WSK063

半导体晶圆切片机

WSK063 SiC slicing machine

设备用途和特性

- 本机床适用于碳化硅半导体晶体的切片，是半导体行业用于半导体晶体加工的专业设备，可实现对晶体的切片，最大可加工截面尺寸为330mm，切片厚度最小为0.2mm，必须调整制程，一次装夹最大可切割达300mm*300mm，是半导体行业理想的生产与研发的优选设备。
- 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，钢线驱动，均采用伺服驱动，且必须同步。
- 2、钢线张紧力的控制是通过伺服电机对（恒定）。
- 3、工件进给由伺服电机通过滚珠丝杠副（恒定）。钢线的切割速度和工
- 4、切削液的搅拌与输送。切削液管道可经热交换器恒温及计量计量，与切片速度匹配。
- 5、本机床为高新技术集中的产品。

Applications and Features

- 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 the second procedure. It may cut 1302 2330 at one clamping, the optimized equipment for semi-conductor manufacturers.
- features:
- two wire guide wheel drive, spool (supply) drive, take-up drive, all of these apply servo drive, and must be synchronized.
- detection control of wire (tension) be controlled by servo motor (constancy)
- workpiece feeding (constant) by servo motor through ball screw pair. rate (constant) cutting speed of wire.
- agitation and conveying of cutting fluid.Cutting fluid pipe can reach constant temperature through heat exchanger, meeting 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；1×600mm
厚度 thickness	>0.200mm（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
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
预张紧力 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 3×30KW
轴距（左右wheelbase（left &right））	540mm
轴距（上下）wheelbase（up&down）	450mm
钢线偏心轮 offset cam	
直径diameter	100mm
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	WSK0277S3.01-301
切削液供给 cutting compound supply	
切削液箱容量 capacity of cutting tank	300L
切削液温度常数 temperature constant of cutting fluid	可选择预设温度 optional preset temperature 20-70℃
泵浦输送率pumping rate	最大MAX 12000kg/h可以调整，使用流量计测并显示adjustable，reader with flowmeter and display
冷却水流入温度 inflow temperature of cooling water	
控制系统 control system	
类型type	SPS控制器系列嵌入式PC in SPS controller S series with integrated PC
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13000kg

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