



# Modula SLIM

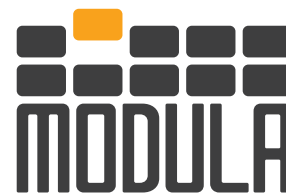
Think Vertical, Think Modula

仅需垂直回转式货柜的空间却拥有垂直升降式货柜的优势

ALL THE BENEFITS OF A VERTICAL LIFT STORAGE IN THE SPACE OF A VERTICAL CAROUSEL



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## 最小深度， 最高效率

Modula Slim对于寻找具有充分灵活性的立体存储解决方案的用户是一个明智的选择。  
升降库的技术优势浓缩在：

· 仅3平方米的占地面积 · 仅1.6米的外形深度

## ... 如此灵活

您可以在Modula Slim中存储各种材料和产品：零散物料、容器（周转箱、物料盒、纸箱、木箱）、小件物品、备件、线圈、烧瓶等。



## Modula Slim 能做什么？

- 节省占地面积，充分利用垂直空间
- 减少拣选时间
- 实现货物到人，完全符合人体工程学
- 保持库存水平，使物料处于可控状态
- 可与所有ERP对接，轻松实现与客户流程的集成
- 实现对每个存取任务的追溯
- 避免存取错误

## Minimum depth, maximum efficiency

Modula Slim is the smart choice for anyone looking for a vertical storage solution with complete flexibility.

The best of the SLIM technology built in a:

· 3 m<sup>2</sup> of floor space • 1.6 m depth

## ... and so flexible?

You can store all sorts of materials and products in your Modula Slim: loose materials, containers (boxes, bins, packs, cartons, cases), small items, spare parts, coils, flasks.



## What Modula SLIM can do for you?

- Recovers floor space, making the most of storage density
- Reduces picking times
- Makes materials accessible to all operators, quickly and ergonomically
- Keeps stock levels and all warehouse items under control
- Integrates easily into your company processes by communicating with all ERP systems
- Tracks picking and refilling operations, identifying who did what and controls every access
- Eliminates picking and refilling errors by guiding the operator through the process

轻松, 快捷,  
符合人体工程学

Easy, Fast,  
Ergonomic

紧急按钮  
EMERGENCY BUTTON

拣选结束键  
END OF PICKING BUTTON



垂直方向采用V型钢齿带传动  
V-SHAPE STEEL  
REINFORCED TOOTHED BELT

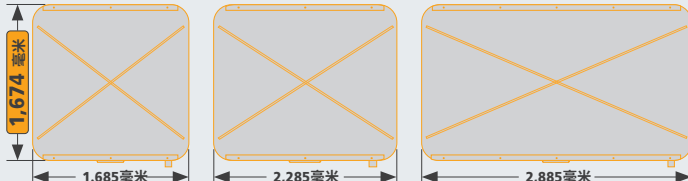
最高至7米  
UP TO 7 METERS

符合人体工程学的触摸屏  
INTEGRATED ERGONOMIC  
TOUCH SCREEN INTERFACE

LED货位指示条  
LED ALPHANUMERIC BAR

仅1.6米的外形深度  
1.6 M DEPTH

#### 技术规格 / Technical Specifications

|                                                                                             |                                                                                                               |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 设备高度: 从2,400毫米到7,000毫米<br>Unit height: from 2,400 mm to 7,000 mm                            | 操作界面: 10.4英寸工业触摸式控制面板<br>Operator interface: 10.4" touch screen industrial console (Copilot)                  |
| 设备高度增量: 100 毫米<br>Unit height increment: 100 mm                                             | 存取口数量: 1<br>Number of bays: 1                                                                                 |
| 托盘支架间距: 25毫米<br>Tray storage pitch: 25 mm                                                   | 存取口类型: 内置式单层存取口<br>Types of bay: internal with single delivery level                                          |
| 托盘宽度: 1,300 - 1,900 - 2,500毫米<br>Tray widths: 1,300 - 1,900 - 2,500 mm                      | 低能耗: SLIM 1.3型升降式货柜功耗为1.2千瓦/小时, 高度为7,000毫米<br>Low energy consumption: 1.2 kW/h for SLIM 1.3 model, H=7,000 mm |
| 托盘深度: 425毫米<br>Tray depth: 425 mm                                                           | 电源: 支持230V单相和400V三相电源<br>Power supply: 230V single-phase or 400V three-phase                                  |
| 托盘有效载荷: 350公斤<br>Net tray payload: 350 kg                                                   | 认证: TÜV-GS<br>Certification: TÜV-GS                                                                           |
| 总有效载荷: 25,000公斤<br>Total gross payload: 25,000 kg                                           | V型钢齿形同步带(4条)<br>V-Shape steel reinforced toothed belt transmission (4 belts)                                  |
| 最大物料存放高度: 650毫米<br>Maximum storage height: 650 mm                                           |                           |
| 出货台距离地面高度: 835毫米<br>Bay delivery level height: 835 mm                                       |                                                                                                               |
| 托盘侧壁高: 45毫米<br>Tray wall height: 45 mm                                                      |                                                                                                               |
| 存取效率: 高达190个托盘/小时(取决于配置)<br>Throughput: up to 190 trays/hr (depending on the configuration) |                                                                                                               |



## 快捷安装, 轻松上手

Modula Slim的基座是预安装式的, 方便移动, 安装快捷。Modula Slim可以在48小时内在您的工厂内安装完毕。Modula Slim可通过Modula WMS (仓库管理系统) 与您公司的ERP系统快速集成。

该产品不仅安装快捷, 而且使用方便。操作者可以在界面友好的触摸屏上进行操作并且可以方便地与可选件进行组合使用, 如: 拣选结束键, EKS读卡器, LED货位指示条。

仅需几天的时间, 任何人都能轻松学会操作, 大幅度提升拣货速度。

48小时内安装即插即用  
PLUG & PLAY Installation in 48 hours



## Quick to install, easy to use

Modula Slim is built on a pre-assembled base module which is easy to move and quick to install. This means that the Vertical Lift Storage can be set up in your plant and ready in 48 hours. Modula Slim also integrates quickly with your company ERP system thanks to Modula WMS (Warehouse Management System).

Not just easy and quick to install but also to use. It's really easy for your operators to interact with Modula Slim. They can use the user-friendly touch screen interface and simple controls integrated into the bay like the end of picking button, EKS reader, LED bar etc.

In just a few days, your Modula Slim can be used by anyone and you will see an incredible picking speed increase.



触摸屏控制面板  
Touch screen console and integrated electrical panel



拣选结束键  
End of picking button



托盘分隔板 (可选件)  
With subdividing accessories

## 您见过如此灵活的产品吗？

毫无限制和约束地充分利用Modula SLIM的内部空间,可自动优化位置轻松实现动态储存。

- 总载荷高达25,000kg,高度7米,深度仅1.6米
- Modula Slim内部空间可以得到充分利用,这受益于Modula的动态托盘管理技术,Modula Slim能够计算出托盘存放的最佳位置从而避免任何空间浪费
- 受益于升降库的特有技术,Modula Slim可以完全避免回转库的偏载问题
- 低能耗:<1.2kw/h
- 电源可以使用三相400V或单相230V
- 维护方便:V型齿带传动系统超静音,无需润滑,其自动对准滑轮系统易于安装和调整
- Modula Slim可以搭配丰富的选件,如:视觉辅助系统,播种式电子拣选系统,存取控制系统,托盘柔性分隔系统

## Have you ever seen such flexibility?

Make use of all the space inside your Modula SLIM without limits or constraints. Choose dynamic storage without fixed heights and with a truly SLIM depth.

- Total payload is up to 25,000 kg with 7 metres in height and no more than 1.6 m in depth
- You can make use of all the available space in your Vertical Lift Storage thanks to dynamic tray height storage: there are no fixed heights as the Modula Slim calculates the best place to put the trays and eliminates any wasted space between them
- With Lift technology and the way the elevator moves, there are no issues with unbalanced loads unlike with carousel systems
- Energy consumption is relatively low: less than 1.2 kW/h
- You can choose to power the warehouse with a three-phase (400V) or a single-phase (230V) supply
- Maintenance is limited: the V-Shape toothed belt transmission system is super quiet, requires no lubrication and its self-aligning pulley system means it's super easy to install and adjust
- You can add all options from the Modula range such as visual aids, Put to light, access control systems, partitions, dividers and slotted tray walls to subdivide the trays.



VS





## 可选件 Modula Options

货架盘可以安装额外组件, 如托盘分隔板, 用来存储不同类别的材料或容器。这些组件在货架盘中布局十分灵活, 方便修改。

Trays can be fitted with options such as partitions and dividers to create compartments, meaning you can store materials or containers which might be very different from each other.

These options mean that the layout of materials in the trays is incredibly flexible and easy to modify.



托盘配件 / Tray accessories

### 视觉辅助工具

这些工具可以直观地显示所需物品的位置, 并加快拣选和存储操作的速度。引导操作员找到托盘中物品的位置, 并显著减少错误。

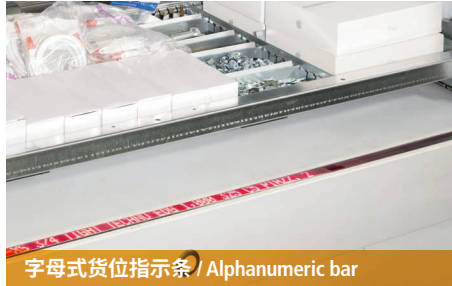
### VISUAL AIDS

These give a visual indication of the location of the requested item and speed up picking and refilling operations.

They guide the operator to the location of the items within the tray and noticeably reduce errors.



货位指示条 / LED bar



字母式货位指示条 / Alphanumeric bar



激光式货位指示器 / Laser Pointer

### 访问控制

这些设备可以防止未经授权访问存储的材料。您可以根据不同用户的权限为他们提供对不同托盘/材料或隔间的访问权限。可以使用输入到控制台的登录名和密码来授予访问权限, 也可以通过个人设备实现, 整个操作过程十分便捷。

### ACCESS CONTROL

These devices protect stored materials from unauthorised access. You can give different users access to different trays/materials or compartments based on their permissions. Access can be granted using a login and password entered into the console, or it can be achieved using a strictly personal device which makes the operation very quick.



RIFD 阅读器 / RFID Reader



磁条读卡器/Magnetic badge Reader



EKS读卡器/EKS Reader

### 增加生产率的组件

1D/2D条码扫描仪可以快速扫描产品, 免去人工检查, 集成亮灯拣选模块, 增加多任务处理订单能力, 静电放电保护系统 (ESD) 可以保护敏感物品。

### OPTIONS WHICH INCREASE PRODUCTIVITY

1D/2D barcode readers can quickly scan the product and avoid any manual checks, integrated Put to Light increases the number of order lines processed at the same time or handles multiple orders simultaneously, electrostatic discharge protection systems (ESD) protect sensitive items.



静电放电保护系统 / ESD protection system



条码扫描仪 / 1D/2D barcode Reader



亮灯拣选 / Put-to-Light

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## Some Modula references



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Modula is present in 5 continents with dealers and branches located in over 50 countries



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