



CNC UNIVERSAL GRINDING MACHINES

CNC 万能磨床





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AZ Universal grinding machines range has been designed to fulfil the requirements of a wide range of applications that combine external, internal, face and taper grinding of components such as: transmission shafts, electric motor shaft, gas turbine shafts, railway shafts, machine tools shafts, landing gear components, etc.

AZ 万能磨床系列的设计
可满足外圆、内圆、端面和锥度零件磨削的应用，例如：传动轴，电机轴，燃气轮机，铁路轴，机床轴，起落架



MACHINE 磨床

RUX is an universal grinding machine CNC controlled. The machine is designed with grinding wheel moves on base by ball screw system and linear guideways. The workpiece is clamped by headstock fixed on the base and tailstock moves easily on the table. Base is specifically designed to obtain the best result between structural deformations and

RUX数控万能磨床。该磨床采用滚珠丝杠系统和直线导轨设计，砂轮在底座移动。工件由固定在底座上的头架和在工作台直线导轨上移动的尾座夹紧。

底座采用特殊设计的复合材料，在结构变形和振动减幅时达到最佳效果。可选配数控或手动旋转工作台。





vibration dumping. As an option the table can swivel
CNC or manually controlled

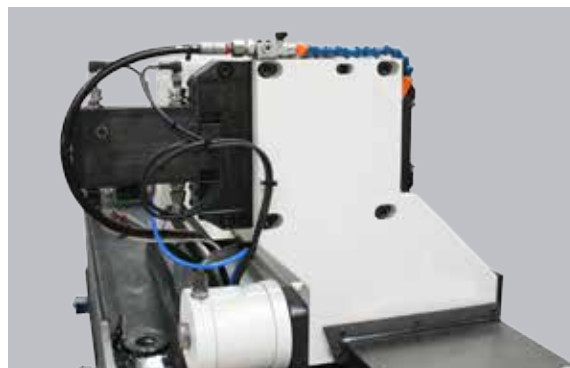
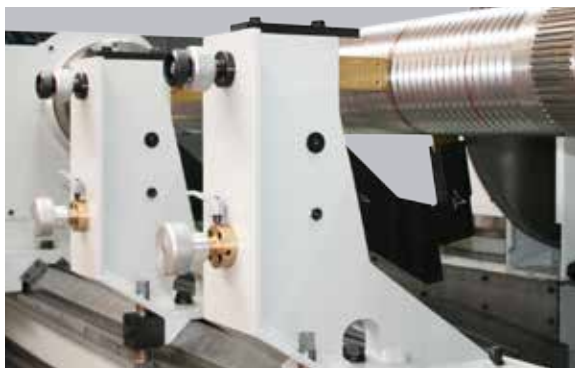


HEADSTOCK & TAILSTOCK 头架和尾座

The headstock is designed to use different clamping systems in accordance with the specific workpiece. The headstock can swivel manually or automatically. Headstock and tailstock use morse cone or asa centering system. The tailstock is equipped with conicity (taper) adjustment with continuous control

头架根据特定的工件，采用不同的夹紧系统。
主轴箱可手动或自动旋转。
主轴箱和尾箱采用莫斯圆锥或定心系统。尾座采用锥度调节和可连续控制中心的装置





of the force between centers.

The machine can be equipped with different workpiece supports that can be moved manually or automatically along the table:

- 2 points manual steady rest for external grinding
- 3 points automatic steady rests for external grinding
- 3 points steady rests for internal grinding
- Loading and Unloading V support steady rests

这台机器可配备不同的工件支架，
可手动或自动沿工作台移动：

- 外圆磨削2点手动中心架
- 外圆磨削3点自动中心架
- 内圆磨削3点中心架
- 可拆卸V型扶架

GRINDING WHEEL HEAD

砂轮头

Grinding wheel carriage moves on Z and X axes by ballscrew and guideways. The grinding wheel head position is controlled by closed loop linear encoder. The wheelhead can have different configurations:

- fixed
- manually B-axis rotation $\pm 20^\circ$
- automatically B-axis rotation $\pm 30^\circ$

The grinding wheel can be equipped with automatic balancing system and vibration control. The grinding wheel dressing is made by automatic fixed point dresser mounted on the back of the headstock. As optional equipment for ID grinding, the machine can be equipped with hydraulic vertical engagement spindle, a rapid changing system from OD to ID grinding.

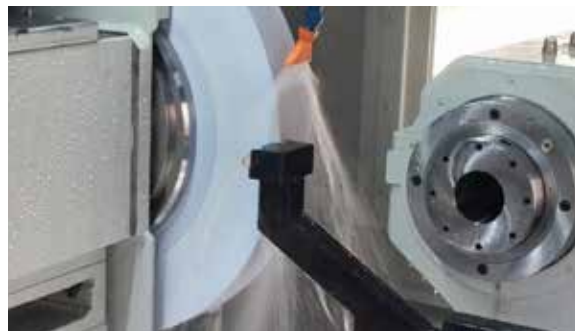
砂轮头架通过滚珠丝杠和导轨在Z轴和X轴上移动。头架旋转定位采用全闭环线性编码器控制，可配置不同类型的砂轮头架：

- 固定
- 手动B轴旋转 $\pm 20^\circ$
- 自动B轴旋转 $\pm 30^\circ$

砂轮可配置自动平衡系统和振动控制系统。砂轮由安装在工件头架背面的自动定点修整器修整。

本机床可选配液压立式啮合主轴，可实现外磨到内磨的快速切换。





CONTROL & MEASURING SYSTEM

控制和测量系统

The machine is equipped with

MODULAR MULTI-FUNCTION SYSTEM FOR GRINDING PROCESS CONTROL *

this system can be configured according to customer requests:

- grinding wheel/workpiece contact control
- grinding wheel/diamond contact control and tool usury recovery system
- crash control
- wheel balancing control with automatic balancing device
- workpiece positioning control with touch probe

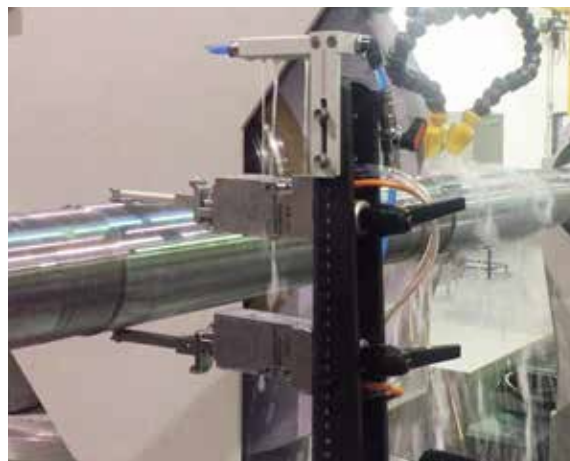
该磨床配有

控制磨削过程的多功能系统模块*

该系统可根据客户需求配置：

- 砂轮/工件接触检测控制
- 砂轮/金刚石接触检测和砂轮磨损修正系统
- 防撞控制
- 砂轮自动平衡装置
- 带有探针的工件定位装置





- in-process diameter control with 2 points measurement
 - digital in process journal size gauge with measuring fork manual engagement
 - automatic modular gauge heads for in-process dimensional control

- 两点在线测量直径
- 配置手动量爪啮合的在线数字尺寸测量仪表
- 在线尺寸控制自动模块化仪表

**All measuring equipments are optional*
 所有测量装置都是选配

TECHNICAL SPECIFICATIONS*

技术规格*

		RUX1000	RUX1600	RUX2000	RUX2500	RUX3000	RUX3500
Height centers 主轴中心高	[mm]	225	275	300	300	400	400
Swing over table 工作台上最大回转直径	[mm]	400	500	550	550	700	700
Distance between centers 工作台上最大回转直径	[mm]	1000	1600	2000	2500	3000	3500
OD Grinding wheel diameter range 外径加工范围	[mm]	508-760					
Width of grinding wheel 砂轮宽度	[mm]	from 10÷140					
Maximum weight between centers 工作台最大承重	[kg]	160	250	500	500	1500	1500
Grinding wheel spindle power 砂轮主轴功率	[kW]	from 7 to 15					
Headstock spindle power 头架主轴功率	[kW]	from 2.3 to 3.6					
Headstock speed range 头架转速范围	[rpm]	5-400					

*Indicative data, definitive technical specifications are released during project phase.

*在项目阶段发布指示性数据和最终技术规范。

EQUIPMENT

设备

STANDARD

X and Z axis movement by ballscrew system
CNC Control system
Variable speed of the headstock
Centralized lubricant system
Driving Dogs + driving plates
Conic centers + blunt center
Wheel balancing shaft
Grinding wheel hub puller
Automatic wheel dresser
Guarding conforming to CE standard
Service tools and Operating manual

OPTIONAL

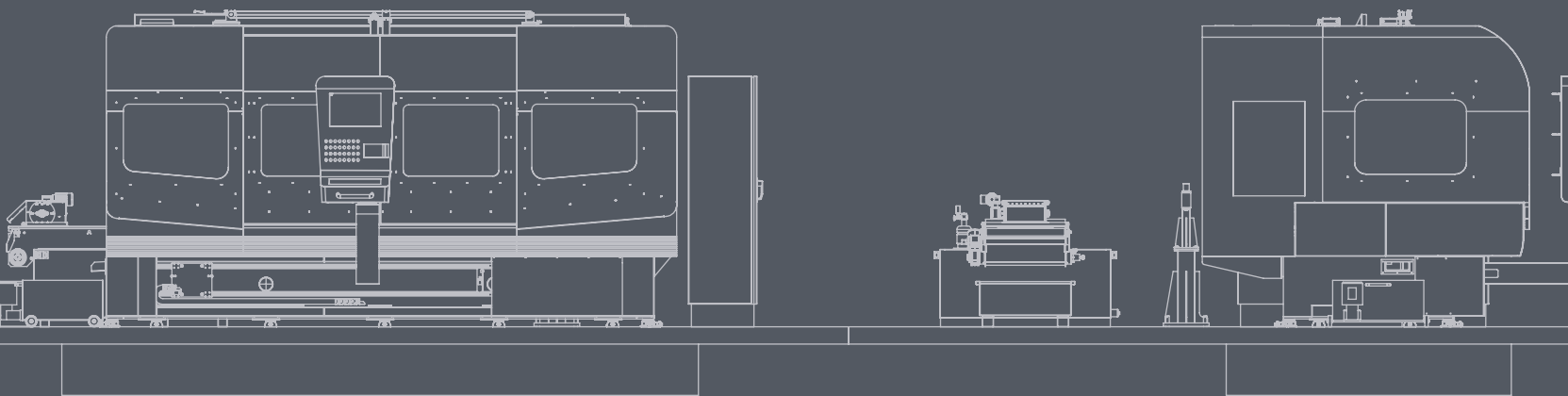
as per customer request

标准配置

X轴和Z轴的运动采用滚珠丝杠系统
CNC控制系统
头架变速
集中润滑系统
拨爪+拨盘
中心顶尖+伞形顶尖
砂轮平衡芯轴
砂轮法兰拉钉
符合CE标准的防护
服务工具和操作手册

选配

根据客户需求



OTHER MODELS ALTRI MODELLI



UNIVERSAL GRINDER
RETTIFICATRICI UNIVERSALI CONVENZIONALI



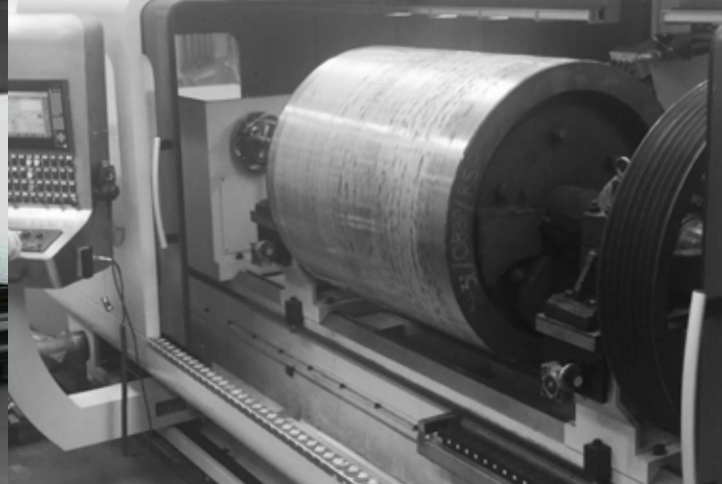
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HIGH PRECISION CNC UNIVERSAL GRINDER
RETTIFICATRICI UNIVERSALI CNC AD ALTA PRECISIONE



CNC HEAVY DUTY UNIVERSAL GRINDER
RETTIFICATRICI UNIVERSALI CNC PER PEZZI DI GRANDI DIMENSIONI





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