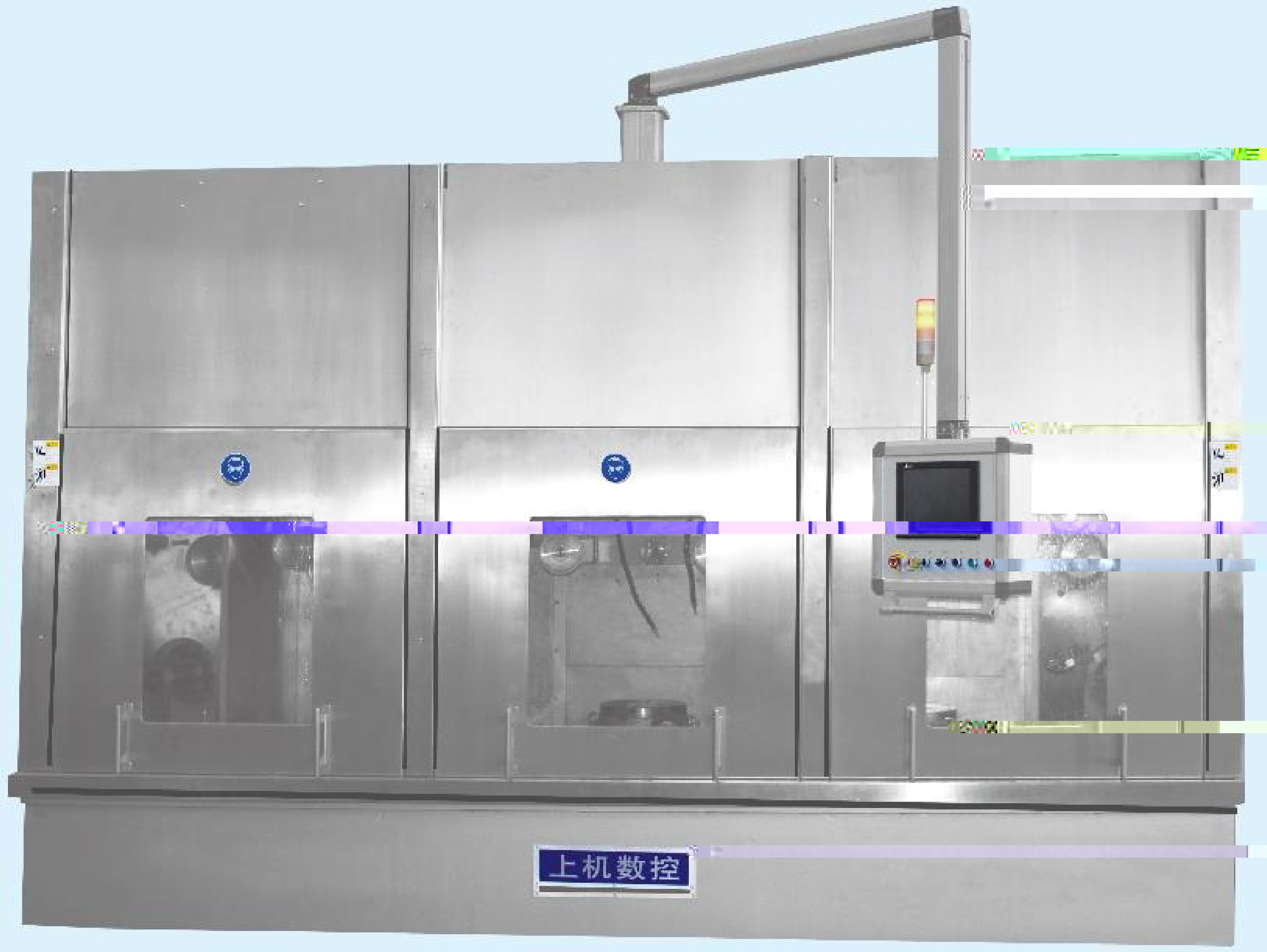
WSK031

数控蓝宝石多工位单线开方机

WSK031 CNC Sapphire Multi Station Monoline Squarer



机床用途与性能特征

- 本设备为金刚线单线切割机，主要用于LED蓝宝石晶体的切割，是新能源的主要配套设备；
- 采用国外进口数控控制系统，人机友好界面，操作简便；
- 设备布局合理，机械强度高而且热稳定性好；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；减少滑轮数量的设计，更有效地降低线耗、滑轮等耗材；
- 设备采用三工位，可同时切割不同的蓝宝石晶体，也能独立控制每个工位，切割速度也可不同；
- 采用一套收放线同时带动3个工位，省线50%，同时也能使用多线切的旧线来切；
- 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，多方位调节晶向，单一平面布线等方案；
- 采用整体式设计，配备切割用水箱，外观美观且内部整洁。

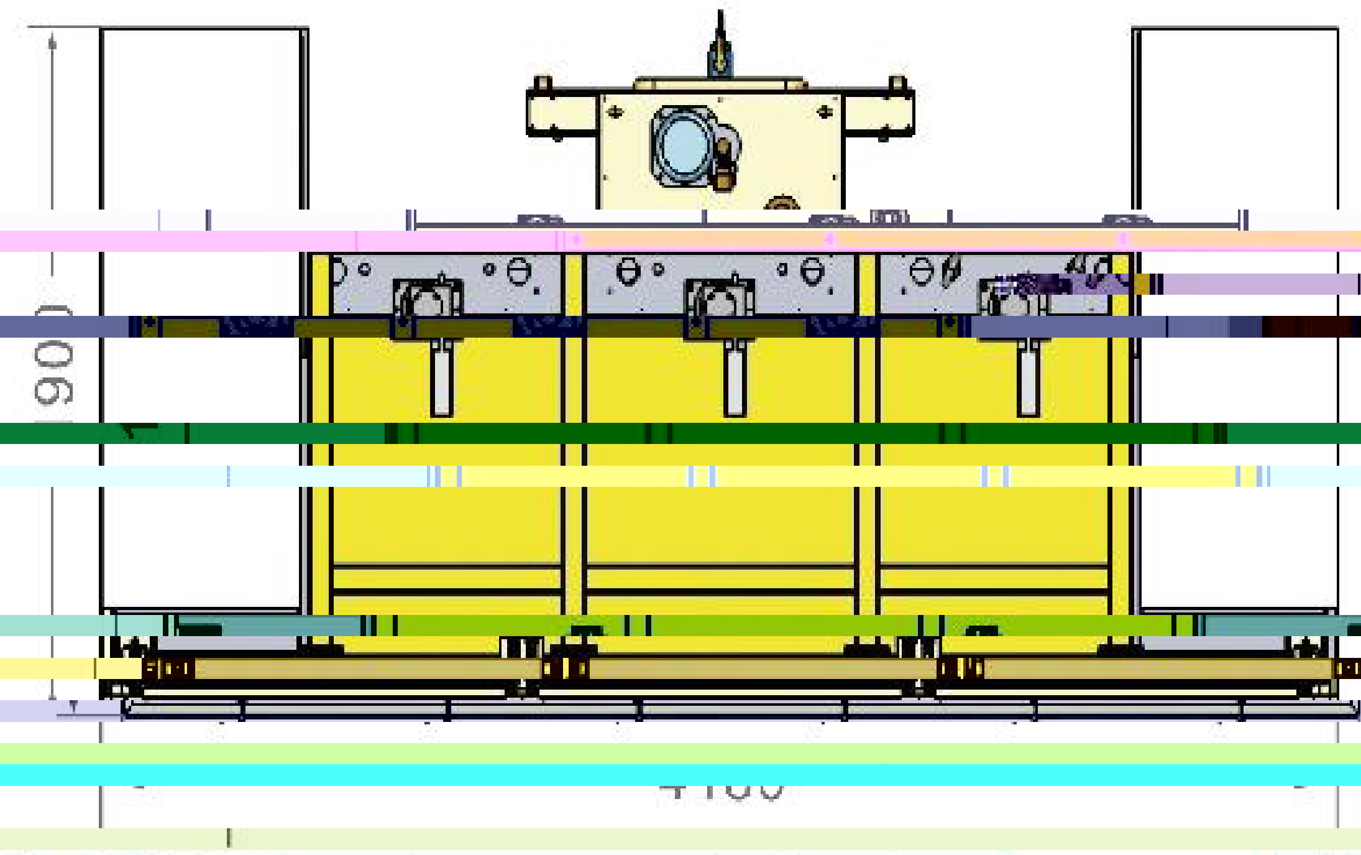
Main Applications and Structural Features

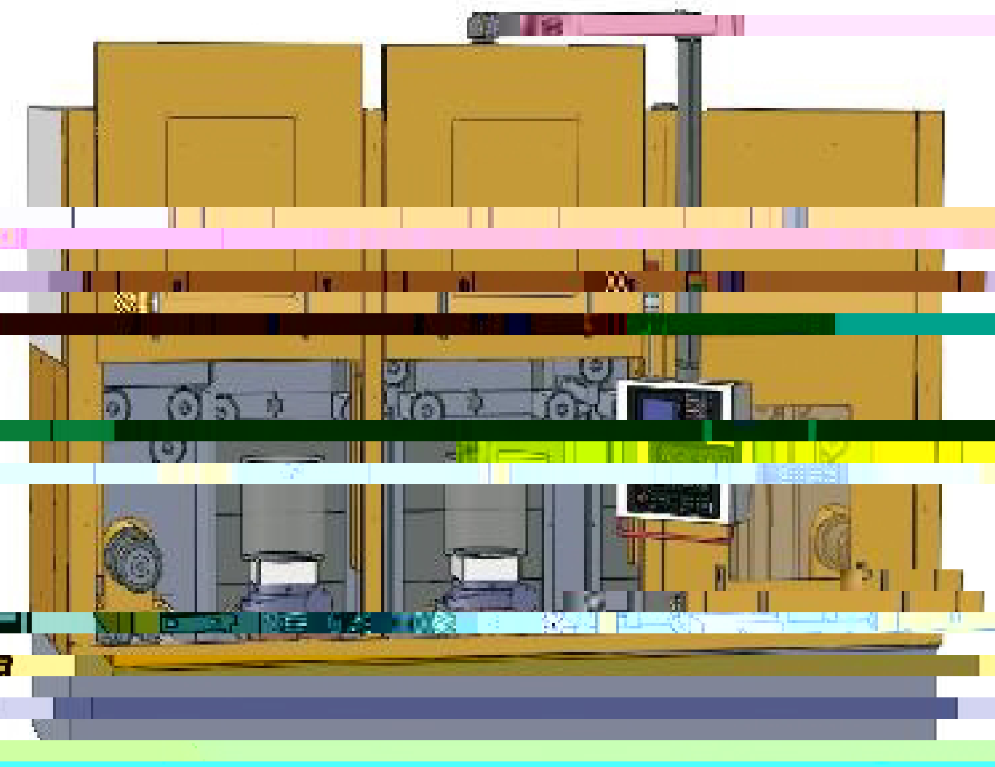
- This equipment is diamond monoline squarer, applied in processing LED sapphire ingots, which is the main equipment for new energy industry.
- Apply abroad imported CNC control system, friendly human-computer interface, easy to operate.
- Reasonable layout, high mechanical strength and perfect thermal stability. Overall appearance applies full closed stainless steel design.
- Swing unit optimizes performance of slicing sapphire, shortening time, and improving end-face quality of ingots, reducing quantity of pulleys, which decreases consumables such as wire and pulleys.
- Apply tree-station, slicing different sapphire ingots simultaneously, or control each station separately, speed of slicing can also be different.
- Apply one set of retractable cable that drives 3 stations, save 50% wire, and be able to use old wire used in multi-line as well.
- Optimize tension of control system, by high-tension slicing, ensuring quality and efficiency of squaring.
- Apply tree-station rotary worktable, adjust crystal orientation on multi-aspect. Single plane wiring program.
- Apply overall design, matched with water tank for slicing, identical appearance and clean inside.

技术规格参数 Specifications and Technical Parameters

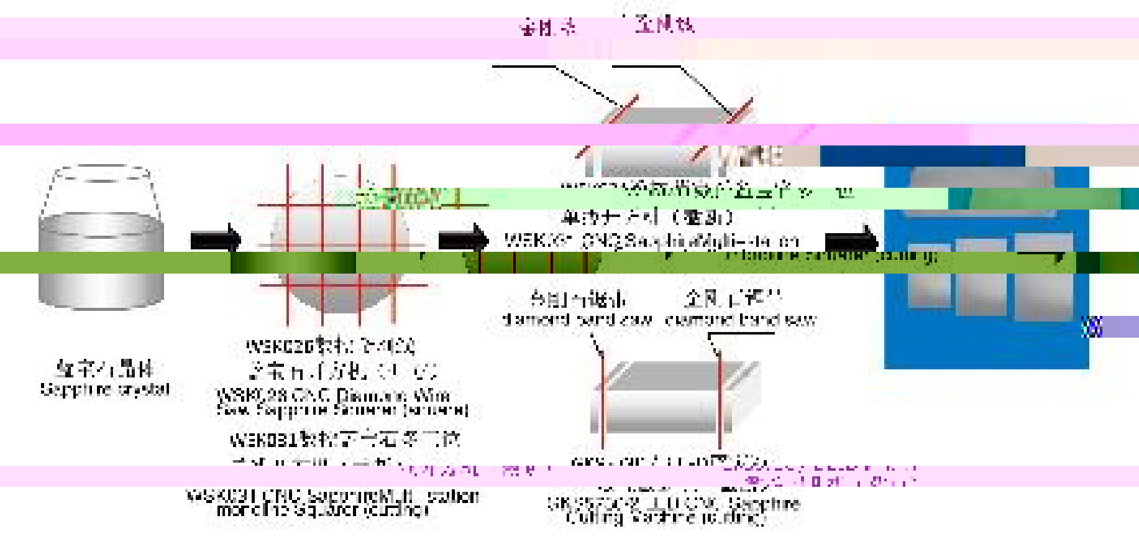
加工工件参数Workpiece parameters	
工件规格Specifications	Φ500x500mmx3件
工件重量Weight	＜250Kgx3件
主要参数Main parameters	
金刚线直径Diameter of diamond wire	Φ0.23~0.5mm
工位数量NO.of station	根据导轮槽距而定
工件台速Speed of worktable	
加速度Acceleration	(max)
线速度Line speed	20m/s(max)
摇摆角度Swing angle	±8°
摇摆速度Swing	25度/秒
工件晶向Workpiece crystal orientation	360°＋90°
切割方向Slicing orientation	前进或后退切割/双向互换切割
	forward or backward slice/two-way exchange of cutting
电源供给及配套设施Power supply and matched facility	
电源要求Requirement of power	电压voltage：380V；频率frequency：50Hz
冷却水流入温度Cooling water	10℃-20℃
周围环境温度Environmental temperature	15℃-25℃

设备局部图 local picture

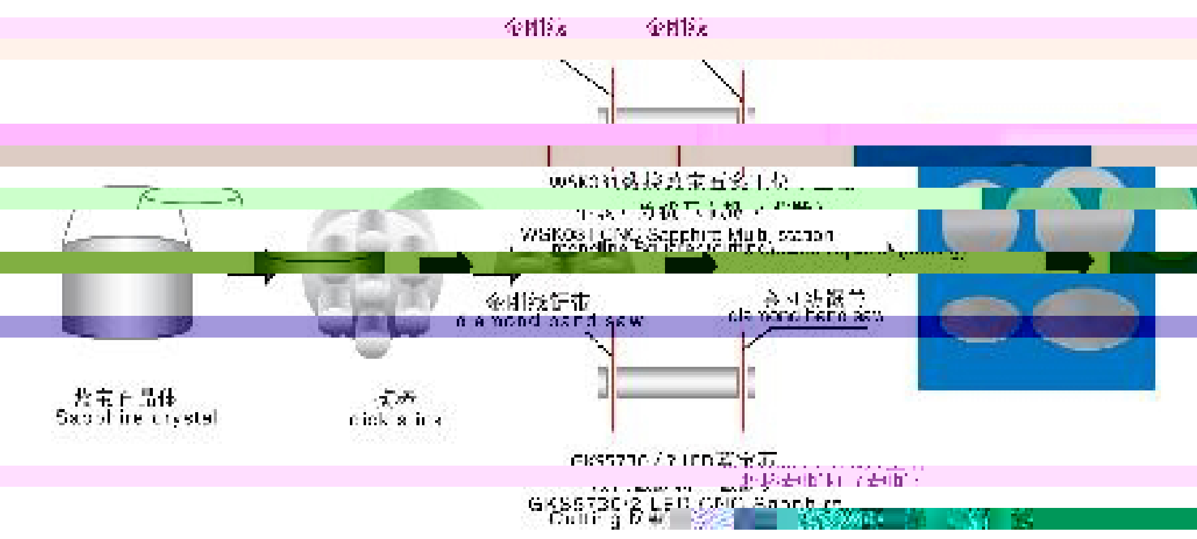




视窗加工流程图 windows processing flow chart


蓝宝石晶体
Sapphire crystal
WSK028 CNC Diamond Wire Saw Sapphire Squarer
WSK031数控蓝宝石多工位
WSK031 CNC Sapphire Multi-station monoline Squarer
diamond band saw
diamond band saw
GKS5730 LED CNC Sapphire Cutting Machine

衬底加工流程图 Substrate Processing Flow Chart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