



# 翻盘分拣机

## TILT TRAY SORTER

让异形件分拣更简单  
打破异形件传统人工分拣模式

# Product Overview

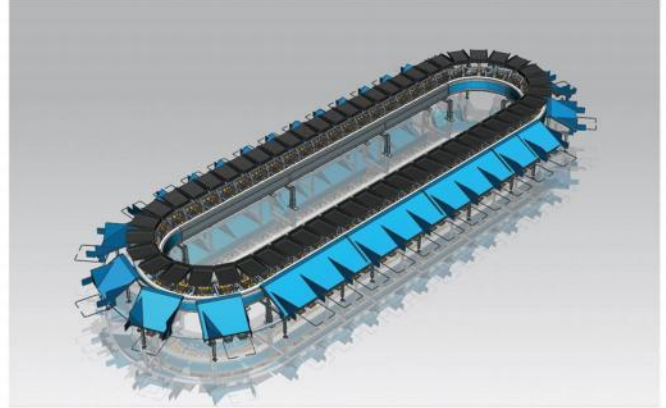
## 产品概述 >>>>

### 翻盘分拣机

### Tilt Tray Sorter

翻盘分拣机 (RKSORT-TTS), 也称为翻板分拣机, 是锐尔凯为帮助客户实现中小包裹高效分拣而打造的一款经济实用型的分拣设备。

RKSORT-TTS, also known as tilt tray sorter, is an economical and practical sorting equipment designed by Realkey to help customers achieve efficient sorting of small and medium-sized packages.



翻盘分拣机由承载托盘、传送装置、倾翻装置、识别系统、控制系统以及轨道机架等组成, 采用水平环状连续输送。被分拣的物品由托盘承载, 托盘位于小车顶部。电机驱动小车在轨道内运行输送, 当到达目的地位置时, 倾翻装置触发使托盘发生倾斜, 物品沿着托盘滑出, 实现分拣动作。

The tilt tray sorter is composed of a carrying tray, a conveying device, a tilting device, an identification system, a control system, and a track rack, and adopts horizontal circular continuous conveying. The sorted items are carried by pallets, which are located at the top of the car. The electric motor drives the trolley to run and transport within the track. When it reaches the destination position, the tilting device triggers the tray to tilt, causing the items to slide out along the tray and achieve sorting action.

由于物品盛放在托盘内, 翻盘分拣机的适用范围非常广泛。包裹、箱子、信封或其他扁平件, 甚至是圆柱、球形等容易从其它分拣机上滚落的物品, 都能够在翻盘分拣机上实现分拣。

Due to the items being placed in pallets, the application range of the tilt tray sorter is very wide. Parcels, boxes, envelopes, or other flat items, even cylindrical, spherical, and other items that are easily rolled off other sorting machines, can be sorted on a tilt tray sorter.

根据型号的不同, 锐尔凯翻盘分拣机的处理能力约为 7200-10800 件 / 小时, 能有效满足邮政、快递、电商、鞋服、生鲜等多行业的高效分拣需求。

According to the different models, the processing capacity of the Realkey tilt tray sorter is about 7200-10800 pieces/hour, which can effectively meet the efficient sorting needs of multiple industries such as postal, express, e-commerce, footwear, and fresh food.



# Equipment Characteristics

## 设备特点

### >>>> • 适用性强 Strong applicability

翻盘分拣机采用托盘承载物品，可正常分拣轻飘件、异形件等不适用于交叉带分拣机分拣的货品，分拣适用性极强。翻盘分拣机可以对不同的包装物进行分拣，包括盒子、袋子、纸箱、手提袋、软质包装等。

The tilt tray sorter uses trays to carry goods, which can normally sort light and irregular items that are not suitable for cross belt sorting machines, and has strong sorting adaptability. The tilt tray sorter can sort different packaging materials, including boxes, bags, cardboard boxes, handbags, soft packaging, etc.

### >>>> • 高效分拣 Efficient sorting

翻盘分拣机在主环速度仅 1.2m/s 时理论分拣效率可达 8640p/h。如果采用双端供件配置，理论分拣效率可高达 17280p/h。

The theoretical sorting efficiency of the tilt tray sorter can reach 8640p/h when the main loop speed is only 1.2m/s. If a dual end feeding configuration is adopted, the theoretical sorting efficiency can reach up to 17280p/h.

### >>>> • 高分拣精度 High sorting accuracy

配置先进算法的智能相机允许在任何方向上进行读码，读取率高达 99%，高科技传感器和 PLC 能高速检测产品并判断路径去向，简单灵巧的翻盘操纵机构可确保快速准确地实现产品分离，降低出错风险。

The intelligent camera equipped with advanced algorithms allows for code reading in any direction, with a reading rate of up to 99%. High tech sensors and PLCs can detect products at high speed and determine the direction of the path. The simple and flexible flipping mechanism ensures fast and accurate product separation, reducing the risk of errors.

### >>>> • 高度柔性 Highly flexible

传动系统消除了链条传动和轮式转弯，采用托盘小车连接，允许正负转弯。分布式电机驱动可以根据地形部署在环形分拣系统的任意节点，分拣机的长度几乎不受限制，无论您需要多少个目的地路径都可以实现。

The transmission system eliminates chain transmission and wheel turning, and adopts a pallet car connection, allowing for positive and negative turns. Distributed motor drive can be deployed at any node of the circular sorting system based on terrain, and the length of the sorting machine is almost unlimited, no matter how many destination paths you need to achieve.

## • 占地面积小 Small footprint

独特的产品设计，上件无需额外配置多段式供包台，下件可直接分拣至袋子或箱子。整机结构设计紧凑，能够充分利用异形场地，可以包围着厂房立柱布置，综合占地面积较小。

Unique product design, without the need for additional multi-stage feeding tables for upper items, and the lower items can be directly sorted to bags or boxes. The overall structural design of the machine is compact and can fully utilize the irregular site. It can be arranged around the factory pillars, and the comprehensive land area is relatively small.

## • 模块化设计、低能耗、结构简单、低维护 Modular design, low energy consumption, simple structure, and low maintenance

整机采用标准化、模块化设计，支持快速装拆、搬迁、扩展。分拣机扎实稳定、耐磨损、维修方便、寿命长、运营及维护成本低。

The whole machine adopts standardized and modular design, supporting rapid assembly and disassembly, relocation, and expansion. The sorting machine is solid, stable, wear-resistant, easy to maintain, has a long service life, and has low operating and maintenance costs.

设备型号 Equipment model	TTS-500SP	TTS-500DE
分拣物品 Sorting items	小型包裹、信封、服装、鞋帽、药品等	
重量范围 Weight range	0.01kg≤M≤15kg	0.01kg≤M≤5kg
尺寸范围 Size range	MAX:400*400*600mm MIN:50*50*2mm	MAX:400*400*500mm MIN:50*50*2mm
分拣能力 Sorting capacity	7200-10800p/h	
分拣准确率 Sorting accuracy	99%	
供件选项 Induction options	手动 / 自动供件 单侧 / 双侧供件 单端 / 双端供件	
环线速度 Loop speed	人工供件: 1.0-1.5m/s 自动供件: 1.0-2.0m/s 按效率需求配置	
节距 Pitch	500mm	
整机尺寸 Dimensions	椭圆宽: 3.4m (不含滑槽) 椭圆长: 根据方案确认	椭圆宽: 3.2m (不含滑槽) 椭圆长: 根据方案确认
主机能耗 Host energy consumption	5.5KW/50 小车	
分拣触发 Sorting trigger	气动控制	电动控制
运行噪音 Operating noise	< 72dB (A)	



# Product Application

## 产品应用 >>>>

1

翻盘分拣机可广泛应用于需要对物品实现自动化分拣的场景，包括邮政、快递、电商、鞋服、书刊、日用品、生鲜、医药、珠宝等的自动分拣。

The tilt tray sorter can be widely used in scenarios that require automated sorting of items, including automatic sorting of postal, express, e-commerce, shoes and clothing, books and magazines, daily necessities, fresh produce, medicine, jewelry, etc.



2

对于某些很小、很轻的轻抛件，以及形状不规则的异形件，交叉带分拣机及其它类型分拣机不易处理的件，翻盘分拣机可轻松实现自动分拣。

For some small, light and irregular shaped items, as well as items that are difficult to handle by other types of sorting machines such as cross belt sorting machines, the tilt tray sorter can easily achieve automatic sorting.

3

翻盘分拣机最适合于处理大量直接面向消费者业务的分销中心，可以批量拣选并用于分拣离散订单的小型产品，如电商商品、零售服装、全渠道、第三方物流、店铺补货、退货处理等。

The tilt tray sorter can be widely used in scenarios that require automated sorting of items, including automatic sorting of postal, express, e-commerce, shoes and clothing, books and magazines, daily necessities, fresh produce, medicine, jewelry, etc.



4

翻盘分拣机不适用不能承受任何冲击的易碎物品。这种特殊物品的分拣可选用锐尔凯的 RKSORT-NBS 系列分拣机进行分拣。

The tilt tray sorter is not suitable for fragile items that cannot withstand any impact. The sorting of this special item can be carried out using the RKSORT-NBS series sorting machine from Realkey.

# Product Advantages

## 产品优势 >>>>



### • 重型托盘选项 >>>>

#### Heavy tray options

我们的重型托盘是专为严苛的邮政、快递环境而设计的,能够承受重负荷使用,单托盘可容纳高达 15 公斤。

Our heavy-duty pallets are designed specifically for harsh postal and express environments, capable of withstanding heavy loads and can hold up to 15 kilograms per pallet.

### • 个性化托盘设计 >>>>

#### Personalized tray



根据分拣物品的特性,托盘可以设计成不同的形状以适应产品的独特需求。比如,V形托盘设计可盛载圆柱形等容易滚落的物品。无论是轻飘件还是异形件,只要它适合放在托盘里,我们的翻盘分拣机就可以对其进行分拣。

According to the characteristics of sorted items, trays can be designed in different shapes to meet the unique needs of the product. For example, the V-shaped tray design can hold items that are easy to roll off, such as cylindrical shapes. Whether it is a light or irregular item, as long as it is suitable to be placed in a tray, our tilt tray sorter can sort it.

### • 安全设计 >>>>

#### safety design



安全性和实用性对我们所有的客户来说都是至关重要的。我们的整体分拣解决方案系列都利用了安全的托盘设计,没有锋利的边缘。精心设计的防护装置消除了分拣作业人员的担忧。

Security and practicality are crucial for all of our customers. Our overall sorting solution series utilizes a safe tray design without sharp edges. The carefully designed protective devices have eliminated the concerns of sorting operators.

### • 可靠性 >>>>

#### Reliability



锐尔凯在物流运输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 transportation 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、ISO14001 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, ISO14001 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** 年

17 年研发生产经验

**12000** 平方

拥有 12000 m<sup>2</sup> 生产车间

**50** 名

50 名研发人员

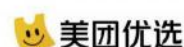
**200+**

200 多个自动分拣项目案例



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## 青岛锐尔凯机械有限公司

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