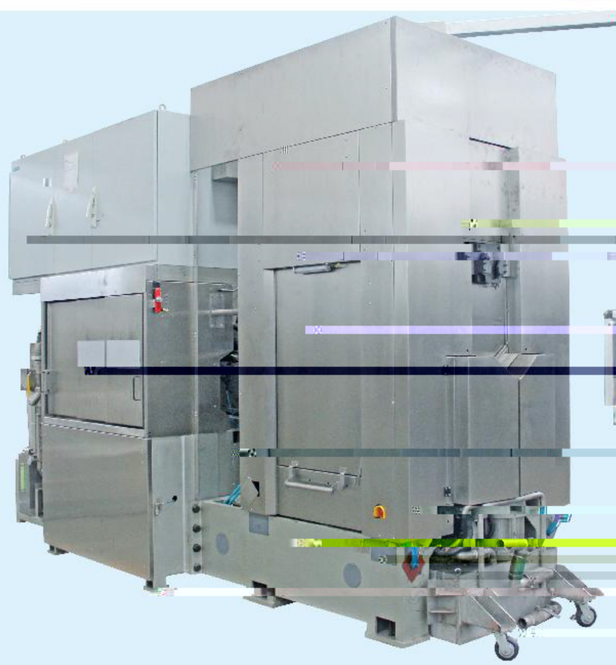
WSK063...

半导体晶圆切片机

WSK063 SiC slicing machine



设备用途和特性

- 本机床用于将单晶棒的切片，是半导体行业生产中必不可少的设备。
- 本机床特点：
- 1、两个钢线导轮驱动，收（放）线驱动采用伺服电机，能线驱动采用伺服电机，主轴伺服。
- 2、钢线张紧力的控制通过伺服电机扭矩（位置）控制。
- 3、工件进给由伺服电机通过滚珠丝杠副与（位置）控制。
- 4、切削液的搅拌与输送。切削液管道通过恒温装置进行温度及计量器计量，与切片机的
- 5、本机床为高新技术集中的产品。

Applications ans selection characteristics

- the machine is used for cutting Semi-conductor bar, which is main processed processing equipment. The max dimension of cross section 330mm, the minimum thickness of section 0.2mm, adjust procedure. It may cut 330*330 section bar. After clamping, the optimized equipment for semi-conductor manufacturers.
- features:
- two wire guide wheel drive (single drive, double drive, cable drive, all of these apply servo drive and must be synchronized.
- detection control of wire tension also be controlled by servo motor (constancy)
- workpiece feeding by servo motor through ball screw (position) control.
- automatic guiding speed of wire.
- automatic and conveying of cutting fluid, cutting fluid must pre-cair reach constant temperature through heat exchanger, metric the slicing rate.
- 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	0.20.200mm（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（速度
快速移动 fast move	200mm/min
工作行程working stroke	最大MAX.385mm
钢线 wire	
芯线径 diameter of core wire (external diameter)	0.03-355-0.400m
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（需视钢线直径而定）max 50N (according to diameter of wire)
导轮 guide wheel	
直径diameter	Φ192mm
长度length	662mm
个数number	3
主电机功率main motor power	最大 max 45KW
轴距（左右）wheelbase (left&right)	540mm
轴距（上下）wheelbase (up&down)	450mm
钢线偏移量offset of wire	
直径diameter	100mm
个数number	2×3(6)
卷线装置 winding coil	
卷绕轴工作高度working height of winding shaft	1355mm
卷线盘winding coil	WSK027S3-01J01
切削液供给装置cutting compound supply	
切削液流量大小 capacity of cutting ra	30L/min
金刚线张紧力constant tension force	30N
切削液温度 constant temperature fluid 18℃	可选择预设温度 optional preset temperature 20-30℃
金刚线进给速度 cutting rate	最大MAX.1200mm/h 可调整，使用前需计算后确定
冷却水进入温度 inflow temperature of cooling water	20℃
控制系统 controlling system	
类型type	SPSmotion
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	2563mm
总重量total weight	约3000kg

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