

# WSK063

## 半导体晶圆切片机

WSK063 SiC slicing machine



### 技术规格参数 Specifications and Tools

<b>工件 workpiece</b>	
横断面 cross section	≤Φ330mm
长度 length	2230mm/1800mm
厚度 thickness	0.200mm (必须调整制程及后续制造流程)
<b>切割速率 cutting rate</b>	
线速 wire velocity	最大 Max 30m/s
快速移动 fast move	200mm/min
工作行程 working stroke	最大 MAX 285mm
<b>钢线 wire</b>	
芯线径 diameter of core wire (external diameter)	0.35~0.40mm
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/30g (according to diameter of wire)
<b>导轮 guide wheel</b>	
直径 diameter	Φ192mm
长度 length	600mm
个数 number	2
驱动功率 driving power	最大 Max 3.230KW
轴距 (左右) wheelbase (left & right)	540mm
轴距 (上下) wheelbase (up & down)	150mm
<b>钢线筒 wire wheel</b>	
直径 diameter	160mm
个数 number	2x3(b)
<b>卷绕轴 wire winding coil</b>	
卷绕轴工作高度 working height of winding shaft	1350mm
卷绕轴 winding coil	WSK02135246369 21-201
<b>切割液冷却系统 cutting liquid cooling system</b>	
切割液流量最大管径 max capacity of cutting liquid	200mm
切割液最高温度控制精度 max temperature control accuracy	±0.1℃
冷却液流量控制精度 max flow rate control accuracy	±0.1%
冷却液温度 inflow temperature of cooling water	15~25℃
<b>冷却液循环系统 cooling liquid circulation system</b>	
安全 VDE	SFS 认证
供货商 supplier	上海自动化设备制造有限公司
<b>外观尺寸及总重量 outline dimension and total weight</b>	
长度 length	4470
宽度 width	2170mm
高度 height	3500mm
总重量 total weight	41200kg

### 设备用途和特点

- 本机适用于半导体行业，用于半导体晶棒的切片。是半导体加工行业的主要设备。最大可切片直径为330mm，切片厚度最小为0.2mm。必须调整制程，一次装夹最大可切片直径为330mm。是半导体行业生产环节的优选设备。
- 本机特点：
  - 1、两个钢线导轮驱动 收（放）线驱动 回收（放）线驱动
  - 2、钢线张力的检测控制是通过伺服电机实现的。
  - 3、工件进给由伺服电机通过滚珠丝杠驱动，钢线的导向精度和速度。
  - 4、切前液的搅拌与输送。切前液管道通过滚珠丝杠驱动，及计量控制。
  - 5、本机底为高新技术集中产品。

### Applications and structural features

- the machine is used for cutting semiconductor bar, which is main production processing equipment. It has max dimension of cross section of 330mm, the minimum thickness of section is 0.2mm. adjust procedure, it may cut 330mm diameter bar at one diameter, one optimized equipment for semiconductor manufacturers.
- features:
  - two wire guide wheel drive, upon operation, it may receive all of the wire.
  - detection control of wire tension, also be conditioned by servo motor (constancy).
  - workpiece feed, driven by servo motor through ball screw feed, it can reach high precision and speed of wire.
  - circulation and conveying of cutting liquid, cutting liquid pipe can reach up constant temperature through heat exchanger, maintaining the stable cutting rate.
- this machine is an integrated high-tech product.

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