

WSK063

半导体晶圆切片机

WSK063 SiC slicing machine



技术规格参数 Specifications and Technical Data

工件 workpiece	
横断面 cross section	≤Φ320mm
长度 length	2×300mm/1×600mm
厚度 thickness	≤0.200mm (必须调整制程 must adjust manufacturing process)
切割速率 cutting rate	
快速移动 fast move	200mm/min
工件行程 working stroke	最大 MAX 385mm
线材 wire	
芯线径 diameter of core wire (external diameter)	0.03-0.5mm
钢线长度 length of wire	按线轮而定 according to wire wheel
钢线方向 direction of wire	前进或后退切割 forward or backward/double directional cutting
预张力 pre-tension	最大 MAX 50N (按钢线直径而定) max 50N/50g (according to diameter of wire)
导轮 guide wheel	
直径 diameter	Φ192mm
长度 length	662mm
个数 number	3
电机功率 main motor power	最大 max 32.30KW
轴距 (左右) wheel base (left & right)	540mm
轴距 (上下) wheel base (up & down)	1500mm 450mm
钢线偏置滚轮 offset roller	
直径 diameter	100mm
个数 number	2×3 (个)
卷绕线盘 winding coil	
卷绕轴工作高度 working height of winding shaft	1355mm
卷绕线盘 winding coil	WSK063-357-31-201
卷绕线盘容量 coil capacity	1100g
最大容量 maximum capacity	3000g
最大温度 maximum temperature	±15℃
冷却水流量 inflow rate	最大 MAX 100L/min (可调节) max 100L/min (adjustable)
冷却水温度 inflow temperature of cooling water	15-35℃
冷却系统 cooling system	
安全 safety	安全(VPE), 供货商 supplier, SPS 控制系统系列 SPS series with integrated PLC 控制 (控制), 供货商 supplier
外观尺寸及总重量 outline dimension and total weight	
长度 length	1470mm 4425mm
宽度 width	2170mm
高度 height	2503mm
总重量 total weight	41300kg

设备用途和特性

- 本机适用于半导体行业，用于切割半导体晶片，最大尺寸 330mm，切片厚度最小为 0.2mm，必须调整制程，一次装夹最大可切片达 1300(2300)片，是半导体行业切片生产线的优选设备。
- 本机特点：
- 1、两个钢线导轮驱动，收（放）线驱动，钢线张力控制。
- 2、钢线张力的检测控制也是通过钢线张力传感器。
- 3、工件进给由伺服电机通过滚珠丝杠驱动，进给速度与大小与钢线的引导速度相匹配。
- 4、切削液的搅拌与输送。切削液管道通过热交换器，保持切削液温度恒定，通过热交换器，保持切削液温度恒定。
- 5、本机底为最新技术集中产品。

Applications and structural features

- the machine is used for cutting semiconductor wafer which is mainly used for processing equipment. The max dimension of cross section is 330mm, the minimum thickness of section is 0.2mm, adjust direct cutting procedure, it may cut 1300 pieces at one clamping, the optimized equipment for semiconductor manufacturers.
- features:
- two wire guide wheel drive, supply & release wire, cable drive, roll for wire supply, release wire, and must be synchronized.
- detection control of wire tension, it will be controlled by servomotor (constancy).
- workpiece feeding is driven by servo motor, motor through ball screw feed, its travel speed and guiding speed of wire.
- agitation and conveying of cutting liquid, cutting liquid pipe can reach up constant temperature through heat exchanger, matching with cooling rate.
- this machine is an integrated high-tech product.