

# 窄带分拣机

NARROW BELT SORTER

大小件共分无需摆件 突破传统分拣机对货物尺寸限制

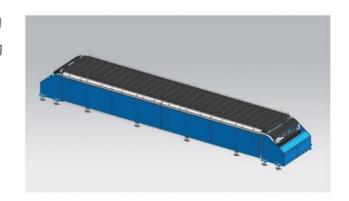
# Product Overview

## 产品概述 >>>>>

# 窄带分拣机 Narrow Belt Sorter

窄带分拣机 RKSORT-NBC 为分拣不同大小的包裹、纸箱等物品提供了高效可靠的解决方案,尤其是对于有较低冲击要求的包裹,如生鲜等,窄带分拣机具备独特的优势。

The Narrow Belt Sorter RKSORT-NBC provides an efficient and reliable solution for sorting packages of different sizes, cartons, and other items, especially for packages with lower impact requirements, such as fresh produce. The narrowband sorting machine has unique advantages.



窄带分拣机主要由窄带小车、驱动系统、机身框架、识读系统以及通讯系统等组成。多个窄带小车之间依次连接构成一条长分拣直线。

The Narrow Belt Sorter mainly consists of a narrowband car, a driving system, a body frame, a reading system, and a communication system.

Multiple narrowband cars are connected in sequence to form a long sorting line.

窄带分拣机主线输送速度最快可达 2.5 米 / 秒,分拣效率可达 8000 件 / 小时。窄带分拣机广泛应用于邮政快递、电商物流、商超配送中心等作业场景。

The main conveyor speed of the Narrow Belt Sorter can reach up to 2.5 meters per second, and the sorting efficiency can reach 8000 pieces per hour. Narrow Belt Sorter are widely used in operational scenarios such as postal express delivery, e-commerce logistics, and supermarket distribution centers.

# Equipment Characteristics

### 设备特点

### >>>> • 适用性强

### Strong applicability

窄带分拣机采用直线布局,占地面积小,具备极强的适用性。因输送介质为带宽较小的皮带输送机(带宽仅 174mm) 且相邻皮带之间的间隙较小(不足 30mm),所以窄带分拣机可同时分拣几乎所有尺寸的常见包裹,尤其是对于泡沫箱、易碎品、超长件(长度甚至可达 2 米)的分拣,优势更为明显。对于超长、超重等大件的分拣,几乎没有其它设备可以与之匹敌。

The Narrow Belt Sorter adopts a linear layout, occupies a small area, and has strong applicability. Since the conveying medium is a belt conveyor with a small bandwidth (only 174mm) and the gap between adjacent belts is small (less than 30mm), the nNarrow Belt Sorter can sort common parcels of almost all sizes at the same time, especially for the sorting of foam boxes, fragile articles, and ultra long pieces (up to 2m in length), the advantages are more obvious. There are almost no other devices that can match the sorting of oversized and overweight items.

### >>>> • 高效分拣 Efficient sorting

被分拣的物件无需人工拉距,可以排布得很紧凑。窄带分拣机根据被分拣物品的尺寸,系统自动匹配一个或多个窄带小车动作,实现大小件物品同时分拣。由于只需保留很小的件间距,分拣效率可高达 8000 件/小时。

The sorted items do not require manual stretching and can be arranged compactly. The Swing Wheel Sorting Machine automatically matches one or more narrowband cart movements based on the size of the sorted items, achieving simultaneous sorting of large and small items. Due to the need to retain only a small spacing between items, the sorting efficiency can reach up to 8000 items per hour.

# >>>> • 技术先进

### **Modern techniques**

窄带分拣机主线由直线电机驱动循环运行,小车采用电动滚筒驱动,滑触式供电、红外线无线通讯。当物品分拣时,由对应格口处的红外收发控制器发出指令至小车电滚筒驱动器,再由驱动器控制电滚筒驱动小车皮带完成分拣动作。

The main line of the Narrow Belt Sorter is driven by a linear motor for cyclic operation, and the trolley is driven by an electric drum, with sliding contact power supply and infrared wireless communication. When sorting items, the infrared transceiver controller at the corresponding grid sends instructions to the electric drum driver of the car, and then the driver controls the electric drum to drive the car belt to complete the sorting action.

#### >>>>・ 定制化方案

#### **Customized solutions**

锐尔凯窄带分拣机可为用户提供定制化的解决方案。因采用模块化的设计和组装,即使已经投产的设备也可根据用户的需求变化,非常方便的通过增加导轨和小车的方式增加分拣格口。根据实际要求,可实现自动供件和人工供件,扫描方式可选用单面扫描和多面扫描。高度定制化的服务更贴近用户的实际需求,消除使用方的后顾之忧。

Realkey Narrow Belt Sorter can provide customized solutions for users. Due to the use of modular design and assembly, even equipment that has already been put into production can be easily added to sorting slots by adding guide rails and carts according to user needs. According to actual requirements, automatic and manual feeding can be achieved, and scanning methods can be selected from single side scanning and multi side scanning. Highly customized services are more in line with the actual needs of users, eliminating their worries.

### >>>> · 耐用易维护

### **Durable and easy to maintain**

锐尔凯直线窄带分拣机采用电滚筒独立单元设计,模块化组装,每个单独的模组都可以单独拆卸、维修,易于操作和维护,大大降低了您的后续维护成本。

The Realkey Linear Narrow Belt Sorter adopts an independent unit design of electric drum, modular assembly, and each individual module can be disassembled and repaired separately, making it easy to operate and maintain, greatly reducing your subsequent maintenance costs.

| 设备型号<br>Equipment model                      | RKSORT-NBC-203E                          |
|--|--|
| 分拣物品<br>Sorting items                        | 各种包裹、纸箱、泡沫箱、编织袋、柔性包裹等                    |
| 重量范围<br>Weight range                         | 0.3kg≤M≤60kg                             |
| 分拣能力<br>Sorting capacity                     | 8000p/h                                  |
| 分拣准确率<br>Sorting accuracy                    | 99.99%                                   |
| 包裹尺寸范围<br>Package size range                 | MAX:1200*1000*1000mm<br>MIN:150*150*15mm |
| 设备有效宽度<br>Effective width of the device      | 1000mm                                   |
| 小车节距<br>Car pitch                            | 203mm                                    |
| 供件方式<br>Delivery method                      | 头端自动导入                                   |
| 输送速度<br>Conveying speed                      | 1.5-2.5m/s                               |
| 分拣机最小高度<br>Minimum height of sorting machine | 850mm                                    |
| 运行噪音<br>Operating noise                      | ≤78dB (A)                                |

# **Product Application**

### 产品应用 >>>>>

邮政快递行业处理的各种包裹种类、尺寸、外形差异巨大且复杂,窄带分拣机能够准确识别和适应上述差异,快速精确地将快递包裹分拣到不同的目的地。

The postal and express delivery industry processes various types, sizes, and shapes of packages with significant and complex differences. Narrow Belt Sorter can accurately identify and adapt to these differences, quickly and accurately sorting express packages to different destinations.





全球电子商务的蓬勃发展,物流效率已经成为电商商家的核心竞争力之一。面对不同包装、不同尺寸规格的商品,窄带分拣机均可帮助商家快速拣选到位,提高物流效率,缩短配送时间,减少人力成本。

With the booming development of global e-commerce, logistics efficiency has become one of the core competitiveness of e-commerce merchants. Faced with products with different packaging and sizes, Narrow Belt Sorter can help merchants quickly pick and place them, improve logistics efficiency, shorten delivery time, and reduce labor costs.

3 窄带分拣机可安装于地面之上仅850mm的高度,分拣动作轻柔,配合滚筒、模组带滑槽,可很好地处理生鲜、果蔬、酒品等只能承受较低冲击的物流包裹。

The Narrow Belt Sorter can be installed at a height of only 850mm above the ground, with a gentle sorting action. Combined with rollers, modules with chutes, it can handle logistics packages such as fresh produce, fruits and vegetables, and alcoholic beverages that can only withstand low impacts very well.



在某些制造业领域,例如,在汽车零部件生产线中,配合视觉识别技术窄带分拣机可以根据零部件的大小、 形状等特征,将不同的零部件自动分拣到对应的工序位置,大大提高生产效率。

In certain manufacturing fields, such as in automotive component production lines, Narrow Belt Sorter with visual recognition technology can automatically sort different components to their corresponding process positions based on their size, shape, and other characteristics, greatly improving production efficiency.

# **Product Advantages**

### 产品优势 >>>>>



### • 先进设计 >>>> Advanced Design

锐尔凯窄带分拣机取消了传统设备的链条传动方式,采用更先进的直线电机驱动、关节轴承连接的设计方案,整体结构更为紧凑,大大降低了因链条拉长变形而产生的设备故障,也彻底消除了因链条润滑而使场地油污遍地的现象。

The Realkey Narrow Belt Sorter has eliminated the traditional chain transmission method of equipment and adopted a more advanced design scheme of linear motor drive and joint bearing connection. The overall structure is more compact, greatly reducing equipment failures caused by chain elongation and deformation, and completely eliminating the phenomenon of oil pollution on the site caused by chain lubrication.



### • 精密制造 >>>>

#### Precision manufacturing

零部件采用 CNC 精密加工,设备经精心组装调试而成,精湛的工艺和严格的品控 使得设备精度高、寿命长、噪音低、维护成本低。

The components are processed with CNC precision, and the equipment is carefully assembled and debugged. Exquisite craftsmanship and strict quality control make the equipment highly precise, long-lasting, low-noise, and low maintenance costs.



### • 安全稳定 >>>>

#### Safe and stable

锐尔凯窄带分拣机坚实耐用,可靠性高、稳定性达到国内先进水平。设备的各个运转部位均做好周到细致的防护,精心的安全防护设计消除了操作者的担忧。

The Realkey Narrow Belt Sorter is solid and durable, with high reliability and stability reaching the advanced level in China. All operating parts of the equipment are carefully protected, and the meticulous safety protection design eliminates the operator's concerns.



### • 可靠性 >>>> Reliability

锐尔凯在物流输送和自动分拣领域拥有 17 年的经验, 在帮助客户制定分拣解决方案方面具有独特的优势, 产品以扎实耐用而著称。我们是您可以信赖的合作伙伴。

Realkey has 17 years of experience in logistics conveying and automatic sorting, and has a unique advantage in helping customers develop sorting solutions. Its products are known for their solid and durable nature. We are your trusted partner.

# **About Realkey**

### 关于锐尔凯 >>>>>

青岛锐尔凯机械有限公司专业从事自动化输送与分拣设备的研发与制造。

Qingdao Realkey Machinery Co., Ltd. specializes in the research and manufacturing of automated conveying and sorting equipment.

公司成立于 2007 年, 坐落于青岛市莱西姜山镇昌平路 111 号, 占地面积超过 20000 平方米, 厂房面积 12000 平方米。 公司通过了 ISO9001 质量管理体系认证、IS014001 环境管理体系认证、知识产权管理体系认证,获得国家"高新技 术企业"、青岛市"专精特新"企业、青岛市"科技型中小企业"、"青岛市小型快递包裹智能分拣技术创新中心"等称号。 公司已成功申报并获得自主研发的发明与实用新型专利 20 余项。

Realkey was established in 2007 and located at 111 Changping Road, Jiangshan Town, Laixi, Qingdao. It covers an area of over 20000 square meters and has a factory area of 12000 square meters. The company has passed ISO9001 quality management system certification, IS014001 environmental management system certification, and intellectual property management system certification, and has been awarded titles such as National "High tech Enterprise", Qingdao "Specialized, Refined, Unique and New" Enterprise, Qingdao "Science and Technology oriented Small and Medium sized Enterprise", and "Jidao Small Express Parcel Intelligent Sorting Technology Innovation Center". The company has successfully applied for and obtained more than 20 independently developed invention and utility model patents.

锐尔凯秉持优质、高效、服务、创新的企业精神,致力于高品质、低成本、短交期的实现,为物流企业与制造业工厂提 供优质、高效、稳定的物流系统解决方案。

Realkey upholds the corporate spirit of quality, efficiency, service, and innovation, committed to achieving high quality, low cost, and short delivery time, providing high-quality, efficient, and stable logistics system solutions for logistics enterprises and manufacturing factories.

17<sub>年</sub> 12000<sub>平方</sub> 50<sub>名</sub>

200+

17年研发生产经验

拥有 12000 ㎡生产车间

50 名研发人员

200多个自动分拣项目案例



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