WSK063

半导体晶圆切片机

WSK063 SiC slicing machine (slurry cutting)

设备用途和特性

- 本机床适用于半导体行业，用于半导体晶棒的切片，是半导体行业硅片加工的主要配套设备。硅锭横断面最大为Φ330mm，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，是半导体行业硅片生产厂家的优选设备。
- 本机床特点：
- 1、两个钢线导轮驱动，收（放）线驱动，及收（放）线的排线驱动，均采用伺服驱动，且必须同步。
- 2、钢线张紧力的检测控制也通过伺服电机施加（恒定）。
- 3、工件进给由伺服电机通过滚珠丝杆拖动，进给量的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达到恒温，及计量器计量，与切片速度相适应。
- 5、本机床为高新技术集中的产品。

Apications ans structural features

- the machine is used for cutting Semi-conductor bar, which is main matched processing equipment. The max dimension of cross sectionΦ330mm , the minimum thickness of section 0.2mm, adjust processing procedure, it may cut 1300-2300 section at one clamping, the optimized equipment for semi-conductor manufacturers.
- features:
- two wire guide wheel drive, spool 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 is driven by servo motor through ball screw, feed rate is matched with guiding speed of wire.
- agitation and conveying of cutting fluid.Cutting fluid pipe can reach up constant temperature through heat exchanger, matching 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	2×300mm; 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 30m/s，速率 rate 可以设定 can set
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)	0.055-0.400mm
钢线长度 length of wire	按线轮而定according to wire wheel
钢线方向 direciton of wire	前进或后退切割forward or backward/double directional cutting
预先张力 pre-tension	最大50N（端视钢线直径Φ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)	[illegible]mm
钢线偏向滚轮 offset roller	
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	WSK02753-21-301
供应商卷绕线盘 winding coil of supplier	[illegible]
切削液供应cutting compound supply	
切削液箱最大容量 Max. capacity of cutting tank	300L
切削液温度常数 temperature constant of cutting fluid ±1℃	可选择预设温度 optional preset temperature20-70℃
泵浦输送率pumping rate	最大MAX. 12000kg/h可调整，使用流量计测并显示adjustable, measure with flow meter and display
冷却水流入温度 inflow temperature of cooling water	15℃±1°
控制系统controlling system	
类型type	SPS控制器S7系列, 一体化PC和SPS controller S7 series with integrated PC
供货商supplier	西门子（Siemens）
监控/操作面板 monitor / operation panel	平板触控屏幕 touch screen 15"
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

由于产品不断创新，本资料仅供参考，如有修改恕不通知，本公司保留最终解释权。
As products are improving gradually,the above information is only for reference,it any modification without notification,we company reserves the final explanation right.