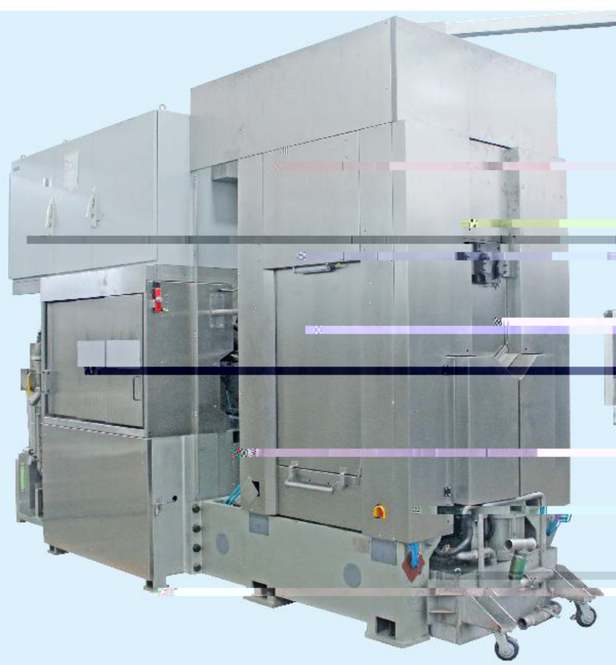
WSK063

半导体晶圆切片机

WSK063 SiC slicing machine



设备用途和特性

- 本机床适用于光伏行业，用于半导体晶棒的切片，是半导体行业生产硅片和碳化硅等硬脆性材料加工的关键设备，最大可切330mm，切片厚度最小为0.2mm，必须调整制程，一次装、夹最大可切的达标CCC证书是半导体行业生产半导体的优选设备。
- 本机床特点：
- 1、两个钢线导轮驱动，收（放）线驱动，取收（放）线驱动线驱动，共六组伺服驱动，同步运行。
- 2、钢线张紧力的控制通过伺服电机扭矩（恒定）。
- 3、工件进给由伺服电机通过滚珠丝杠副（高精度）。钢线的引导速度相匹配。
- 4、切削液的搅拌与输送。切削液管理设备温度及计量器计量，与切片机床配套。
- 5、本机床为高新技术集中的产品。

Applications and Structural Features

- the machine is used for cutting semi-conductor bar, which is main processing equipment. The max dimension of cross section is 330mm, the minimum thickness of section is 0.2mm, adjust process and procedure. It may cut 1300-2300 pcs at the clamping, the optimized equipment for semi-conductor manufacturers.
- features:
- two wire guide wheel drive, spool (put) wire drive, take up (put) wire drive, all of these apply servo drive, and must be synchronized.
- detection control of wire tension is be controlled by servo motor (constancy)
- workpiece feeding is driven by servo motor through ball screw, feed rate is matched with guiding speed of wire.
- cutting fluid conveying or cutting fluid mixing. The cutting fluid is at constant temperature through heat exchanger, matching the slicing machine.
- this machine is an integrated high-tech product.

技术规格参数 Specifications and Technical Parameters

工件 workpiece	
横断面 cross section	≤Φ330mm
长度 length	2×230mm；1×60mm
厚度 thickness	0.20-2.00mm（必须调整制程 must adjust manufacturing process）
切割速率 cutting rate	
线速度 linear velocity	最大 max 50m/s
快速移动 fast move	200mm/min
工作行程 working stroke	最大MAX 285mm
钢线 wire	
芯线径 diameter of core wire (external diameter)	0.035-0.400mm
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50N（常规钢线直径而定）max 50N (according to diameter of wire)
导轮 guide wheel	
直径 diameter	Φ192mm
长度 length	540mm
个数 number	3
主电机功率 main motor power	最大 max 45.0KW
轴距（左右 wheelbase (left & right)）	540mm
轴距（上下 wheelbase (up & down)）	450mm
钢线偏移轮 offset wheel	
直径 diameter	160mm
个数 number	2×3(6)
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	WSK0725-31-2000
切削液供给 cutting fluid supply	
切削液槽容量 capacity of cutting tank	300L
恒温输送 thermostatic	温度精度 temperature constant
输送流量 pumping rate	最大MAX 120L/min
冷却水温度 inflow temperature of cooling water	
控制系统 control system	
类型 type	SPS控制 SPS controller
供货商 supplier	西门子 (Siemens)
外观尺寸及总重量 outline dimension and total weight	
长度 length	4470mm
宽度 width	2170mm
高度 height	3560mm
总重量 total weight	约7000kg

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