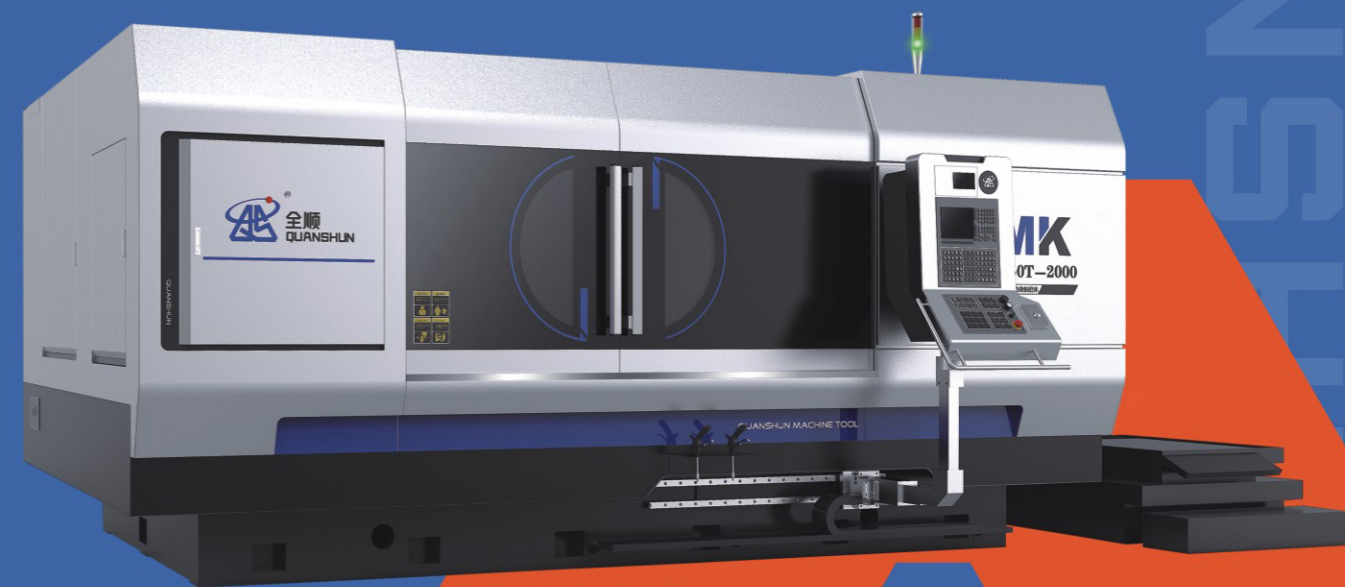


产品外观或技术参数改变，恕不另行通知。
NOTE: DUE TO THE DEVELOPMENT OF TECHNOLOGY, SPECIFICATION & DATA WILL CHANGE WITHOUT NOTICE.

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 **全顺**
QUANSHUN

产品手册[23版]
PRODUCT MANUAL VERSION 23

忠诚 自信 竞争 创新
LOYAL CONFIDENT COMPETITIVE INNOVATION

COMPANY PROFILE
企业简介



浙江全顺机床有限公司是一家精密磨床专业制造企业，位于长江三角洲主要经济发展区域“西施故里”浙江诸暨，毗邻杭州65公里、上海180公里、萧山机场60公里，临近杭金衢、诸永、绍诸等高速公路，交通便捷，地理位置得天独厚。

公司总占地面积3.5万平方米，建筑面积3.2万平方米，下设机床生产基地和液压部件生产基地。主要产品为各种规格的普通（数控）外圆磨床、数控端面外圆磨床、自动上下料数控（端面）外圆磨床、复合磨床、普通（数控）高精度外圆磨床，并可根据用户需求设计开发各种不同的非标专用磨床和提供相关的工艺、软件和培训服务以及自动化解决方案。公司拥有完整的产品研发能力，通过ISO9001-2015质量体系认证和CE安全认证，并被评为“国家高新技术企业”，2021年被评为浙江省专精特新中小企业，公司具有自营出口资格。秉持“质量第一、信誉第一、服务第一”的理念，使公司产品在市场上享有良好的声誉，目前产品已远销美国、德国、俄罗斯、日本、东南亚等二十多个国家和地区。

公司一开始就参股杭机铸造集团公司，使公司高牌号铸件供应得到了保证。近几年公司不断进行技术改造，添置了精密的测量仪器和高效的数控加工设备，工艺水平梯级上升，产品生产能力和质量进一步提高。公司拥有一批国内外磨床行业专家，与德国磨床制造商，扬大、湖大、北航等高等院校建立了长期密切的合作关系，为公司的可持续发展提供了技术保障，公司立志成为中国最佳磨削设备供应商。

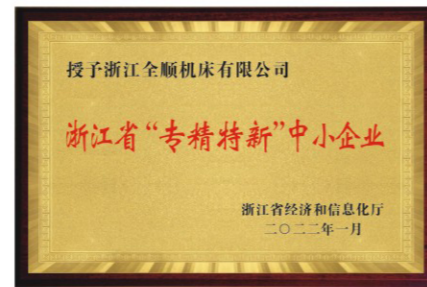
“全·心·智·造 顺·意·产·品”全顺机床为您提供专业的磨削方案，我们的经营理念是“试了再买”！20年的沉淀总有一款适合您的产品，竭诚欢迎您的莅临洽谈！

Zhejiang Quanshun Machine Tool Co., Ltd. is a professional manufacturer of precision grinding machine. It is located in Zhuji, Zhejiang Province, the main economic development area of the Yangtze River Delta. It is 65km away from Hangzhou, 180km away from Shanghai, 60km away from Hangzhou International Airport, and 60km away from expressways such as Hangjinqiu, Zhuyong and Shaozhu. with convenient transportation and unique geographical location.

The company covers an area of 35000 square meters and a building area of 32000 square meters. It has machine tool production base and hydraulic parts production base. The main products are various specifications of ordinary (CNC) cylindrical grinding machines, CNC end face cylindrical grinding machines, automatic loading and unloading CNC (end face) cylindrical grinding machines, composite grinding machines, high-precision ordinary (CNC) cylindrical grinding machines, and we can design and develop various kinds of non-standard special grinding machines according to the needs of users and provide relevant technology, software, training services and automation solutions. Our company has complete product research and development capabilities, passed ISO9001-2015 quality system certification and CE safety certification, and was named "National High-tech Enterprise". In 2021, it was rated as a specialized and new small and medium-sized enterprise in Zhejiang Province. We also has self-export qualification. Our company adheres to the concept of "quality first, reputation first, service first", so that our products have a good reputation in the market. At present, our products have been exported to more than 20 countries, such as the United States, Germany, Russia, Japan, Southeast Asia.

Our company is a shareholder of Zhejiang Hangji Foundry Co., Ltd, which ensured the supply of high-grade castings. In recent years, the company has continued to carry out technological transformation, adding precision measuring instruments and high-efficiency CNC processing equipment. The technological level has risen step by step, and the product production capacity has been further improved and improved. Our company has a group of domestic and foreign experts in the grinding machine industry, and has established long-term close cooperative relations with German grinding machine manufacturers, Yangzhou University, Hunan University, Beihang University and other universities, providing technical support for the company's sustainable development, our company is determined to become the best grinding equipment supplier in China.

"Wholeheartedly create products that satisfy customers" Zhejiang Quanshun Machine Tool Co., Ltd. provides you with professional grinding solutions. Our business philosophy is "try before you buy"! There is always a product suitable for you in the 20 years of precipitation. We sincerely welcome your visit and negotiation!



营销理念
Marketing concepts

与客户并肩工作 为客户创造价值
Working together with customers and create value for customers

企业宗旨
Corporate purposes

用一流团队 提供胜人一筹的产品和服务
Using Class team to Provide one-upmanship products and services

经营理念
Business philosophy

关爱员工 贴近客户 保证质量 履行承诺
Caring for employees Close to the customer Ensure the quality Fulfill the commitments



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MKQ1320H
MAKQ1320H
MKQ1332B

全自动上下料数控外圆磨床

AUTOMATIC CUTTING NC CYLINDRICAL GRINDER



主要用途和特点 Main functions and features

- 全自动上下料数控外圆磨床，适用于大批量零件的磨削加工，一人轻松控制5台设备以上。具有较高的性价比。
- 机床的电控系统采用台湾SYNTEC(新一代)数控系统，面板采用智能触屏和操作键盘，界面设置了人机对话操作。参数表格与图片式的编程方法，使用户操作更加简洁方便。
- 系统采用双通道控制路径，可实现磨削产品与机械手装卸产品同时进行，提高了产品加工节拍。
- 自动上下料结构为自主研发的横梁式机械手和皮带气缸输送装置，调整长度和更换机械夹头可以满足不同零件加工的需要。
- 头架电机采用伺服电机，工件夹紧为自主研发的三点接触浮动装置。
- 机床具有主动测量，自动修整砂轮和自动补偿功能，实现了产品加工的自动化。
- 机床各运动接合面自动润滑，尾架具有夹紧力可调的液压伸缩功能。
- 机床自动上下料机械手可以从机床左右两边进出，用户摆放机床更加灵活方便。并且机床可以数台摆放在一起，组成自动生产线，极大的提高生产效率，节约宝贵的生产场地。
- Automatic loading and unloading CNC cylindrical grinding machine, suitable for grinding large quantities of parts, one person can easily to operate more than 5 machines, with high cost performance.
- The electrical system is controlled by SYNTEC system intelligent touch panel and keyboard screen.
- Man-machine dialogue operation, parameter tables and picture type of programming.
- Making operation more simple and convenient.
- Headstock motor servo motor, three point contact workpiece clamping for independent research and development of floating device.
- The system uses double channel control path, enable simultaneous.
- Grinding products and robotic handling products, improve product cycle times.
- Machine automatic manipulator can up and down from the left and right sides in and out of the machine tool, the user put the machine tool is more flexible and convenient. And machine tool can put several machines together, form automatic production lines, greatly improve production efficiency, saving valuable production site.

案例



规格及主要技术参数 Main Specifications

项目Description	单位 (unit)	MKQ1320H×500	MAKQ1320H×500	MKQ1332B×500
可磨外圆直径 Dia to be ground	(mm)	Φ8-Φ200	Φ8-Φ200	Φ8-Φ320
可磨外圆最大长度 Max.length to be ground	(mm)	400	400	400
中心高 Center height	(mm)	135	135	180
顶尖距 Distance between centers	(mm)	500	500	500
头架顶尖 Headstock center	(莫氏)	4#	4#	5#
尾架顶尖 Tailstock center	(莫氏)	4#	4#	4#
可磨工件最大重量 Max.workpiece weight to be ground	(kg)	5	5	5-30
砂轮尺寸 Wheel size	(mm)	Φ400×50×Φ203	Φ500×50×Φ203	Φ600×75×Φ305
砂轮线速度 Wheel peripheral speed	(m/s)	38 (动静压主轴45m/s)	38 (动静压主轴45m/s)	35 (动静压主轴45m/s)
砂轮主轴转速 Wheel spindle rotation speed	(r/min)	1815/2150	1452/1720	1210/1433
X轴最小脉冲当量 Min.pulse amount in X-axis	(mm)	0.001	0.001	0.001
Z轴最小脉冲当量 Min.pulse amount in X-axis	(mm)	0.001	0.001	0.001
电机总容量 Total motor power	(kw)	15	22	30
纵向伺服电机 Longitudinal servo motor	(kw)	2.4 (11.5Nm)	3.1 (15Nm)	3.9 (15Nm)
横向伺服电机 Traverse servo motor	(kw)	2.4 (11.5Nm)	3.1 (15Nm)	3.9 (15Nm)

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)		
外径测量仪 Diameter measuring instrument	1套(1set)		

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	端面测量仪 Surface measuring instrument	1套(1set)
动静压砂轮主轴 Hybrid wheel spindle	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)

工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	Ra0.32μm
纵截面内直径的一致性 Dia.uniformity in the longitudinal. Section	5μm		

MKQ1620H 全自动上下料数控端面外圆磨床
MKQ1632B AUTOMATIC CUTTING NC CYLINDRICAL GRINDER



主要用途和特点 Main functions and features

- 全自动上下料数控端面外圆磨床，适用于大批量零件的磨削加工，一人轻松控制5台设备以上，具有较高的性价比。
- 机床的电控系统采用台湾SYNTEC(新一代)数控系统，面板采用智能触屏和操作键盘，界面设置了人机对话操作。参数表格与图片式的编程方法，使用户操作更加简洁方便。
- 系统采用双通道控制路径，可实现磨削产品与机械手装卸产品同时进行，提高了产品加工节拍。
- 自动上下料结构为自主研发的横梁式机械手和皮带气缸输送装置，调整长度和更换机械夹头可以满足不同零件加工的需要。
- 头架电机采用伺服电机，工件夹紧为自主研发的三点接触浮动装置。
- 机床具有主动测量，自动修整砂轮和自动补偿功能，实现了产品加工的自动化。
- 机床各运动接合面自动润滑，尾架具有夹紧力可调的液压伸缩功能。
- 自动上下料机械手可以从机床左右两边进出，用户摆放机床更加灵活方便。并且机床可以数台摆放在一起，组成自动生产线，极大的提高生产效率，节约宝贵的生产场地。
- Automatic loading and unloading CNC cylindrical grinding machine, suitable for grinding large quantities of parts, one person can easily to operate more than 5 machines, with high cost performance.
- The electrical system is controlled by SYNTEC system intelligent touch panel and keyboard screen.
- Man-machine dialogue operation, parameter tables and picture type of programming.
- Making operation more simple and convenient.
- Headstock motor servo motor, three point contact workpiece clamping for independent research and development of floating device.
- The system uses double channel control path, enabling simultaneous grinding products and robotic handling products, improve product cycle times.
- Machine automatic manipulator can up and down from the left and right sides in and out of the machine tool, the user put the machine tool is more flexible and convenient. And machine tool can put several machines together, form automatic production lines, greatly improve production efficiency, saving valuable production site.

规格及主要技术参数 Main Specifications

项目Description	单位 (unit)	MKQ1620H×500	MKQ1632B×500
可磨外圆直径Dia to be ground	(mm)	Φ8-Φ200	Φ8-Φ320
可磨外圆最大长度Max.length to be ground	(mm)	500	500
中心高Center heighe	(mm)	135	180
顶尖距Distance between centers	(mm)	500	500
头架顶尖Headstock center	(莫氏)	4#	5#
尾架顶尖Tailstock center	(莫氏)	4#	4#
可磨工件最大重量Max.workpiece weight to be ground	(kg)	5	5
砂轮尺寸Wheel size	(mm)	Φ500×Φ50×Φ203	Φ600×75×Φ305
砂轮线速度Wheel peripheral speed	(m/s)	45 (动静压主轴)	45 (动静压主轴)
砂轮主轴转速Wheel spindle rotation speed	(r/min)	1720	1433
X轴最小脉冲当量Min.pulse amount in X-axis	(mm)	0.001	0.001
Z轴最小脉冲当量Min.pulse amount in X-axis	(mm)	0.001	0.001
电机总容量Total motor power	(kw)	15	22
纵向伺服电机Long it udingal servo motor	(kw)	2.4 (11.5Nm)	3.1 (15Nm)
横向伺服电机Traverse servo motor	(kw)	2.4 (11.5Nm)	3.1 (15Nm)

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)	端面测量仪 Surface measuring instrument	1套(1set)
外径测量仪 Diameter measuring instrument	1套(1set)		
动静压砂轮主轴 Hybrid wheel spindle	1套(1set)		

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)
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工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	Ra0.32μm
纵截面内直径的一致性 Dia.uniformity in the longitudinal. Section	5μm		

MK1320H MKE1320H

数控外圆磨床

MK1320H MKE1320H CNC cylindrical grinding machine



规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MK1320H×500 MKE1320H×500	MK1320H×800 MKE1320H×800
可磨外圆直径Dia to be ground	(mm)	Φ8~Φ200	Φ8~Φ200
可磨外圆最大长度Max.length to be ground	(mm)	500	800
中心高Center height	(mm)	135	135
顶尖距Distance between centers	(mm)	500	800
头架顶尖Headstock center	(莫氏)	4#	4#
尾架顶尖Tailstock center	(莫氏)	4#	4#
可磨工件最大重量Max.workpiece weight to be ground	(kg)	50	50
砂轮尺寸Wheel size	(mm)	Φ400×50×Φ203	Φ400×50×Φ203
砂轮线速度Wheel peripheral speed	(m/s)	38 (动静压主轴45m/s)	38 (动静压主轴45m/s)
砂轮主轴转速Wheel spindle rotation speed	(r/min)	1815/2150	1815/2150
X轴最小脉冲当量Min.pulse amount in X-axis	(mm)	0.001	0.001
Z轴最小脉冲当量Min.pulse amount in Z-axis	(mm)	0.001	0.001
电机总容量Total motor power	(kw)	10.825	10.825
纵向伺服电机 Longitudinal servo motor	(kw)	1.6(6Nm)	1.6(6Nm)
横向伺服电机 Traverse servo motor	(kw)	1.6(6Nm)	1.6(6Nm)

主要用途和特点

Main functions and features

- 本机床为数控外圆磨床，适宜于成批量生产车间，主要加工圆柱类或多台阶圆柱类零件，具有较高的性价比。
- 机床电气的控制系统标配采用凯恩数控系统，执行系统用数控伺服驱动器和伺服电机通过滚珠丝杆传动。进给精度高；配置操作面板，人机界面友好、操作方便。也可根据用户需要采用其他系统，并可配置在线自动测量仪。
- 机床的操作简单实用，只需经过简单培训即可轻松操作该机床。操作者通过数控操作面板设置纵磨和切入磨的参数，可自动加工不同尺寸的工件，此机床具有工作台自动跳档，可自动磨削一个工件的多档台阶，多档台阶可任意编排纵磨和切入磨顺序和磨削工艺参数。
- 具有自动修整砂轮功能和自动补偿功能。
- 砂轮架主轴轴承采用三片瓦动压轴承，也可按用户要求选配高精度的动静压轴承。
- 机床各运动部件自动润滑。尾架有液动和手动两种方式。
- The CNC cylindrical grinder is suitable for batch production of cylindrical parts grinding with high performance-to-price ratio.
- The electrical system is controlled by HNC-180GCE and the executive system is driven by the CNC servo driver and servo motor. Worktable longitudinal travel and wheelhead cross traverse which with the high infeed accuracy are realized by the servo motors via the ball screw transmission. With the touch screen and human-machine interface, the machine is easy to operate. With other systems and configured online automatic measuring instrument can also be based on user needs.
- The machine is simple and easy to operate. After simple training, it can be operated easily. By setting the parameter of longitudinal grinding or plunge grinding via the touch screen, an auto-grinding for the different workpiece is realized. With the function of worktable trip-stop, the machine can grind more than one journals of one workpiece automatically. The process parameter of more than one journals can be set discretionary for long grinding of plunge grinding.
- With the function of wheel dressing and compensation automatically.
- Wheelhead spindle is supported by three bushing hydro-dynamic bearing, and high precision hydro dynamic-static bearing is also available for the user.
- Timing provision of lubrication for machine moving parts according to program designing. Automatic lubrication of all moving parts. Tailstock has two ways:hydraulic and manual.

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)	外径测量仪 Diameter measuring instrument	1套(1set)

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	端面测量仪 Surface measuring instrument	1套(1set)
动静压砂轮主轴 Hybrid wheel spindle	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)

工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	Ra0.32μm
纵截面内直径的一致性 Dia.uniformity in the longitudinal. Section	5μm		

**MAK1320H
MAKE1320H**

数控外圆磨床

MAK1320H MAKE1320H CNC cylindrical grinding machine



主要用途和特点

Main functions and features

- 本机床为数控外圆磨床，适宜于成批量生产车间，主要加工圆柱类或多台阶圆柱类零件，具有较高的性价比。
- 机床电气的控制系统标配采用凯恩数控系统，执行系统用数控伺服驱动器和伺服电机。机床工作台的纵向移动、砂轮架横向进给运动均由伺服电机通过滚珠丝杆传动。进给精度高；配置操作面板，人机界面友好、操作方便。也可根据用户需要采用其他系统，并可配置在线自动测量仪。
- 机床的操作简单实用，只需经过简单培训即可轻松操作该机床。操作者通过数控操作面板设置纵磨和切入磨的参数，可自动加工不同尺寸的工件，此机床具有工作台自动跳档，可自动磨削一个工件的多档台阶，多档台阶可任意编排纵磨和切入磨顺序和磨削工艺参数。
- 具有自动修整砂轮功能和自动补偿功能。
- 砂轮架主轴轴承采用三片瓦动压轴承，也可按用户要求选配高精度的动静压轴承。
- 机床各运动部件自动润滑。尾架有液动和手动两种方式。

- The CNC cylindrical grinder is suitable for batch production of cylindrical parts grinding with high performance-to-price ratio.
- The electrical system is controlled by KND 1000Ti, and the executive system is driven by the CNC servo driver and servo motor. Worktable longitudinal travel and wheelhead cross traverse which with the high infeed accuracy are realized by the servo motors via the ball screw transmission. With the touch screen and human-machine interface, the machine is easy to operate. With other systems and configured online automatic measuring instrument can also be based on user needs.
- The machine is simple and easy to operate. After simple training, it can be operated easily. By setting the parameter of longitudinal grinding or plunge grinding via the touch screen, an auto-grinding for the different workpiece is realized. With the function of worktable trip-stop, the machine can grind more than one journals of one workpiece automatically. The machine is simple and easy to operate. After simple training, it can be operated easily. By setting the parameter of longitudinal grinding or plunge grinding via the touch screen, an auto-grinding for the different workpiece is realized. With the function of worktable trip-stop, the machine can grind more than one journals of one workpiece automatically. The process parameter of more than one journals can be set discretionary for long grinding of plunge grinding.
- With the function of wheel dressing and compensation automatically.
- Wheelhead spindle is supported by three bushing hydrodynamic bearing, and high precision hydro dynamic-static bearing is also available for the user.
- Timing provision of lubrication for machine moving parts according to program designing. Automatic lubrication of all moving parts. Tailstock has two ways: hydraulic and manual.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MAK1320H×500 MAKE1320H×500	MAK1320H×750 MAKE1320H×750
可磨外圆直径Dia to be ground	(mm)	Φ8~Φ200	Φ8-Φ200
可磨外圆最大长度Max.length to be ground	(mm)	500	750
中心高 Center height	(mm)	135	135
顶尖距Distance between centers	(mm)	500	750
头架顶尖Headstock center	(莫氏)	4#	4#
尾架顶尖Tailstock center	(莫氏)	4#	4#
可磨工件最大重量Max.workpiece weight to be ground	(kg)	50	50
砂轮尺寸Wheel size	(mm)	Φ500×50×Φ203	Φ500×50×Φ203
砂轮线速度Wheel peripheral speed	(m/s)	38 (动静压主轴45m/s)	38 (动静压主轴45m/s)
砂轮主轴转速 Wheel spindle rotation speed	(r/min)	1452/1720	1452/1720
X轴最小脉冲当量Min.pulse amount in X-axis	(mm)	0.001	0.001
Z轴最小脉冲当量Min.pulse amount in Z-axis	(mm)	0.001	0.001
电机总容量Total motor power	(kw)	10.825	10.825
纵向伺服电机Longitudinal servo motor	(kw)	2.6(10Nm)	2.6(10Nm)
横向伺服电机Traverse servo motor	(kw)	2.6(10Nm)	2.6(10Nm)

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)	外径测量仪 Diameter measuring instrument	1套(1set)

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	端面测量仪 Surface measuring instrument	1套(1set)
动静压砂轮主轴 Hybrid wheel spindle	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)

工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	Ra0.32μm
纵截面内直径的一致性 Dia.uniformity in the longitudinal. Section	5μm		

**MK1332B
MKE1332B**

数控外圆磨床

MK1332B MKE1332B CNC cylindrical grinding machine



主要用途和特点

Main functions and features

- 本机床为数控外圆磨床，适宜于成批及中小批量生产车间，主要加工圆柱类或多台阶圆柱类零件，具有较高的性价比。
- 机床电气的控制系统标配采用北京KND1000数控系统，执行系统用数控伺服驱动器和伺服电机。机床工作台的纵向移动、砂轮架横向进给运动均由伺服电机通过滚珠丝杆传动，进给精度高；配置操作面板，人机界面友好、操作方便。也可根据用户需要采用其他系统，并可配置在线自动测量仪。
- 机床的操作简单实用，只需经过简单培训即可轻松操作该机床。操作者通过数控操作面板设置纵磨和切入磨的参数，可自动加工不同尺寸的工件。此机床具有工作台自动跳档，可自动磨削一个工件的多档台阶，多档台阶可任意编排纵磨和切入磨顺序和磨削工艺参数。
- 具有自动修整砂轮功能和自动补偿功能。
- 砂轮架主轴轴承采用四片瓦动压轴承，也可以按用户要求选配高精度的动静压主轴。
- 机床各运动部件自动润滑，尾架有液动和手动二种方式。
- 工件、油泵、冷却泵分别由单独的电机驱动。
- 根据客户需要，头架可用变频电机实现无极变速。

- The CNC cylindrical grinder is suitable for batch production of cylindrical parts grinding with high performance-to-price ratio.
- The electrical system is controlled by KND 1000G, and the executive system is driven by the CNC servo driver and servo motor. Worktable longitudinal travel and wheelhead cross traverse which with the high feed accuracy are realized by the servo motors via the ball screw transmission. With the touch screen and human-machine interface. The machine is easy to operate. With other systems and configured online automatic measuring instrument can also be based on user needs.
- The machine is simple and easy to operate. After simple training, it can be operated easily. By setting the parameter of longitudinal grinding or plunge grinding via the touch screen, an auto-grinding for the different workpiece is realized. With the function of worktable trip-stop, the machine can grind more than one journals of one workpiece automatically. The machine is simple and easy to operate. After simple training, it can be operated easily. By setting the parameter of longitudinal grinding or plunge grinding via the touch screen, an auto-grinding for the different workpiece is realized. With the function of worktable trip-stop, the machine can grind more than one journals of one workpiece automatically. The process parameter of more than one journals can be set discretionary for long grinding of plunge grinding.
- With the function of wheel dressing and compensation automatically.
- Wheelhead spindle is supported by three bushing hydro-dynamic bearing, and high precision hydro dynamic-static bearing is also available for the user.
- Timing provision of lubrication for machine moving parts according to program designing. Automatic lubrication of all moving parts. Tailstock has two ways: hydraulic and manual.
- Workpiece, oil pump, coolant pump is driven by a separate motor.
- The headstock is available to achieve continuously variable by frequency motor according to user needs.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MK1332B×500/1000/1500/2000/3000 MKE1332B×500/1000/1500/2000/3000
可磨外圆直径Dia to be ground	(mm)	Φ8~Φ320
可磨外圆最大长度Max.length to be ground	(mm)	500、1000、1500、2000、3000
中心高Center height	(mm)	180
顶尖距Distance between centers	(mm)	500、1000、1500、2000、3000
头架顶尖Headstock center	(莫氏)	5# 5# 5# 5# 5#
尾架顶尖Tailstock center	(莫氏)	4# 4# 4# 5# 5#
可磨工件最大重量Max.workpiece weight to be ground	(kg)	150
砂轮尺寸Wheel size	(mm)	Φ600×75×Φ305
砂轮线速度Wheel peripheral speed	(m/s)	38 (动静压主轴45m/s)
砂轮主轴转速Wheel spindle rotation speed	(r/min)	1210/1433
X轴最小脉冲当量Min.pulse amount in X-axis	(mm)	0.001
Z轴最小脉冲当量Min.pulse amount in Z-axis	(mm)	0.001
电机总容量Total motor power	(kw)	21.475、21.475、21.475、30.075、33.075
纵向伺服电机Longitudinal servo motor	(kw)	4.7(23Nm)、4.7(23Nm)、4.7(23Nm)、4.7(23Nm)、4.7(23Nm)
横向伺服电机Traverse servo motor	(kw)	3.9(15Nm)、3.9(15Nm)、3.9(15Nm)、4.7(23Nm)、5.5(27Nm)

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)	外径测量仪 Diameter measuring instrument	1套(1set)

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	端面测量仪 Surface measuring instrument	1套(1set)
动静压砂轮主轴 Hybrid wheel spindle	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)

工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	Ra0.32μm
纵截面内直径的一致性 Dia.uniformity in the longitudinal. Section	5μm		

MK1620H MKZ1620H MKE1620H 数控端面外圆磨床
 MK1620H MKZ1620H MKE1620H CNC transverse cylindrical grinding machine



主要用途和特点 Main functions and features

- 本机床主要用于磨削轴类零件的端面和外圆，结构简洁，操作方便，具有较高的性价比。
- 导轨全部采用贴塑，提高其抗振性及灵敏度，其中字母带Z的X向导轨采用进口直线导轨。
- 砂轮主轴轴承采用动静压主轴。
- 采用斜向磨头直进式砂轮构架结构，其中字母带Z的采用直进斜切式磨头结构。
- 丝杆全部采用C3级精度进口丝杆。
- 根据用户需要配置径向和轴向测量仪。
- This machine is mainly used for grinding the face and cylindrical shaft parts, simple structure, easy to operate, with high cost performance.
- All plastic coated guide rail enhance its vibration resistance and sensitivity.
- Grinding wheel spindle bearing is used by either of dynamic and static pressure.
- Using bevel grinding head oblique into the type of grinding wheel frame structure.
- C3-level precision screw used in all imported screw.
- The machine can be equipped with radial and axial measurement instrument according to the user.

规格及主要技术参数 Main Specifications

项目Description	单位unit	MK1620H×500 MKE1620H×500	MK1620H×750 MKE1620H×750	MKZ1620H×500	MKZ1620H×750
可磨外圆直径 Dia to be ground	mm	Φ8~Φ200	Φ8~Φ200	Φ8~Φ200	Φ8~Φ200
可磨外圆最大长度 Max.length to be ground	mm	500	750	500	750
中心高 Center height	mm	135	135	135	135
最大工件重量 Max.workpiece weight	kg	50	50	50	50
砂轮线速度 Wheel peripheral velocity	m/sec	45	45	45	45
顶尖距 Distance between centers	mm	500	750	500	750
工作台转动范围 Swivel range of worktable	°	-3~+7°	-3~+5°	-3~+7°	-3~+5°
外圆砂轮尺寸 External wheel size	mm	Φ500×50×Φ203	Φ500×50×Φ203	Φ500×50×Φ203	Φ500×50×Φ203
头尾架顶尖 Workhead and tailstock center	morse	NO.4	NO.4	NO.4	NO.4
机床外型尺寸(长×宽×高) Overall dimensions(L×W×H)	mm	2700×1600×1500	3200×1600×1500	2840×1930×1760	3340×1930×1760
机床重量 Machine weight	kg	2800	3300	3000	3500
电机总功率 Total motor power	kw	12	12	12	12
纵向伺服电机 Longitudinal servo motor	(kw)	2.4(11.5Nm)	2.4(11.5Nm)	2.4(11.5Nm)	2.4(11.5Nm)
横向伺服电机 Traverse servo motor	(kw)	2.4(11.5Nm)	2.4(11.5Nm)	2.4(11.5Nm)	2.4(11.5Nm)

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)	动静压砂轮主轴 Hybrid wheel spindle	1套(1set)
端面测量仪 Surface measuring instrument	1套(1set)		
外径测量仪 Diameter measuring instrument	1套(1set)		

特殊附件 Extra Accessories

砂轮平衡架 Wheel balancing	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)
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工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度(外圆/端面) Surface roughness	Ra0.25/0.63μm(O.D/Face)
纵载面内直径一致性 Uniformity of dia.in longitudinal section	4μm		

MK(Z)1632B 数控端面外圆磨床
MK1632C MK(Z)1632B MK1632C CNC transverse cylindrical grinding machine



主要用途和特点 Main functions and features

- 本系列机床适用于大批量带肩轴类零件的外圆和端面加工，安装宽砂轮时可实现多个台阶端面的成形磨削，自动化程度高，可实现一人操作多台。
- 标配采用台湾新代数控系统（也可根据客户需要配置其他系统）。
- 配置高精度自动测量仪，实现闭环自动磨削工作循环，保证加工尺寸精度。
- 砂轮主轴采用动静压主轴组件，具有回转精度高，刚性好，可安装宽砂轮。
- 采用斜向磨头直进式砂轮构架结构。
- 配置独立电气柜、油箱及过滤水箱。
- 砂轮电机采用交流变频调整装置，可基本实现恒线速度磨削。
- MK1632C是我公司开发的一款中高端数控端面外圆磨床，该磨床采用国外先进技术浇铸的大理石床身，采用自主研发的加宽工作台，在X、Z向均配置台湾上银重载滚柱直线导轨。该磨床的刚性、稳定性、精度均明显优于同类型的磨床。

- This series machine is suitable for large quantities cylindrical shaft parts with shoulder and face machining grinding, shaping a plurality of steps to achieve the end face of the wheel when installing wide, high degree of automation, enabling one person to operate more than one.
- Using SYNTEC CNC system (other systems can also be configured according to the custom).
- High precision automatic measuring instrument is configured to achieve closed-loop automatic grinding work cycle to ensure dimensional accuracy.
- Wheel frame using high-speed hybrid spindle assembly, with high rotation precision, rigidity, Wheel width can be installed.
- Using bevel grinding head oblique into the type of grinding wheel frame structure.
- Configure a separate electrical box, tank and filtration tank.
- Wheel motor adopts AC frequency adjustment device, that can basically achieve constant linear speed grinding.
- MK1632C is a high-end CNC end face cylindrical grinder developed by our company. The grinder adopts the marble bed made by foreign advanced technology. It adopts the self-developed widening workbench and is equipped with the Taiwan silver overload roller linear guide in X and Z directions. The rigidity, stability and accuracy of the grinder are obviously superior to that of the same type grinder.

规格及主要技术参数 Main Specifications

项目Description	单位unit	MK(Z)1632B×500 MK1632C×500	MK(Z)1632B×1000 MK1632C×1000	MK(Z)1632B×1500	MK(Z)1632B×2000
可磨外圆直径Dia to be ground	mm	Φ8~Φ320	Φ8~Φ320	Φ8~Φ320	Φ8~Φ320
可磨外圆最大长度Max.length to be ground	mm	500	1000	1500	2000
中心高 Center height	mm	180	180	180	180
最大工件重量Max.workpiece weight	kg	150	150	150	150
尾架顶尖移动量 The travel of tailstock center	mm	40	40	40	40
砂轮线速度 Wheel peripheral velocity	m/sec	45	45	45	45
顶尖距Distance between centers	mm	500	1000	1500	2000
工作台转动范围 Swivel range of worktable	°	-3~+9°	-3~+7°	-3~+7°	-3~+7°
外圆砂轮尺寸 External wheel size	mm	Φ600×75×Φ305	Φ600×75×Φ305	Φ600×75×Φ305	Φ600×75×Φ305
头尾架顶尖 Workhead and tailstock center	morse	NO.5/NO.4	NO.5/NO.4	NO.5/NO.4	NO.5/NO.4
机床外型尺寸（长×宽×高） Overall dimensions(L×W×H)	mm	3200×2006×1955	4800×2006×1955	5700×2100×1647	6700×2150×1892
机床重量 Machine weight	kg	4200 6500	5500 7500	7000	6500
电机总功率 Total motor power	kw	22	22	22	22

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	卸砂轮拨头 Wheel extractor	1套(1set)
砂轮卡盘 Wheel hub	2套(2sets)	磁性分离过滤水箱 Magnetic separator	1套(1set)
平衡轴 Balancing arbor	1套(1set)	外径测量仪 Diameter measuring instrument	1套(1set)
端面测量仪 Surface measuring instrument	1套(1set)		

特殊附件 Extra Accessories

砂轮平衡架 Wheel balancing	1套(1set)	开式中心架 Open-type steady-rest	1套(1set)
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工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度(外圆/端面) Surface roughness	Ra0.25/0.63μm
纵载面内直径一致性 Uniformity of dia. in longitudinal section	5μm		

MGK1320H/1620H/1332B/1632B

数控高精度（端面）外圆磨床 high precision CNC (end face) cylindrical grinding machines



主要用途和特点

Main functions and features

- MGK系列数控（端面）外圆磨床适用于轴类零件的外圆、端面、圆锥面的磨削加工。对于多个台阶的轴类外圆及轴肩长度均可在一次装夹中完成，减少装夹次数，生产效率高。
- 零件磨削直径和长度尺寸精度采用Marposs测量仪控制。控制精度为±0.001，精度高，尺寸稳定
- 机床数控系统采用德国SIEMENS 828或发那科FANUC-0i-TF（端面）外磨床专用数控系统，编程操作方便。并提供速成编程操作教材。
- 此系列机床属于高精度数控（端面）外圆磨床。
磨削工件精度可达到三个小于1um
即：圆度、直线度、垂直度小于1um
- 磨床砂轮架采用超高精度静动压轴承，并配置恒温恒压油冷一体机。磨削精度高，不会因轴承的因素产生磨削震纹和螺旋线。表面粗糙度最高可达到Ra0.01（该轴承质保期为5年，并终生保修）
- 此系列机床可采用活头架，可直接驱动工件，在一次装夹中磨削左右各档尺寸。

- MGK series CNC cylindrical (Endface) grinding machine is suitable for the grinding of the outer circle, end face and conical surface of shaft parts. For shafts with multiple steps, the length of outer circle and shaft shoulder can be completed in one clamping, reducing clamping and high production efficiency.
- The grinding diameter and length dimension accuracy of parts are controlled by Marposs measuring instrument. Control accuracy is ± 0.001, high accuracy and stable size.
- The CNC system of the machine adopts German SIEMENS 828 or FANUC-0i-TF (Endface)grinder special CNC system, which is easy to program and operate. And provide a quick programming operation textbook.
- This series machine is a high-precision CNC cylindrical (Endface)grinder. Grinding workpiece accuracy can reach three less than 1um
That is: roundness, straightness, and verticality can all less than 1um
- Grinding wheelstock adopts ultra-high precision static and dynamic pressure bearing, and equipped with a machine of constant temperature and pressure oil cooling. The grinding accuracy is high, and the grinding vibration and helix will not be produced due to the bearing factors. Surface roughness can reach up to Ra0.01 (the bearing warranty period is 5 years and lifetime warranty)
- This series of machine use a movable headstock, which can directly drive the workpiece. Grind the left and right sizes in one clamping.

规格及主要技术参数 Main Specifications

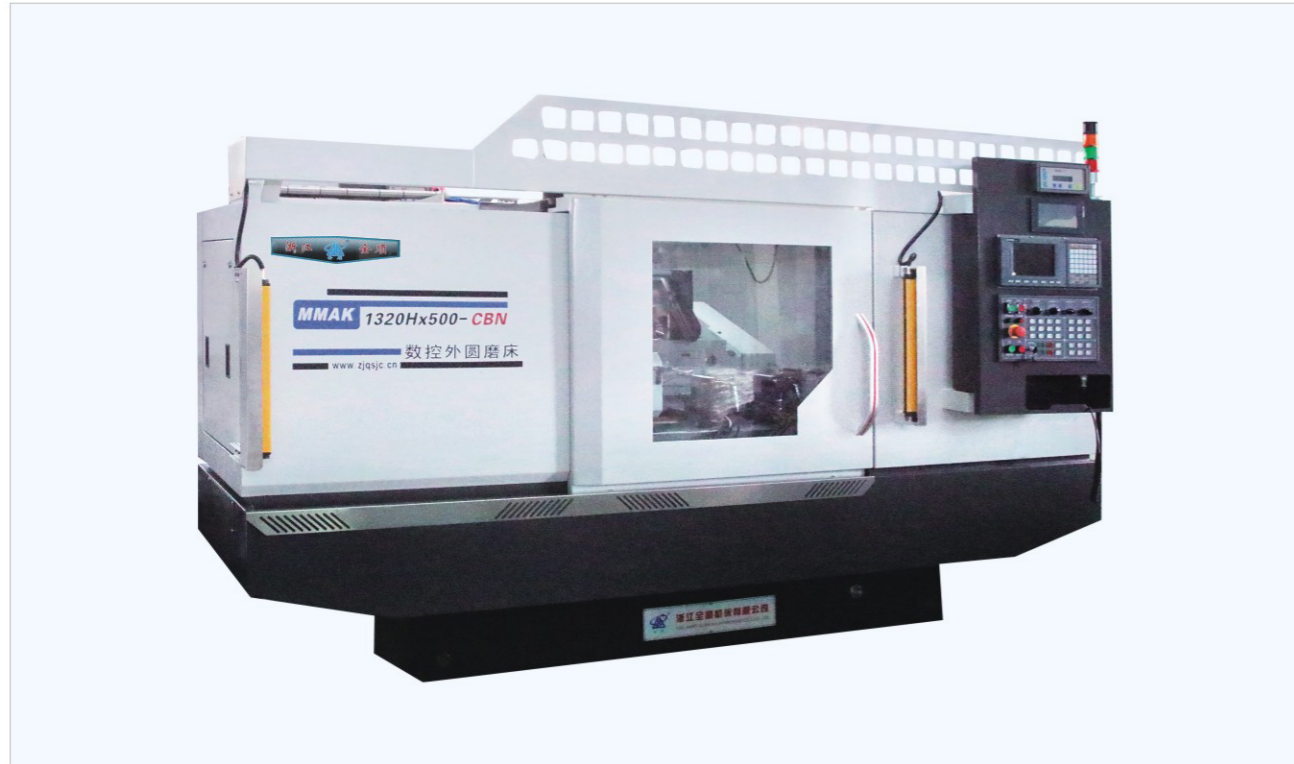
主要技术参数	单位 (unit)	MGK1320H×500/750	MGK1620H×500/750	MGK1332B×1000/1600	MGK1632B×1000/1500
最大磨削直径 Max Grinding Dia	mm	Φ200	Φ200	Φ320	Φ320
最大磨削长度 Max Gringind Lengh	mm	500/750	500/750	1000/1600	1000/1500
最大工件重量 Max Workpiece Weigh	kg	50	50	150	150
中心高 Center Height	mm	135	135	180	180
砂轮规格 Wheel Size	mm	Φ400×50×Φ203	Φ500×50×Φ203	Φ600×75×Φ305	Φ600×75×Φ305
砂轮变频电机功率 Wheelhead Frequency Conversion Motor Power	KW	4	5.5	11	11
砂轮线速度 Wheel Peripheral Velocity	(m/s)	45m/s	45m/s	45m/s	45m/s
砂轮架进给速度 Wheelhead Infeed Speed	mm/min	0.01~2000	0.01~2000	0.01~2000	0.01~2000
工作台移动速度 Worktable Move Speed	mm/min	0.1~4000	0.1~4000	0.1~4000	0.1~4000
X轴最小编程增量 X-axis Resolution	mm	0.0001	0.0001	0.0001	0.0001
Z轴最小编程增量 Z-axis Resolution	mm	0.001	0.001	0.001	0.001
头架伺服电机转速 Workhead Frequency Conversion Roation Speed	rpm	15~600	15~600	15~600	15~600
头架主轴锥孔，尾架锥孔 Workhead Spindle Taper Hole	(莫氏)	4#	4#	5#，4#	5#，4#

工作精度 Working Accuracy

圆度 Roundness	<1.0 μm	表面粗糙度（外圆） Surface roughness (outer circle)	Ra0.05 μm
直线度 Straightness	(<0.001/250mm)	表面粗糙度（端面） Surface roughness (end face)	Ra0.2 μm

**MKS1320-CBN
MKS1332-CBN**

**高速数控外圆磨床
CNC High-speed cylindrical grinding machine**



规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MKS1320×500 /750-CBN	MKS1332×600 /1000/1500/2000/3000-CBN
可磨外圆直径External grinding diameter	(mm)	Φ8~Φ200	Φ8~Φ320
可磨外圆最大磨削长度Maximum grinding length	(mm)	500,750	600,1000,1500,2000,3000
中心高Center height	(mm)	135	180
顶尖距Center distance	(mm)	500,750	600,1000,1500,2000,3000
头架顶尖headstock center	(莫氏morse)	4#	5#
尾架顶尖tailstock center	(莫氏morse)	4#	4# 5# (2000/3000)
可磨工件最大重量Max. weight of workpiece	(Kg)	50	150 500 (special)
砂轮尺寸Wheel size	(mm)	Φ500×B×203	Φ600×B×305
砂轮线速度Linear speed of grinding wheel	(m/s)	100	100
砂轮主轴转速Spindle speed of grinding wheel	(r/min)	3820	3180
X轴最小脉冲当量Min. Pulse amount of X-axis	(mm)	0.001	0.001
Z轴最小脉冲当量Min. Pulse amount of Z-axis	(mm)	0.001	0.001
X向伺服电机X-axis servo motor	(Nm)	11,11	16,16,18,18,28
Z向伺服电机Z-axis servo motor	(Nm)	11,11	16,16,18,18,28
电机总容量Total capacity of motor	(KW)	15,15	25,25,28,28,30

主要用途和特点

Main functions and features

- 本机床为两轴两联动数控高速外圆磨床，加工剪性强，操作简便可靠，并具有高刚度、高效率、高可靠性的特点。
- 机床采用稳定坚固的高牌号HT300铸铁床身，平V导轨由手工铲刮而成。
- 砂轮架主轴采用高刚度套筒式动压主轴，具有回转剪度高，承载能力强的特点。CBN砂轮线速度可达100m/s，满足高效生产。
- 机床工作台和砂轮架的移动均采用交流伺服电机带动高精度滚珠丝杠驱动，进给灵敏。
- 砂轮架进给采用滚柱直线导轨，承载力大，剪剪度高，可以保证砂轮架的进给准确性和低摩擦直线运动。
- 头架采用交流伺服电机通过同步带传动，实现无级调速。
- 砂轮修整可选择多种形式金刚石修整装置，实现复杂砂轮形面的精密修整，且自动补偿。
- 机床配置全防护罩壳，操作安全可靠，便于现场管理。

- This machine is a two-axis two-linkage CNC high-speed cylindrical grinding machine, which has strong processing flexibility, simple and reliable operation, and has the characteristics of high rigidity, high efficiency and high reliability.
- The machine adopts a stable and firm high-grade HT300 cast iron bed, and the flat and V guide is scraped by hand.
- The spindle of the wheelstock adopts a high-rigidity sleeve type dynamic pressure spindle, which has the characteristics of high rotation accuracy and strong bearing capacity. The linear speed of CBN grinding wheel can reach 100m/s, which can meet high-efficiency production.
- The movement of the table and the wheelstock are driven by AC servo motors with high-precision ball screws, and the feed is sensitive.
- The feed of the wheelstock adopts roller linear guide, which has large bearing capacity and high sensitivity, and can ensure the feed accuracy of the wheelstock and low friction linear motion.
- The headstock is driven by an AC servo motor through a synchronous belt to realize stepless speed.
- Various types of diamond dressing devices can be selected for dressing of grinding wheels to realize precise dressing of complex grinding wheel shapes and automatic compensation
- The machine is equipped with a full protective cover, which is safe and reliable in operation and convenient for on-site management.

主要附件 Main Accessories

砂轮修整器 wheel dresser	1套(1set)	卸砂轮拨头 Wheel wrench	1套(1set)
砂轮卡盘 Wheel flange	2套(2set)	纸带式磁性分离过滤水箱 Magnetic paper belt filter water tank	1套(1set)
油雾吸尘器 Oil mist cleaner	1套(1set)	主轴专用油箱 Special oil tank for spindle	1套(1set)
外置液压油箱 Outside hydraulic tank	1套(1set)	平衡轴 Balance shaft	1套(1set)
外圆测量仪 Outer circle measuring instrument	1套(1set)	防撞消空装置 Anti-collision and elimination of empty range device	1套(1set)
砂轮自动平衡仪 Automatic wheel balancer	1套(1set)		

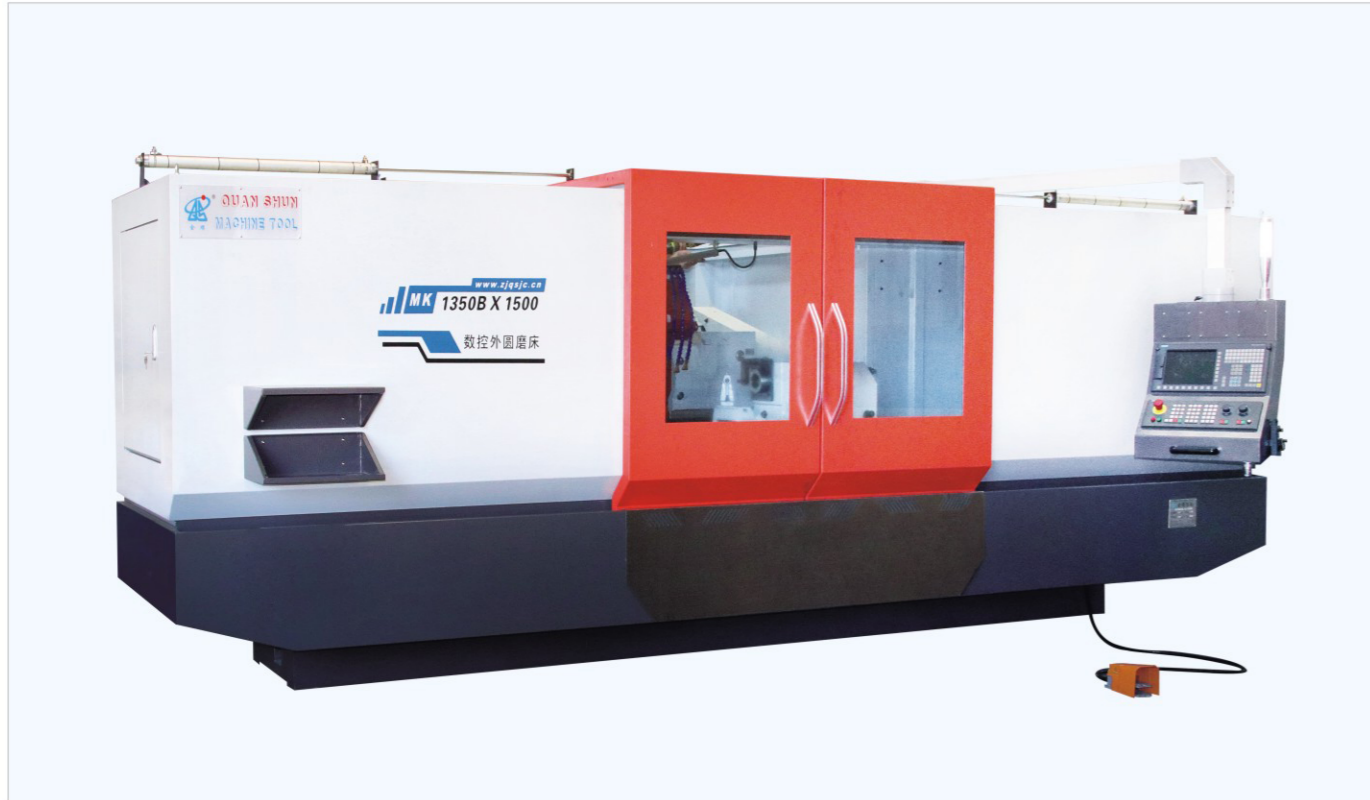
特殊附件 Special accessories

砂轮平衡架 Wheel balance stand	1套(1set)	端面测量仪 End face measuring instrument	1套(1set)
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工作精度 Working Accuracy

圆度 Roundness	1320 /1.5μm	1332/ 2μm	表面粗糙度 Surface roughness	Ra 0.2μm
纵截面内直径一致性 Cylindricity	1320/3 μm	1332/5μm		

MK1350B数控外圆磨床 **M1350B CNC cylindrical grinding machine**
MK1450B数控万能外圆磨床 **M1450B CNC universal cylindrical grinding machine**



主要用途和特点 **Main functions and features**

- MK1350B (MK1450B) 型数控万能外圆磨床，系我公司设计的高性价比数控磨床。该机床主要加工零件的内、外圆柱面、圆锥面等，最适宜单件小批及成批生产车间使用。工件、外圆砂轮、内圆砂轮、油泵和冷却分别由单独电机传动，机床工作台纵向移动和砂轮架横向进给移动均由伺服电机驱动，可以实现自动循环磨削和手动微量进给磨削。
- 工作台导轨采用静压润滑。
- 砂轮主轴由三块扇形轴瓦支撑。
- 机床具有主动测量，自动修整砂轮和自动补偿功能，实现了产品加工的自动化。
- 机床各运动接合面自动润滑，尾架具有夹紧力可调的液压伸缩功能。
- M1350B(MK1450B) cylindrical grinding machine is designed for grinding cylindrical or taper surface of rotational parts. It is highly adaptable for single and small batch production.
- The table traverse is actuated by hydraulic means at infinitely variable speed or operated by hand.
- The grinding wheel spindle is supported by three tilting segmented shoes.
- The system uses double channel control path, enabling simultaneous.
- Grinding products and robotic handling products, improve product cycle times.

规格及主要技术参数 **Main Specifications**

项目Description	单位(unit)	MK1350B	MK1450B
可磨最大直径(外圆/内圆) Max. dia. to be ground	mm	500	500/200
可磨最大工件长度(外圆/内圆) Max. length to be ground	mm	1500,2000,3000,4000	1500,2000,3000,4000/320
最大工件重量 Max. workpiece weight	kg	1000	1000
砂轮尺寸(外径×宽×内径) Wheel size (O.D. ×W×I. D)	mm	Φ750×75×Φ305	Φ500×75×Φ305
砂轮主轴转速 Wheel spindle rotation speed	r/min	892	1338
中心高 Center height	mm	270	270
工作台最大移动量 Max. worktable traverse	mm	1500,2000,3000,4000	1500,2000,3000,4000
工作台移动速度 Max. worktable travel speed	m/min	10	10
砂轮线速度 Wheel peripheral speed	m/s	35	35
尾架顶尖 Tailstock center	(莫氏)	6#	6#
X轴最小脉冲当量 The X axis minimum pulse equivalent	(mm)	0.001	0.001
Z轴最小脉冲当量 The Z axis minimum pulse equivalent	(mm)	0.001	0.001
冷却液流量 Coolant flow	L/min	50	50
电机总功率 Total motor power	KW	20.63	14.08
机床重量(净重) Machine weight(net weight)	kg	8400,9700,11200,12800	8600,9900,11350,13100
外形尺寸(长×宽×高) Overall dimensions(L × W × H)	mm	(1500)5320x2140x1550 (2000)6090x2140x1550 (3000)10240x2140x1550 (4000)12280x2140x1550	5320x2680x1560 6090x2680x1560 10240x2680x1560 12280x2680x1560

主要附件 **Main Accessories**

冷却设备 Coolant equipment	1套(1set)	砂轮外圆修整器 Wheel periphery dresser	1套(1set)
砂轮法兰 Wheel hub	2套(2sets)	砂轮平衡轴 Wheel balancing-mandrel	1套(1set)
机床垫铁(可磨长度) Leveling wedge (length to be ground)	(1500/2000/3000/4000mm) 12/12/18/22套sets	内圆磨具(1450带) Internal grinding attachment	1套(1set)

特殊附件 **Extra Accessories**

砂轮平衡架 Wheel Balancing stand	1套(1set)	磁性分离器 Magnetic separator	1套(1set)
圆弧修整器(1450带) Radius dresser	1套(1set)	封闭式中心架 close-type steady-rest	2套(2sets)
砂轮端面修整器 Wheel endface dresser	1套(1set)	开式中心架(可磨长度) Open-type steady-rest(length to be ground)	(1500/2000/3000mm) 1/2/3套

工作精度 **Working Accuracy**

圆度(外圆/内圆) Roundness	2.5μm	表面粗糙度(外圆/内圆) Surface roughness	0.32/0.63μm
纵截面内直径的一致性(外圆/内圆) Dia. uniformity in the longitudinal. Section	8μm		

MK1350T1数控外圆磨床 CNC cylindrical grinding machine
MK1650T1数控端面外圆磨床 CNC end face and cylindrical grinding machine



主要用途和特点 Main functions and features

- MK1650T1型数控（端面）外圆磨床是我公司自行设计开发制造的砂轮架移动式大型数控机床产品。本系列机床适用于大型轴类零件成批或大批量生产场合，是操作简便、性能可靠、加工精度高的大型数控外圆磨床。
- 采用西门子828的三轴联动数控系统。由交流伺服电机经精密减速机分别控制头架（C轴）、砂轮架进给（X轴）和十字滑台移动（Z1轴）。
- 砂轮主轴采用高刚度动静压主轴系，具有回转精度高，承载能力强的特点。砂轮线速度达45m/s。
- 头架（C轴）由伺服电机控制同步带传动确保磨削稳定可靠。可实现自动化上下料。
- 尾架采用伺服恒力自动顶紧机构。顶紧力可调，确保磨削精度。
- 砂轮修整可选择多种形式金刚石修整装置，实现复杂砂轮形面的精密修整，且自动补偿。
- 带有端面定位和外圆在线量仪以确保工件尺寸稳定。
- 可选配数控或液压驱动自动跟踪中心架，用于细长轴类零件加工轴类零件加工。

- MK1650T1 CNC (end face) cylindrical grinding machine is a large-scale mobile CNC machine tool designed and manufactured by our company. This series of machine is suitable for large-scale shaft parts production in batches or mass production. It is a large-scale CNC cylindrical grinding machine with easy operation, reliable performance and high machining accuracy.
- Using Siemens 828's three-axis linkage CNC system. The AC servo motor controls the headstock (C axis), the grinding wheel frame feed (X axis) and the movement of the cross slide (Z1 axis) respectively through a precision reducer.
- The grinding wheel spindle adopts a high-rigidity dynamic and static pressure spindle system, which has the characteristics of high rotation accuracy and strong load-bearing capacity. The linear speed of the grinding wheel is up to 45m/s.
- The headstock (C axis) is driven by a synchronous belt wheel controlled by a servo motor to ensure stable and reliable grinding. Can realize automatic loading and unloading.
- The tailstock adopts a servo constant force automatic tightening mechanism. The tightening force is adjustable to ensure grinding accuracy.
- Various types of diamond dressing devices can be selected for dressing of grinding wheels to realize precise dressing of complex grinding wheel shapes and automatic compensation.
- Equipped with end face positioning and external circle online measuring instrument to ensure the dimensional stability of the workpiece.
- Optional CNC or hydraulic drive automatic tracking center frame, used for slender shaft parts processing shaft parts processing.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MK1350T1	MK1650T1
可磨外圆直径External grinding diameter	(mm)	Φ30~Φ500	Φ30~Φ500
可磨外圆最大磨削长度Maximum grinding length	(mm)	1000,1500,2000,3000	1000,1500,2000,3000
中心高Center height	(mm)	270	270
顶尖距Center distance	(mm)	1100,1600,2100,3100	1100,1600,2100,3100
头架顶尖headstock center	(莫氏morse)	6#	6#
尾架顶尖tailstock center	(莫氏morse)	6#	6#
可磨工件最大重量Max. weight of workpiece	(Kg)	1000	1000
砂轮尺寸Wheel size	(mm)	Φ750×(90-280)×305	Φ750×(90-280)×305
砂轮线速度Linear speed of grinding wheel	(m/s)	45	45
砂轮主轴转速Spindle speed of grinding wheel	(r/min)	1146	1146
X轴最小脉冲当量Min. Pulse amount of X-axis	(mm)	0.001	0.001
Z1轴最小脉冲当量Min. Pulse amount of Z-axis	(mm)	0.001	0.001
X向伺服电机X-axis servo motor	(Nm)	22,22,22,22	22,22,22,22
Z1向伺服电机Z-axis servo motor	(Nm)	22,22,22,22	22,22,22,22
电机总容量Total capacity of motor	(KW)	35	35

主要附件 Main Accessories

砂轮外圆端面修整器 Grinding wheel outer circle and end face dresser	1套(1set)	卸砂轮拨头 Wheel wrench	1套(1set)
砂轮卡盘 Wheel flange	2套(2set)	磁性分离过滤水箱 Magnetic paper belt filter water tank	1套(1set)
油雾吸尘器 Oil mist cleaner	1套(1set)	主轴专用油箱 Special oil tank for spindle	1套(1set)
外置液压油箱 Outside hydraulic tank	1套(1set)	平衡轴 Balance shaft	1套(1set)
外圆测量仪 Outer circle measuring instrument	1套(1set)	端面测量仪 End face measuring instrument	1套(1set)
机床垫铁 leveling wedge	1000/12套, 1500/14套, 2000/16套, 3000/18套		

特殊附件 Special accessories

砂轮平衡架 Wheel balance stand	1套(1set)	开式中心架 Open steady rest	1套(1set)
防撞消空程装置 Anti-collision and elimination of empty range device	1套(1set)	砂轮自动平衡仪 Automatic wheel balancer	1套(1set)
自定心液压中心架 Self-centering hydraulic center stand	多套(Many sets)		

工作精度 Working Accuracy

圆度 Roundness	5μm	表面粗糙度 Surface roughness	Ra 0.32μm
纵截面内直径一致性 Cylindricity	8μm/1000mm		

MK1350T2双砂轮架数控外圆磨床 CNC Cylindrical Grinding Machine with Double Grinding Wheelstock
MK1650T2双砂轮架数控端面外圆磨床 CNC end face and cylindrical Grinding Machine with Double Grinding Wheelstock



主要用途和特点 Main functions and features

- 本机床为四轴两联动数控（端面）外圆磨床，可以一次对汽车或火车车轴的两端外圆、端面和圆弧进行同时加工。具有效率高、精度高操作简单等特点。有很高的性价比，可实现一人操作多台机床。
- 采用西门子828的四轴两联动数控系统。由交流伺服电机经精密减速机分别控制头架（C轴）、双砂轮架进给（X1、X2轴）和双滑台移动（Z1、Z2轴）。
- 砂轮架采用采用动静压轴承结构，回转精度高，刚性大，可实现宽砂轮磨削。具有变频调速功能，实现砂轮分段45m/s恒线速磨削，保证砂轮主轴工作稳定可靠。
- 头架（C轴）由伺服电机控制同步带轮传动确保磨削稳定可靠。可实现自动化上下料。
- 尾架采用伺服恒力自动顶紧机构。顶紧力可调，确保磨削精度。
- 砂轮修整方式为前置双金刚石笔修整，实现自动修整自动补偿。并可实现对砂轮外圆、端面、圆弧修整。
- 带有端面定位和外圆在线量仪以确保工件尺寸稳定。

- This machine is a four-axis two-linkage CNC (end face) cylindrical grinding machine, which can simultaneously process the outer circle, end face and arc of both ends of the car or train axle at one time. It has the characteristics of high efficiency, high precision and simple operation. It has a very high cost performance, and one person can operate several machine.
- The machine adopts Siemens 828's four-axis two-linkage CNC system. The AC servo motor controls the headstock (C axis), the feed of the double grinding wheelstock (X1, X2 axis) and the movement of the double sliding table (Z1, Z2 axis) respectively through the precision reducer.
- The grinding wheelstock adopts a dynamic and static pressure bearing structure, which has high rotation accuracy and high rigidity, which can realize wide grinding wheel grinding. It has the function of frequency conversion speed regulation to realize the grinding wheel segmentation 45m/s constant linear speed grinding to ensure the stable and reliable operation of the grinding wheel spindle.
- The headstock (C axis) is driven by a synchronous belt wheel controlled by a servo motor to ensure stable and reliable grinding. Can realize automatic loading and unloading.
- The tailstock adopts a servo constant force automatic tightening mechanism. The tightening force is adjustable to ensure grinding accuracy.
- The grinding wheel dressing method is the front double diamond pen dressing, which realizes automatic dressing and automatic compensation. It can dress the outer circle, end face and circular arc.
- The machine is equipped with end face positioning and external circle online measuring instrument to ensure the stability of the workpiece size.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MK1350T2×3000/4000	MK1650T2×3000/4000
可磨外圆直径 External grinding diameter	(mm)	Φ30~Φ500	Φ30~Φ500
可磨外圆最大磨削长度 Maximum grinding length	(mm)	1000mm (两端) /1500	1000mm (两端) /1500
中心高 Center height	(mm)	270	270
顶尖距 Center distance	(mm)	3100/4100	3100/4100
头架顶尖 headstock center	(莫氏morse)	6#	6#
尾架顶尖 tailstock center	(莫氏morse)	6#	6#
可磨工件最大重量 Max. weight of workpiece	(Kg)	1000	1000
砂轮尺寸 Wheel size	(mm)	Φ750×(90-280)×305	Φ750×(90-280)×305
砂轮线速度 Linear speed of grinding wheel	(m/s)	45	45
砂轮主轴转速 Spindle speed of grinding wheel	(r/min)	1146	1146
X1, X2轴最小脉冲当量 Min. Pulse amount of X1 and X2-axis	(mm)	0.001	0.001
Z1, Z2轴最小脉冲当量 Min. Pulse amount of Z1 and Z2-axis	(mm)	0.001	0.001
X1, X2向伺服电机 X1 and X2 -axis servo motor	(KW)	22Nm	22Nm
Z1, Z2向伺服电机 Z1 and Z2 -axis servo motor	(KW)	22Nm	22Nm
电机总容量 Total capacity of motor	(KW)	60	60

主要附件

砂轮外圆端面修整器 Grinding wheel outer circle and end face dresser	1套(1set)	卸砂轮拨头 Wheel wrench	1套(1set)
砂轮卡盘 Wheel flange	2套(2set)	磁性分离过滤水箱 Magnetic paper belt filter water tank	1套(1set)
油雾吸尘器 Oil mist cleaner	1套(1set)	主轴专用油箱 Special oil tank for spindle	1套(1set)
外置液压油箱 Outside hydraulic tank	1套(1set)	平衡轴 Balance shaft	1套(1set)
外圆测量仪 Outer circle measuring instrument	1套(1set)	端面测量仪 End face measuring instrument	1套(1set)
机床垫铁 leveling wedge	18套(18sets)		

特殊附件 Special accessories

砂轮平衡架 Wheel balance stand	1套(1set)	开式中心架 Open steady rest	1套(1set)
防撞消空程装置 Anti-collision and elimination of empty range device	1套(1set)	砂轮自动平衡仪 Automatic wheel balancer	1套(1set)
自定心液压中心架 Self-centering hydraulic center stand	多套(Many sets)		

工作精度 Working Accuracy

圆度 Roundness	5μm	表面粗糙度 Surface roughness	Ra 0.32μm
纵截面内直径一致性 Cylindricity	8μm/1000mm		

MC600 高精度复合磨削中心
MC1000 High-precision Compound Grinding Center



主要用途和特点 Main functions and features

• MC系列高精度复合磨削中心是典型的工序复合磨床。采用先进的柔性复合磨削加工技术，以多种砂轮的组合形式形成，一次装夹完成工件的外圆、端面、内圆、锥面、非圆、曲面等部位的磨削加工，完全改变了多台机床分序加工的加工方式，本机床所采用的内外圆复合磨削技术在国内属于行业前沿。

• The MC series high-precision compound grinding center is a typical process compound grinding machine. It adopts advanced flexible compound grinding technology and is formed by a combination of multiple grinding wheels. The grinding process of the outer circle, end surface, inner circle, cone, non-circle, curved surface and other parts of the workpiece can be completed in one clamping, which completely changes the processing method of multiple machine tools in sequence processing. The internal and external composite grinding technology adopted by this machine tool is at the forefront of the industry in China.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MC600	MC1000
可磨外圆直径External grinding diameter	(mm)	Φ8~Φ320	Φ8~Φ320
可磨外圆最大磨削长度Maximum grinding length	(mm)	600	1000
中心高Center height	(mm)	140	140
顶尖距Center distance	(mm)	600	1000
头架顶尖headstock center	(morse)	4#	4#
尾架顶尖tailstock center	(morse)	4#	4#
可磨工件最大重量Max. weight of workpiece	(Kg)	100	100
砂轮尺寸Wheel size	(mm)	外圆Φ400×50×127	端面Φ250×30×127
砂轮线速度Linear speed of grinding wheel	(m/s)	35	63
砂轮主轴转速Spindle speed of grinding wheel	(r/min)	1646	3000
X轴最小脉冲当量Min. Pulse amount of X-axis	(mm)	0.001	0.001
Z轴最小脉冲当量Min. Pulse amount of Z-axis	(mm)	0.001	0.001
X向伺服电机X-axis servo motor	(Nm)	11	16
Z向伺服电机Z-axis servo motor	(Nm)	11	16
电机总容量Total capacity of motor	(KW)	18	24

主要附件 Main Accessories

砂轮修整器 Wheel dresser	1套(1set)	卸砂轮拨头 Wheel wrench	1套(1set)
砂轮卡盘 Wheel flange	大小各2套(2 sets for each size)	纸带式磁性分离过滤水箱 Magnetic paper belt filter water tank	1套(1set)
外置液压油箱 Outside hydraulic tank	1套(1set)	平衡轴 Balance shaft	1套(1set)
内圆磨削主轴 Internal grinding spindle	1套(1set)	外圆测量仪 Outer circle measuring instrument	1套(1set)
端面测量仪 End face measuring instrument	1套(1set)		

特殊附件 Special accessories

砂轮平衡架 Wheel balance stand	1套(1set)	防撞消空装置 Anti-collision and elimination of empty range device	1套(1set)
砂轮自动平衡仪 Automatic wheel balancer	1套(1set)		

工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	外圆(O.D)Ra 0.32μm 端面内孔End face and I.D)Ra 0.6μm
纵截面内直径一致性 Cylindricity	3μm		

MC600T宽砂轮数控外圆磨床

CNC cylindrical grinding machine with wide grinding wheel



主要用途和特点

Main functions and features

● MC600T型数控外圆磨床是我公司自行设计开发制造的宽砂轮数控机床产品，本系列机床适用于轴类零件成批或大批量生产场合，该机型操作简单、性能可靠、加工精度高。● 砂轮可安装砂轮宽200mm，针对磨削较长的轴类零件。● 砂轮主轴采用高精度动压主轴，具有回转精度高、高刚性、长寿命。● 标配采用台湾新世代数控系统（可根据客户需要配置其他系统）● 配置高精度自动测量仪，实现闭环自动磨削循环，保证加工尺寸精度。● 具有自动修整砂轮和自动补偿功能。

规格及主要技术参数

Main Specifications

项目Description	MC600T
磨削直径范围 grinding diameter	Φ8~Φ320mm
两顶尖距离Center distance	600mm
中心高center height	180mm
工件重量Max. weight of workpiece	150Kg
工作台Z轴 Table Z Axis	
工作台行程Table stroke	700mm
移动速度 movement speed	0.01-8000mm/min
分辨率resolution	0.001mm
Z轴AC伺服马达Z-axis AC servo motor	5.9KW
工作台最大回转角度 Maximum turning Angle of worktable	顺时针clockwise 7° 逆时针counterclockwise 3°
头架 Headstock	
工件主轴AC伺服马达 Workpiece spindle AC servo motor	3.1KW
顶尖号 center taper	5#
头架壳体回转可能性 Headstock rotation possibility	不可回转impossible
尾架 Tail stock	

FHM32-1 FHM50-2 数控复合磨床

CNC compound grinding mamchine



主要用途和特点

Main functions and features

● 本机床为三轴联动数控复合磨床，可以通过一次装夹就完成零件的内圆、外圆、端面、锥面等的复合磨削工序，具有高效率、高精度、操作方便可靠等特点。● 砂轮架主轴采用高刚度滚动轴承主轴系，具有回转精度高，承载能力强的特点。砂轮线速度45m/s。● 机床砂轮架的进给机构X1、X2轴和Z轴移动采用大规格直线导轨。并且Z轴进给移动配有光栅尺保证了磨削进给准确性。● 头架采用交流伺服电机通过同步带传动，实现无级调速。● 内圆磨具支架安装在砂轮进给X2横进体壳上，主轴采用滚动轴承结构。转速10000RPM，也可配电主轴磨头。● 砂轮修整方式为前后置两套金刚笔修整，分别修整内外圆砂轮，并能实现自动修整自动补偿。

规格及主要技术参数

Main Specifications

项目Description	FHM32-1/FHM50-2	
中心高center height	240mm/300mm	
夹持外圆直径磨削范围grinding diameter(O.D)	Φ50~Φ320mm/ Φ50~400mm	
内圆直径磨削范围grinding diameter(I.D)	Φ20~Φ200mm/ Φ20~Φ300mm	
工件最大磨削重量Max. weight of workpiece	50Kg	
磨削工件长度磨削范围Max.grinding length	150mm/100mm	
伺服头架 Servo headstock	主轴内孔莫氏锥度Morse taper	MT5/MT6
	转速speed	36~300r/min
砂轮Wheel	尺寸Wheel size	Φ400×50×203
	线速度Linear speed	≤45m/s
外圆砂轮架 Wheel stock(O.D)	最大移动量Max. movement	500mm/400mm
	主轴线倾斜角度Spindle tilt Angle	30°
	主轴电机功率Spindle motor power	4kW

项目Description	FHM32-1/FHM50-2	
内圆磨具 Internal grinding tools	内圆主轴转速Inner spindle speed	10000RPM
	最大移动量Max.movement	600mm/500mm
	内圆主轴功率Inner spindle power	1.5kw/10kw
头架进给机构 Headstock feed mechanism	型式Type	两层可回头架
	纵向最大移动量 Max. Longitudinal movement	600mm/500mm
	移动速度Movement speed	0.5~5m/min
	驱动伺服电机最小分辨率 Minimum resolution of drive servo motor	0.001mm
机床总功率Total power	20KW/28KW	
外圆圆度Roundness(O.D)	≤0.0015mm	
内圆圆度Roundness(I.D)	≤0.0015mm	
纵截面直径一致性Cylindricity	≤0.003mm	
外圆表面粗糙度Surface roughness(O.D)	≤Ra 0.32μm	

MK-F50数控双磨头外圆磨床 CNC double grinding head cylindrical grinding machine



主要用途和特点

Main functions and features

●MK-F50×(1000-3000)型数控(端面)外圆磨床是我公司自行设计开发制造的大型数控机床产品。本系列机床适用于大型轴类零件成批或大批量生产场合,解决了粗磨一次装夹联合磨削和成型砂轮同普通砂轮联动磨削的工序。●采用西门子828的三轴两联动数控系统。由交流伺服电机分别控制双砂轮架进给(X1、X2轴)和工作台移动(Z轴)。●砂轮主轴采用高刚度动静压主轴系,具有回转精度高,承载能力强的特点。砂轮线速度达45m/s。●头架(C轴)由伺服电机控制同步带轮传动确保磨削稳定可靠。可实现自动化上下料。●尾架采用伺服恒力自动顶紧机构。顶紧力可调,确保磨削精度。●砂轮修整可选择多种形式金刚石修整装置,实现复杂砂轮形面的精密修整,且自动补偿。●通过端面测头轴向定位,两套外圆量仪分别控制两处外圆磨削,实现外径磨削闭环控制。

规格及主要技术参数 Main Specifications

项目Description	MK-F50/(1000-1500-2000-3000)	
中心高center height	270mm	
磨削直径grinding diameter	Φ30~Φ500mm	
回转直径Diameter of rotation	Φ540mm	
最大磨削长度Max.grinding length	1000 1500 2000 3000	
顶尖距Center distance	1100 1100 2100 3100	
中心高center height	270mm	
工件最大磨削重量Max. weight of workpiece	1000Kg	
头架Headstock	顶尖孔莫氏锥度 Morse taper	莫氏6号 MT6
	转速speed	15~500r/min
尾架Tail stock	顶尖孔莫氏锥度 Morse taper	莫氏6号MT6
	套筒移动量 Sleeve movement	70mm
砂轮Wheel	尺寸Wheel size	A: Φ750×100×305 B: Φ750×75×305
	线速度Linear speed	≤45m/s

MK8332L-2000数控拉刀专用外圆磨床 CNC broach special cylindrical grinder



主要用途和特点

Main functions and features

●本机床控制系统采用西门子828D三轴数控系统和数字式交流伺服驱动,通过三轴三联动控制实现螺旋面磨削,一次装夹完成螺旋锥面及外圆轮廓。●砂轮主轴采用滚动轴承结构,回转精度高,刚性大;保证砂轮主轴工作稳定可靠。●机床工作台和砂轮架的移动均采用交流伺服电机带动滚珠丝杠驱动,进给灵敏。砂轮架进给X轴带有光栅尺,以提高定位精度。●砂轮架进给采用滚柱直线导轨,承载能力大,灵敏度高,保证了砂轮架的进给准确性。●机床头架配备伺服电机通过齿轮传动实现同步旋转,与砂轮架进给X轴实现联动。●砂轮修整采用金刚滚轮修整装置,实现复杂砂轮形面的精密修整,且自动补偿。●机床配置全防护罩壳,操作安全可靠,便于现场管理。

规格及主要技术参数 Main Specifications

项目Description	MK8332L-2000	
中心高center height	180mm	
磨削直径 grinding diameter	Φ8~Φ320mm	
最大磨削长度Max.grinding length	2000mm	
顶尖距Center distance	2200mm	
工件最大磨削重量Max. weight of workpiece	150Kg	
伺服专用头架 Servo special headstock	顶尖孔莫氏锥度Morse taper	莫氏5号 MT5
	转速speed	60~300r/min
尾架Tailstock	顶尖孔莫氏锥度Morse taper	莫氏4号 MT4
	套筒移动量Sleeve movement	40mm
砂轮Wheel	CBN砂轮尺寸CBN Wheel size	Φ500×B×203
	线速度Linear speed	≤100m/s
砂轮架Wheelstock	最大移动量Max. movement	300mm
	主轴电机功率 Spindle motor power	11kW

项目Description	MK-F50/(1000-1500-2000-3000)	
砂轮架(A、B) Wheel stock	最大移动量 Max. movement	400mm
	主轴线倾斜角度 Spindle tilt Angle	0°
	主轴电机功率 Spindle motor power	15kW
工作台worktable	型式Type	可调锥度Adjustable taper
	上工作台最大回转角度 Max. turning Angle of upper table	
	驱动伺服电机最小分辨率 Minimum resolution of drive servo motor	0.001mm
横进给机构 Transverse feed mechanism	交流伺服电机扭矩 Ac servo motor torque	22Nm
	驱动伺服电机最小分辨率 Minimum resolution of drive servo motor	0.0001mm
机床总功率Total power	40kW	
外圆圆度Roundness	≤0.003	
纵截面直径一致性Cylindricity	≤0.008/1000	
外圆表面粗糙度Surface roughness	≤Ra 0.32μm	

项目Description	MK8332L-2000		
工作台 worktable	型式Type	两层调锥工作台 Two level taper table	
	上工作台最大回转角度 Max. turning Angle of upper table	顺时针 clockwise	3°
		逆时针 counterclockwise	3°
	纵向最大移动量 Max. Longitudinal movement	2200mm	
	移动速度 Movement speed	0.5~5m/min	
	驱动伺服电机扭矩 Drive servo motor torque	16Nm	
横进给机构 Transverse feed mechanism	驱动伺服电机最小分辨率 Minimum resolution of drive servo motor	0.001mm	
	交流伺服电机扭矩 Ac servo motor torque	16Nm	
外圆圆度 Roundness	纵截面直径一致性 Cylindricity	≤0.005mm	
	外圆表面粗糙度Surface roughness	≤Ra 0.2μm	

MGK8320高精度数控异形外圆磨床 MGK8320 High-precision CNC special-shaped cylindrical grinding machine



主要用途和特点 Main functions and features

- 本机床为三轴联动数控高速磨床，用于磨削偏心轴、凸轮及其他异形外圆轮廓。具有效率高、精度高操作简单等特点。
- 机床控制采用日本钹纳克数控系统。通过数字式交流伺服驱动控制三轴联动，实现随动偏心磨削。一次装夹完成外圆及异形外圆轮廓磨削。
- CBN砂轮由静压电主轴直接驱动，具有回转精度高，精度保持性好，刚性强的特点。CBN砂轮线速度80m/s以上。
- 头架（C轴）由高精度伺服力矩电机直接驱动主轴，配进口光栅保证磨削稳定可靠。
- 砂轮修整方式为前置金刚滚轮，实现自动修整并自动补偿。可实现对砂轮外圆、端面、圆弧修整。
- 具有自主知识产权的曲轴和凸轮轴数控磨削软件。

- This machine is a three-axis linkage CNC high-speed grinder, used for grinding eccentric shafts, cams and other special-shaped outer contours. It has the characteristics of high efficiency, high precision and simple operation.
- The machine is controlled by the Japanese LYNOC CNC system. Three-axis linkage is controlled by digital AC servo drive to realize follow-up eccentric grinding. Grinding the outer circle and special-shaped outer circle contours in one clamping.
- The CBN grinding wheel is directly driven by a static piezoelectric spindle, which has the characteristics of high rotation accuracy, good accuracy retention, and strong rigidity. CBN grinding wheel linear speed above 80m/s
- The headstock (C axis) is directly driven by the high-precision servo torque motor to drive the spindle, and is equipped with imported grating to ensure stable and reliable grinding.
- The grinding wheel dressing method is the front diamond roller, which realizes automatic dressing and automatic compensation. It can dress the outer circle, end face and circular arc
- Crankshaft and camshaft CNC grinding software with independent intellectual property rights.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MGK8320*300
可磨外圆直径External grinding diameter	(mm)	Φ5 ~ Φ200
可磨外圆最大磨削长度 Maximum grinding length	(mm)	250 两顶针Center distance
X轴最大行程 Max. stroke of X-axis	(mm)	370
Z轴最大行程 Max. stroke of Z-axis	(mm)	270
X轴直线电机推力(进给轴,工件头架轴) X-axis linear motor thrust (feed axis, workpiece headstock axis)	(Nm)	2200
X轴伺服电机功率(进给轴,砂轮架轴) X-axis servo motor power (feed axis, wheelstock axis)	(kw)	1.5
工件头架电机功率(直驱)Workhead motor power (direct drive)	(Nm)	1500
头架电机转速范围Speed range of headstock motor	(rpm)	0-100
工作头旋转角度(标准配置手动)旋转型 Working head rotation angle (standard configuration is manual) rotary type	(Deg)	±15
磨削砂轮主轴转速(标准配置电主轴) Spindle speed of grinding wheel (standard configuration is electric spindle)	(rpm)	4000(电主轴)electric spindle
砂轮尺寸Wheel size	(mm)	Φ400*40*203
砂轮线速度Linear speed of grinding wheel	(m/s)	80
X轴/Z轴最小进给单位X-axis/Z-axis minimum feed unit	(mm)	0.001
X轴/Z轴最小解析单位X-axis/Z-axis minimum analytical unit	(mm)	0.001
头架最小旋转角度(特殊配置可添加DD电机自动旋转)The minimum rotation angle of the headstock (special configuration can add DD motor to automatically rotate)	(度)	0.001
电机总容量Total capacity of motor	(KW)	18

主要附件 Main Accessories

金刚滚轮修整器 Diamond roller dresser	1套(1set)	卸砂轮拨头 Wheel wrench	1套(1set)
砂轮卡盘 Wheel flange	2套(2set)	纸带式磁性分离过滤水箱 Magnetic paper belt filter water tank	1套(1set)
油雾吸尘器 Oil mist cleaner	1套(1set)	主轴专用油箱 Special oil tank for spindle	1套(1set)
CBN砂轮 CBN wheel	1片(1piece)	平衡轴 Balance shaft	1套(1set)
机床垫铁 leveling wedge	10套(1set)		

特殊附件 Special accessories

砂轮平衡架 Wheel balance stand	1套(1set)	外圆测量仪 Outer circle measuring instrument	1套(1set)
防撞消空程装置 Anti-collision and elimination of empty range device	1套(1set)	砂轮自动平衡仪 Automatic wheel balancer	1套(1set)

工作精度 Working Accuracy

圆度 Roundness	1.5μm	表面粗糙度 Surface roughness	Ra 0.32μm
纵截面内直径一致性 Cylindricity	3μm		

MK8320H MK8350 数控螺套专用磨床
MK8332B CNC screw sleeve special grinding machine



主要用途和特点 Main functions and features

- 本机床为三轴联动数控专用磨床，用于加工螺套、凸轮及其他异形外圆轮廓。具有效率高、精度高操作简单等特点。有很高的性价比，可实现一人操作多台机床。
 - 采用西门子828D三轴联动数控系统。由交流伺服电机经精密减速机分别控制头架（C轴）、砂轮架进给（X轴）和工作台移动。
 - 砂轮架采用采用动静压轴承结构，回转精度高，刚性大，可实现宽砂轮磨削。具有变频调速功能，实现砂轮分段45m/s恒线速磨削，保证砂轮主轴工作稳定可靠。
 - 头架（C轴）由伺服电机带动高精度齿轮传动确保磨削稳定可靠。
 - 砂轮修整方式为前置金刚石滚轮修整，实现自动修整自动补偿。并可实现对砂轮外圆、端面、圆弧修整。
- 具有自主知识产权的螺套和凸轮数控磨削软件。

- This machine is a three-axis linkage CNC special grinder, which is used to process threaded sleeves, cams and other special-shaped outer contours. It has the characteristics of high efficiency, high precision and simple operation. It has a very high cost performance, and one person can operate several machine.
- The machine adopts Siemens 828D three-axis linkage CNC system. The AC servo motor controls the headstock (C axis), the grinding wheel frame feed (X axis) and the movement of the worktable respectively through a precision reducer.
- The grinding wheelstock adopts a dynamic and static pressure bearing structure, which has high rotation accuracy and high rigidity and can realize wide grinding wheel grinding. It has the function of frequency conversion speed regulation to realize the grinding wheel segmentation 45m/s constant linear speed grinding to ensure the stable and reliable operation of the grinding wheel spindle.
- The headstock (C axis) is driven by a high-precision gear driven by a servo motor to ensure stable and reliable grinding.
- The grinding wheel dressing method is the front diamond roller, which realizes automatic dressing and automatic compensation. It can dress the outer circle, end face and circular arc.
- Grinding software for screw sleeves and cams with independent intellectual property rights.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	MK8320H×500	MK8332B×1000	MK8350×1000 /1500/2000/3000
可磨外圆直径External grinding diameter	(mm)	Φ8~Φ200	Φ8~Φ320	Φ30~Φ500
可磨外圆最大磨削长度Maximum grinding length	(mm)	500	1000	1000,1500,2000,3000
中心高Center height	(mm)	135	180	270
顶尖距Center distance	(mm)	500	1000	1000,1500,2000,3000
头架顶尖headstock center	(莫氏morse)	4#	5#	6#
尾架顶尖tailstock center	(莫氏morse)	4#	4#	6#
可磨工件最大重量Max. weight of workpiece	(Kg)	50	150	1000
砂轮尺寸Wheel size	(mm)	Φ400×50×Φ203	Φ600×75×Φ305	Φ750×(100-180)×305
砂轮线速度Linear speed of grinding wheel	(m/s)	45	45	45
砂轮主轴转速Spindle speed of grinding wheel	(r/min)	2150	1433	1146
X轴最小脉冲当量Min. Pulse amount of X-axis	(mm)	0.001	0.001	0.001
Y轴最小脉冲当量Min. Pulse amount of Y-axis	(mm)	0.001	0.001	0.001
X向伺服电机X-axis servo motor	(Nm)	1.6(6Nm)	3.3(16Nm)	22,22,22,22
Z向伺服电机Z-axis servo motor	(Nm)	1.6(6Nm)	3.3(16Nm)	22,22,22,22
电机总容量Total capacity of motor	(KW)	10.825	21.475	35

主要附件 Main Accessories

金刚滚轮修整器 Diamond roller dresser	1套(1set)	卸砂轮拨头 Wheel wrench	1套(1set)
砂轮卡盘 Wheel flange	2套(2set)	磁性分离过滤水箱 Magnetic belt filter water tank	1套(1set)
油雾吸尘器 Oil mist cleaner	1套(1set)	主轴专用油箱 Special oil tank for spindle	1套(1set)
外置液压油箱 Outside hydraulic tank	1套(1set)	平衡轴 Balance shaft	1套(1set)
机床垫铁 leveling wedge	1000/12套, 1500/14套, 2000/16套, 3000/18套		

特殊附件 Special accessories

砂轮平衡架 Wheel balance stand	1套(1set)	外圆测量仪 Outer circle measuring instrument	1套(1set)
开式中心架 Open steady rest	1套(1set)	防撞消空程装置 Anti-collision and elimination of empty range device	1套(1set)
砂轮自动平衡仪 Automatic wheel balancer	1套(1set)		

工作精度 Working Accuracy

圆度 Roundness	5μm	表面粗糙度 Surface roughness	Ra 0.32μm
纵截面内直径一致性 Cylindricity	8μm/1000mm		

QMK8240×1000
QMK8260×1000/1500

数控曲轴磨床
CNC crankshaft grinding machine



主要用途和特点

Main functions and features

- 本系列数控磨床是一种操作方便, 适用性广的曲轴磨床, 适应磨削曲轴的曲柄颈、主轴颈, 也可作外圆磨床使用。
- 标配采用台湾新代数控系统, (也可根据客户需要配置其他系统)。
- 砂轮架采用高速动静压主轴组件。
- 采用具有自主知识产权的曲轴磨削软件。
- 机床的左右卡盘采用一字液压自动卡盘, 装卸方便, 精准。
- 配置独立的电气柜, 油箱及过滤水箱。
- This series of CNC grinder is a crankshaft grinder with convenient operation and wide applicability. It is suitable for grinding crank, spindle of crankshaft, and can also be used as cylindrical grinder.
- Using SYNTEC CNC system (other systems can also be configured according to the customer).
- Wheel frame using high-speed hybrid spindle assembly.
- Using proprietary CNC grinding crankshaft software.
- The left and right chucks of the machine are equipped with a single-line hydraulic automatic chuck, which is accurate and convenient for loading and unloading.
- Configure a separate electrical box, tank and filtration tank.

规格及主要技术参数 Main Specifications

项目Description	QMK8240×1000	QMK8260×1000/1500
加工零件最大直径 Max. diameter of workpiece	Φ100	Φ130
零件最大安装长度 Max. Length of workpiece	1000	1000/1500
最大砂轮尺寸 Max. Wheel size	Φ750×40×305	Φ900×40×305
最大偏心距 Max. Eccentric distance	80mm	100mm
砂轮最大线速度 Max. wheel peripheral velocity	45m/s	45m/s
工件最大重量级 Max. workpiece weight	80kg	150kg

主要附件 Main Accessories

砂轮外圆修整器 Wheel periphery dresser	1套(1set)	
砂轮卡盘 Wheel hub	2套(2sets)	卸砂轮拨头 Wheel extractor 1套(1set)
平衡轴 Balancing arbor	1套(1set)	磁性分离过滤水箱 Magnetic separator 1套(1set)

特殊附件 Extra Accessories

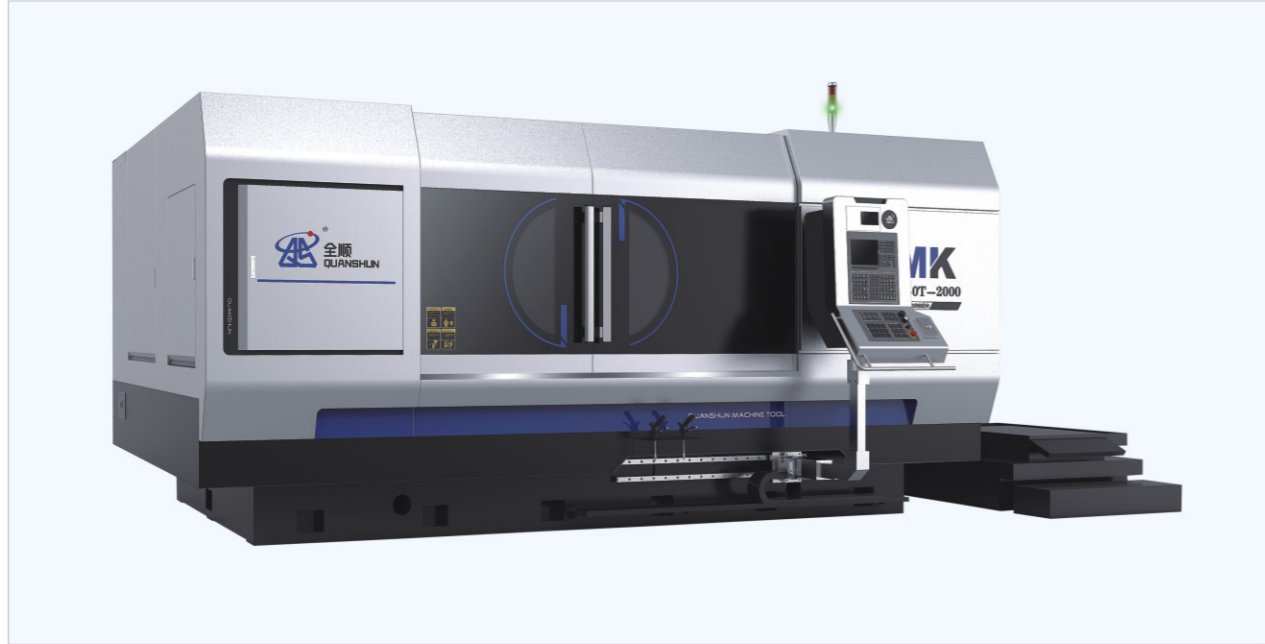
砂轮平衡架 Wheel Balancing stand	1套(1set)	外径测量仪 Diameter measuring instrument 1套(1set)
开式中心架 Open-type steady-rest	1套(1set)	端面刀仪 Face measuring instrument 1套(1set)

工作精度 Working Accuracy

圆度 Roundness	5μm	表面粗糙度 Surface roughness	Ra0.32μm
纵截面内直径的一致性 Dia. uniformity in the longitudinal. Section	8μm	偏心量 The amount of eccentricity	15μm
平行度 Parallelism	5μm		

MK8250T

随动式数控曲轴磨床 Follow type CNC crankshaft grinding machine



主要用途和特点

Main functions and features

- MK8250T型随动式数控曲轴磨床是我公司自行设计开发制造的砂轮架移动式大型随动数控磨床产品。本系列磨床适用于大型曲轴类零件成批或大批量生产场合。
- 机床控制系统采用镓纳克（曲轴专用系统）数控系统和数字式交流伺服驱动，通过四轴三联动控制实现偏心及凸轮磨削，一次装夹完成多处外圆轮廓。
- 机床砂轮主轴系统采用电主轴直驱主轴，配备CBN砂轮，以最大100m/s线速磨削。
- 砂轮架进给采用交流伺服直线电机驱动并配有光栅尺形成闭环控制；进给导轨采用直线滚动导轨，保证进给精确、灵敏。
- 头架、尾架采用伺服电主轴带动专用浮动夹具，通过数控系统控制使头尾架实现同步旋转。
- 机床配备马波斯MIDA测头，消除中心孔误差实现轴向定位和相位角定位，配有马波斯摆动量仪Fenar L用于检测曲轴尺寸及圆度确保工件尺寸稳定。
- 砂轮修整可选择多种形式金刚石修整装置，实现复杂砂轮形面的精密修整，且自动修整自动补偿。
- 可选配数控或液压驱动自动跟踪中心架，用于细长曲轴类零件加工。

- MK8250T Follow type CNC crankshaft grinding machine is a large-scale CNC grinding machine with movable grinding wheel holder designed and manufactured by our company. This series of grinder is suitable for batch or mass production of large crankshaft parts.
- Machine control system adopts LYNUC (crankshaft special system) CNC system and digital AC servo drive, through the four-axis triple linkage control to realize the eccentric and cam grinding, a clamping to complete the external contour of a number of places.
- The grinding wheel spindle system of the machine is an electronic spindle direct-drive spindle equipped with CBN grinding wheels for grinding at line speeds of up to 100 m/s. The machine is equipped with a CBN grinding wheel for grinding at line speeds of up to 100 m/s.
- The wheelhead feed is driven by AC servo linear motor and equipped with scale to form a closed-loop control; the feed guideway adopts linear rolling guideway to ensure precise and sensitive feeding.
- Head frame and tail frame adopt servo electric spindle to drive the special floating fixture, which is controlled by numerical control system to make the head and tail frame realize synchronous rotation.
- Machine tool is equipped with Marposs MIDA probe, which eliminates the error of center hole to realize axial positioning and phase angle positioning, and is equipped with Marposs swing gauge Fenar L to check the size and roundness of the crankshaft to ensure the stability of the workpiece size.
- Grinding wheel dressing can choose a variety of forms of diamond dressing device, to realize the precision dressing of complex grinding wheel shape surface, and automatic dressing automatic compensation.
- Optional CNC or hydraulic-driven auto-tracking center stand for slender crankshaft-type parts machining.

规格及主要技术参数 Main Specifications

项目Description		MK8250T×1000/1500/2000/3000	
中心高 Center height		350mm	
磨削直径Grinding diameter		φ30~φ300mm	
回转直径Rotation diameter		φ500mm	
最大磨削长度Max. grinding length		1000/1500/2000/3000	
顶尖距Center distance		1100/1100/2100/3100	
工件最大磨削重量Max. workpiece grinding weight		200Kg	
头架Head frame	顶尖孔莫氏锥度Morse taper of center hole	莫氏6号 MT6	
	转速 Speed	15~200r/min	
尾架Tail frame	顶尖孔莫氏锥度Morse taper of center hole	莫氏6号 MT6	
	套筒移动量Sleeve movement	200mm	
砂轮Wheel	尺寸Size	最大 Max.φ750×(20-40)×305	
	线速度 Line speed	≤100m/s	
砂轮架wheelhead	最大移动量Max.movement	420mm	
	主轴线倾斜角度Spindle tilt angle	0	
	主轴电机功率Spindle motor power	30kW	
工作台Worktable	型式 Type	三角+平规 (固定) Triangle + level gauge (fixed)	
横进给机构 Traverse feed mechanism	交流伺服直线电机AC servo linear motors	2200Nm	
	驱动伺服电机最小分辨率 Min. resolution of drive servo motors	0.0001mm	
十字滑台机构 Cross slide mechanism	交流伺服电机扭矩AC servo motor torque	29Nm	
	驱动伺服电机最小分辨率 Min. resolution of drive servo motors	0.0001mm	

工作精度 (本公司标准试磨件) Working accuracy (our standard test grinding parts)

圆度 Roundness	≤0.003	圆柱度 Cylindricity	≤0.008
表面粗糙度 Surface roughness	外圆 (O.D) Ra≤0.32μm	端面 (Endface)	Ra≤0.6μm
平行度 parallelism	≤0.015 mm/m	C轴角度 C-axis angle	±0.0020

MD1420H/Fx800
MD1432Bx1000

大孔径外圆磨床
Large diameter cylindrical grinding machine



主要用途和特点

Main functions and features

- MD1420H/Fx800和MD1432Bx1000 是我公司自行研发的一款大孔径外圆磨床，既可以作为一般的外圆磨床使用，也可以磨削一些特殊的重型的圆柱类零件。
- 机床头架内孔分别为Φ52和Φ85mm，可以直接磨削柄部较大的零件，也可以在上面安装卡盘及其他液压、气动夹具，装夹零件进行磨削加工。头架驱动可以选配变频电机或伺服电机。
- 机床工作台纵向移动可由液压无级传动，也可手轮传动；砂轮横向移动具有液压快速进退和手动进给功能。
- MD1420H/Fx800 and MD1432Bx1000 are Large diameter cylindrical grinding machine by our company. It can be used as a general cylindrical grinder or some special heavy cylindrical parts.
- The Machine Tool Headstock hole diameter 52mm and 85mm, grinding can directly handle larger parts, also can chuck and other hydraulic and gas is arranged on the movable fixture, clamping parts for grinding. Headrest drive optional frequency motor or servo motor.
- The longitudinal movement of the machine tool worktable can be driven by hydraulic stepless transmission or hand wheel, and the lateral movement of the grinding wheel has the function of rapid hydraulic advance and manual feed.

M1520x500
M1532x1000

中心孔研磨机
Center hole grinding machine

MK1532x1000 **数控中心孔研磨机**
CNC Center hole grinding machine



主要用途和特点

Main functions and features

中心孔研磨机

- M15系列中心孔研磨机是我公司研制的用于中心孔研磨的专用机床，该机床具有效率高，实用性强的优点。
- 此研磨机头架用伺服电机进行驱动，具有启停迅速、可靠，并可准确定位的特点。
- 此研磨机尾座由气缸驱动，极大提高加工效率，减小工人的劳动强度。
- 此研磨机配置专用的研磨顶尖，在使用切削液的情况下，加工效果尤佳。
- 研磨以后的中心孔，完全可以满足高精度加工的要求。

数控中心孔研磨机

• MK1532x1000数控中心孔研磨机，是我公司开发的一款用于研磨轴类零件中心孔的专机，可以一次装夹完成两端中心孔的研磨。该机床采用数控伺服系统，具有自动控制头、尾架动作、自动研磨中心孔的循环动作等功能。在工作台后部可以安装单独的吹气装置，该装置带动零件旋转对零件表面残留的切削液进行吹气、清理。以确保加工完成的零件表面基本无切削液残留。此机床特别适合要求精度较高的新能源汽车齿轮轴类零件的研磨。

规格及主要技术参数

Main Specifications

研磨零件最大长度	1000 (用吹气装置则为400)	研磨零件最大回转直径	φ 320
研磨零件最大重量	150kg	研磨中心孔圆度	0.0015
研磨中心孔粗糙度	Ra0.8		

M1320H外圆磨床 M1320H cylindrical grinding machine
M1420H/F万能外圆磨床 M1420H/F universal cylindrical grinding machine



主要用途和特点 Main functions and features

- 本机床是吸取各大磨床专业制作单位的优点，改进提高的切削磨床，具有切削精度高，刚性强，效率高等特点。适用于磨削圆柱形和圆锥形的工件。
- 机床工件、外圆砂轮、内圈砂轮、油泵和冷却泵分别由独立电机传动。
- 机床工作台的纵向移动可由液压无级变速传动，也可用手轮传动，工作台润滑为小孔节流卸荷形式。
- 砂轮架横向进给可由液压作微量自动周期进给和快速进退，也可用手轮实现粗细两种进给。
- 机床各运动部件具有电器，液压和机械连锁机构，操作安全可靠。

- This machine tool is to absorb the advantages of the major grinder and improve the cutting grinder. Heavy Duty Grinder, with high cutting precision, high rigidity and high efficiency. Suitable for grinding cylindrical and conical workpiece.
- The workpiece of machine, cylindrical grinding wheel, the inner circle of the grinding wheel, oil pump and cooling pump by an independent motor drive.
- The longitudinal movement of the machine table by the hydraulic continuously variable transmission can also be handwheel drive, table lubrication Orifice Compensated unloading form.
- Grinding wheel frame transverse feeding fine tuning can be made by the hydraulic feed and fast and automatic cycle, two feed hand wheel is also available to achieve the thickness.
- Machine moving parts with electrical, hydraulic and the operation is safe and reliable.

规格及主要技术参数 Main Specifications

项目Description	单位unit	M1320H×500/800		M1420H/F×500/800	
可磨直径 Grinding diameter 外圆(O.D.)用中心架 with steady-rest 最小min/最大max	mm	8/60		8/60	
不用中心架without steady-rest 最小min/最大max	mm	8/200		8/200	
内圆(I.D.)用中心架 with steady-rest 最小min/最大max	mm			35/100	
不用中心架without steady-rest 最小min/最大max	mm			25/100	
工件最大重量 Max.work weight	kg	50		50	
最大磨削长度 Max.grinding length 外圆(O.D.)	mm	500/800		500/800	
内圆(I.D.)	mm			125	
中心高 Center height	mm	135		135	
顶尖距 Distance between centers	mm	500	800	500	800
砂轮尺寸 Wheel dimensions(O.D.xWxI.D)	mm	最大Max.Φ400×50×Φ203,最小Min.Φ280×50×Φ203			
砂轮线速度 Peripheral speed of grinding wheel	m/s	38			
内圆磨具砂轮尺寸 Wheel size for int. Grinding attachment	mm	最大Max.Φ50×40×Φ16,最小Min.45×35×10			
砂轮架主轴转速 Wheelhead spindle speed	r/min	1670		1670	
砂轮架快速进退量 Wheelhead rapid advance & withdrawal	mm	25		25	
电机总功率 Total motor power	kw	5.625		5.625	
外形尺寸(长×宽×高) Overall dimensions(L×W×H)	mm	2500×1600×1000	3000×1600×1000	2500×1600×1000	3000×1600×1000
机床重量 Machine weight	kg	2500	3000	2500	3000

主要附件 Main Accessories

砂轮平衡轴 Wheel balancing arbor	1套(1set)	内圆磨具 Int.grinding attachment	M1420/H(带)	1套(1set)
全套电器设备 Complete set of electric equipment	1套(1set)	全套冷却设备 Complete set of coolant equipment		1套(1set)
砂轮外圆修整器 Wheel peripheral dresser	1套(1set)	开式中心架 Open type steady rest		1套(1set)
砂轮压紧盘 Wheel hub	2套(2sets)	机床垫铁 Leveling wedge	500mm 3套 800mm	3套(3sets)

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	闭式中心架 center rest close type		1套(1set)
圆弧修整器 Radirs Dresser	1套(1set)	特殊磨杆 Extension bar		1根(1set)

工作精度 Working Accuracy

外圆圆度 O.D.Roundness	1.5μm	纵截面内直径一致性 Uniform Wof dia.in longitudinal section	5μm
表面粗糙度 Surface roughness	Ra0.32μm	卡盘上磨外圆圆度 O.D.roundness by chuck	2.5μm
内圆圆度 I.D.Roundness	2.5μm	内圆表面粗糙度 I.D.Surface roughness'	Ra0.63μm

MA1320H外圆磨床 MA1320H cylindrical grinding machine
MA1420H万能外圆磨床 MA1420H universal cylindrical grinding machine



主要用途和特点 Main functions and features

- 本机床是在M1320H、M1420H外圆磨床的基础上吸取各大磨床专业制作单位的优点，改进提高的重型切削磨床，具有切削精度高，刚性强，效率高，等特点。适用于磨削圆柱形和圆锥形的工件。
- 机床工件、外圆砂轮、内圆砂轮、油泵和冷却泵分别由独立电机传动。
- 机床工作台的纵向移动可由液压无级变速传动，也可用手轮传动，工作台润滑为小孔节流卸荷形式。
- 砂轮架横向进给可由液压作微量自动周期进给和快速进退，也可用手轮实现粗细两种进给。
- 砂轮架主轴直径粗，电机功率加大，砂轮架油池温升小，磨削率高。
- 机床各运动部件具有电器，液压和机械连锁机构，操作安全可靠。

- This machine is a major grinder professional advantages of manufacturing units in the the M130H, M1420H type cylindrical grinder on the basis of draw to improve improve Heavy Duty Grinder, with high cutting precision, high rigidity and high efficiency. Suitable for grinding cylindrical and conical workpiece.
- The workpiece of machine, cylindrical grinding wheel, the inner circle of the grinding wheel, oil pump and cooling pump by an independent motor drive.
- The longitudinal movement of the machine table by the hydraulic continuously variable transmission can also be hand-wheel drive, table lubrication Orifice Compensated unloading form.
- Grinding wheel frame transverse feeding fine tuning can be made by the hydraulic feed and fast and automatic cycle, two feed hand wheel is also available to achieve the thickness.
- Grinding wheel rack main shaft diameters, motor power increase, grinding wheel rack oil pool temperature rise is small, high grinding rate.
- Machine moving parts with electrical, hydraulic and

规格及主要技术参数 Main Specifications

项目Description	单位unit	MA1320H×500/750	MA1420H×500/750
可磨直径 Grinding diameter	外圆(O.D.)用中心架 with steady-rest 最小min/最大max	mm 8/60	8/60
	不用中心架without steady-rest 最小min/最大max	mm 8/200	8/200
	内圆(I.D.)用中心架 with steady-rest 最小min/最大max	mm 35/100	35/100
	不用中心架without steady-rest 最小min/最大max	mm 25/100	25/100
工件最大重量 Max.work weight	kg	50	50
最大磨削长度 Max.grinding length 外圆(O.D.)	mm	500/750	500/750
	内圆(I.D.)	mm 125	125
中心高 Center height	mm	135	135
顶尖距 Distance between centers	mm	500	750
砂轮尺寸 Wheel dimensions(O.D.xWxI.D)	mm	最大Max.Φ400×50×Φ203,最小Min.Φ280×50×Φ203	最大Max.Φ400×50×Φ203,最小Min.Φ280×50×Φ203
砂轮线速度 Peripheral speed of grinding wheel	m/s	38	38
内圆磨具砂轮尺寸 Wheel size for int. Grinding attachment	mm		最大Max.Φ50×40×Φ16,最小Min.45×35×10
砂轮架主轴转速 Wheelhead spindle speed	r/min	1670	1670
砂轮架快速进退量 Wheelhead rapid advance & withdrawal	mm	50	50
电机总功率 Total motor power	kw	5.43	6.52
外形尺寸(长×宽×高) Overall dimensions(L×W×H)	mm	2500×1800×1650	3000×1800×1650
机床重量 Machine weight	kg	3040	3540
		3200	3700

主要附件 Main Accessories

砂轮平衡轴 Wheel balancing arbor	1套(1set)	内圆磨具 Int.grinding attachment	MA1420/H(带)	1套(1set)
全套电器设备 Complete set of electric equipment	1套(1set)	全套冷却设备 Complete set of coolant equipment		1套(1set)
砂轮外圆修整器 Wheel peripheral dresser	1套(1set)	开式中心架 Open type steady rest		1套(1set)
砂轮压紧盘 Wheel hub	2套(2sets)	机床垫铁 Leveling wedge	500mm 9套(sets) 750mm	9套(9sets)

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	闭式中心架 center rest close type		1套(1set)
圆弧修整器 Radirs Dresser	1套(1set)	特殊磨杆 Extension bar		1根(1set)

工作精度 Working Accuracy

外圆圆度 O.D.Roundness	1.5μm	纵截面内直径一致性 Uniform Wof dia.in longitudinal section		5μm
表面粗糙度 Surface roughness	Ra0.32μm	卡盘上磨外圆圆度 O.D.roundness by chuck		2.5μm
内圆圆度 I.D.Roundness	2.5μm	内圆表面粗糙度 I.D.Surface roughness'		Ra0.63μm

M1320H-A经济型端面外圆磨床

M1320H-A transverse cylindrical grinding machine



主要用途和特点

Main functions and features

M1320H-A端面外圆磨床是在M1320H外圆磨床基础上改进的新产品，具有操作简单方便，加工端面精度高等优点，适用于齿轮制造行业，有很高性价比。

M1320H-A transverse cylindrical grinding machine is in M1320H cylindrical grinding machine based on improvement of new products, with simple and convenient operation, higher end surface machining precision, is suitable for the gear manufacturing industry, and has the very high cost performance.

规格及主要技术参数 Main Specifications

项目Description	单位unit	M1320H-A×300	M1320H-A×500
外圆磨削范围External grinding diameters	mm	Φ8-200	Φ8-200
中心高Center height	mm	135	135
工作台最大移动量Max.travel of table	mm	550	850
液压移动速度Hydraulic traverse speeds	m/min	0.1~4	0.1~4
最大工件重量Max.workpiece weight	kg	50	50
可磨外圆长度Grinding length External	mm	300	500
工作台转动范围Swivel range of worktable	°	-3~+9°	-3~+7°
砂轮最大线速度Max peripheral speed of grinding wheel	m/s	38	38
外圆砂轮尺寸External wheel size	mm	MaxΦ 400×50×Φ203	MaxΦ 280×50×Φ203
头架尾架顶尖Workhead and tailstock center	morse	N0.4	N0.4
电机总容量Machine motor power	kw	5.625	5.625
机床外型尺寸(长×宽×高) Overall dimensions(L×W×H)	mm	2500×1600×1500	3000×1600×1500
机床重量Machine weight	kg	2500	3000

主要附件 Main Accessories

冷却液箱 Coolant tank	1套(1set)	砂轮修整器 Grinding wheel dresser	1套(1set)
砂轮压紧盘 Wheel flanges	2套(2sets)	砂轮平衡轴 Wheel balancing mandrel	1套(1set)
开式中心架 Open type steady rest	1套(1set)	桃子夹头 Driving dog	1套(1set)
合金顶尖 Carbide-tipped center	2件(2pcs)	支点底座 Supportiron	3件(3pcs)

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	数显光栅尺 DRO & SCALES	1套(1set)
圆弧修整器 Radirs Dresser	1套(1set)		

工作精度 Working Accuracy

外圆圆度 O.D.Roundness	1.5μm	圆柱度 Cylindricity	5μm
端面外圆粗糙度 Ex.surface	Ra≤0.32μm	端面平面度 End face flatness	≤5μm

M1332B 外圆磨床 cylindrical grinding machine

MC1332B



主要用途和特点

Main functions and features

- M1332B外圆磨床是在M1332A外圆磨床的基础上派生设计而成的。该机床适用于磨削IT6-IT5精度的圆柱体或圆锥体的回转体工件。
- 机床工作台纵向移动由液压无极传动，也可手轮传动，润滑为小孔节流卸荷形式。
- 砂轮架横向移动具有液压快速进退、手动微量进给和砂轮自动周期进给功能。
- 工件、砂轮、油泵和冷却泵分别由独立电机驱动。
- 砂轮主轴轴承采用两组由四块轴瓦组成的滑动轴承。主轴加粗，电机加大，磨削效率高。
- 砂轮修整器置于尾架上，且尾架有液压顶尖后退装置。
- 机床采用具有各运动部件的电气、液压连锁机构，操作安全可靠。
- MC1332B系列工作台移动采用静压导轨。

- M1332B cylindrical grinding machine is designed on the basis of M1332A cylindrical grinding machine. It is suitable for grinding cylindrical or conical parts, for its accuracy IT6-IT5.
- Worktable longitudinal travel driven by hydraulic at infinitely-variable-speed, or driven by handwheel. Lubrication for hole throttle unloading form.
- Wheelhead cross travel provided with hydraulic rapid advance and withdrawal, manual microfeed. And feed grinding wheel automatic cycle function.
- Workpiece, wheel, oil pump and coolant pump respectively driven by their individual motor.
- Two sets of silding bearing consisting of four-shoes used as wheel spindle bearings. The spindle bold, increased motor, high grinding efficiency.
- Wheel dresser mounted on the tailstock, and hydraulic tailstock top back device.
- The machine with the moving parts of electrical, hydraulic chain, safe and reliable operation.
- MC1332B Series table moves using hydrostatic guideway.

规格及主要技术参数 Main Specifications

项目Description	单位unit	M1332Bx1000/1500/2000/3000	MC1332Bx2000/3000
可磨外圆长度 Grinding length	mm	1000/1500/2000/3000	2000/3000
可磨外圆直径 Grinding diameter	mm	Φ 8- Φ320	Φ 8- Φ320
中心高 Center height	mm	180	180
最大工件重量 Max. workpiece weight	kg	150	500
工作台速度 Worktable speed	m/min	0.1~4	0.1~4
砂轮最大线速度 Wheel peripheral velocity	m/s	38	38
工作台最大移动量 Max.travel of worktable	mm	1100/1600/2100/3100	2100/3100
工作台转动范围 Swivel range of worktable	°	-3~+7°/-3+6°-2~+5°/-2~+3°/	-2~+5°/-2~+3°
外圆砂轮尺寸 External wheel size	mm	Φ 600×75×Φ305	Φ 600×75×Φ305
头架主轴转速 Spindle speed of workhead	r/min	26、52、90、130、180、260	
砂轮主轴转速 Grinding spindle speed	r/min	1100	1100
头架顶尖 Headstock top	morse	NO.5	NO.5
尾架顶尖 Tailstock top	morse	NO.4/NO.4/NO.5/NO.5	NO.5
快速进退量 Rapid advance and withdrawal amount	mm	50	50
手轮一转砂轮架移动量 Wheelhead displacement per rev of handwheel粗 coarse/精 fine	mm	2/0.5	2/0.5
手轮一格砂轮架移动量 Wheelhead displacement per div of handwheel粗 coarse/精 fine	mm	0.01/0.0025	0.01/0.0025
电机总功率 Total motor power	kw	14.27	14.27
机床外型尺寸(长×宽×高) Overall dimensions(L×W×H)	mm	(3605/4605/5605/7605)×1810×1515	(5605/7605)×1810×1515
机床重量 Machine weight	kg	4000/4600/6600/8600	6600/8600

主要附件 Main Accessories

全套电气设备 Complete set of electric equipment	1套(1set)	全套冷却设备 Complete set of coolant equipment	1套(1set)
砂轮外圆修整器 Wheel peripheral dresser	1套(1set)	砂轮压紧盘 Wheel flanges	2套(2sets)
砂轮平衡轴 Wheel balancing mandrel	1套(1set)	开式中心架 Open trape steady rest	1000x1套 1500x2套 2000x3套 3000x3套
机床垫铁 Leveling wedge	1000x11套 1500x13套 2000x15套 3000x18套		

特殊附件 Extra Accessories

砂轮平衡架 Wheel balancing stand	1套(1set)	端面修整器 End-face dresser	1套(1set)
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工作精度 Working Accuracy

圆度 Roundness	≤ 1500 1.5μm > 1500 2.5μm	表面波紋度 Surface waviness	μm
纵截面内直径的一致性 Uniformity of dia. in longitudinal section	≤ 750 5μm > 750 8μm	表面粗糙度 Surface roughness	Ra 0.16μm

M1432B万能外圆磨床 M1432B universal cylindrical grinding machine



主要用途和特点 Main functions and features

- M1432B系综合M131W和M1432A的优点改进的，是一种手动操作，电气、液压控制的万能外圆磨床。
- 该机床床身刚性及热变形都优于M1432A，工作台的润滑为小孔节流卸荷形式。砂轮架主轴加粗，轴承采用两组四块轴瓦，电机功率加大。砂轮架油池温升小，磨削率高。
- 机床工作台的纵向移动、砂轮架的快速进退、砂轮自动周期进给等均由操作按钮通过电气、液压控制。机床具有工作台手摇机构，砂轮架手动横向往进机构和液压脚踏尾架顶尖后退装置。
- 头架在逆时针方向90度范围内可做任意角度调整。摆动头架、工作台、砂轮架的角度可磨削不同锥度的内外圆锥形工件。将砂轮架体壳上的内圆磨具支架翻下即可磨削内圆零件，卡盘安装采用短锥。
- 工件、外圆砂轮、内圆砂轮、油泵和冷却泵分别由独立电机驱动。
- 机床采用具有各运动部件的电气、液压连锁机构，操作安全可靠，外圆砂轮、内圆砂轮装有可靠的安全保护装置。

- M1432B Universal Cylindrical Grinder is an improved design of its predecessor, M131W and M1432A, with full retainment of their noteworthy merits. It is operated by hand and can be controlled and actuated either by power or by hydraulic system.
- In comparison the machine is superior to M1432A in the following field: Greater rigidity and resistance to temperature change deformation of the machine body; larger diameter for the grinding wheel spindle; Two sets of bearing consisting of four-shoes used as wheel spindle bearings. more power of the grinding wheel and use of small orifice lubricant restrictor for better table lubrication. All these improvements result in higher efficiency and better finish in grinding performance.
- Machine table longitudinal travel, wheelhead rapid approach and withdrawal and automatic periodic cross infeed are driven hydro-electrically by pushing button operation. The machine also has the following functions: hand-operated worktable and wheelhead manually traverse infeed plus hydraulic tailstock quill retraction by foot.
- The headstock can be swiveled in counter-clockwise direction in 90 degree range. By swiveling the headstock, or wheelhead or table, components with different external or internal taper can be ground. By turning down the internal grinding attachment, internal surface of components can be provided for grinding selection. The chuck mounted using short axis.
- Workpiece, external and internal grinding wheels, hydraulic and coolant pumps are all driven separately by individual motors.
- All the power moving portions of the machine are interlocked by electro hydraulic mechanism to ensure safety in operation. External and internal grinding wheels are guarded in sound and strong covers.

规格及主要技术参数 Main Specifications

项目Description	单位unit	M1432Bx1000	M1432Bx1500	M1432Bx2000	M1432Bx3000
可磨长度(外圆/内圆) Grinding length(O.D/I.D)	mm	1000/125	1500/125	2000/125	3000/125
可磨直径(外圆/内圆) Grinding dia.(O.D/I.D)	mm	Φ8~Φ320/Φ30~Φ100			
中心高Center height	mm	180	180	180	180
最大工件重量Max. workpiece weight	kg	150	150	150	150
工作台速度Worktable speed	m/min	0.1~4	0.1~4	0.1~4	0.1~4
砂轮最大线速度Wheel peripheral velocity	m/s	38	38	38	38
工作台最大移动量Max.travel of table	mm	1100	1600	2100	3100
工作台转动范围Swivel range of worktable	°	-3~+7°	-3~+6°	-2~+5°	-2~+3°
外圆砂轮尺寸External wheel size	mm	Φ 400×50×Φ203		Φ 500×50×Φ203	
头架主轴转速Spindle speed of headstock	r/min	50HZ:25~220无级 60HZ: 30~264无级			
头尾架顶尖Workhead and tailstock center	morse	NO.4	NO.4	NO.4	NO.4
手轮一格砂轮架移动量Wheelhead displacement per div.of handwheel粗coarse/精细fine	mm	0.01/0.0025	0.01/0.0025	0.01/0.0025	0.01/0.0025
电机总功率Total motor power	kw	9	9	9	9
机床外型尺寸(长×宽×高) Overall dimensions(L×W×H)	mm	3605×1810×1515	4605×1810×1515	5605×1810×1515	7605×1810×1515
机床重量Machine weight	kg	3700	4300	6600	8600

主要附件 Main Accessories

全套电气设备 Complete set of electric equipment	1套(1set)	全套冷却设备 Complete set of coolant equipment	1套(1set)
砂轮外圆修整器 Wheel peripheral dresser	1套(1set)	砂轮压紧盘 Wheel flanges	2套(2sets)
砂轮平衡轴 Wheel balancing mandrel	1套(1set)	开式中心架 Open type steady rest	1000×1套 1500×2套 2000×3套 3000×3套
机床垫铁 Leveling wedge	1000×11套 1500×13套 2000×15套 3000×18套	三爪卡盘 Three jaw chuck	1套(1set)
内圆磨具 Int.grinding attachment	1套(1set)		

特殊附件 Extra Accessories

闭式中心架 Center Rest close Type	1套(1set)	砂轮平衡架 Wheel Balancing stand	1套(1set)
圆弧修整器 Radius Dresser	1套(1set)	端面修整器 End-face dresser	1套(1set)

工作精度 Working Accuracy

圆度(外圆/内圆) Roundness	2.5μm/2.5μm(O.D/I.D)	纵截面内直径的一致性(外圆/内圆) Uniformity of dia. in longitudinal section	8μm/10μm(O.D/I.D)
表面粗糙度(外圆/内圆) Surface roughness	Ra0.32μm/0.63μm(O.D/I.D)		

M1350B外圆磨床 M1350B cylindrical grinding machine
M1450B万能外圆磨床 M1450B universal cylindrical grinding machine



主要用途和特点 Main functions and features

- M1350B外圆磨床适用于磨削圆柱形或圆锥形回转体工件的外圆表面，用于单件批量生产的场合。
- 机床工作台的纵向移动可由液压无级变速传动，也可用手动传动。
- 砂轮架横向进给可由液压作微量自动周期进给和快速进退，也可用手动实现粗细两种进给。
- 工作台导轨采用静压润滑。
- 砂轮主轴由三块扇形轴瓦支撑。
- 工件、砂轮、液压泵、冷却泵分别由独立电机驱动。
- 机床各运动部件具有电器，液压和机械连锁机构，操作安全可靠。

- M1350B cylindrical grinding machine is designed for grinding cylindrical or taper surface of rotational parts. It is highly adaptable for single and small batch production.
- The table traverse is actuated by hydraulic means at infinitely variable speed or operated by hand.
- Auto intermittent micro-infeed and rapid approach, withdrawal of the wheelhead can be effected hydraulically, while rough-fine-feed realized by handwheel.
- Worktable guideways are hydrostatically lubricated.
- The grinding wheel spindle is supported by three tilting segmented shoes.
- Workpiece, wheel, hydraulic pump, coolant pump are driven separately by individual motors.
- Each motion part of machine is controlled by electric, hydraulic, mechanical interlocking mechanism, thus the machine can be operated easily and safety.

规格及主要技术参数 Main Specifications

项目Description	单位(unit)	M1350B×1500/2000/3000/4000	M1450B×1500/2000/3000/4000
可磨最大直径(外圆/内圆) Max. dia. to be ground	mm	500	500/200
可磨最大工件长度(外圆/内圆) Max. length to be ground	mm	1500,2000,3000,4000	1500,2000,3000,4000/320
最大工件重量 Max. workpiece weight	kg	1000	1000
砂轮尺寸(外径×宽×内径) Wheel size (O.D. ×W×I. D)	mm	Φ750×75×Φ305	Φ500×75×Φ305
砂轮主轴转速(高速/低速) Wheel spindle rotation speed	r/min	870	1300
中心高 Center height	mm	270	270
工作台最大移动量 Max. worktable traverse	mm	1500,2000,3000,4000	1500,2000,3000,4000
工作台最大移动速度 Max. worktable travel speed	m/min	3	3
砂轮线速度 Wheel peripheral speed	m/s	38	38
砂轮架快速进退量 Wheelhead rapid approach and withdrawal travel	mm	100	100
自动周期进给量(粗/细) Automatic intermittent infeed (coarse/fine)	mm	0.02/0.0025	0.02/0.0025
手动微量进给量(粗/细) Manual microfeed (coarse/fine)	mm	0.02/0.0025	0.02/0.0025
油泵排量 Hydraulic pump displacement	L/min	17.3	17.3
油泵压力 Hydraulic pump pressure	Mpa	6.3	6.3
冷却液流量 Coolant flow	L/min	50	50
电机总功率 Total motor power	KW	20.63	14.08
机床重量(净重) Machine weight(net weight)	kg	8400,9700,11200,12800	8600,9900,11350,13100
外形尺寸(长×宽×高) Overall dimensions(L x W x H)	mm	(1500)5320x2140x1550 (2000)6090x2140x1550 (3000)10240x2140x1550 (4000)12280x2140x1550	5320x2680x1560 6090x2680x1560 10240x2680x1560 12280x2680x1560

主要附件 Main Accessories

冷却设备 Coolant equipment	1套(1set)	砂轮外圆修整器 Wheel periphery dresser	1套(1set)
砂轮法兰 Wheel hub	2套(2sets)	砂轮平衡轴 Wheel balancing-mandrel	1套(1set)
机床垫铁(可磨长度) Leveling wedge (length to be ground)	(1500/2000/3000/4000mm) 12/12/18/22套sets	内圆磨具(1450带) Internal grinding attachment	1套(1set)
开式中心架(可磨长度) Open-type steady-rest(length to be ground)	(1500/2000/3000mm) 1/2/3套		

特殊附件 Extra Accessories

砂轮平衡架 Wheel Balancing stand	1套(1set)	磁性分离器 Magnetic separator	1套(1set)
圆弧修整器 Radius dresser	1套(1set)	封闭式中心架(1450选配) close-type steady-restnt	2套(2sets)
砂轮端面修整器 Wheel endface dresser	1套(1set)		

工作精度 Working Accuracy

圆度(外圆/内圆) Roundness	2.5μm	表面粗糙度(外圆/内圆) Surface roughness	0.32/0.63μm
纵截面内直径的一致性(外圆/内圆) Dia.uniformity in the longitudinal. Section	8μm		

QMS12S
QMS18S

无心磨床
centerless grinder



规格及主要技术参数 Main Specifications

项目Description	QMS12S	QMS18S
研磨范围(直径) Grinding range(diameter)	Φ1mm-φ40mm	Φ1mm-φ60mm
研磨轮尺寸Grinding Wheel size	Φ305×150×Φ120mm	Φ455×205×Φ228.6mm
调整轮尺寸Regulating Wheel size	Φ205×150×Φ90mm	Φ255×205×Φ111.2mm
研磨轮转速Grinding Wheel speed	1950R.P.M	1450R.P.M
调整轮转速Regulating Wheel speed	0~320R.P.M	0~260R.P.M
砂轮驱动马达Grinding wheel motor	7.5HP	15HP
调整轮驱动马达Regulating Wheel motor	2.0KW	3KW
液压泵驱动马达Hydraulic pump motor	1HP	2HP
冷却泵驱动马达Coolant pump motor	1/8HP	1/4HP
砂轮修整刻度Grinding Wheel dressing scale	1.5mm/转 0.01mm/刻度	2mm/转 0.01mm/刻度
调整轮修整刻度Regulating Wheel dressing scale	1.5mm/转 0.01mm/刻度	2mm/转 0.01mm/刻度
调整轮进刀刻度Regulating Wheel feed scale	3.5mm/转 0.02mm/刻度	3.5mm/转 0.02mm/刻度
调整轮微调刻度Regulating Wheel micro feed scale	0.1mm/转 0.001mm/刻度	0.1mm/转 0.001mm/刻度
工作台进刀刻度Worktable feed scale	7mm/转 0.05mm/刻度	9mm/转 0.05mm/刻度
工作台微调刻度Worktable micro feed scale	0.2mm/转 0.001mm/刻度	0.2mm/转 0.001mm/刻度
调整轮倾斜角度Regulating Wheel tile angle	±5°~-3°	+5°~-3°
调整轮回转角度Regulating Wheel swivel angle	+5°~-1°	+5°~-1°
水平角度Horizontal Angle	±5°	±5°
机械尺寸(长×宽×高) Machine dimensions(L×W×H)	1820×1400×1500mm	2280×1360×1600mm
装箱尺寸(长×宽×高) Package dimensions(L×W×H)	2000×1700×1750mm	2350×2000×1850mm
机械重量Machine weight	1750kg	2780kg
装箱重量Gross weight	2100kg	3350kg

磨床液压部件



磨床油缸

