

WSK022

数控蓝宝石滚磨机
WSK022 CNC Sapphire Tumbling Mill



技术参数参数 Specifications and Technical Parameters

加工工件参数 Workpiece parameters

适用磨削直径 Applicable diameter

主要参数 Main parameters

中心高 Central height	125mm
砂轮线速度 Linear speed of grinding wheel	25.5m/s (max)
金刚石砂轮尺寸 Size of diamond grinding wheel	Φ300×152×Φ127mm
头架可回转角 Head angle of headstock	±30°
尾架顶行程 Top travel of tailstock (max)	220mm (max)
控制砂轮主轴 Special spindle control	液压顶紧 With hydraulic top clamp
砂轮架电机功率 Motor power for grinding cage	3KW
头架电机功率 Motor power of headstock	0.75KW
头架主轴转速 Spindle speed of headstock (rpm)	1064 (max) (变频无级调速)
头架回转精度 Accuracy of headstock	AC伺服电机回转精度 0.01mm
轴间窜动量 Axial infeed move	0.005mm
数控轴 Axis	X轴: 砂轮架进给 X axis: grinding cage feed Z轴: 工作台进给 Z axis: worktable feed

电源供给及配套设施 Power supply and matched facility

供电电压 Power supply and voltage	交流 AC 380V 50Hz
相对湿度 Relative humidity	≤ 75%
环境温度 Environment temperature	15℃~35℃
振动 Vibration source	周围无振动

磨削精度 Grinding accuracy

圆度 Roundness	≤ 0.08mm
纵截面内尺寸一致性 Dimensional uniformity within longitudinal section	0.1mm
表面粗糙度 Surface roughness	Ra 0.5um

机床用途 Applications

- 本机床用于磨削太阳能行业、单晶硅材料及蓝宝石材料，可磨经切后2寸~6寸材料的外圆（磨2寸圆棒无需更换金刚石砂轮）。
- 头架、尾架采用特制液压顶紧方式磨削。
- 采用进口二轴联动数控系统，内置DI、CNC功能显示屏。
- 工作台纵向移动及砂轮架横向移动采用伺服电机，实现无级拖动。
- 机床床身为高强度、高刚性的铸铁整体铸造，采用高刚度结构，有良好的吸振和热平衡性能。
- 工件长度变化在100mm内，可不移位磨削，且磨削力可任意调整。
- 磨削加工是棒材时，一次装夹完成粗磨、半精磨、精磨、刃尺寸退出。
- 电器柜与床身刚性连接，避免灰尘刮屑堆积，保证电气连接可靠。

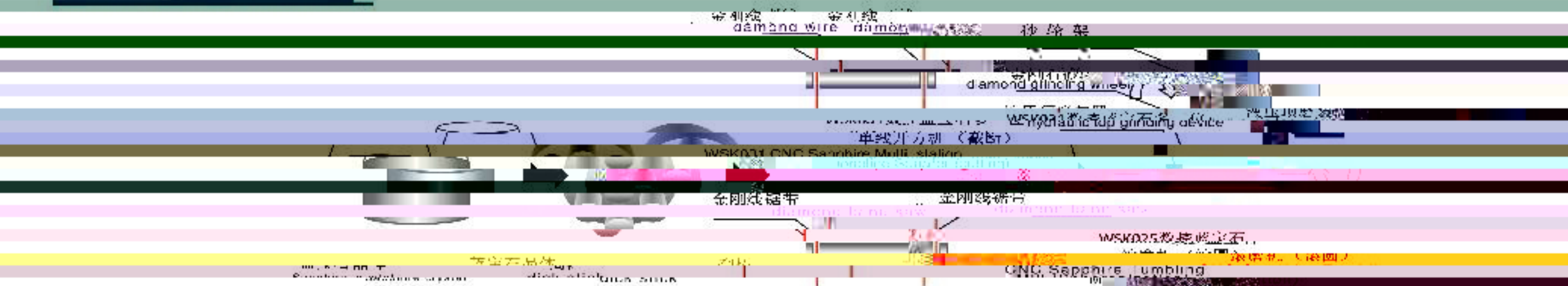
Main Applications and Structural Features

- This equipment is applied in the PV industry, processing monocrystalline silicon bar, sapphire bar and grinding circle of 2"~6" inch bar and grinding.
- Headstock and tailstock applies special hydraulic top clamp type grinding.
- Applies imported two-axis linkage CNC system, with DI, CNC function display.
- Worktable longitudinal movement and grinding wheel transverse move servo motor ball screw drive.
- Casing is casted by high strength, low stress cast iron, with high stiffness structure and good performance of shock absorption and heat balance.
- Length change of work piece shall be within 100mm, no need to be fixed, hydraulic top force of it can be whatever adjusted.
- While grinding crystal bar, when a single set up, automatic grinding circulation can be constructed (fast forward, coarse grinding, finish grinding to entry, etc).
- Electric cabinet connects with body, avoiding repeated disassembly, ensuring reliable connection.



加工过程 Processing process

磨削工艺 Grinding process



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