



# **Modula SLIM**

**Think Vertical, Think Modula** 

僅需垂直回轉式貨櫃的空間卻擁有垂直升降式貨櫃的優勢

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



## 最小深度, 最高效率

Modula Slim對於尋找具有充分靈活性的立體存儲解 決方案的用戶是一個明智的選擇。 升降庫的科技優勢濃縮在:

・僅3平方米的占地面積・僅1.6米的外形深度

## ... 如此靈活

您可以在Modula Slim中存儲各種資料和產品:零散物料、容器(周轉箱、物料盒、紙箱、木箱)、小件物品、備件、線圈、燒瓶等。



# Modula Slim 能做什麼?

- 節省占地面積,充分利用垂直空間
- 减少揀選時間
- •實現貨物到人,完全符合人體工程學
- •保持庫存水准,使物料處於可控狀態
- ·可與所有ERP對接,輕鬆實現與客戶流程的集成
- 實現對每個存取任務的追溯
- 避免存取錯誤

# 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



技術規格 / Technical Specifications	
設備高度:從2400毫米到7000毫米	操作介面: 10.4英寸工業觸摸式控制台
Unit height: from 2,400 mm to 7,000 mm	Operator interface: 10.4" touch screen industrial console (Copilot)
設備高度增量:100毫米	存取口數量:1
Unit height increment: 100 mm	Number of bays: 1
託盤支架間距:25毫米	存取口類型:內寘式單層存取口
Tray storage pitch: 25 mm	Types of bay: internal with single delivery level
託盤寬度: 1300 - 1900 - 2500毫米	低能耗: SLIM 1.3型升降式貨櫃功耗為1.2千瓦/小時,高度為7,000毫米
Tray widths: 1,300 - 1,900 - 2,500 mm	Low energy consumption: 1.2 kW/h for SLIM 1.3 model, H=7,000 mm
託盤深度:425毫米	電源:支持230V單相和400V三相電源
Tray depth: 425 mm	Power supply: 230V single-phase or 400V three-phase
託盤有效載荷:350公斤	認證 <b>:TÜV-GS</b>
Net tray payload: 350 kg	Certification: TÜV-GS
總有效載荷:25000公斤	V型鋼絲齒形同步帶(4條)
Total gross payload: 25,000 kg	V-Shape steel reinforced toothed belt transmission (4 belts)
最大物料存放高度:650毫米 Maximum storage height: 650 mm	1,685毫米 2,285毫米 2,885毫米
存取口距離地面高度:835毫米 Bay delivery level height: 835 mm	
託盤側壁高:45毫米 Tray wall height: 45 mm	
存取效率:高達190個託盤/小時(取決於配寘) Throughput: up to 190 trays/hr (depending on the configuration)	

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# MODULA

## 快捷安裝,輕鬆上手

Modula Slim的基座是預安裝式的,方便移動,安裝快捷。Modula Slim可以在48小時內在您的工廠內安裝完畢。Modula Slim可通過Modula WMS(倉庫管理系統)與您公司的ERP系統快速集成。

該產品不僅安裝快捷,而且使用方便。 操作者可以在 介面友好的觸控式螢幕上進行操作並且可以方便地 與可選件進行組合使用,如:揀選結束健,EKS讀卡 器,LED貨位訓示條。

僅需幾天的時間,任何人都能輕鬆學會操作,大幅度提升揀貨速度。



### 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 incredibile picking speed increase.







### 您見過如此靈活的產品嗎?

毫無限制和約束地充分利用Modula SLIM的內部空間,可自動優化位置輕鬆實現動態儲存。

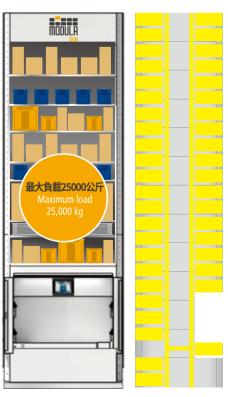
- ・總載荷高達25000kg,高度7米,深度僅1.6米
- Modula Slim內部空間可以得到充分利用,這受益於 Modula的動態託盤管理科技,Modula Slim能够計 算出託盤存放的最佳位置從而避免任何空間浪費
- 受益于升降库的特有技术,Modula Slim可以完全避免回转库的偏载问题
- · 低能耗:<1.2kw/h
- ・電源可以使用三相400V或單相230V
- · 維護方便: V型齒帶傳動系統超靜音, 無需潤滑, 其自動對準滑輪系統易於安裝和調整
- · Modula Slim可以搭配豐富的選件,如:視覺輔助系統,播種式電子揀選系統,存取控制系統,託盤柔性分隔系統

# 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 availabe 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.





## 可選件 **Modula Options**

貨架盤可以安裝額外組件,如託盤分 隔板,用來存儲不同類別的資料或容 器。這些組件在貨架盤中佈局十分靈 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 lavout of materials in the trays is incredibly flexible and easy to modify.



#### 視覺輔助工具

這些工具可以直觀地顯示所需物品 的位置,並加快揀選和存儲操作的速 度。 引導操作員找到託盤中物品的 位置,並顯著减少錯誤。

#### **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.







#### 存取控制

這些設備可以防止未經授權訪問存 儲的資料。您可以根據不同用戶的許 可權為他們提供對不同託盤/資料或 隔間的存取權限。可以使用輸入到控 制台的登錄名和密碼來授予存取權 限,也可以通過個人設備實現,整個 操作過程十分便捷。

#### **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.







#### 新增生產率的組件

1D/2D條碼掃描儀可以快速掃描產 品,免去人工檢查,集成亮燈揀選模 塊,新增多工處理訂單能力,靜電放 電保護系統(ESD)可以保護敏感物

#### **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.







## 我們的部分客戶

MAGNETI MARELLI

MUBEA

CATERPILLAR

### **Some Modula references**



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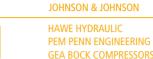


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Modula在全球5個大洲、50多個國家均有經銷商和分公司 Modula is present in **5 continents** with dealers and branches located in over **50 countries** 





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