



Truking Rhythmic R5 Smart Stick Packing Line

楚天科技律动 R5 智能条包生产线

让世界制药工业插上智慧的翅膀

Equip global pharmaceutical manufacturing industry with intelligent wings.





楚天科技律动 R5 智能条包生产线 - 01 -

Truking's Rhythmic R5 Smart Stick Packing Line

SP-G12, 12 列颗粒条包机 - 04 -

SP-G12, 12-column Stick Packing Machine for Granules

SP-P12, 12 列粉末条包机 - 06 -

SP-P12, 12-column Stick Packing Machine for Powders

SP-L12, 12 列液体条包机 - 08 -

SP-L12, 12-column Stick Packing Machine for Powders

SP-W12, 多列条包称重机 - 10 -

SP-W12, Multi-column stick weighing machine

SP-S12, 多列条包整列机 - 13 -

SP-S12, Multi-column package machine





楚天科技股份有限公司成立于2000年，是中国医药装备行业的领军企业，也是世界医药装备行业的知名企业之一。主营业务系医药装备及其整体技术解决方案，并率先推动智慧医药工厂的研究与开发。公司系中国A股上市公司。旗下拥有德国ROMACO集团、楚天华通、四川省医药设计院、楚天飞云、楚天源创、楚天微球、楚天思优特、楚天思为康、楚天华兴、楚天长兴、楚天科仪、楚天净邦、楚天派特、楚天博源、楚天新材料、楚天智能机器人等十多家全资或控股子公司，全球员工总数9000余人，总资产110亿元。

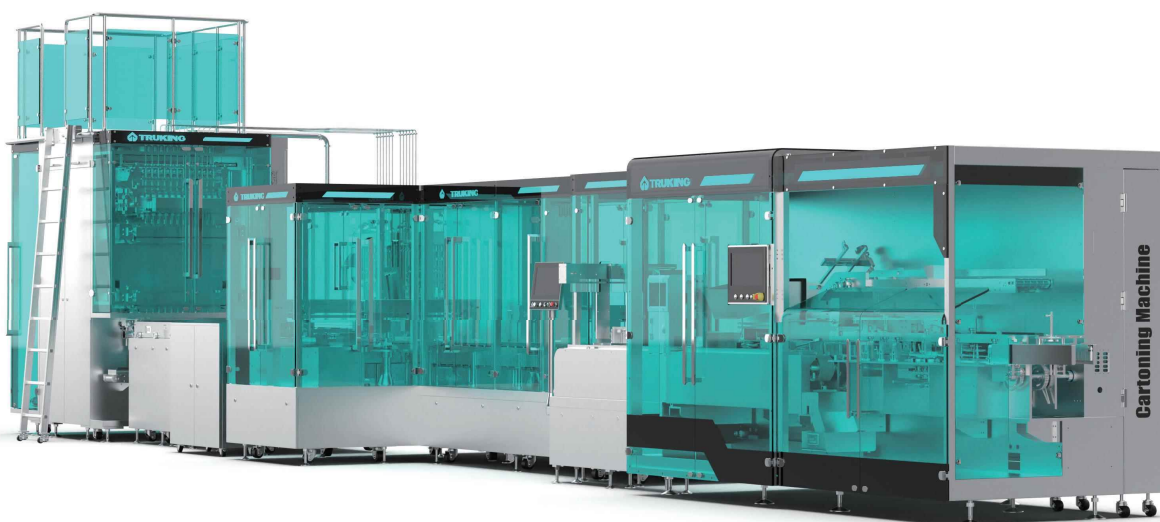
公司已有长沙和德国两大运营总部，建有长沙中央技术研究院、欧洲技术研究院和四川省医药设计院等研发机构。设有国家级企业技术中心，国家级创新基地，博士后科研工作站，院士专家工作站等多个技术与创新平台。截至2023年12月31日，共提出5466项中国专利申请，授权专利4313项，有效专利3090项。另提出54件PCT国际专利申请，在美国、俄罗斯、印度、韩国、德国、印尼、日本、欧洲等多国获得26项专利授权。牵头制订了本系统国家行业产品技术标准20多项。集团产品与服务已累计覆盖180多个国家和地区，国际市场占有率正逐年快速提升。

Founded in 2000, Truking Technology Limited has become a leading pharmaceutical equipment company in China and renowned worldwide. The company specializes in pharmaceutical equipment and integrated solutions and takes the initiative to push forward the R&D of smart pharmaceutical factories. It is a listed A-share company with multiple wholly-owned or holding subsidiaries, such as Germany-based Romaco Group, Truking Watertown, Sichuan Pharmaceuticals Design Institute, Truking Feiyun, Truking Ingenuity, Truking Micro-Sphere, Truking SUT, Truking Gene, Wachine, Truking Changxing, Truking Scientific Instrument, Truking Jingbang Engineering Technology, Truking Pitide Biotechnology, Truking Boyuan Intelligent Technology, Truking New Material, Truking Intelligent Robot etc. Truking has over 9000 employees around the globe, with a total asset of over 11 billion RMB.

Truking has two operational headquarters in Changsha, China, and Germany, with research and development institutions including Changsha Central Technology Research Institute, Europe Technology Research Institute, and Sichuan Pharmaceuticals Design Institute. It has established many platforms for technology innovation, such as the National Enterprise Technology Center, National Innovation Center, Post-Doctoral Scientific Research Station, and Academician Expert Workstation. By December 31, 2023, a total of 5,466 patent applications from China have been submitted, with 4,313 patents granted and 3,090 patents currently in force. Additionally, 54 PCT international patent applications were filed, resulting in 26 patents granted in multiple countries including the United States, Russia, India, South Korea, Germany, Indonesia, Japan, and Europe. The company has led the development of over 20 national industry product technical standards for this system. The products and services of the group have now reached over 180 countries and regions, with its international market share steadily increasing year by year.



楚天科技律动 R5 智能条包生产线 Truking's Rhythmic R5 Smart Stick Packing Line



应用范围 / Scope of Application

本生产线适用于各种固体类颗粒、粉末、液体、散剂、丸剂、膏剂等物质的定量条袋包装。后续接条包称重、补料、整列、二次计数等设备，可与装盒机及后包配线使用，按需求完成条袋装盒、装箱、码垛等应用。可广泛应用于制药、保健、食品、日化、奶粉等各行业。

This production line is applicable to quantitative stick packing of various solid substances, such as Powder, liquid, Granules, pill, ointmentXXXXXX. It can be connected with the stick package weighing, sorting and secondary counting devices. Application of cartoner and downstream packing line is allowed to facilitate box/container packing, palletizing of stick package on demand. It is widely used in the pharmaceutical, healthcare, food, daily chemical, milk powder and other sectors.



条包线可选功能 / Optional Function

- ◎ 装量检测不合格剔除功能；
 - ◎ 空袋检测剔除功能；
 - ◎ 针对不同物料及特性多种计量及下料方式可选；
 - ◎ 直纹、钻石纹、棋盘纹可选。可按客户需求定制各种袋形及密封纹；
 - ◎ 打印方式：UV 激光机、CO2 激光机可选，烟雾处理器可选；
 - ◎ 可选配打码视觉检测；
 - ◎ 充氮装置可选；
 - ◎ 静电消除可选；
 - ◎ 自润滑可选；
 - ◎ 固体上料方式可选：真空上料、提升机上料；
 - ◎ 液体多功能储液罐（加热、保温、搅拌、消泡）可选；
 - ◎ 液体 CIP/SIP 功能可选；
 - ◎ 液体灭菌系统可选。
- + Discharge function of unqualified loading volume detection;
 - + Empty bag detection and removal function;
 - + A variety of metering and feeding methods for different materials and characteristics;
 - + Straight, diamond, chessboard lines available. Various bag shapes and sealing lines can be customized according to customer needs;
 - + Printing method: UV laser machine, CO2 laser machine optional, smoke processor optional;
 - + Code-typing and visual detection is optional;
 - + Nitrogen filling device is optional;
 - + Nitrogen filling device is optional;
 - + Self-lubrication optional;
 - + Solid feeding mode is optional: vacuum feeding, hoist feeding;
 - + Liquid multi-function reservoir (heating, insulation, stirring, defoaming) is optional;
 - + The liquid CIP / SIP function is optional;
 - + Liquid sterilization system is optional.



条包机优势特点 / Advantages & Features

- ◎ 稳定高效
楚天强大的制造能力，90% 零件自己加工，保证加工精度。
 - ◎ 自动纠偏
整体伺服纠偏，纠偏控制更精准。膜分切精度偏差控制在 0.5mm 以内。
 - ◎ 全伺服控制
开卷、膜纠偏、色标调节、灌装、纵封、横封、拉膜牵引、圆角切，均采用伺服控制。袋长平均
- + Stable And Efficient
Truking boasts excellent manufacturing capability, who can independently complete machining of 90% parts to specified accuracy
 - + Auto Skew Adjustment
Adopt overall servo to correct deviation, deviation correction is more accurate. The film slitting accuracy deviation is controlled within 0.5mm.
 - + Full servo control
Servo control applies to uncoiling, membrane misalignment correction,color code, filling, longitudinal sealing, transverse

偏差控制在 0.5mm 以内。

◎ 直线导轨

承重移动导向全部采用直线导轨，相比直线轴承，传动精度更高、负荷更大、稳定性更强、更耐用。

◎ 高精度伺服灌装

楚天精良的机加水平，每列独立伺服驱动，与多列称重实时通讯，灌装量每列单独可调。

◎ 双易撕口裁切精准

横封、纵封易撕口同一个工位同时裁切，确保双易撕口在同一条直线上，真正做到易撕。双易撕口偏差不超过 0.5mm。

◎ 换产方便易清洁

采用无工具快拆设计，拆卸过程不超过 15 分钟。纵封、横封机构均可打开，便于彻底清洁。

◎ 换膜快速精准

真空负压接膜平台，膜平铺受控，配有导向切刀保证切割的直线度，确保接膜平整。

◎ 操作方便，维护便利

天蓝色防护门，通透亮丽，全方位观测无死角；内部空间大，操作宽松、维护便捷。

sealing, avoidance at specified locations, horizontal sealing membrane-drawing and fillet cutting. The average deviation of the bag length is controlled within 0.5mm.

+ linear guide rail

The slide guide moves across the straight line guide rail, featuring more advantages in transmission accuracy, loading, stability and durability than the linear bearing.

+ high precision servo filling

Excellent machine processing level of Truking, each column adopts independent servo drive, real-time communication with multi-column weighing, filling volume of each column can be separately adjusted.

+ Easy to open at one attempt, good user experience, low material cost

Horizontal and longitudinal easy openings are formed in one mold to ensure that double easy openings stay at one straight line, thus improving user experience and ensuring they are easy to open. The average deviation of the bag length is controlled within 0.5mm.

+ Easy to replace and clean

Adopt toolless quick disassembly design. The disassembly process shall not exceed 15 minutes. The mechanism of Longitudinal sealing and horizontal sealing can be opened, easy to clean.

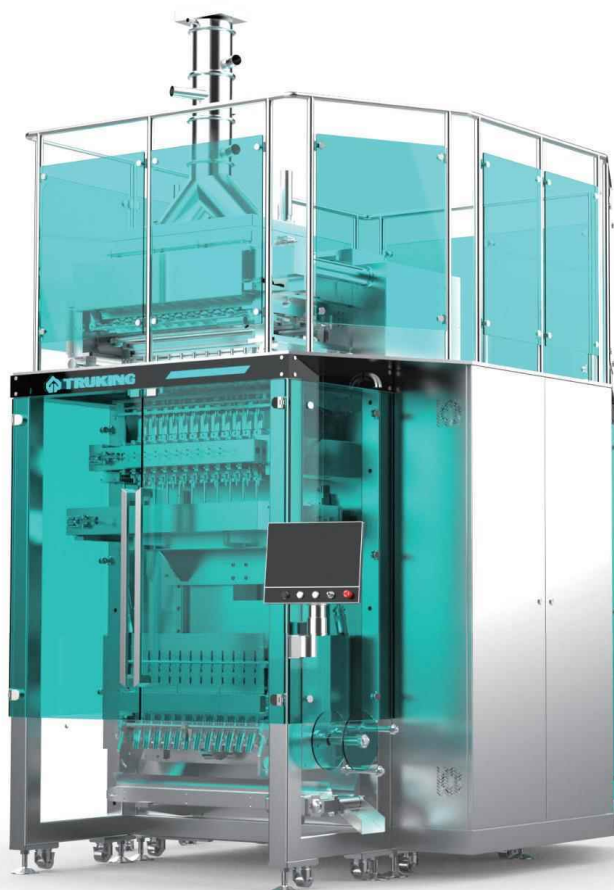
+ The film can be changed quickly and accurately

The film can be changed quickly and accurately Vacuum negative pressure film platform. Controlled film tiling, Equipped with guide cutter to ensure the straightness of cutting, to ensure film is flat.

+ Easy to operate and maintain.

Equipped with sky blue protective door, can be observed in all directions, no dead Angle; Large internal space, easy operation, easy maintenance.

SP-G12, 12 列颗粒条包机 SP-G12, 12-column Stick Packing Machine for Granules



应用范围 / Scope of Application

本设备适用于各种颗粒状物质的定量条袋包装。可广泛应用于制药、保健、食品、日化等各行业。

This production line is applicable to quantitative stick packaging of various granular substances. It is widely used in the pharmaceutical, healthcare, food and daily chemical areas etc.



设备主要参数 / Specification

外形尺寸 Overall dimension	2800mm(L)×2550mm(W)×4300mm(H)
设备重量 Weight	2600kg
适应规格 Applicable specification	长度≤ 200mm, 宽度≤ 60mm, 袋长在 50-200mm 范围内可调 Length ≤ 200mm, width ≤ 60mm, adjustable length within 50-200mm
最高产能 Max. capacity	70 切 / 分钟 70 cutting/min
条包列数 Column no.s of stick packing	12 列 12-column
最大总膜宽 Max. total membrane width	1000mm
横封 Horizontal sealing	伺服量杯灌装 Servo volume filling
设备噪音 Noise	≤ 75 分贝 ≤ 75dB
主电源 Main power supply	三相 AC380V-50Hz-5 线 3-phase AC380V -50Hz-5-wire
额定功率 Rated power	35.0kW
压缩空气耗量 Consumption of compressed air	快插接口：Φ16mm 气管 Quick-change adaptor: Φ16mm gas hose 300L/min (0.6MPa-0.8MPa)



SP-P12, 12 列粉末条包机 SP-P12, 12-column Stick Packing Machine for Powders



应用范围 / Scope of Application

本设备适用于各种粉末类物质的定量条袋包装。可广泛应用于制药、保健、食品、日化等各行业。

This production line is applicable to quantitative stick packaging of various powder substances. It is widely used in the pharmaceutical, healthcare, food, daily chemical areas and other sectors.



设备主要参数 / Specification

外形尺寸 Overall dimension	2800mm(L)×2550mm(W)×4300mm(H)
设备重量 Weight	2600kg
适应规格 Applicable specification	长度≤ 200mm, 宽度≤ 60mm, 袋长在 50-200mm 范围内可调 Length ≤ 200mm, width ≤ 60mm, adjustable length within 50-200mm
最高产能 Max. capacity	70 切 / 分钟 70 cutting/min.
条包列数 Column no.s of stick packing	12 列 12-column
最大总膜宽 Max. total membrane width	1000mm
横封 Horizontal sealing	伺服螺杆灌装 Servo screw filling
设备噪音 Noise	≤ 75 分贝 ≤ 75dB
主电源 Main power supply	三相 AC380V-50Hz-5 线 3-phase AC380V -50Hz-5-wire
额定功率 Rated power	35.0kW
压缩空气耗量 Consumption of compressed air	快插接口: Φ16mm 气管 Quick-change adaptor: φ16mm gas hose 300L/min (0.6MPa-0.8MPa)

SP-L12, 12 列液体条包机 SP-L12, 12-column Stick Packing Machine for Powders



应用范围 / Scope of Application

适用于各种口服液、漱口水、膏滋等物质的定量条袋包装，可广泛应用于制药、保健、食品、日化等各行业。

Suitable for a variety of oral liquid, mouthwash, paste zi and other substances of the quantitative strip bag packaging, can be widely used in pharmaceutical, health care, food, daily chemical and other industries.



设备主要参数 / Specification

外形尺寸 Overall dimension	2500mm(L)×2350mm(W)×3650mm(H)- 主机 2500mm(L)×1200mm(W)×2500mm(H)- 灌装
设备重量 Weight	3000kg
适应规格 Applicable specification	长度≤ 160mm, 宽度≤ 60mm, 袋长在 80-160mm 范围内可调 Length ≤ 160mm, width ≤ 60mm, adjustable length within 80-160mm
最高产能 Max. capacity	55 切 / 分钟 55cut/min
条包列数 Column no.s of stick packing	12 列 12-column
最大总膜宽 Max. total membrane width	1000mm
横封 Horizontal sealing	双横封 Double transverse sealing
易撕口形式 The form of easy to tear	横封纵封易撕口一刀切成 Easy tear of horizontal seal and vertical seal can be cut in one time
切刀形式 The form of cutter	圆角切刀 Radius tool
灌装形式 Filling type	伺服陶瓷泵灌装 filling by Servo-ceramic pump
主电源 Main power supply	3 相 ~+ 零线 + 接地 AC380V/50Hz/60Hz 3 Phase ~ + zero line + ground AC380V / 50Hz / 60Hz
额定功率 Rated power	35.0kW
压缩空气耗量 Consumption of compressed air	快插接口: Φ16mm 气管 Quick-change adaptor: φ16mm gas hose 800L/min (0.6MPa-0.8MPa)
氮气 (有充氮要求时) Nitrogen gas (when nitrogen is required)	纯度 >99.99%, 压力: 0.4Mpa; 60 立方米 / 小时 / 台 Purity > 99.99%, pressure: 0.4Mpa; 60 m ³ / h / unit

SP-W12, 多列条包称重机 SP-W12, Multi-column stick weighing machin



应用范围 / Scope of Application

本设备与多列条包机配线使用。完成条袋的有序输送，进入称重系统进行单列称重检测并剔除。

This equipment is used with multiple lines of charter flight wiring. Complete the orderly delivery of the bags, enter the weighing system for single column weighing detection and elimination.



条包机优势特点 / Advantages & Features

- 上坡输送

保证条袋不会过冲，传送可靠、有序。
 - 取样

自动取样机构可选择定时取样或人工随机取样。
 - 独立称重系统

每个轨道单独完成高精度称重。可实现单道或整列剔除。
 - 抗干扰能力强

称重机独立支撑设计，确保不受整理传送的震动影响，保证称重精度。正压防护，保证粉尘不进入秤体，避免影响称重精度。
 - 清理维护方便

整体可抽出，标准配置 15.6 寸分体式超薄显示屏 + 工控机，界面简洁友好。
 - 自动剔除

可实现单列剔除，后续需选配自动补袋机构。
- + The uphill transport

Ensure that the bag will not overrush, and the transmission is reliable and orderly.
 - + sample

The automatic sampling mechanism can choose regular sampling or manual random sampling.
 - + Independent weighing system

Each track is individually completed with high-precision weighing. Single-row or whole-column elimination can be realized.
 - + Strong anti-interference ability

The weighing machine independently supports the design, to ensure that the vibration of sorting and transmission, to ensure the weighing accuracy. Positive pressure protection, to ensure that the dust does not enter the scale body, to avoid affecting the weighing accuracy.
 - + Easy cleaning and maintenance.

The whole can be drawn out, the standard configuration of 15.6-inch split ultra-thin display screen + industrial control machine, simple and friendly interface.
 - + Automatic removal.

Single column can be eliminated, and the subsequent automatic bag filling mechanism should be selected.

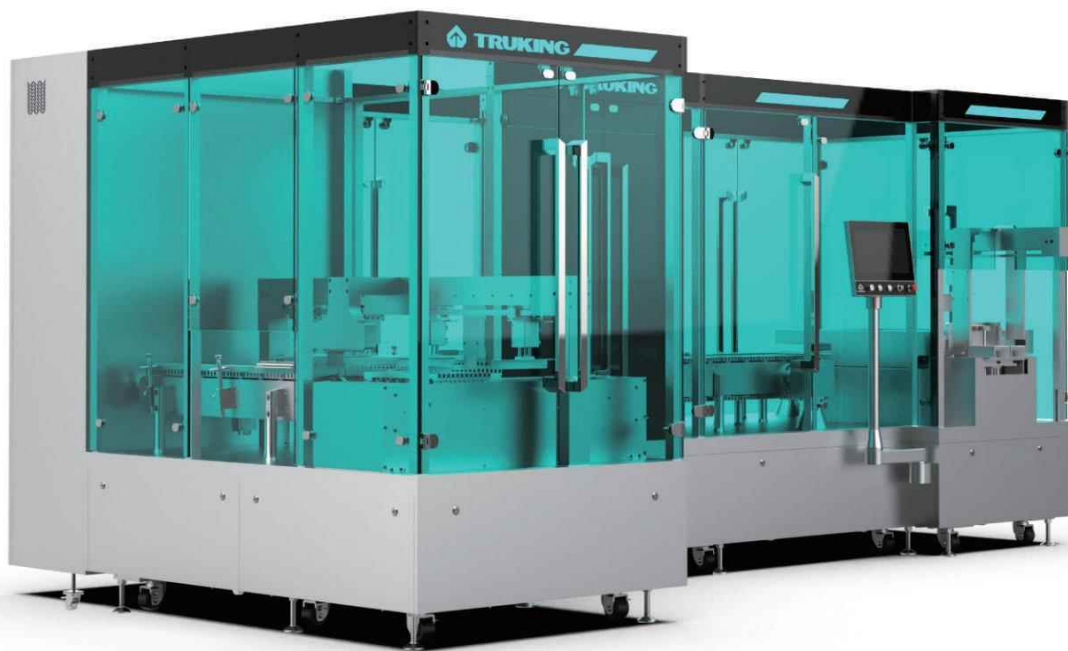




设备主要参数 / Specification

外形尺寸 Overall dimension	3300mm(L)×1150mm(W)×1000mm(H)
设备重量 Weight	1000kg
称重范围 Range of weighing	0.002g
刻度值 scale value	55 切 / 分钟 55cut/min
综合精度 Comprehensive precision	±0.03g
最高产能 Max. capacity	70 切 / 分钟 70cut/min
轨道数量 Number of Tracks	12 列 12-column
适应规格 Applicable specification	长度 ≤ 160mm, 宽度 ≤ 30mm, 袋长在 50-160mm 范围内可调 Length ≤ 160mm, width ≤ 30mm, adjustable length within 50-160mm
工作温度 Working temperature	0°C ~40°C
设备噪音 Noise	≤ 75 分贝
主电源 Main power supply	3 相 ~+ 零线 + 接地 AC380V/50Hz/60Hz
额定功率 Rated power	10kW
压缩空气耗量 Consumption of compressed air	快插接口: φ12mm 气管 450L/min(0.6MPa-0.8MPa) Quick-change adaptor: φ12mm gas hose 450L/min (0.6MPa-0.8MPa)

SP-S12, 多列条包整列机 SP-S12, Multi-column package machine



应用范围 / Scope of Application

本设备与多列条包机配线使用。完成条袋冗余储存、转向、补袋、二次计数等功能。

This equipment is used with multiple lines of charter flight wiring. Complete the bag redundant storage, steering, bag filling, second count and other functions.



条包机优势特点 / Advantages & Features

- ◎ (选配) 冗余储存设计, 提高设备运行效率;
 - ◎ 伺服转盘机构, 实现条袋转向调头;
 - ◎ (选配) 伺服补袋机构, 实现任意列空槽补袋;
 - ◎ 通过更换模具实现 N: M 任意数计数;
 - ◎ (选配) 加隔板机构, 实现条包双层装盒;
 - ◎ (选配) AB 伺服双带输送, 与连续式装盒机对接;
 - ◎ 标准配置 15.6 寸分体式超薄显示屏 + 工控机, 界面简洁友好。
- + (Optional) Redundant storage design to improve equipment operation efficiency;
 - + Servo turntable mechanism, realize the bag turn around;
 - + (Optional) servo bag filling mechanism to realize any column slot pocket;
 - + N: M is counted by replacing the mold;
 - + (Optional) Add a partition mechanism to achieve double-layer packing;
 - + (Optional) AB servo double belt delivery, docking with the continuous packing machine;
 - + Standard configuration of 15.6-inch split ultra-thin display screen + industrial control machine, simple and friendly interface.





设备主要参数 / Specification

外形尺寸 Overall dimension	4800mm(L)×2500mm(W)×2100mm(H)
设备重量 Weight	2000kg
适应规格 Applicable specification	50mm ≤ 袋长 ≤ 160mm, 15mm ≤ 袋宽 ≤ 60mm, 袋厚 ≤ 10mm 50mm ≤ Length ≤ 160mm, 15mm ≤ width ≤ 60mm, thick ≤ 10mm
最高产能 Max. capacity	60 切 / 分钟 60cut/min
堆叠层数 Stacked layers	≤ 90mm, 2 层叠料可选 2 Stack in layers is optional
出料工位 Discharge station	两工位 two stations
工作出料范围 Working discharging range	最大尺寸 (两工位) Maximum size (two stations) : 235×188×50mm
工作出料高度 Working discharge height	900±30mm
纸隔板材质 Paper partition material	200~400g/m ² 标准卡纸 Standard card paper
设备噪音 Noise	≤ 75 分贝 75db
主电源 Main power supply	3 相 ~+ 零线 + 接地 3. Phase ~+ zero line + grounding AC380V/50Hz/60Hz
额定功率 Rated power	16kW
压缩空气耗量 Consumption of compressed air	快插接口: Φ16mm 气管 Quick-change adaptor: Φ16mm gas hose 500L/min (0.6MPa-0.8MPa)



秉承“一切为客户着想，为一切客户着想，为客户着想一切”的理念，以“为客户创造价值”为己任，楚天专注于打造一流的研发、设计、销售、制造、服务团队及服务管理体系，为客户提供高效、优质的产品与服务。



◎ 项目规划支持

楚天拥有系列专业医药设计院、产品研究院，一批行业资深科研技术人员，无菌制药工艺的验证专家、教授等，为客户的项目提供科学、有效的技术规划支持。



◎ 过程保障服务

楚天推出的医药装备整体解决方案，实现药品生产过程的全自动化、无菌化，智能检测、分选，以及计算机验证保障，生产出让市场“放心”的产品。



◎ 走进园区服务

楚天作为设备供应商，不仅仅将行业法规标准融入到产品设计、制造中，还让法规标准以讲座、交流的形式走进园区，与药企的工艺、生产形成互动与融合。



◎ 设备管理咨询服务

楚天致力于满足客户效益最大化需求，提供一揽子的设备管理模式，协同药厂实现投入最小化，产出最大化。

- ◎ 坚持“以客户为中心”，以匠人之心打造极致服务体验，为客户创造更多价值

34 全国 34 个省（市）

365 全年 365 天

7x24 7X24 小时服务时间

- ◎ 我们随时待命为客户单位设备正常运行保驾护航

- + 现场安装、调试、验收
- + 设备工艺、操作、维护等相关培训
- + 周期性的定期上门维护与回访
- + 设备各部件性能的检测与保养
- + 备品备件的及时供应
- + 产品技术升级与技术二次开发
- + 设备大修



Adhering to concept of “all for customers, for all customers” , and with the mission of “creating value for customers” , TRUKING focuses on building first-class R&D, design, sales, manufacturing, service teams and service management system to offer high-efficient and high-quality products and services for the customers.



◎ Project Planning Support

TRUKING has a series of professional medical and pharmaceutical design institutes, product research institutes, a group of senior scientific research and technical personnel, aseptic pharmaceutical process verification experts, professors, etc., to provide scientific and effective technical planning support for customers' projects.

◎ Process Assurance Service

TRUKING launched the overall solution for medical & pharmaceutical equipment realizing the full automation and aseptic production process, intelligent detection and sorting of the drug, as well as computer verification assurance so as to produce assured products for market.

◎ Service In The Park

As an equipment supplier, TRUKING not only integrates industrial regulations and standards into product design and manufacturing, but also introduces the industrial regulations and standards into Truking industrial park in the form of lectures and exchanges to interact and integrate with the technology and production of pharmaceutical enterprises.

◎ Equipment Management Consultation Service

TRUKING aims to satisfy the maximum benefited demands of the customer and to provide a package of equipment management services to realize minimization investment and maximization production output together with pharmaceutical factories.

◎ Adhere to the philosophy of "customer-centric", TRUKING creates the extraordinary service experience with the spirit of the craftsman, to create more value for customers.

◎ We are always ready to escort the normal operation of the customer's equipment.

- + Onsite equipment installation, commissioning, acceptance
- + Training for equipment process, operation and maintenance
- + Periodic door-to-door maintenance and return visit
- + Performance test and maintenance for machinery parts
- + Timely supply of spare parts
- + Product technology upgrading and secondary development
- + Equipment overhaul



www.truking.com



地址 Add: 国家级宁乡经济技术开发区楚天科技工业园 邮编 P.C: 410600

Truking Technology Industrial Park, Ningxiang National Economic and Technological Development Zone

电话 Tel: 0731-87938288 传真 Fax: 0731-87938201

邮箱 E-mai: truking@truking.cn

产品技术改进恕不另行通知，本公司保留对本手册内容的最终解释权，本册图片供参考，以实物为准。2024年4月版

The company reserves the right to interpret the contents of this manual without prior notice. The pictures in this manual are for reference and subject to the actual conditions.

Apr. 2024 Edition