexing and surface interpolation machining can be carried out on either spindle.

● Turret : Double 16-station servo-powered turret , which can realize the machining of all or most of the workpieces, saving the clamping and machining time to a great extent and improving the machining efficiency.

● Chip removal system: chain type automatic chip conveyor and cart.

● Cooling system: the cooling water tank adopts separated type, which is convenient to move and clean.

● Lubrication system: guideway and ball screw adopt centralized automatic thin oil lubrication, and each node is equipped with quantitative oil distributor, which injects oil to each lubrication part regularly and quantitatively to ensure uniform lubrication of each sliding surface, which effectively reduces friction resistance, improves motion precision, and ensures the service life of ball screw and guide way.

● System configuration: high-grade CNC system, centralized machine operating panel, making the operation more convenient and faster.

● Protection system: Integral full-closed protection and slanting bed structure not only prevents coolant splashing, but also ensures safe operation and pleasant appearance.

03 机床数据 Machine data

项目 Item			单位 Unit	MTK20-B
加工范围 Scope of processing	最大加工直径 Max. processing length		mm	Φ320
	最大加工长度 Max. processing diameter		mm	800
	最大加工棒料直径 Max. bar diameter of processing bar		mm	Φ65
主轴 Spindle	液压卡盘直径 Diameter of hydraulic cuck		mm(in)	Φ210(8″)
	主轴头型式 Spindle nose type			A2-6（GB/T5900.1）
	主轴通孔直径 Spindle bore		mm	Φ76
	主轴轴承直径（前/后） Spindle bearing bore diameter(Before/After)		mm	Φ120/Φ95
	主轴最高转速 Max. speed of spindle		r/min	5000
	主电机功率(连续) Spindle motor power		KW	18.5 /17.2
床鞍 Saddle	移动距离 Travel distance	X1 / X2	mm	210 / 210
		Z1 / Z2 / Z3（副主轴） (Sub-spindle)		800/800/750
		Y1 / Y2		100(±50)
	快速移动速度 X1、X2 / Z1、Z2、Z3 / Y1、Y2 Rapid speed		m/min	20 / 24 / 16
	伺服电机扭矩 Torque of servo motor	X1 / X2	Nm	11/11 9.1/9.1
		Z1 / Z2 / Z3		22 19.1
		Y1 / Y2	Nm	8 9.1
	滚珠丝杠直径 X1、X2 / Z1、Z2、Z3 / Y1、Y2 Diameter of ball screw		mm	36 / 36 / 32
刀架 Turret	刀位数 Toll number			2×16
	刀具尺寸（车削/镗孔） Tool size (turning/boring)		mm	20×20/Φ32
	回转刀具电机功率（连续） Motor power of turning tool (continuous)		KW	2.2/2.9
	回转刀具最高转速 The Max.rotation speed of the turning tool		r/min	6000
C轴 C-axis	最小控制角度 Min.control speed		DEG	0.001
	最大端铣直径/攻丝尺寸 Max.end milling diameter/tapping size		mm	Φ16/ M10
副主轴 Sub-spindle	卡盘尺寸 The size of the tuck		mm(in)	Φ210(8″)
	主电机功率(连续) Spindle motor power		KW	11/17.2
	主轴最高转速 Max. speed of spindle		r/min	5000
其它 Other	电源 Power		kVA	70
	长×宽×高 Length×width×height		mm	5204×2452×2260（含排屑器）
	总重量 Machine weight		kg	8500