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QBotic | 千博瑞

设计日期：176.2061.0625

QBotic | 千博瑞

# 广东千博瑞智能科技有限公司
Guangdong QBotic Automation Technology Co, Ltd.

研发、生产、营销一体化电子设备生产厂家

An electronic equipment manufacturer integrating R&D, production and marketing






# Enterprise introduction

## 企业介绍

广东千博瑞智能科技有限公司成立于2019年目前公司经营面积约3500平米，拥有50余名经验丰富、技术精湛的研发、组装及售后工程师，可以满足客户的多种需求，让客户无后顾之忧。

我司主营各类型PCB分板机、摆盘机、点胶机及SMT周边设备研发与销售，我们坚持以“立足诚信，持续创新，追求卓越”的服务宗旨，凭借着高质量的产品，良好的信誉，优质的服务，产品已畅销至全国近二十多个省、市、自治区以及东南亚、欧美等国家。

Guangdong QBotic Automation Technology Co, Ltd. was established in 2019. At present, the business area of the company is about 3500 square meters, with more than 50 experienced and skilled R & D, assembly and after-sales engineers, can meet the various needs of customers, so that customers have no worries.

Our company is mainly engaged in research and development and sales of various types of PCB parting machine, placing machine, dispensing machine and SMT peripheral equipment. We adhere to the service tenet of "based on integrity, continuous innovation, pursuit of excellence", with high quality products, good reputation, quality service, products have been sold to nearly 20 provinces, cities, autonomous regions and Southeast Asia, Europe and the United States and other countries.

# Enterprise core values

## 企业核心价值观

**立足诚信，持续创新，追求卓越！**

Based on good faith, Continuous innovation, Pursue excellence!

# Standardized manufacturing workshop

## 规范的生产制造车间

人才是企业发展最重要的资源，优秀的企业文化，良好的工作环境，完善的创新激励体制，吸引了来自全国各地的优秀人才。求实创新，追求卓越已深入每个千博瑞人的心中。

Talent is the most important resource for enterprise development. Excellent corporate culture, good working environment and perfect innovation incentive system attract outstanding talents from all over the country. Realistic innovation, the pursuit of excellence has gone deep into the hearts of each QBotic people.













# Application field

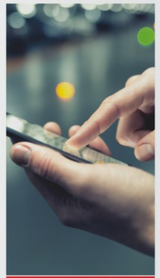
## 应用领域

全视觉智能分板机应用于电子生产制造中的PCBA分板工艺，如平板电脑、智能手机、智能穿戴、家用电器、汽车电子、医疗器械与军工行业等相关领域。

The full vision intelligent splicer is applied to the PCBA splicer process in electronic production and manufacturing, such as tablet computer, smart phone, smart wear, household appliances, automotive electronics, medical equipment and military industry and other related fields.



Tablet computer
平板电脑



Smart phone
智能手机



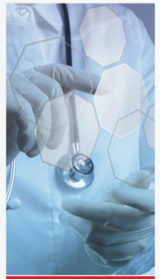
Intelligent wearable
智能穿戴



Household appliances
家用电器



Automotive electronics
汽车电子



Biological/ medical industry
生物/医疗行业



Military/ scientific research
军工/科研院校

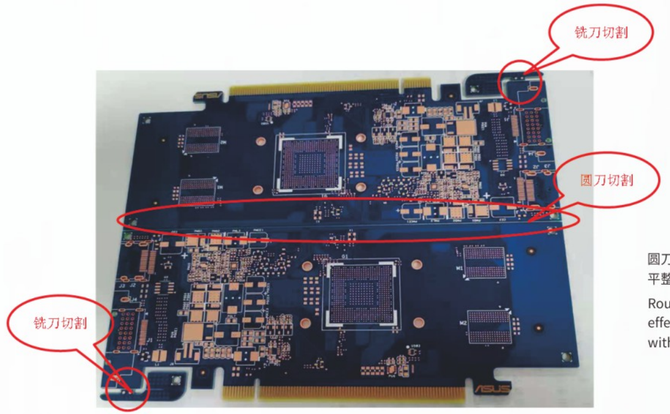
# Product advantage

## 产品优点

01

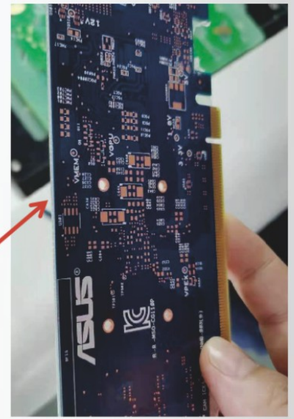
全视觉多功能分板机可在同一台机器上实现V-CUT与铣刀的切割，可适用于各种复杂工艺的电子产品。

The full-vision multifunctional plate splitter can realize V-CUT and milling cutter cutting on the same machine, which can be applied to a variety of complex process of electronic products.




圆刀片切割效果，
平整无毛刺

Round blade cutting effect, smooth without burr

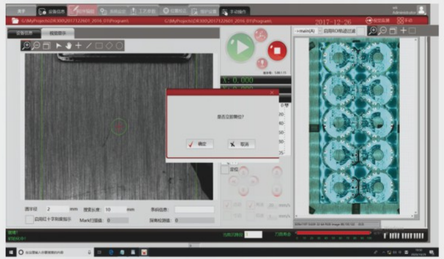


02

全系列配备CCD整板视觉编程系统，技术人员只需要在图片上画直线与圆弧，即可轻松完成程序的编辑与修改，彻底颠覆传统的编程模式，大大降低了程序编辑及调试时间；所有设备配备无线网络，可与我司远程控制中心联网，当客户设备出现故障时，只需电话反馈至我司售后人员，即可马上实现远程控制与操作，以最快的响应速度处理故障问题，让客户无后顾之忧。

The whole series is equipped with CCD whole board visual programming system, technicians only need to draw a straight line and arc on the picture, you can easily complete the program editing and modification, completely subvert the traditional programming mode, greatly reducing the program editing and debugging time; All devices are equipped with wireless network, which can be connected to our remote control center. When customers' equipment fails, they can realize remote control and operation immediately by simply reporting to our after-sales staff by telephone. In this way, they can deal with problems with the fastest response speed, so that customers have no worries.





国内首款具有CPK制程能力监控的分板设备，能及时监测机器自身状态，确保设备的稳定性。

The first sub-board equipment with CPK process capability monitoring in China can timely monitor the state of the machine itself to ensure the stability of the equipment.

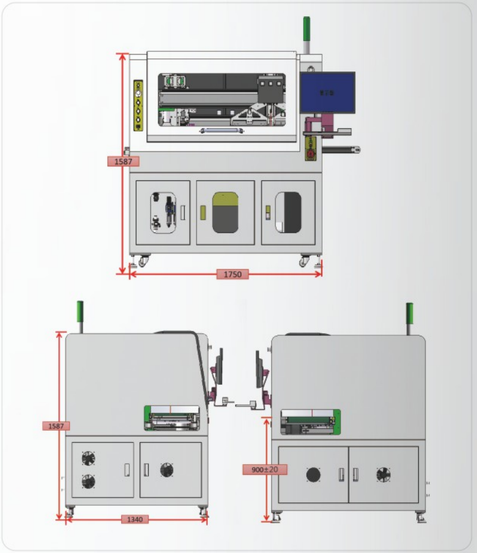
# QL800A

## 在线双平台复合式分板机

On-line double - platform composite splitter




外观尺寸图 Exterior dimensional drawing






产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 Machine type | QL800A | | | 机器型号 Machine type | QL800 | | |
|---|---|---|---|---|---|---|---|
| 有效切割尺寸 Effective cutting size | 300*350MM | 适用铣刀尺寸 Suitable for milling cutter size | 0.8～3.0MM | 有效切割尺寸 Effective cutting size | 300*350MM | 适用铣刀尺寸 Suitable for milling cutter size | 0.8～3.0MM |
| 切割功能 Cutting function | 直线、点、圆弧及V-CUT等 Straight line, point, arc and V-CUT | 静电消除 Electrostatic elimination | 高频离子风咀 High frequency ion wind nozzle | 切割功能 Cutting function | 直线、点、圆弧等 A line, point, arc, etc | 静电消除 Electrostatic elimination | 高频离子风咀 High frequency ion wind nozzle |
| 加工台面 Machining table | 双台面 Double table | 丝杆导轨 Lead screw guide | 台湾TBI/上银 Taiwan TBI/ Shangyin | 加工台面 Machining table | 双台面 Double table | 丝杆导轨 Lead screw guide | 台湾TBI/上银 Taiwan TBI/ Shangyin |
| 切割精度 Cutting accuracy | ±0.05MM | 导轨调宽 Rail width adjustment | 自动调轨道 Automatic track adjustment | 切割精度 Cutting accuracy | ±0.05MM | 导轨调宽 Rail width adjustment | 自动调轨道 Automatic track adjustment |
| 机台重复定位精度 Machine repeat positioning accuracy | ±0.01MM | 进板方向 Entry direction | 左进右出 Left in and right out | 机台重复定位精度 Machine repeat positioning accuracy | ±0.01MM | 进板方向 Entry direction | 左进右出 Left in and right out |
| 最高移动速度 Maximum moving speed | X,Y1,Y2轴：1000mm/s、Z轴800mm/s | 进出方式 Mode of entry and exit | 真空吸取 Vacuum suction | 最高移动速度 Maximum moving speed | X,Y1,Y2轴：1000mm/s、Z轴800mm/s | 进出方式 Mode of entry and exit | 真空吸取 Vacuum suction |
| 主轴品牌 Main brand | NSK主轴/德国主轴(选配) NSK Spindle/German spindle (optional) | 主机控制 Host control | 工控电脑主机 Industrial computer mainframe | 主轴品牌 Main brand | NSK主轴/德国主轴(选配) NSK Spindle/German spindle (optional) | 主机控制 Host control | 工控电脑主机 Industrial computer mainframe |
| 换刀模式 Tool change mode | 自动换刀 Automatic tool change | 主机电源规格 Host power specifications | AC220V 50/60HZ单相 | 换刀模式 Tool change mode | 自动换刀 Automatic tool change | 主机电源规格 Host power specifications | AC220V 50/60HZ单相 |
| 主轴转速 Spindle speed | MAX:60000rpm | 切割主机尺寸 Cutting host size | L*W*H (1750*1340*1587)mm | 主轴转速 Spindle speed | MAX:60000rpm | 切割主机尺寸 Cutting host size | L*W*H (1750*1340*1587)mm |
| 锯片电机功率 Saw blade motor power | 0.4KW | 锯片尺寸 Saw blade size | 80*0.3*22MM | | | | |
| 刀具监控 Tool monitoring | 刀具自动下沉、断刀及滑刀，刀具高度自动校正功能 Tool automatic sinking, breaking and sliding tool, tool height automatic correction function | 切割主机重量 Dust collector power | 900kg | 刀具监控 Tool monitoring | 刀具自动下沉、断刀及滑刀，刀具高度自动校正功能 Tool automatic sinking, breaking and sliding tool, tool height automatic correction function | 切割主机重量 Dust collector power | 900kg |
| 切割速度 Cutting speed | 5～100mm/s可调 | 集尘机功率 Dust collector power | 3HP | 切割速度 Cutting speed | 5～100mm/s可调 | 集尘机功率 Dust collector power | 3HP(2.2KW) |
| PCB切割厚度 PCB cutting thickness | 0.3-3.0MM | 集尘机电源规格 Dust collector power supply specifications | AC380V三相 | PCB切割厚度 PCB cutting thickness | 0.3-3.0MM | 集尘机电源规格 Dust collector power supply specifications | AC380V三相 |
| 程序教导方式 Program teaching mode | 整板拼图，图片画线示教 The whole plate jigsaw puzzle, picture drawing line teaching | 集尘机尺寸 Size of dust collector | L*W*H (665*635*1610)mm | 程序教导方式 Program teaching mode | 整板拼图，图片画线示教 The whole plate jigsaw puzzle, picture drawing line teaching | 集尘机尺寸 Size of dust collector | L*W*H (718*764*1708mm)mm |
| 控制方式 Control mode | PC 精密多轴控制系统 PC precision multi-axis control system | 集尘机重量 Dust collector weight | 155kg | 控制方式 Control mode | PC 精密多轴控制系统 PC precision multi-axis control system | 集尘机重量 Dust collector weight | 155kg |
| 马达轴驱动方式 Motor shaft drive mode | Panasonic 伺服驱动 Panasonic servo drive | 集尘方式 Dust collection mode | 下集尘/上集尘 (选用) Lower dust collection/Upper Dust collection (optional) | 马达轴驱动方式 Motor shaft drive mode | Panasonic 伺服驱动 Panasonic servo drive | 集尘方式 Dust collection mode | 下集尘/上集尘 (选用) Lower dust collection/Upper Dust collection (optional) |

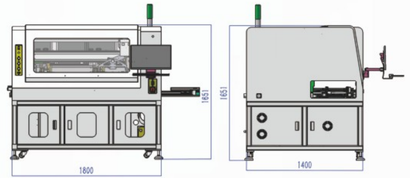
# QL820

## 在线双主轴分板机

Online double spindle board separator




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 Machine type | QL820 | | |
|---|---|---|---|
| 有效切割尺寸 Effective cutting size | 300*350MM | 适用铣刀尺寸 Applicable milling cutter size | 0.8~3.0MM |
| 切割功能 Cutting function | 直线、点、L形、圆弧及圆等 Straight line, point, L-shape, arc, circle, etc. | 静电消除 Static elimination | 高频离子风咀 High frequency ion air nozzle |
| 加工台面 Processing table | 双台面 Double countertop | 丝杆导轨 Screw guide rail | 台湾TBI/上银 Taiwan TBI/Hiwin |
| 切割精度 Cutting accuracy | ±0.05MM | 导轨调宽 Rail width adjustment | 自动调轨道 Automatic track adjustment |
| 机台重复定位精度 Machine repeat positioning accuracy | ±0.01MM | 进板方向 Board feeding direction | 左进右出 Left in, right out |
| 最高移动速度 Maximum movement speed | X,Y1,Y2轴：1000mm/s、Z轴800mm/s | 进出方式 Access | 真空吸取 Vacuum suction |
| 主轴品牌 Spindle brand | 德国主轴 German spindle | 主机控制 Host Control | 工控电脑主机 Industrial computer host |
| 换刀模式 Tool change mode | 自动换刀 Automatic tool change | 主机电源规格 Host power specifications | AC220V 50/60HZ单相 |
| 主轴转速 Spindle speed | MAX:80000rpm | 切割主机尺寸 Cutting host size | L*W*H(1800mm*1400mm*1650mm) |
| 刀具监控 Tool monitoring | 刀具自动下沉、断刀及滑刀，刀具高度自动校正功能 Automatic tool sinking, tool breakage and tool slipping, automatic tool height correction function | 切割主机重量 Cutting machine weight | 900kg |
| 切割速度 Cutting speed | 5~100mm/s可调 | 集尘机功率 Dust collector power | 3HP(2.2KW) |
| PCB切割厚度 PCB cutting thickness | 0.3-3.0MM | 集尘机电源规格 Dust collector power specifications | AC380V三相 |
| 程序教导方式 Program teaching method | 整板拼图，图片画线示教 Whole board puzzle, picture drawing line teaching | 集尘机尺寸 Dust collector size | L*W*H (665mm*635mm*1610mm) |
| 控制方式 Control method | PC 精密多轴控制系统 PC precision multi-axis control system | 集尘机重量 Dust collector weight | 155kg |
| 马达轴驱动方式 Motor shaft drive mode | Panasonic 伺服驱动 Panasonic Servo Drive | 集尘方式 Dust collection method | 下集尘/上集尘 Lower dust collection / Upper dust collection |



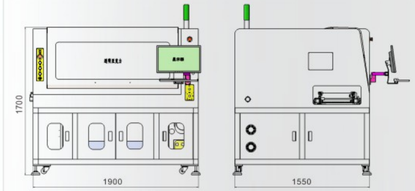
# QL821

## 在线双锯片分板机

Online double saw blade splitter




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 Machine type | QL821 | | |
|---|---|---|---|
| 有效切割尺寸 Effective cutting size | 300*350MM | 出板方式 Board output method | 载具出板方式 Carrier board removal method |
| 切割功能 Cutting function | V-CUT槽 | 静电消除 Static elimination | 高频离子风咀 High frequency ion air nozzle |
| 加工台面 Processing table | 双台面 Double countertop | 丝杆导轨 Screw guide rail | 台湾TBI/上银 Taiwan TBI/Hiwin |
| 切割精度 Cutting accuracy | ±0.05MM | 导轨调宽 Rail width adjustment | 自动调轨道 Automatic track adjustment |
| 机台重复定位精度 Machine repeat positioning accuracy | ±0.01MM | 进板方向 Board feeding direction | 左进右出 Left in, right out |
| 最高移动速度 Maximum movement speed | X,Y1,Y2轴：1000mm/s、Z轴800mm/s | 进出方式 Access | 真空吸取 Vacuum suction |
| 锯片品牌 Saw blade brand | 国产 Domestic | 主机控制 Host Control | 工控主机 Industrial control host |
| 换刀模式 Tool change mode | 手动 Manual | 主机电源规格 Host power specifications | AC220V 50/60HZ单相 |
| 锯片电机转速 Saw blade motor speed | 10000转 | 切割主机尺寸 Cutting host size | L*W*H(1900mm*1550mm*1700mm) |
| 锯片电机功率 Saw blade motor power | 0.4KW | 锯片尺寸 Saw blade size | 100*0.3*22MM |
| 切割头数量 Number of cutting heads | 双锯片 Double saw blade | 切割主机重量 Cutting machine weight | 900kg |
| 切割速度 Cutting speed | 5~100mm/s可调 | 集尘机功率 Dust collector power | 3HP |
| PCB切割厚度 PCB cutting thickness | 0.3-3.0MM | 集尘机电源规格 Dust collector power specifications | AC380V三相 |
| 程序教导方式 Program teaching method | 整板拼图，图片画线示教 Whole board puzzle, picture drawing line teaching | 集尘机尺寸 Dust collector size | L*W*H (665mm*635mm*1610mm) |
| 控制方式 Control method | PC 精密多轴控制系统 PC precision multi-axis control system | 集尘机重量 Dust collector weight | 155kg |
| 马达轴驱动方式 Motor shaft drive mode | Panasonic 伺服驱动 Panasonic Servo Drive | 集尘方式 Dust collection method | 下集尘/上集尘 Lower dust collection / Upper dust collection |

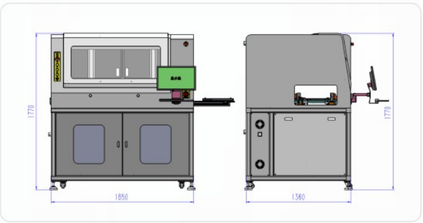
# QL800X

## 在线双平台下切割

Cutting under online double platform




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | QL800X |
|---|---|
| 有效切割尺寸 / Effective cutting size | 350*300MM |
| 切割功能 / Cutting function | "直线、点、L形、圆弧及圆等/Straight line,point,L-shape,arc,circle,etc. |
| 加工台面 / Machining table | 双台面/Double countertop |
| 切割精度 / Cutting accuracy | ±0.05MM |
| 机台重复定位精度 / Machine repeat positioning accuracy | ±0.01MM |
| 最高移动速度 / Maximum moving speed | "X，Y1，Y2轴：1000mm／s、Z轴800mm／s" |
| 主轴品牌 / Main brand | 德国主轴/German spindle |
| 换刀模式 / Tool change mode | 自动换刀/Automatic tool change |
| 主轴转速 / Spindle speed | MAX:80000rpm |
| 刀具监控 / Tool monitoring | 刀具自动下沉、断刀及滑刀，刀具高度自动校正功能<br>Automatic tool sinking, tool breakage and tool slipping,automatic tool height correction function |
| 切割速度 / Cutting speed | 5~100mm／s可调 |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图，图片画线示教/Whole board puzzle,picture drawing line teaching |
| 控制方式 / Control mode | PC精密多轴控制系统/PC precision multi-axis control system |
| 马达轴驱动方式/Motor shaft drive mode | 伺服驱动/Servo Drive |
| 适用铣刀尺寸 / Suitable for milling cutter size | 0.8~3.0MM |
| 静电消除/Staticelimination | 高频离子风咀/High frequency ion air nozzle |
| 丝杆导轨/Screw guide rail | 台湾TBI／上银Taiwan TBI/Hiwin |
| 导轨调宽/Rail width adjustment | 自动调轨道/Automatic track adjustment |
| 进板方向/Board feeding direction | 左进右出/Left in,right out |
| 进出方式/Access | 真空吸取/Vacuum suction |
| 主机控制/Host Control | 工控电脑主机/Industrial computer host |
| 主机电源规格/Host power specifications | AC220V50／60HZ单相 |
| 切割主机尺寸/Cutting host size | L*W*H(1850mm*1360mm*1770mm) |
| 切割主机重量/Cutting machine weight | 900kg |
| 集尘机功率/Dust collector power | 3HP(2.2KW) |
| 集尘机电源规格/Dust collector power specifications | AC380V三相 |
| 集尘机尺寸/Dust collector size | L*W*H(654mm*610mm*1435mm) |
| 集尘机重量/Dust collector weight | 155kg |
| 集尘方式/Dust collection method | 下集尘／上集尘Lower dust collection/Upper dust collection |



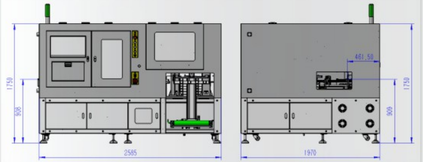
# QL1000

## 分板摆盘一体机

All-in-one plate splitting and placing machine




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | QL1000 |
|---|---|
| 有效切割尺寸/Effective cutting size | 350*300MM |
| 切割功能/Cutting function | 直线、点、L形、圆弧及圆等/Straight line,point,L-shape,arc,circle,etc. |
| 加工台面/Processing table | 上下层交替双台面/Alternating upper and lower floors with double countertops |
| 切割精度/Cutting accuracy | ±0.05MM |
| 机台重复定位精度/Machine repeat positioning accuracy | ±0.01MM |
| 最高移动速度/Maximum movement speed | "X，Y1，Y2轴：1000mm／s、Z轴800mm／s" |
| 主轴品牌/Spindle brand | 德国主轴/German spindle |
| 换刀模式/Tool change mode | 自动换刀/Automatic tool change |
| 主轴转速/Spindle speed | MAX:80000rpm |
| 刀具监控/Tool monitoring | 刀具自动下沉、断刀及滑刀，刀具高度自动校正功能<br>Automatic tool sinking, tool breakage and tool slipping,automatic tool height correction function |
| 切割速度/Cutting speed | 5~100mm／s可调 |
| PCB切割厚度/PCB cutting thickness | 0.3-3.0MM |
| 程序教导方式/Program teaching method | 整板拼图，图片画线示教/Whole board puzzle,picture drawing line teaching |
| 摆盘方式 | 真空吸取/Vacuum suction |
| 搬运精度 | ±0.15MM |
| 控制方式/Control method | PC精密多轴控制系统/PC precision multi-axis control system |
| 马达轴驱动方式/Motor shaft drive mode | 伺服驱动/Servo Drive |
| 适用铣刀尺寸/Applicable milling cutter size | 0.8~3.0MM |
| 静电消除/Staticelimination | 高频离子风咀/High frequency ion air nozzle |
| 丝杆导轨/Screw guide rail | 台湾TBI／上银Taiwan TBI/Hiwin |
| 导轨调宽/Rail width adjustment | 自动调轨道/Automatic track adjustment |
| 进板方向/Board feeding direction | 左进右出/Left in,right out |
| 进出方式/Access | 真空吸取/Vacuum suction |
| 主机控制/Host Control | 工控电脑主机/Industrial computer host |
| 主机电源规格/Host power specifications | AC220V50／60HZ单相 |
| 切割主机尺寸/Cutting host size | L*W*H(2585mm*1970mm*1750mm) |
| 切割主机重量/Cutting machine weight | 1300kg |
| 集尘机功率/Dust collector power | 3HP(2.2KW) |
| 集尘机电源规格/Dust collector power specifications | AC380V三相 |
| 集尘机尺寸/Dust collector size | L*W*H(654mm*610mm*1435mm) |
| 摆盘吸取头 | 2个(带旋转) /2 pieces (with rotation) |
| 上下料模式 | 自动/automatic |
| 集尘机重量/Dust collector weight | 155kg |
| 集尘方式/Dust collection method | 下集尘／上集尘Lower dust collection/Upper dust collection |

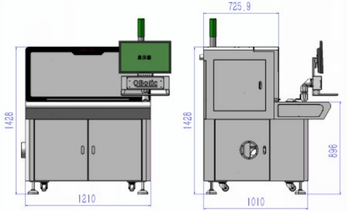
# Q360A

## 全视觉智能曲线分板机

Full vision intelligent curve depaneling machine




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | Q360 | Q360A |
|---|---|---|
| 有效切割尺寸 / Effective cutting size | 340*360MM | 340*360MM |
| 切割功能 / Cutting function | 直线、点、圆弧等 / A line, point, arc, etc | 直线、点、圆弧等／Aline, point, arc, etc |
| 加工台面 / Machining table | 双台面/ Double table | 双台面／Double table |
| 切割精度 / Cutting accuracy | ±0.05MM | ±0.05MM |
| 机台重复定位精度 / Machine repeat positioning accuracy | ±0.01MM | ±0.01MM |
| 最高移动速度 / Maximum moving speed | XY1，Y2轴：1000mm/ s、Z轴800mm/ s/ X,Y1，Y2 axis：1000mm/ s，Zaxis 800mm/ s | |
| 主轴品牌 / Main brand | 迎风／建肯 / Yingfeng/Jianken | 中国HAOZHI／德国Sycotec |
| 换刀模式 / Tool change mode | 手动换刀 / Manual tool change | 自动换刀/Automatic tool change |
| 主轴转速 / Spindle speed | MAX:60000rpm | MAX:80000rpm |
| 刀具监控 / Tool monitoring | 刀具自动下沉，刀具折断及滑刀检测<br>Automatic tool sinking, tool breaking and sliding tool detection | |
| 切割速度 / Cutting speed | 5～100mm/s可调 | 5～100mm/s可调 |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图,图片画线示教 / The whole plate jigsaw puzzle, picture drawing line teaching | |
| 控制方式 / Control mode | PC 精密4轴控制系统<br>PC precision4 axis control system | PC 精密4轴控制系统<br>PC precision 4 axis control system |
| 马达轴驱动方式/Motor shaft drive mode | Panasonic伺服驱动 | |
| 适用铣刀尺寸 / Suitable for milling cutter size | 0.8～3.0MM | 0.8～3.0MM |
| 主机电源规格 / Host power specifications | AC220V 50/60HZ单相 | AC220V 50/60HZ单相 |
| 切割主机尺寸 / Cutting host size | L*W*H(1210*1010*1428mm) | L*W*H(1210*1010*1428mm) |
| 切割主机重量 / Cutting machine weight | 700kg | 700kg |
| 集尘机功率 / Dust collector power | 3HP(2.2KW) | 3HP(2.2KW) |
| 集尘机电源规格 / Dust collector power supply specifications | AC380V三相 | AC380V三相 |
| 集尘机尺寸 / Size of dust collector | L*W*H (718*764*1708mm) | L*W*H (718*764*1708mm) |
| 集尘机重量 / Dust collector weight | 155kg | 155kg |
| 集尘方式 / Dust collection mode | 下集尘/上集尘 (选用) / Lower dust collection/Upper Dust collection (optional) | |



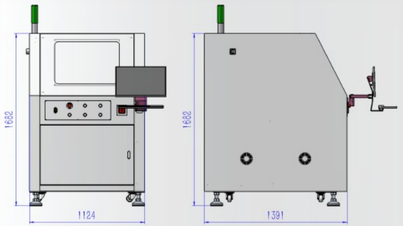
# L300

## 激光分板机

Laser depaneling machine




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | 离线式紫外分板机<br>Offline UV separator | 离线式绿光分板机<br>Offline green light splitter |
|---|---|---|
| 型号/model | L300 | |
| 激光类型/Laser type | 固体纳秒激光/solid nanosecond laser | |
| 平台切割尺寸/Platform cutting size | 350*350mm | |
| 重复精度/Repeat accuracy | ±3μm | |
| 综合精度/Comprehensive accuracy | ±25μm | |
| 平台结构/Platform structure | 大理石平台/marble platform | |
| 电机类型/Motor type | 标配：伺服电机/Standard configuration: servo motor<br>选配：直线电机/Optional: linear motor | |
| 吸附台/Adsorption table | 真空吸附/Vacuum adsorption | |
| 工控系统/Industrial control system | WIN 10 | |
| 安全防护/Security protection | 具备/Have | |
| 涨缩补偿/expansion and contraction compensation | 具备/Have | |
| 振镜品牌/Galvanometer brand | 欧亚/ 德国 SCANLAB | |
| 文件格式/File format | Gerber文件、dxf文件 | |
| 摄像头视场/Camera field of view | 11MM*8MM | |
| 远心透镜范围/Telecentric lens range | 50*50MM F=100MM | |
| 可加工材料厚度/Processable material thickness | ≤2.0mm | |
| 定位精度/Positioning accuracy | 0.01MM | |
| CCD结构/CCD Structure | 旁轴/Rangefinder | |
| 摄像头像素/Camera pixels | 500万像素/5 million pixels | |
| 摄像头光源/Camera light source | 环形光源/ring light | |
| 除尘风罩/Dust removal hood | 方形风罩/Square hood | |
| 显示器/Monitor | 22寸 | |
| 吸尘器/Vacuum cleaner | 标配2.2KW/Standard configuration 2.2KW | |
| 冷却方式/Cooling method | 水冷/water cooling | |
| 工作环境/Working environment | 23℃±2℃ | |
| 电源/Power supply | 380V | |
| 重量/Weight | 约650KG | |
| 外形尺寸/Overall dimensions | 1124MM*1390MM*1685MM | |

选配项目 Optional items

| 激光类型 | 激光品牌 | | 激光功率 | MES |
|---|---|---|---|---|
| 皮秒、飞秒 | 标准：光波 | 可选：英诺、相干、SP、Edgewave、英谷、 | 10W/15W/20W/30W/35W/40W/60W | 按照客户要求定制 |
| **摄像头分辨率** | **摄像头光源** | **吸附材料** | **定制治具** | **冷风辅助** | **UPS** |
| 可选：1200万像素 | 可选：同轴光 | 可选：环氧树脂板、玻璃微孔板、铝板 | 可选配 | 可选配 | 可选：仅电脑或者支持整机 |

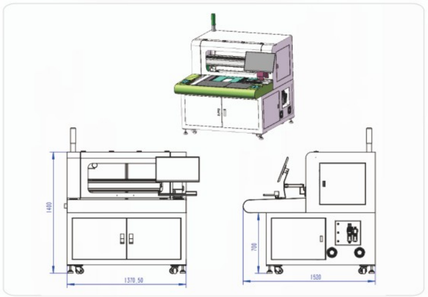
# Q380A

## 多功能曲线分板机

Multifunctional curve splitter




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号/Machine type | Q380A |
|---|---|
| 单边平台有效切割尺寸<br>Effective cutting size of single side platform | 350*550MM |
| 切割功能 / Cutting function | V槽、邮票孔、桥连及圆弧等<br>V slot, stamp hole, bridge and arc, etc |
| 加工台面 / Machining table | 双台面 / Double table |
| 切割精度 / Cutting accuracy | ±0.05MM |
| 机台重复定位精度<br>Machine repeat positioning accuracy | ±0.01MM |
| 最高移动速度 / Maximum moving speed | X,Y1,Y2轴：1000mm/s、Z1、Z2轴800mm/s<br>X,Y1,Y2 axis: 1000mm/s, Z1, Z2 axis 800mm/s |
| 主轴品牌 / Main brand | 国产（进口）主轴 / Domestic (import) main axis |
| 锯片电机 / Saw blade motor | 国产高速电机 / Domestic high speed motor |
| 换刀模式 / Tool change mode | 手动换刀 / Manual tool change |
| 主轴转速 / Spindle speed | MAX:60000rpm |
| 锯片电机功率 / Saw blade motor power | 0.4KW |
| 刀具监控 / Tool monitoring | 刀具自动下沉、刀具折断、滑刀检测、刀具高度自动校正功能<br>Automatic tool sinking, tool breaking, sliding tool detection, automatic tool height correction function |
| 切割速度 / Cutting speed | 5～100mm/s可调 / Adjustable from 5 to 100mm/s |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图，图片画线示教<br>The whole plate jigsaw puzzle, picture drawing line teaching |
| 控制方式 / Control mode | PC精密六轴控制系统 / PC precision six axis control system |
| 马达轴驱动方式/Motor shaft drive mode | Panasonic 伺服驱动 / Panasonic Servo Drive |
| 适用铣刀尺寸 / Suitable for milling cutter size | 0.8～3.0MM |
| 主机电源规格 / Host power specifications | AC220V 50/60HZ单相 / AC220V 50/60 Hz single phase |
| 切割主机尺寸 / Cutting host size | L*W*H(1370mm*1520mm*1400mm) |
| 切割主机重量 / Cutting machine weight | 700kg |
| 集尘机功率 / Dust collector power | 3HP |
| 集尘机电源规格<br>Dust collector power supply specifications | AC380V三相 / AC380V three-phase |
| 集尘机尺寸 / Size of dust collector | L*W*H (718*764*1708mm) |
| 集尘机重量 / Dust collector weight | 155kg |
| 集尘方式 / Dust collection mode | 下集尘/上集尘（选用）<br>Lower dust collection/Upper Dust collection (optional) |



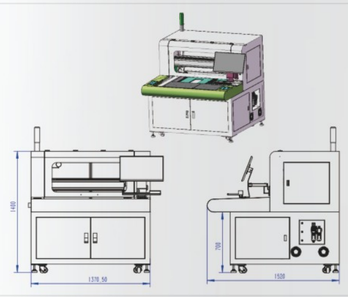
# Q380

## 离线双主轴曲线分板机

Off-line double spindle curve splitter




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号/Machine type | Q380 |
|---|---|
| 单边平台有效切割尺寸<br>Effective cutting size of single side platform | 350*550MM |
| 切割功能 / Cutting function | 邮票孔、桥连及圆弧等 / Stamp hole, bridge and arc, etc |
| 加工台面 / Machining table | 双台面 / Double table |
| 切割精度 / Cutting accuracy | ±0.05MM |
| 机台重复定位精度<br>Machine repeat positioning accuracy | ±0.01MM |
| 最高移动速度 / Maximum moving speed | X,Y1,Y2轴：1000mm/s、Z1、Z2轴800mm/s<br>/ X,Y1,Y2 axis: 1000mm/s, Z1, Z2 axis 800mm/s |
| 主轴品牌 / Main brand | 国产(进口)主轴 / Domestic (import) main axis |
| 换刀模式 / Tool change mode | 手动换刀 / Manual tool change |
| 主轴转速 / Spindle speed | MAX:60000rpm |
| 刀具监控 / Tool monitoring | 刀具自动下沉、刀具折断、滑刀检测、刀具高度自动校正功能<br>Automatic tool sinking, tool breaking, sliding tool detection, automatic tool height correction function |
| 切割速度 / Cutting speed | 5～100mm/s可调 / Adjustable from 5 to 100mm/s |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图，图片画线示教<br>The whole plate jigsaw puzzle, picture drawing line teaching |
| 控制方式 / Control mode | PC精密六轴控制系统 / PC precision six axis control system |
| 马达轴驱动方式/Motor shaft drive mode | Panasonic 伺服驱动 / Panasonic Servo Drive |
| 适用铣刀尺寸 / Suitable for milling cutter size | 0.8～3.0MM |
| 主机电源规格 / Host power specifications | AC220V 50/60HZ单相 / AC220V 50/60 Hz single phase |
| 切割主机尺寸 / Cutting host size | L*W*H(1370mm*1520mm*1400mm) |
| 切割主机重量 / Cutting machine weight | 700kg |
| 集尘机功率 / Dust collector power | 2.2KW |
| 集尘机电源规格<br>Dust collector power supply specifications | AC380V三相 / AC380V three-phase |
| 集尘机尺寸 / Size of dust collector | L*W*H (718*764*1708mm) |
| 集尘机重量 / Dust collector weight | 155kg |
| 集尘方式 / Dust collection mode | 下集尘/上集尘（选用）/ Lower dust collection/Upper Dust collection (optional) |

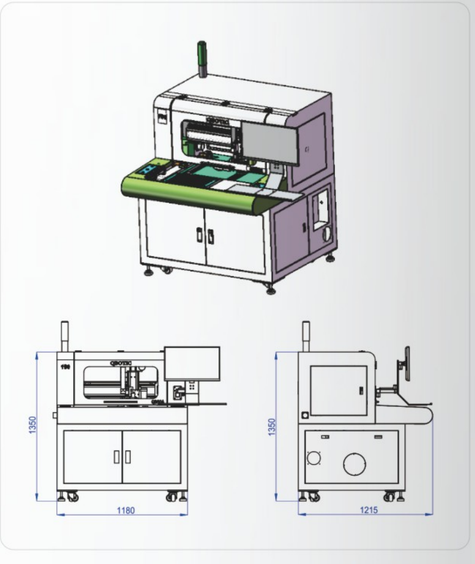
# Q350

## 全视觉智能曲线分板机

Full vision intelligent curve splitter




外观尺寸图 Exterior dimensional drawing






产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | Q350 | Q360L | Q360B |
|---|---|---|---|
| 有效切割尺寸 / Effective cutting size | 340*360MM | 450*550MM | 380*500MM |
| 切割功能 / Cutting function | 直线、点、圆弧等 / A line, point, arc, etc | | V-CUT |
| 加工台面 / Machining table | 双台面 / Double table | | |
| 切割精度 / Cutting accuracy | ±0.05MM | ±0.05MM | ±0.05MM |
| 机台重复定位精度 / Machine repeat positioning accuracy | ±0.01MM | ±0.01MM | ±0.01MM |
| 最高移动速度 / Maximum moving speed | X,Y1,Y2轴：1000mm/s、Z轴800mm/s / X,Y1,Y2 axis: 1000mm/s, Z axis 800mm/s | | |
| 主轴品牌 / Main brand | 国产主轴 / Domestic spindle | 国产主轴/NSK主轴(选配) | 高速锯片电机/ High speed saw blade motor |
| 换刀模式 / Tool change mode | 手动换刀 / Manual tool change | | |
| 主轴转速 / Spindle speed | MAX:60000rpm | MAX:60000rpm | MAX:12000rpm |
| 刀具监控 / Tool monitoring | 刀具自动下沉、刀具折断及滑刀检测 / Automatic tool sinking, tool breaking and sliding tool detection | | 刀具自动下沉 |
| 切割速度 / Cutting speed | 5～100mm/s可调 | 5～100mm/s可调 | 5～100mm/s可调 |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM | 0.3-3.0MM | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图，图片画线示教 / The whole plate jigsaw puzzle, picture drawing line teaching | | |
| 控制方式 / Control mode | PC 精密四轴控制系统 / PC precision four-axis control system | | PC精密六轴控制系统 |
| 马达轴驱动方式/Motor shaft drive mode | 国产伺服驱动 | Panasonic 伺服驱动 / Panasonic servo drive | |
| 适用铣刀尺寸 / Suitable for milling cutter size | 0.8～3.0MM | 0.8～3.0MM | / |
| 主机电源规格 / Host power specifications | AC220V 50/60HZ单相 | AC220V 50/60HZ单相 | AC220V 50/60HZ单相 |
| 切割主机尺寸 / Cutting host size | L*W*H(1180*1215*1350mm) | L*W*H(1370*1520*1400mm) | L*W*H(1370*1520*1400mm) |
| 切割主机重量 / Cutting machine weight | 600kg | 700kg | 700kg |
| 集尘机功率 / Dust collector power | 3HP | 3HP | 3HP |
| 集尘机电源规格 / Dust collector power supply specifications | AC380V三相 | AC380V三相 | AC380V三相 |
| 集尘机尺寸 / Size of dust collector | L*W*H(718*764*1708mm) | L*W*H(718*764*1708mm) | L*W*H(718*764*1708mm) |
| 集尘机重量 / Dust collector weight | 155kg | 155kg | 155kg |
| 集尘方式 / Dust collection mode | 下集尘/上集尘 (选用) / Lower dust collection/Upper Dust collection (optional) | | |

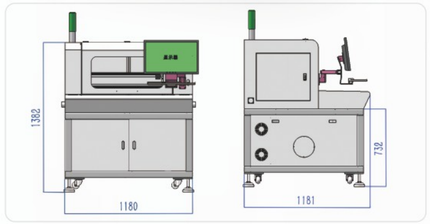
# QBOTIC QIN

## 千博瑞 秦 双平台铣刀分板机

QBotic Qin double platform milling cutter plate splitter




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号/Machine type | 千博瑞 秦 QBotic Qin |
|---|---|
| 有效切割尺寸 / Effective cutting size | 340*360MM |
| 切割功能 / Cutting function | 直线、点、圆弧等 / Aline, point, arc, etc |
| 加工台面 / Machining table | 双台面 / Double table |
| 切割精度 / Cutting accuracy | ±0.05MM |
| 机台重复定位精度 / Machine repeat positioning accuracy | ±0.01MM |
| 最高移动速度 / Maximum moving speed | XtY1,Y2轴: 1000mm/s、Z轴800mm/s<br>X,Y1,Y2 axis: 1000mm/s, Z axis 800mm/s |
| 主轴品牌 / Main brand | 国产主轴 / Domestic spindle |
| 换刀模式 / Tool change mode | 手动换刀 / Manual tool change |
| 主轴转速 / Spindle speed | MAX:60000rpm |
| 刀具监控 / Tool monitoring | 刀具自动下沉、刀具折断及滑刀检测<br>Automatic tool sinking, tool breaking and sliding tool detection |
| 切割速度 / Cutting speed | 5 -10Omm/s 可调 / Adjustable |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图, 图片画线示教<br>The whole plate jigsaw puzzle, picture drawing line teaching |
| 控制方式 / Control mode | PC 精密四轴控制系统 / PC precision four-axis control system |
| 马达轴驱动方式/Motor shaft drive mode | 国产伺服驱动 / Domestic servo drive |
| 适用洗刀尺寸 / Suitable for milling cutter size | 0.8-3.0MM |
| 主机电源规格 / Host power specifications | AC220V50/60HZ 单相 / Single Phase |
| 切割主机尺寸 / Cutting host size | L*W*H(1180*1180*1385mm) |
| 切割主机重量 / Cutting machine weight | 550kg |
| 集尘机功率 / Dust collector power | 3HP |
| 集尘机电源规格 / Dust collector power supply specifications | AC380VE 相 / Mutually |
| 集尘机尺寸 / Size of dust collector | L*W*H(750*400*820mm) |
| 集尘机重量 / Dust collector weight | 65kg |
| 集尘方式 / Dust collection mode | 下集尘/上集尘(选用)<br>Lower dust collection/Upper Dust collection (optional) |



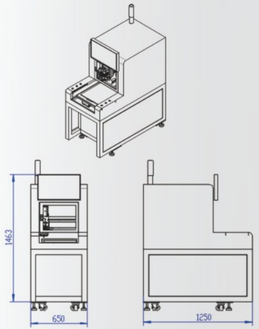
# Q330

## 全视觉智能单台面曲线分板机

Full vision intelligent single table curve splitter




外观尺寸图 Exterior dimensional drawing




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | Q330 | Q330B |
|---|---|---|
| 有效切割尺寸 / Effective cutting size | 330*380MM | 300*360MM |
| 切割功能 / Cutting function | 直线、点、圆弧等 / A line, point, arc, etc | V-CUT |
| 加工台面 / Machining table | 单台面 / Single table | 单台面 / Single table |
| 切割精度 / Cutting accuracy | ±0.05MM | ±0.05MM |
| 机台重复定位精度 / Machine repeat positioning accuracy | ±0.01MM | ±0.01MM |
| 最高移动速度 / Maximum moving speed | X,Y1,Y2轴:1000mm/s、Z轴800mm/s | X,Y 轴:1000mm/s、Z轴800mm/s |
| 主轴品牌 / Main brand | 国产主轴 / Domestic spindle | 高速锯片电机<br>High speed saw blade motor |
| 换刀模式 / Tool change mode | 手动换刀 / Manual tool change | 手动换刀 / Manual tool change |
| 主轴转速 / Spindle speed | MAX:60000rpm | MAX:12000rpm |
| 刀具监控 / Tool monitoring | 刀具自动下沉、刀具折断(选配)<br>Automatic tool sinking and tool breaking (optional) | 刀具自动下沉 / Automatic tool sinking |
| 切割速度 / Cutting speed | 5～100mm/s可调 | 5～100mm/s可调 |
| PCB切割厚度 / PCB cutting thickness | 0.3-3.0MM | 0.3-3.0MM |
| 程序教导方式 / Program teaching mode | 整板拼图,图片画线示教 / The whole plate jigsaw puzzle, picture drawing line teaching | |
| 控制方式 / Control mode | PC 精密3轴控制系统<br>PC precision3 axis control system | PC 精密4轴控制系统<br>PC precision 4 axis control system |
| 马达轴驱动方式/Motor shaft drive mode | 国产伺服驱动 (松下选配) / Domestic servo drive (Panasonic optional) | |
| 适用铣刀尺寸 / Suitable for milling cutter size | 0.8～3.0MM | 0.8～3.0MM |
| 主机电源规格 / Host power specifications | AC220V 50/60HZ单相 | AC220V 50/60HZ单相 |
| 切割主机尺寸 / Cutting host size | L*W*H(1250mm*650mm*1550mm) | L*W*H(1250mm*650mm*1550mm) |
| 切割主机重量 / Cutting machine weight | 300kg | 300kg |
| 集尘机功率 / Dust collector power | 3HP | 3HP |
| 集尘机电源规格 / Dust collector power supply specifications | AC380V三相 | AC380V三相 |
| 集尘机尺寸 / Size of dust collector | L*W*H (718*764*1708mm) | L*W*H (718*764*1708mm) |
| 集尘机重量 / Dust collector weight | 60kg | 60kg |
| 集尘方式 / Dust collection mode | 下集尘/上集尘 (选用) / Lower dust collection/Upper Dust collection (optional) | |

# QB-Q120

## 铡刀式分板机

Guillotine machine




产品技术参数与规格 / Product technical parameters and specifications

| 机器型号 / Machine type | QB-Q120 |
|---|---|
| 外形尺寸L/W/H / Overall dimension | 720mm×330mm×420mm |
| 刀具尺寸 / Tool size | 上直刀356mm,下直刀356mm |
| 刀具材 / Tool material | 进口优质高速钢 / Imported high quality high speed steel |
| 刀具品牌 / Tool brand | 千博瑞 / Qbotic |
| 刀具寿命 / Tool life | 约10万次 / About 100,000 times |
| 分板宽度 / Section width | 4-100mm最佳(小片宽度,非整拼板宽度)<br>4-100mm best (small piece width, non-integrated board width) |
| 分板速度 / Split-plate velocity | 1mm-200mm/s |
| 分板类型 / Split-board type | 玻纤板、FR-4基板、铝基板等单方向V-CUT产品<br>Glass fiber board, FR-4 substrate, aluminum substrate and other single direction V-CUT products |
| V-CUT厚度 / V-CUT Thickness | 三分之一板厚 / One third of the board thickness |
| 工作气压 / Working air pressure | 0.5-0.8mpa |
| 工作电压 / Operating voltage | 220V/110V 可选 / 220V/110V Optional |
| 设备功率 / Equipment power | 10W |
| 机器重量 / Machine weight | 约149kg / About 149kg |

# QB-202

## 走刀分板机

Cutting machine




| 机器型号 / Machine type | QB-202 |
|---|---|
| 外形尺寸L/W/H / Overall dimension | 610*360*375mm |
| 刀具尺寸 / Tool size | 圆刀:φ125mm 直刀:356mm |
| 刀具材质 / Tool material | 优质高速钢SKD11 / High quality high speed steel SKD11 |
| 刀具寿命 / Tool life | 约10万次 / About 100,000 times |
| 刀具品牌 / Tool brand | 千博瑞 / QBotic |
| 分板厚度 / Plate thickness | 0.5mm-3mm |
| 分板长度 / Section length | 1mm-350mm |
| 分板速度 / Split-plate velocity | 可调 / adjustable |
| 分板宽度 / Section width | 65mm-400mm最佳 (整拼宽度 / full width) |
| 工作气压 / Working air pressure | 0.5-0.8mpa |
| 工作电压 / Operating voltage | 220V/110V (可选 / Optiona) |
| 设备功率 / Equipment power | 50W |
| 整机重量 / Machine weight | 约45KG / About 45KG |



# QB-T03-T04-T05

## 集尘器

Dust Collector




产品技术参数与规格 / Product technical parameters and specifications

| 项目 / Items | QB-T03 | QB-T04 | QB-T05 |
|---|---|---|---|
| 电源规格 / Power supply | AC380(220V) 50/60 Hz3相(3Φ) | | |
| 输出功率 / Output power | 2.2KW(3HP) | 3KW(4HP) | 4KW(5HP) |
| 最大流量 / Maximum flow rate | 306$m^3$/h | 326$m^3$/h | 360$m^3$/h |
| 入口风速 / Air-intake speed | 30m/s | 33m/s | 35m/s |
| 入口口径 / Air-intake caliber | D50mm | | |
| 出口口径 / Air-vent caliber | D55mm | | |
| 过滤袋材质 / Filter bag' s material | Polyester | | |
| 清灰方式/Cleaning method | 手动振尘 / Manual dust shaker | | |
| 过滤袋尺寸 / Filter bag' s size (W*L) | 330*300mm | | |
| 收集桶容量 / Collector' s capacity | 30 | | |
| 电机防护等级 / Dynamo protection grade | IP54 | | |
| 噪音 / Noise | <72db | <74db | <76db |
| 重量 / Weight | 65kg | 70kg | 70kg |
| 尺寸 / Dimensions(W*D*H) | | 750*400*820mm | |

# QB-S03-A03-A05

## 集尘器

Dust Collector




| 项目 / Items | QB-S03 | QB-A03 | QB-A05 |
|---|---|---|---|
| 电源规格 / Power supply | AC380(220V) 50/60 Hz3相(3Φ) | | |
| 输出功率 / Output power | 2.2KW(3HP) | 2.2KW(3HP) | 4KW(5HP) |
| 入口风量 / Air-intake flow volume | 240$m^3$/h | 2400$m^3$/h | 3200$m^3$/h |
| 入口风速 / Air-intake speed | 30m/s | 40m/s | 55m/s |
| 入口口径 / Air-intake caliber | D50mm | D150mm | D150mm |
| 出口口径 / Air-vent caliber | D100mm | D200mm | D200mm |
| 过滤袋材质 / Filter bag' s material | Polyester+PTFE | | |
| 过滤布管透气度 / Filter tube' s permeability | 8$m^3$/$m^2$* min | | |
| 过滤布管尺寸 / Filter tube' s size (W*L) | 120*530mm | 120*650mm | 120*850mm |
| 集塵布管数量 / Filter tube' s quantity | 9 | 16 | 24 |
| 收集桶容量 / Collector' s capacity | 25L | 50L | 50L |
| 电机防护等级 / Dynamo protection grade | IP55 | | |
| 噪音 / Noise | <70db | <70db | <75db |
| 重量 / Weight | 122kg | 155kg | 220kg |
| 尺寸 / Dimensions(W*D*H) | 654*610*1435 | 718*764*1708mm | 1003*924*1838mm |