

技术规格参数 Specifications and Technical Parameters

机床规格 Specifications 4500A3 10500x5700x2700

工件重量 Workpiece Weight <250kg/件

主要参数 Main Parameters

金刚线规格 Diameter of diamond wire 2.0mm/2.3mm/2.5mm

工位数量 NO. of station 4 可根据需求增加

最大速度 Speed of workpiece 40m/min

加速度 Acceleration 10m/s² (100g)

线速度 Line speed 20m/s (max)

摇摆角度 Swing angle 30°/45°

摇摆速度 Swing speed 30°/s

工件方位 Workpiece crystal orientation 20000°/s

切割方向 Slicing orientation 前进或后退切割/双向切割

金刚线切割速度 Diamond wire cutting speed 30m/s (max)

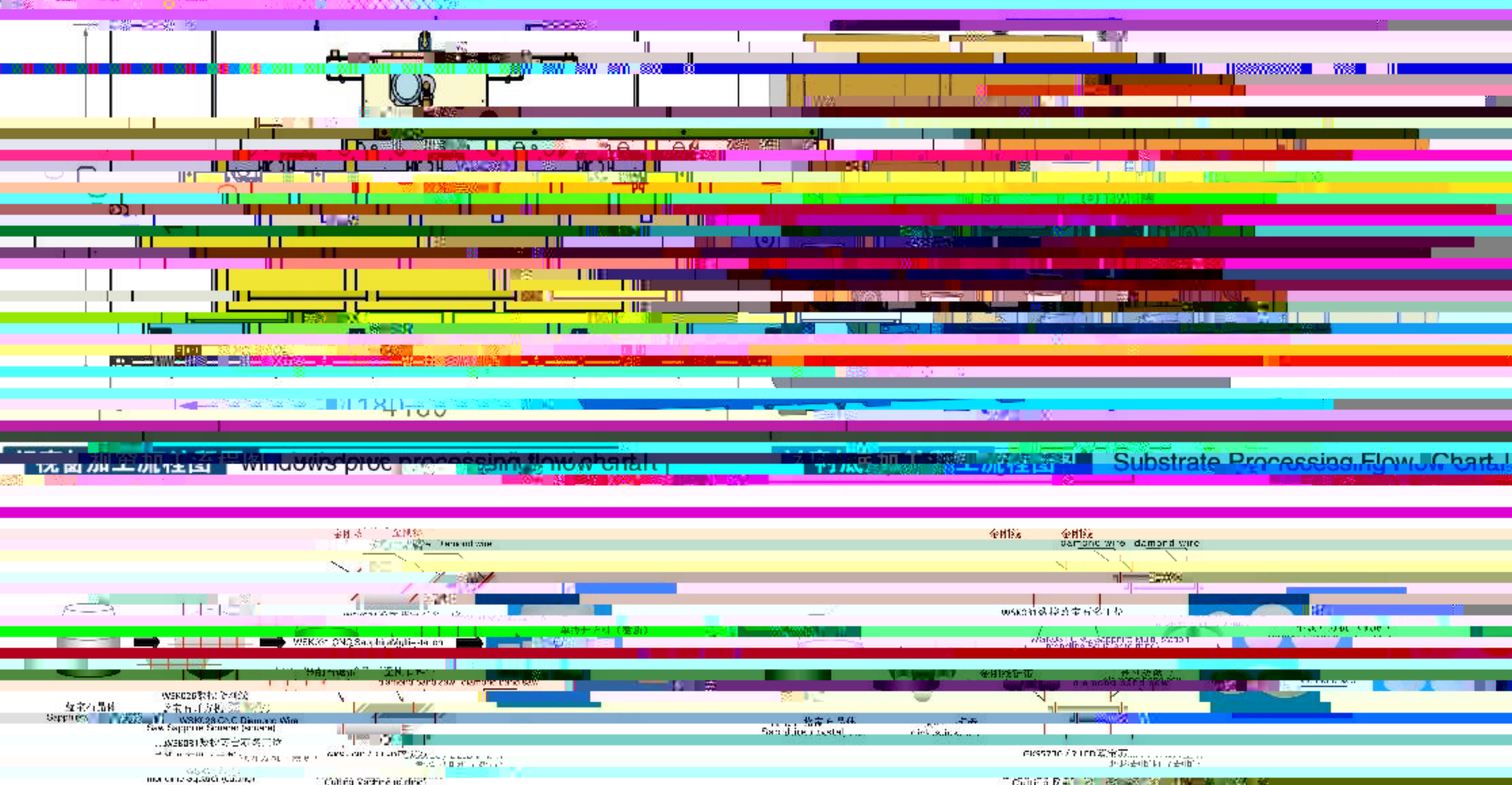
电源供给及配套设施 Power supply and facility 380V

所需功率 Requirement of power 电压 voltage: 380V; 频率 frequency: 50Hz

冷却水流入温度 Cooling water temperature 10°C-20°C

环境温度 Environment temperature 15°C-35°C

设备流程图 Equipment flow chart



WSK031

数控蓝宝石多工位单线切割机
WSK031 CNC Sapphire Multi Station Monoline Squarer



机床用途与性能特点

- 本设备为全自动化单线切割机，主要用于LED蓝宝石晶体切割，是新能源的主要配套设备。
- 采用国外进口数控系统，运行稳定可靠。
- 设备布局合理，机械强度高，热稳定性好，整体外观采用全封闭不锈钢设计。
- 摇摆单元优化了金刚线切割蓝宝石的性能，缩短了切割时间，并提高了晶锭的端面质量，减少消耗数量的设计，更有效地降低线耗、减轻对线打损。
- 设备采用三工位，可同时切割不同的蓝宝石晶体，并能独立控制每个工位，切割速度也可不同。
- 采用一套收放线机构，可实现收放线、同时也能使用多根金刚线。
- 优化张力控制系统，利用高张力切割，保证了切割的质量和效率。
- 采用三工位旋转工作台，多方位调整工件，单一面布线等方案。
- 采用整体式设计，配备冷却水系统，外观美观且内部整洁。

Main Applications and Performance Features

- This equipment is diamond monoline squarer, applied in processing LED sapphire ingots, which is the main equipment for new energy industry.
- Apply abroad imported CNC control system, inferior human-computer interface, easy to operate.
- Reasonable layout, high mechanical strength and perfect thermal stability. Overall appearance design.
- Swing unit optimizes performance of diamond wire cutting sapphire, time and improving end face quality of ingots, reducing quantity of wire's consumption and reducing damage to wire.
- Apply three-station, slicing different sapphire ingots simultaneously, or control each station separately, speed can be adjusted independently.
- Apply design of retractable cable driven 3 stations, save 50% wire, and be able to use old wire used in multi-line as well.
- Optimize tension control system, ensure the quality and efficiency of cutting.
- Apply three-station rotary worktable, adjust crystal orientation on multi-aspect. Single plane wiring program.
- Apply overall design, matched with water tank for cooling, beautiful appearance and clean inside.