Reliable

Reliable quality products

Trustable

We put our reputation in first position,

Responsible

What we promise what we do.

We believe, we can, we just do it.

GOODWILL

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GOODWILL

Series
MK84
Roll Grinder
轧辊磨床系列

苏州歌得维机械设备有限公司

SUZHOU GOODWILL MACHINERY EQUIPMENT CO., LTD.

BRIEF INTRODUCTION

Goodwill is one of the leading machine tool cooperation who focuses on grinding technology and supplies complete grinding solutions to worldwide customers.

we have around thirty ranges with hundred more models different functions grinding machines and customers related to automobile, hydraulic parts ,motors, die mould, tools, spindles, gears, aerospace, medical,3C,green energy, machine tools and so on industries.

What we can do, what we can promise and what we offer to the customers relying on reliable products, trustable cooperation and responsible service.

Through our stable quality products and professional engineering services, Goodwill brand has become the well-known grinding machines supplier and enjoyed respective reputation in worldwide also.

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数控扎辊磨床

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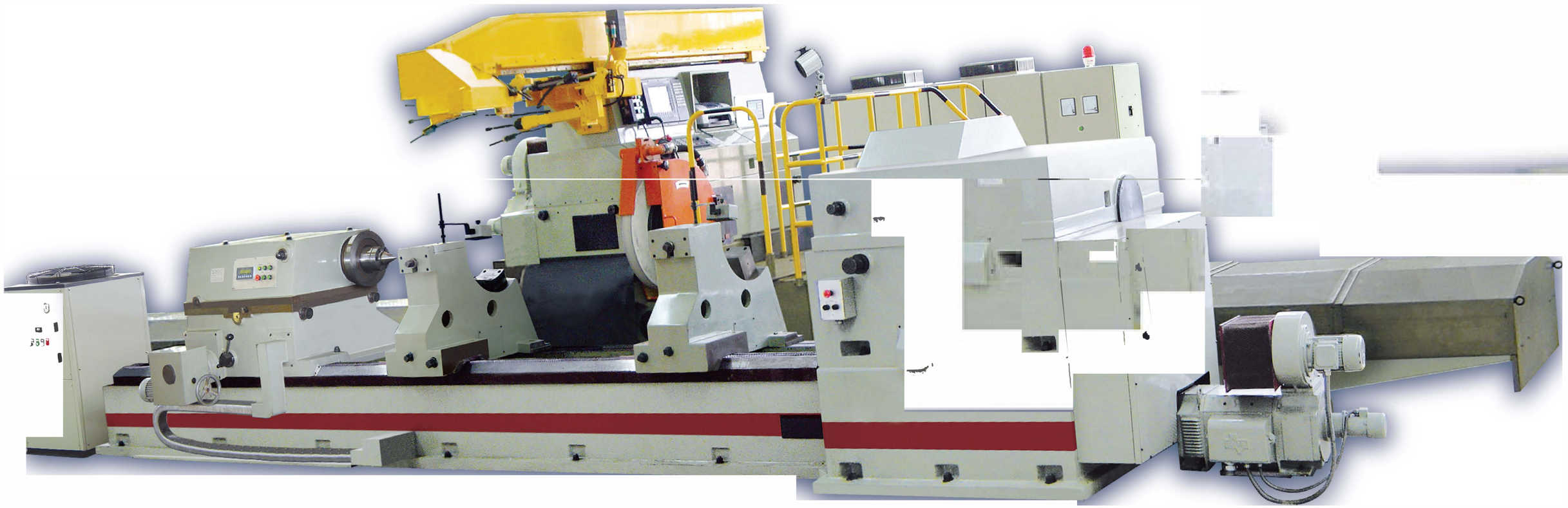


MK84系列数控轧辊磨床

SERIES MK84 CNC ROLL GRINDER

头　架
HEADSTOCK

头架有伺服主轴电机驱动，通过三级V型皮带传动，偏心套及摆杆机构调整皮带松紧，由西门子原装伺服驱动数字式调速装置无级调速，调整和调速都十分方便。

花盘上装有自位式驱动装置，能保证工作回转平稳。

The workpiece is driven by SIEMENS motor,which performs the stepless speed regulation via SIEMENS servo speed regulation equipment S120. It is driven by the three step V belt pulley, and the loosen & tighten of the pulley is adjusted by the eccentric sleeve and oscillating mechanism, and every step pulley is adjusted conveniently.

A self–aligning driving device is mounted on the face plate to ensure rotation of workpiece stable.

尾　架
TAILSTOCK

采用双层结构形式，水平方向也可调整，刚性强。装备有大套筒伸缩机构，套筒可自动伸缩；使得在更换不同长度工件时无需调整尾架的Z轴轴向位置即可轻松的完成工件的调整工作。

尾架移动采用电动机驱动，套筒伸缩采用电动机驱动，带机械锁紧装置。带有砂轮修型装置及测量系统校整环；带有工件顶紧力测控装置，用于显示轴向顶紧力。

The structure of the steady is two supportpoint style. The support shoe can be adjusted manually by y a indicated scale according to the workpiece diameter. The longitudinal position of the steady can be adjusted easily.

A lubricating device is mounted on the top of the support shoe to avoid high temperature while running.

The left steady can be thought as Ul axis, which can make a micro adjustment for position error to make sure parallelism between centerlines of the workpiece and the workpiece machine bed(special order)

磨　架
WHEELHEAD

磨架横进给采用贴塑闭式静压导轨，滚珠丝杆传动，进给灵敏度高，抗震性好，运动平稳，导轨无磨损。

砂轮主轴采用静压偏心套和动静压轴承结构，主轴前后轴承分别设置在砂轮及皮带轮受力中心处，皮带拉力和砂轮切削力均作用在轴承中心，使主轴产生最小的挠度，刚性高，适合于重负载、高效率粗磨和高精度、高光洁度精磨。

砂轮主轴由伺服主轴电机驱动，通过西门原装伺服驱动装置S120实现无级调速，窄形三角皮带传动。

砂轮主轴中间装有内装式砂轮动平衡装置，能自动平衡砂轮动平衡。

The cross infeed of wheelhead consists of closed plasticcoated hydrostatic guideway, and it is driven by ball screw，which features high infeed sensitivity, good antivi–bration,steady movement and nonabration of guideway.

The wheel spindle adopts hydrostatic eccentric sleev and hydrodynamic bearing structure, the front and rear bearings of spindle is setted in the stressed centre of grinding wheel and the pulley respectively, and both the belt tension and grinding force of the wheel act on the center of the bearing to ensure the min.deflection, and it features high stiffness. It's suitable for rough grinding with heavy load high efficiency and fine grinding with high accuracy & high surface finish.

The grinding wheel spindle is driven by a SIEMENS motor, which performs the stepless speed regulation via SIEMENS servo speed regulation equipment S120, and it is driven by the poly V belt.

Buildin–type wheel auto balancer is mounted inside the wheel spindle to balance the grinding wheel automatically.

MK84系列数控轧辊磨床

SERIES MK84 CNC ROLL GRINDER

拖 板 CARRIAGE

采用V－平贴塑静压导轨，导轨中心距大。静压导轨油囊采用H型特殊结构，使受力更合理，刚度更高。大拖板运动速度对拖板浮升无影响，低速特性好，无爬行。拖板导轨油压采用毛细节流方式，通过调整油的压力和流量来控制拖板的浮起量

The carriage adopts V–flat plastic–coated guideway, and the difference between the center–linesof the guideway. The hydrostatic guideway oilcharmer adopts H–type special structure with the good stressed force and high stiffness. The speed of the large carriage has no effect on carriage floating with good lower speed characteristic and without creeping. The carriage guideway oil pressure adoptscapillary throttle style, and the floating amount of the carriage can be controlled via regula–tion of pressure.

中心架 STEADY

中心架为二支点结构形式.托瓦可根据支撑直径大小进行手动调整，具有刻度盘。中心架纵向位置可方便的进行调整。

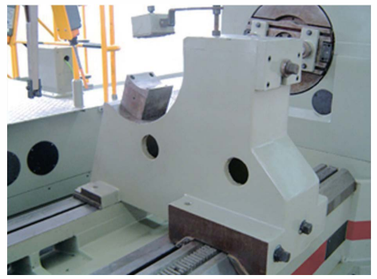
托瓦上部装有润滑装置，避免支撑颈过热。

左中心架含有U1轴功能，可横向可微量调整，自动校正工件，调整安装轧辊误差，使工件平行于床身中心线。(需特殊订货)

The structure of the steady is two supportpoint style. The support shoe can be adjusted manually by a indicated scale according to the workpiece diame–ter. The longitudinal position of the steady can be adjusted easily.

A lubricating device is mounted on the top of the support shoe to avoid high temperature while running.

The left steady can be thought as Ul axis, which can make a micro adjustment for position error to make sure parallelism between centerlines of the workpiece and the workpiece machine bed(specia–lorder).



砂轮床身和工件床身

GRINDING WHEEL MACHINE BED AND WORKPIECE MACHINE BED

工件床身和砂轮床身为分体式床身，为大型机床床身的隔振设计，避免了工件床身和砂轮床身独立震源之间的相互影响。

两床身采用V－平导轨，截而采用梯形结构，比传统矩形结构刚度高。床身采用低合金高强度低应力孕育铸件，硬度高，硬度均匀。

砂轮床身上装有钢制的可伸缩性防护罩，保护砂轮床身导轨。

Workpiece and grinding wheel machine beds use vibrationisola–tion design for large–sized machine bed, namely workpiece and grind–ing wheel machine beds are seperated,which can avoid the mutual effect between the independent shaking resources of the workpiece machine body and grinding wheel machine body.

The two machine beds adopt the V and flat guideway,and the section adopts trapezidal structure, the stiffness of this structure is higher than the traditional rectangular structure.The machine bed adopts casting with low alloy, high intensity and low stress gestated cast and high hardness.

A steel elastic guard is mounted on the grinding wheel machine body to protec the guideway.

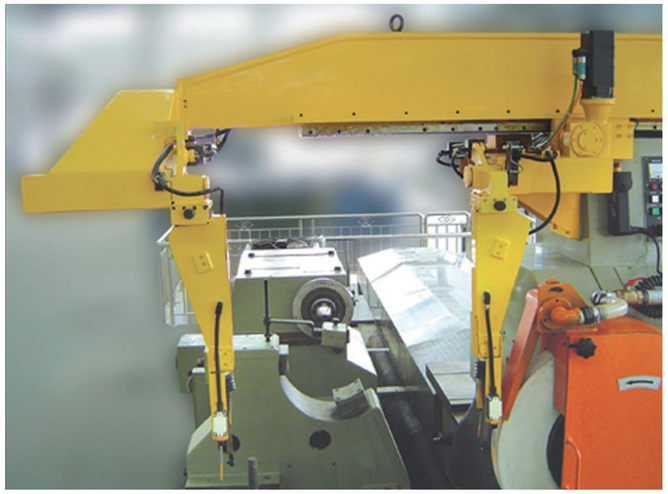
机床液压系统

HYDRAULIC SYSTEM

该系统由主轴液压系统和拖板液压系统组成，主要液压泵阀选用德国力士乐公司产品。主轴液压系统供油给砂轮主轴，采用油温控制箱控制油温在20℃±2℃范围内，使动静压轴承更可靠。拖板液压系统控制拖板的浮起量。

This system consists of hydraulic system for spindle and hydrau–licsystem for carriage, and Lexroth products from Germany are used for the main hydraulic pumps and vavles. The spindle hydraulic system provides the oil to grinding wheel spindle and the oil tempera–ture control cabinet are used to control the oil temperature to be in the range of 20℃±2℃, which make the hydrodynamic & hydrostatic bearing be much more reliable. And carriage hydraulic system is used to control the floating amount.

多功能CNC测量系统
MULTIFUNCTION CNC MEASUREMENT SYSTEM



机床配有“CP”型自动工件检测系统，可在线和非在线对工件进行多种测量。可用于测量工件的直径，圆度，同轴度、同柱度，辊型曲线等。全部的测量结果可在屏移上观察及打印。

在磨削前后用二个测量臂进行所有的测量。所有的测量可与CNC磨削程序结合，这样可自动操作，为避免误操作，所有的测量的移动和测量自动进行，不受操作者干扰。

所有光栅均采用德国 HEIDNAIN产品，其光栅精度分别为1–5μm,0.5–1μm。

The machine is equipped with CP "CP" automatic measurement system,which can perform in–process and post–process measurements.The system can be used to measure the diameter, roundness, concentricity, cylindricity and profile etc.of the workpiece.All of the measurement results can be observed in the screen and printed.

All of the measurements are performed with two mcasuring arms before & after the grinding. And all of the measurements can be combined with the grinding program to perform automatical operation. To avoid the false operation, all of the movements and measurements of the measuring head should be carried out automatically, not be disturbed by the operater.

All the optical scales are HEIDNAIN from Germany,and its accuracy is 1–5μm,0.5–1μm.

先进的 SIEMENS840DSL数控系统
ADVANCED SIEMENS 840DSLCNC SYSTEM

数控系统选用德国西门子840DSL数控系统。完成人机对话、编程、参数输入、数控测量、补偿磨削、数据处理等功能；15’TFT液晶彩色显示屏、具有故障诊断、打印功能；系统内部集成了功能强大的PLC（S7–300）完成实时在线控制及机床逻辑控制。

伺服控制系统采用德国西门子S120数字式交流伺服系统，用于机床拖板、磨架、中高轴及测量架等轴的驱动控制，通过相应的位置光栅反馈，在840D系统的控制下，实现数字定位控制。

建立在 WINDOWS 7 操作系统下开放式友好中文界面，经TF彩色显示器及触摸式软键实现人机对话，操作者操作简单、方便。并具备有数控远程诊断功能（通过带电话调制解调器），用于软件升级、程序装载、程序扩展、诊断等。

Siemens 840DSL CNC system is adopted to achieve man/machine dialogue, programming, data input, CNC measurement, compensation grinding, data processing etc.. 15’ TFT CTR with fault diagnosis and printing function.The PLC (S7–300) is integrated in system to perform inproceww and machine logic control.

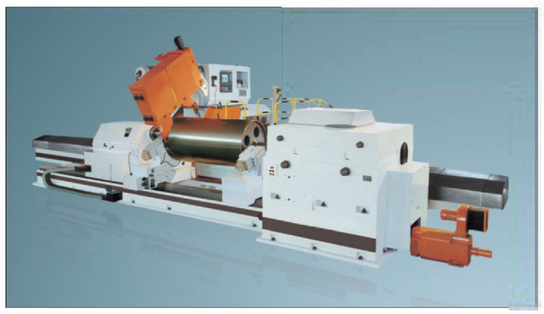
Machine adopts the Siemens S120 digitai AC servo system to drive carriage, wheelhead, middle high spindle(UI), measureing head and closed loop control can be performed in positioning control by optical scale. Position control can be easily realized by Siemens 840D system.

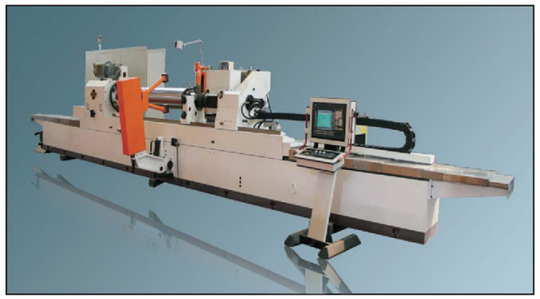
Windows 7 operating system is used with friendlly open Chinese interface and throughs the TFT CTR and touch soft key to realize man/machine dialogue, it is easy for opera–tor to use. CNC long–distance diagnoses function (Using telephone modem) will achieve software update, program loading, program expanding, diagnoses etc..

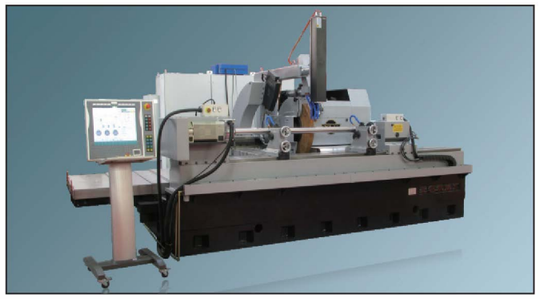
数控轧辊磨床 CNC Roll Grinder

项目 Item		MK8430	MK8450	MK8463	MK8480	MK84100	MK84125	MK84160	MK84200	MQK84160	MQK84315
加工范围 Machinning range	最大磨削直径 (mm) Max.dia.to b ground (mm)	300	500	630	800	1000	1250	1600	2000	1600	3150
	顶尖距 (m) Distance b etweencenters (m)	2.5	4	3,4,5	4,5,6,8	4,5,6,7	5,6,7,8	6,7,8,10,12	8,10,11,12	5,6,7,8	4,5,6
	工件最大重量(t) Max weight of part(t)	2	3	5	15	25/15	25	60	100	16/25	25
工件转速 (无级)(r/min) Work speed (stepless) (r/min)		1~150	1~100	1~100	1~70	1~60	1~60	1~50	1~40	1~30	1~30
尾架纵向移动速度 (mm/min) Longitudinal moving speed of tailstock (mm/min)		手动	手动	手动	1800	1800	1800	1055	1310	1800	1075
中心架支承直径 (mm) Supporting dia. of steady rest (mm)		50~300	50~300	90~435	90~680	90~680	90~780	300~950	350~950	90~500	65~400
拖板纵向移动速度无级)(mm/min) Longitudinal moving speed of carriage (mm/min)		0~7500	0~4000	0~2500	0~4000	0~4000	0~4000	0~4000	0~4000	0~2500	0~2500
砂轮床身二导轨中心距 (mm) Distance b wtwen two guideway centers of wheel b ed (mm)		850	465	650	1000	1200	1200	1200	1200	1000	1000
砂轮架 Wheel head	横向移动最大距离 (mm) Max. horizontal stroke (mm)	425	400	560	560	900/650	900	950	950	650	650
	横向快速移动速度 (mm) Horizontal rapid moving speed (mm/min)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
	连续 横进给(mm/min) Continuous cross feed (mm/min)	0.002~1.2									
	周期 横进给 m/m/行程) Periodical cross feed (mm/stroke)	0.002~0.12									
	电子 手轮 进给量 /(p)m Electronic handwheel feed amount (mm/p)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	砂轮 规格(外×宽×内)(mm) Wheel dimensions (O.D×W×I.D) (mm)	750x60x305	750x75x305	750x75x305	750x75x305	900x100x305	900x100x305	900x100x305	900x100x305	900x75x305	750x75x305
	砂轮 线速度(m/) Wheel peripheral speed (m/s)	35(45)	35(45)	35(45)	35(45)	35(45)	35(45)	35(45)	35(45)	35	35
	中凸(凹)量 (m)n Mid convex (concave) amount (mm)	≤1	≤1	≤3	≤3	≤3	≤3	≤3	≤3	≤3	≤3
	测量 装置测量 范围m)(Measuring range (mm)	50~300	50~500	100~630	100~800	150~1000	150~1250	300~1600	350~2000	150~1600	350~3150
主要电机功率 Power of main motors	头架电机 (kW) Workherd motor (KW)	9	22	18.5	37	45	45	55	90	30/45	45
	砂轮 电机(kW) Wheel motor (kW)	30	37	30(55)	45(55)	75	75	75	75	55	55
	砂轮 架横向进给 电机Nm) Wheelhead cross feed motor (Nm)	11.4	13	13	13	13	13	13	13	13	13
	拖板纵向移动电机 (Nm) Carriage longitudinal displacement motor (Nm)	70	70	27	50	50	50	50	50	50	50
	中高伺服 电机 (Nm) Servo motor for grinding convex (Nm)	5.2	5.2	6	6	6	6	6	6	6	6

主要工作精度 MAIN MACHINING ACCURACY	圆度 Ronudness	1~2	圆柱度 Cylindricity	1~2	辊型误差 Form error	1~2	表面粗糙度 Surface roughness	Ra0.1

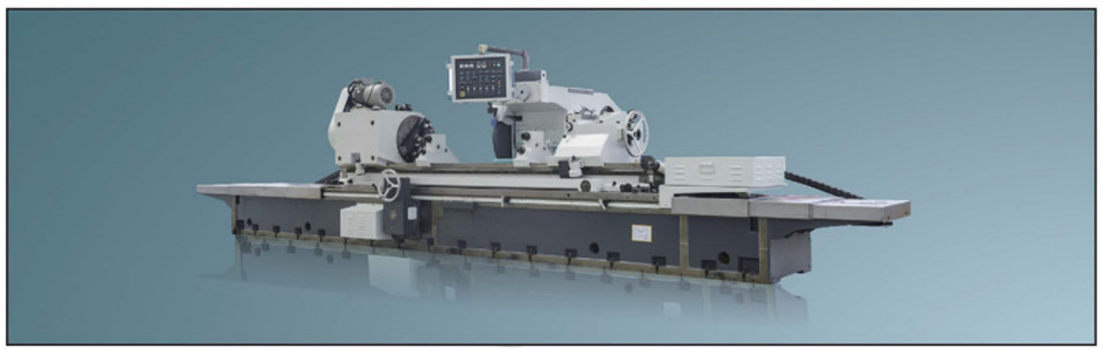






外圆磨床 Cylindrical Grinder

产品型号 Machine model	磨削直径 Dia.to be ground (mm)	磨削长度 Length to be ground (m)3,5,6	加工精度 (m) Working accuracy		总功率 Total power (kW)	机床重量 Weight (kg)	外形尺寸 Overall dimensions (cm)	备注 Remark
			圆度 Roundness	直径一致性 Consistency of diameter				
M1380C	100~800	3 5 6m	2 5	5	50	45000(5米)	1450×383×228(5米)	外圆磨床
MK1380	100~800	3 5 6m	2	5	50	45000(5米)	1450×383×228(5米)	数控外圆磨床
M13100	100~1000	3 5 6m	2	5	50	55000(5米)	1650×383×258(5米)	外圆磨床
MG1380	100~800	3 5 6m	1 5	5	50	45000(5米)	1450×383×228(5米)	高精度外圆磨床
MKG1380	100~800	3 5 6m	1 5	5	50	45000(5米)	1450×383×228(5米)	高精度数控外圆磨床



产品不断改进，如有修改恕不通知 The product are subject to change without notice