SUNLI®
顺力智能物流

INTELLIGENT LOGISTICS OVERALL SOLUTION
WE HAVE BEEN DELIVERING VALUE

智能物流整體解決方案, 我們一直在傳遞價值

減人減地減成本，增產增效增利潤

廣東顺力智能物流裝備股份有限公司
Guangdong Sunli Intelligent Logistics Equipment Co.,Ltd.

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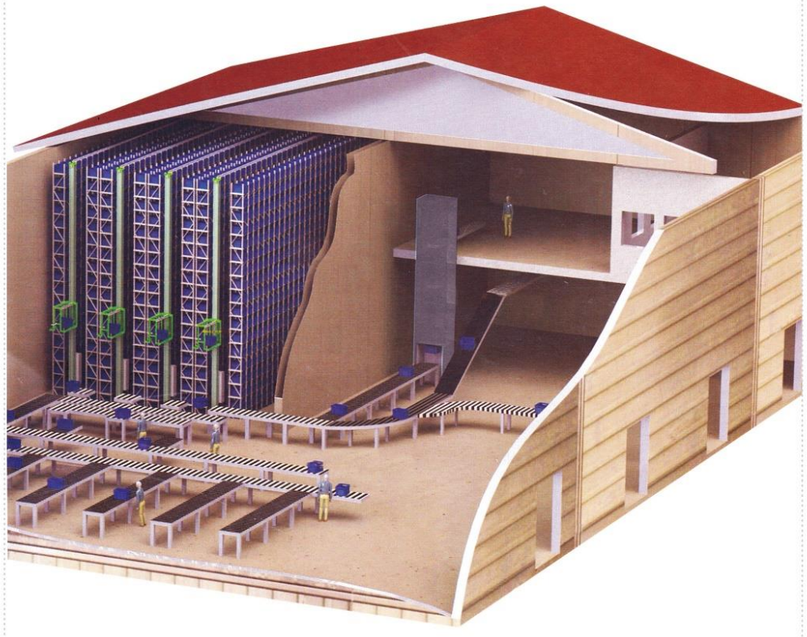
GUANGDONG Sunli 廣東顺力智能物流裝備股份有限公司 Intelligent Logistics Equipment CO.,LTD

自動化物流設備集成商

INTEGRATOR OF AUTOMATED LOGISTICS EQUIPMENT



GUANGDONG SUNLI INTELLIGENT LOGISTICS EQUIPMENT CO.,LTD

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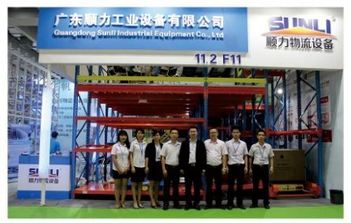
SUNLI®
顺力智能物流





智能物流配送中心整體解決方案
自動化物料搬運解決方案

智能物流配送中心解決方案

Intelligent logistics
Distribution center
Solution

Intelligent logistics solutions

智能物流解決方案

自動化存儲庫解決方案
倉庫貨架整體解決方案
無人搬運整體解決方案
……

智能周邊設備

Peripheral auxiliary equipment

輕型輸送分揀裝備系統設備
重型托盤輸送系統設備
智能裝載周轉設備
移動登車橋
高度調節板
……

SUNLI®
顺力智能物流

智能物流管理係統

Intelligent Logistics Management System

倉儲管理系統**WMS**
倉儲控制系統**WCS**
平庫管理系統**WMS**
電子標簽揀選系統**DPS**
AGV綜合管理系統
AGV信息監控系統
TMS運輸任務管理系統
叫料系統
順力智能管理系統
VCS車輛控制軟件
Map edit 綜合管理系統
……

智能物流設備

Intelligent logistics equipment

倉庫貨架
自動化立體庫
堆垛機
RGV
AGV
提升機
穿梭車
輸送綫
……

CORPORATE PROFILE

企業簡介

廣東順力智能物流裝備股份有限公司，成立于2005年3月3日，公司爲致力于爲客户提供專業的自動化倉儲系統設計，物流系統規劃咨詢，信息系統開發設計，自動化物流設備，物流配送中心系統集成，物流系統維護與保養，供應鏈管理及配套服務，通過自我研發了堆垛機、穿梭車（RGV）、激光導航無人小車（AGV）、自動化分揀系統DPS及WMS、WCS、MES、AGV綜合管理系統、AGV智能管理系統等自動化物流管理軟件，擁有智能化的物流裝備産品綫。致力于打造國内一流的智能物流設備集成商， 同時爲華南地區立體庫貨架行業新三板上市企業（股票代碼：870056），公司制造基地位于廣東省東莞市高埗鎮塘厦村工業區,是國家高新科技企業，2017年入選東莞市績效倍增計劃企業，國家標準3項起草單位,行業標準4項，中國物流裝備産業優秀品牌，GDTC4東莞智能標準化實驗室基地，廣東省智慧物流裝備系統集成工程技術研究中心，連續五年廣東省守合同重信用企業，廣東物流行業協會常務理事，同時爲ISO9001質量管理體系認證的生産廠家。

公司具備雄厚的技術力量與産品開發能力，專業高級技術人員100多名,其中設計規劃高級工程師50人，項目實施工程師27人，專業的售後服務團隊15人，爲客户提供專業的方案與設計、保障客户現場的安裝管理及設備使用的快速響應。

順力公司與國内多所高校簽訂人才引進合作意向書，爲公司提供最高精尖的技術人才，同時公司與廣州自動化研究所、華南農業大學水利與土木工程學院、廣東理工學院、東莞理工學院不斷深化産學研合作共同開發了一系列國内具有先進水平的自動化物流倉儲技術，擁有自主研發專利3項,實用新型專利17項，軟件著作權9項，自主開發有限元力學分析模型和三維動畫模型。

公司積累了十三年設計、生産、安裝立體庫經驗，工廠擁有智能化的管理，先進的自動化生産制造設備，爲生産和制造高精度物流倉儲設備保駕護航，公司自主研發的高性能堆垛機，最高水平行走速度爲400米/分鐘，遠亞洲領先水平。并與世界一流的驅動、電氣控制SEW, DEMAG, BAUER， SIEMENS, LEUZE, SICK, OMRON品牌商達成長期合作，爲客户提供最穩定的系統及設備。

順力公司致力于打造“中國物流裝備領先企業”，秉承專業、專注、高效的經營方針,爲各行各業的客户提供自動化物流解決方案,同時也致力成爲中國最强的自動化物流裝備集成商。

順風揚帆新徵程，力行致遠更高峰!

Guangdong Sunli Intelligent Logistics Equipment Co., Ltd., was established in March 3, 2005, To provide professional automated warehousing systems design, logistics systems planning and consulting, Information system development and design, automated logistics equipment, logistics distribution center system integration,Logistics system maintenance, supply chain management and related services, has become domestic first class integrator of intelligent logistics equipment, the company production base in Tangxia Village Industrial Zone , Gaobu Town, Dongguan city , Guangdong province ,is a national high-tech enterprise of national standards drafting unit 9,Guangdong Logistics Industry Association executive director, also is the first manufacturer in the industry through the ISO9001 Quality management system.

The company has strong technical force and product development capabilities, professional and advanced technology More than 100 personnel, including 50 senior engineers design and planning, project engineer 27 people, 15 professional service team to provide customers with the most professional programs Design,Quick response to keep the installation management and equipment use in customer site . Sunli company with lots of colleges and universities signed the letter for introduce talents and the most sophisticated and technical personnel, the company and the Guangzhou Institute of Automation, South China Hydraulic and Civil Engineering Agricultural University to deepen research cooperation to develop A series of domestic warehousing and logistics automation technology has advanced level, with independent research 3 issued patents, 15 utility model patents, developed finite element analysis model And three-dimensional animation model.

The company has accumulated 13 years design, production and Installation experience of AS/RS warehouse , the factory own intelligent management, advanced automated manufacturing equipment for the production and manufacture Precision logistics warehousing equipment escort, the company developed high-performance stackers,The highest level of travel speed of 400 m / min, reaching Asia's leading level. And with the world Class drive, electric control SEW, DEMAG, BAUER, SIEMENS, LEUZE, SICK, OMRON brands to reach a long-term cooperation, to provide customers with the most stable system and equipment.

Sunli force committed to creating "Chinese logistics equipment leader," designed to uphold Industry, focused, efficient operating principles, all walks of life to provide automated logistics Solutions, but also to become China's most powerful automated logistics equipment integrators.

Downwind sail on a new journey, to exercise Reach new heights!











OUR R&D TEAM

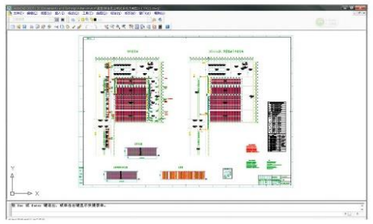
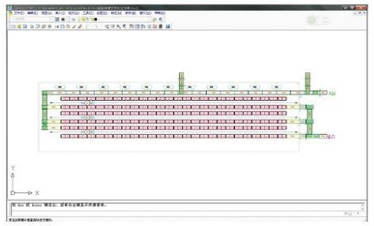
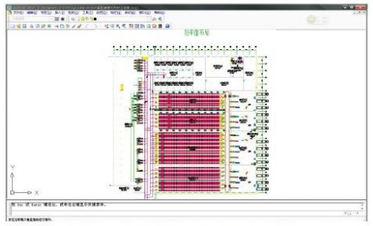
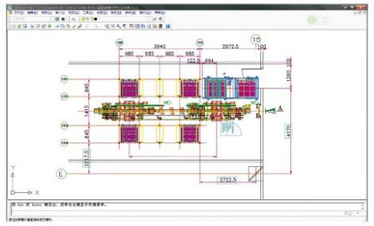
我們的 研發團隊

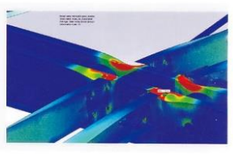




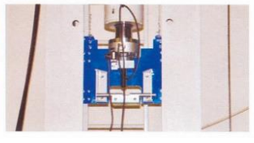




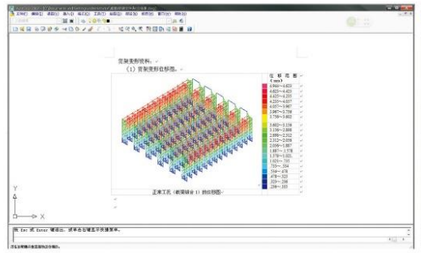
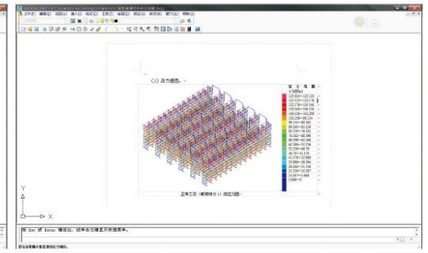





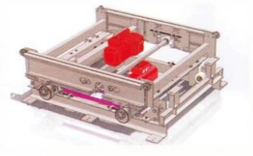
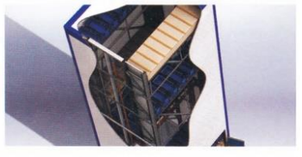
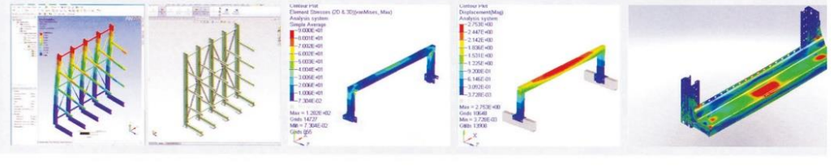

爲客户提供：自動化物流系統綜合解決方案
具體包括：物流系統方案設計與規劃
物流軟件開發與設計
電控系統設計與實施
物流設備研發、設計與改造
項目管理與售後服務

For customers: Offering automatic and logistic solutions
Content: Including logistics system project design and planning; exploitation and design of logistics software;electric-control system design and implementation;logistics equipment research and development,design and reformation;project management and after-sales service.

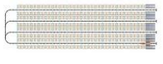
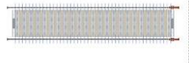
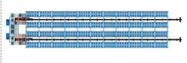




AUTOMATED STORAGE LIBRARY SOLUTION

自動化存儲庫解決方案

	单伸位货架解决方案 Single-depth racking solutions				双伸位货架解决方案 Double depth racking solutions		多伸位货架解决方案 Multi-depth racking solutions		高性能堆垛机解决方案 High-performance stacker solution
示意图 Schematic diagram									
	單伸位貨架+直軌堆垛機解決方案 Rack with single depth+ straight track stacker solution	單伸位貨架+轉彎堆垛機解決方案 Single thrust racking + turning Stacker Solution	單伸位貨架+岔軌堆垛機解決方案 Single thrust racking + fork rail Stacker Solution	雙伸位貨架+直軌堆垛機解決方案 Rack with double depth+ straight track stacker solution	雙伸位貨架+轉彎堆垛機解決方案 Double thrust racking + turning Stacker Solution	雙伸位貨架+岔軌堆垛機解決方案 Double thrust racking + fork stacker rail solutions	穿梭式貨架+直軌堆垛機解決方案 Shuttle Rack + straight track Stacker Solution	重力式貨架+直軌堆垛機解決方案 Gravity racking + straight track Stacker Solution	輕型貨架+高性能堆垛機解決方案 Duty Light racking + high-performance Stacker solutions
產品周轉性 Product revolving	很好 Well	好 Good	一般 General	一般 General	一般 General	差 poor	差（先進先出或先進后出） Poor (first in first out or last-out)	差（先進先出） Poor (FIFO)	很好 Well
產品分揀性 Products sorting	很好 Well	很好 Well	很好 Well	一般 General	一般 General	一般 General	差 poor	差 poor	很好 Well
產品重量適應性 Weight adaptability	100%	100%	100%	100%	100%	100%	一般建議單元重量<1500kg General recommendations unit weight ＜1500kg	一般建議單元重量<1500kg General recommendations unit weight ＜1500kg	一般建議單元重量<200kg General recommendations unit weight ＜ 200kg
廠房面積利用率 Plant area utilization	50%	37%	40%-45%	55%	50%	55%	60%	60-70%	50-60%
所應用設備 The application equipment	堆垛機 Stacker	堆垛機 Stacker	堆垛機、岔軌機構 Stackers, fork rail agency	堆垛機 Stacker	堆垛機 Stacker	堆垛機、岔軌機構 Stackers, fork rail agency	堆垛機、穿梭板 Stacker, shuttle plate	堆垛機、重力自滑滾筒線 Stacker, gravity from sliding drum line	堆垛機 Stacker
系統存取效率 System access efficiency	快 Fast	一般 General	慢 Slow	快 Fast	慢 Slow	較慢 Slower	很慢 Very slow	很慢 Very slow	很快 Quickly
設備運行精度 Equipment running accuracy	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±5mm General ± 5mm	一般±1mm General ± 1mm
設備運動特性 Equipment movement characteristic	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²	Vmax=200n/min、Amax=0.5m/s²
噪音控制 Noise Control	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般84dB-70dB General 84dB-70dB	一般<60dB General <60dB
設備投入和存儲量產出比 Equipment investment and storage input-output ratio	投入較高、存儲量一般 Investment is higher, the amount of storage in general	投入高、存儲量一般 High input, storage general	投入低、存儲量一般 Investment is low, the amount of storage in general	投入一般、存儲量高 Investment in general, high storage capacity	投入低、存儲量高 Low investment, high storage capacity	投入低、存儲量高 Low investment, high storage capacity	投入一般、存儲量較高 Investment in general, the higher the amount of storage	投入低、存儲量較高 Low investment, high storage capacity	投入較高、存儲量一般 Investment is higher, the amount of storage in general
系統適用特點 System applicable Features	小批量、多品種、存儲時間短、作業頻次較高 Small volume, variety, storage time is short, high frequency operation	小批量、多品種、作業頻次高 Small-volume, multi-species, high frequency operation	小批量、多品種、作業頻次低 Small-volume, multi-species, high frequency operation	大批量、品種較少、作業頻次低 High-volume, less variety, high frequency operation	大批量、品種較少、作業頻次較低 High-volume, less variety, low frequency operation	大批量、品種較少、作業頻次較低 High-volume, less variety, lower frequency operation	大批量、少品種或單一品種、作業頻次很低 High-volume, less variety or a single species, the job is very low frequency	大批量、少品種或單一品種、作業頻次很低 High-volume, less variety or a single species, the job is very low frequency	小批量、多品種、箱式輕型貨物、作業頻次高 Less volume, variety, box-type light goods, high frequency operation
適用行業 For industry	所有行業 All Industries	所有行業 All Industries	應用較少 Less applicable	幾乎所有 Almost all	幾乎所有 Almost all	幾乎所有 Almost all	陶瓷、冷鏈、石化、加工製造、包裝 Ceramics, cold chain, petrochemical, manufacturing, packaging	陶瓷、冷鏈、石化、加工製造、包裝 Ceramics, cold chain, petrochemical, manufacturing, packaging	電子電路、醫藥、食品 Electronics, medicine, food

GUANGDONG SUNLI INTELLIGENT LOGISTICS EQUIPMENT CO.,LTD

INTELLIGENT LOGISTICS SOLUTIONS

智能物流解決方案

采用堆垛機、RGV、提升機、穿梭車等自動化單機設備，配合各類轉運輸送線，通過先進的自動化控制理念和全球一流的工控設備和驅動設備，實現貨物自動高效的運輸、存儲，并配以完善的管理軟件，實現大數據下全面、簡捷的管理。

Using Stacker, RGV, elevator, shuttle and other stand-alone automated equipment, with all kinds of transport conveyor, through advanced automatic control concepts and the world's leading industrial equipment and drive equipment to achieve automatic and efficient cargo transport, storage, and with perfect management software, large comprehensive data, simple management.

托盤庫 Pallet storage











INTELLIGENT LOGISTICS DISTRIBUTION CENTER SOLUTION

智能物流配送中心解决方案

采用受計算機控制的各類物料運輸設備，按照工序要求將制定的物料及數量精確運送至指定工位。

Using all types of material handling equipment controlled by the computer, according to the process requirement ,accurately delivery the related material and quantity to the designated station .

通過自動化物料搬運解決方案您可以：

- 實現物料搬運的無人化作業，減少人工成本；
- 實現物料管理流程的信息化，降低管理難度，提升生產效率；
- 保障物料高效、準確地運送，杜絕差錯；
- 7×24不間斷工作。

- Through automated material handling solutions, you can:
- Unmanned material handling operations, reduce labor costs；
- Realization of material management information processes,
- reduce management difficulties, improve production efficiency；
- Safeguard material efficiently and accurately transport, eliminate errors；
- 7 × 24 uninterrupted work.



順力智能物流具有業內最完備的自動化物料搬運設備產品線，且與國內一流的自動化分揀廠商等結成戰略合作伙伴，能夠根據客戶業務的不同特點提供針對性的解決方案：

- 無論何種物料及何種生產環境，順力智能物流均能提供恰當方案；
- 結合有軌、無軌及變軌等技術，工序能夠實時調整，實現生產的柔性化；
- 設備速度快，可靠性好，定位精準度高；
- 可與ERP系統實現實時數據交換并與生產系統協同合作。

Sunli intelligent logistics industry with the most complete auto mated material handling equipment product line, and with the domestic first-class automated sorting and other manufacturers formed a strategic partnership to provide specific solutions according to the characteristics of the customer's business field：

- Regardless of what kind of materials and production environment, Sunli intelligent logistics can provide appropriate solutions；
- Combined with rail, trolley and orbit technology, processes can be adjusted in real time to achieve flexible production；
- Device speed, good reliability, high positioning accuracy；
- Can achieve real-time data exchange with the ERP system and work with the production system.



INTELLIGENT LOGISTICS EQUIPMENT



智能物流設備

智能物流设备是指在智能倉儲過程中，能夠獨立使用的主要單機設備，如：堆垛機、RGV、AGV、穿梭車和提升機等，它們能在指定的工作區域，實時採集當前狀況，經過邏輯處理智能做出最科學的處理方式，完成搬運和倉儲任務。

Intelligent logistics equipment means in the process of intelligent storage， the main stand-alone device can be used independently, such as: stacker, RGV, AGV, shuttle and elevators, etc., they can work in the designated area, real-time acquisition of the current situation, after logic processing intelligence to make the most scientific approach, to complete the task of handling and storage.

智能物流設備優勢：

- 提高空間利用率；
- 可形成先進的物流系統，提高企業現代化的生產管理水平；
- 加快貨物的存取節奏，減輕勞動強度，提高生產效率；
- 減少庫存資金積壓。

Intelligent logistics equipment advantages：

- Improve space utilization；
- Advanced logistics system can be formed, and improving the level of modernization of production management；
- Speed up access to the rhythm of goods, reduce labor intensity and improve production efficiency production line；
- Reduce inventory backlog of funds.

料箱庫 Plastic box warehouse

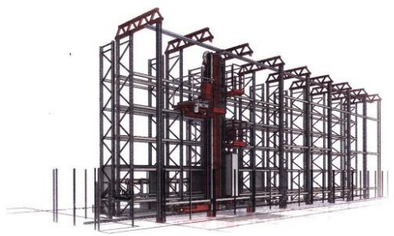


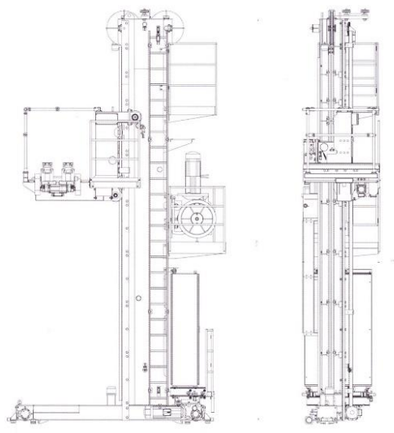
STACKER STRUTURAL

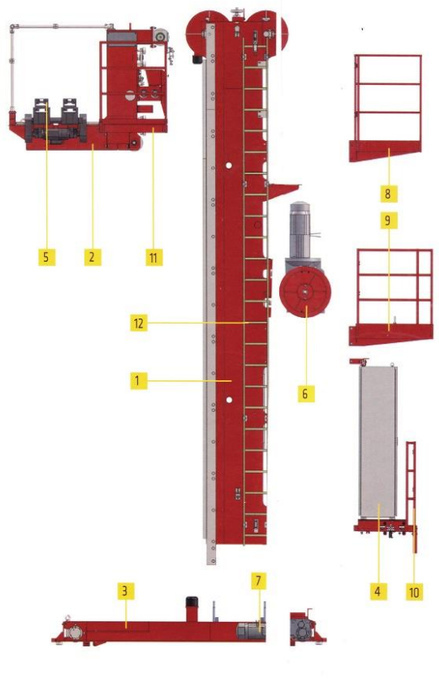
堆垛機結構

堆垛機是整個自動化立體倉庫的核心設備，通過手動操作、半自動操作或全自動操作實現把貨物從一處運到另一處。

Stacker is the core of the entire automated warehouse equipment, manually operated, semi-automatic or fully automatic operation
Operation achieve the transport of goods from one place to another..







1、金屬結構 Metal structures
堆垛機的機架主要是由立柱、上橫梁、下橫梁組成
Rack stacker mainly by the column, top beam and bottom beam

2、水平行走機構 Horitzontal travel machine

3、起升機構 Hoisting mechanism

4、載貨臺 Cargo units

5、貨叉伸縮機構 Telescopic forks agency

6、安全保護裝置 Safety devices
各機構終端限位保護 Terminal limit protection agencies
貨叉伸縮、水平行走、起升三機構運行互鎖
Telescopic fork, horizontal travel and lifting, can be interlocked.
入庫時貨物虛實檢測
When inbound shipments to detect the actual situation
Cargo in,there is pufile detection
貨物超限檢測 Cargo overweight detection
急停按鈕 Emergency stop button
鋼絲繩、鬆繩和過載保護
Rope, Matsunawa and overload protection
堆垛機裝有音響報警裝置，在運行機構啓動前，先發出音響信號
Stacker equipped with an audible alarm it gives sound before machine run.

7、電氣設備 Electrical Equipment
主要包括電力拖動、控制、檢測和安全保護
Including electric drive, control, monitoring and safety protection

1	機體	Column
2	載貨臺	Lifting Cradle
3	行走檢測裝置	Walking detection device
4	控制櫃	Control cabinet
5	伸縮貨叉	Telescopic forks
6	升降電機	Lifting motor
7	水平運行電機	Horizontal travel machine
8	維修平臺	Maintenance Platform
9	升降電機平臺	Lifting motor platform
10	控制櫃平臺	Control platform
11	提升 檢測裝置	Lifting monitor
12	維修爬梯	Maintenance ladder



SHUTTLE BUS

穿梭車

電池供電、半自動

Battery-powered,
semi-automatic



SUNLI SPACE 穿梭车為針對傳統的免下車托系統中托盤自動存儲的革新之作。如在同一通道（緩沖區域管理）內進行重複性清空/填充操作，則該設備的效果尤其明顯。
SUNLI SPACE 穿梭车為一種能夠進行獨立搬運的設備，因此，它可確保自動化的高密度存儲以及倉儲空間達到最高的利用率。該設備由一帶有LED顯示屏和多種語言顯示、操作簡便的多功能遙控器進行控製。
SUNLI SPACE 穿梭车能夠取回、存儲并重新安排托架中的托盤，并利用一標准叉車即可進行移動；用戶可在倉庫內的所用通道內使用該設備：其操作模式包括FIFO（先進先出），LIFO（後進先出）。
SUNLI SPACE 穿梭车可用於温度低至零下30度的低温環境中。

SUNLI SPACE for the traditional drive-care system tray from
The movement for reform stored. Such as (Buffer Zone Management) in the same channel Within repetitive emptying / filling operations, the effect of the device in particular obvious.
SUNLI SPACE as a standalone device capable of handling, therefore, It ensures automation of high-density storage and warehouse space to achieve the most High utilization. The device consists of an LED display and multiple languages with Words display, easy to operate multi-function remote control control.
SUNLI SPACE able to retrieve, store and rearrange bay tray, And using a standard forklift to move; users can warehouse
By using the channel using the device: its operating modes include FIFO (first First out), LIFO (last in, first out).
SUNLI SPACE can be used for temperatures as low as minus 30 degrees low temperature environment.

電池供電、WIFI通訊

Battery-powered,
WIFI Communication





SUNLI SPACE 穿梭车為與SUNLI系統、手持具和自動具和自動導引車（AGV）一起使用的創新。
其獨特性即為不再需要操作人員的手動指令。相反，其操作會自動地通過與WMS（倉庫管理系統）進行通訊的WIFI指令方式進行。其電源使用最先進的機載鋰電池，並且它仍能通過遙控器控製SUNLI WIFI。
如客戶要求，該裝置可與設備一起提供。

SUNLI SPACE is with SUNLI systems, handheld tools and automated tools and automated guided vehicles (AGV) together with the innovative use.
Its uniqueness is no longer required the operator to manually command. Instead, it will operate automatically
With the WMS (Warehouse Management System) to communicate WIFI instruction manner. Electrically Source using the most advanced on-board lithium battery,And it is still by remote control SUNLI WIFI.
If the customer requirements,The device can be supplied with the device.

超級電容技術

Super capacitor
technology





特點
顺力的SUPERCAR可安裝在碼垛機及搬運推車之上。該新式設備由超級電容供電，與其它蓄電池不同，它不需要：
■ 大量的充電時間
■ 維護
■ 由於化學液體滲漏導致處理/存儲貨物的污染及環境的風險
SUPERCAP可輕松地運行於低温/或惡劣的環境中。

SUPECAP的操作簡單、可靠。在母車（搬運推車或碼垛機）上具有某些浮置導電銅刷。
如果需要，當SUPERCAR處於母車上時，其應用的電源系統將會對電容充電。在處於最佳性能的情況下，其充電時間僅為7秒。
利用此完全充電的電容，SUPERCAR可準備下一個存儲或取回任務。WIFI通訊系統每分鍾向母車發送關於設備狀態以及在無需再次充電的情況下完成下個任務所需電源的報告。
SUPERCAP 對於一般自動化系統而言是非常“顯而易見的”。
它可以從分站處進入母車的自動化系統，經便執行控製操作及修改參數。
由於母車和SUPERCAR 之間無限製，它也能夠完成多任務應用——單獨一台母車可管理多個SUPERCAP。

+PLUS
由於SUPERCAP和母車之間無線連接，它可實現在較長的存儲通道內操作。
電源部件（電容）的較長使用期。
由於在SUPERCAR設備中集成了所有技術，其自動化代碼易於觀測及使用。
極其靈活：該設備可廣泛應用於多種母車中。

Feature
European guide SUPERCAR can be installed on top of palletizing and handling carts. The new equipment Powered by a super capacitor, and other battery, does not require:
A large amount of charging time
maintain
Because of the risk of leakage of chemical liquid handling / storage of goods and environmental pollution SUPERCAP can easily run in the low temperature / or harsh environments.

SUPECAP simple operation and reliable. In the parent vehicle (handling carts or stacking machines)It has some floating conductive copper brush. If you need to, when SUPERCAR mother in the car, its application power system will Charge the capacitor. In the case in the best performance, the charging time of only 7 seconds.
With this fully charged capacitor, SUPERCAR be ready for the next store or retrievetask. WIFI communication system to send female car every minute on the device status and without Complete the next task of the power required to report the case of re-charging.
SUPERCAP For general automation system is very "obvious."
It can enter the mother's car from the sub-station automation systems, control is executed by the operation and repair Change parameters.
Since unrestricted between the car and the mother SUPERCAR, it is also able to complete the multi-tasking applications- A single mother can manage multiple car SUPERCAP.

+ PLUS
Since the wireless connection between the mother and SUPERCAP car, it can be realized through a long storage Tract operation.
Power components (capacitors) use of a longer period.
By integrating all the technical equipment in the SUPERCAR, its code is easy to automate OutlookTesting and use.
Extremely flexible: The device can be widely used in a variety of female car.

SHUTTLE TYPE COMBINED CAR

子母穿梭車







SUNLIMOVER:用於多伸位托盤存儲的通用式全自動先進模塊化系統。
SUNLIMOVER包括：

- 搬運車，動行於與存儲通道垂直的軌道上的母車，在每個裝載階段，该母车由电源母线供电。
- SUPERCAP，車上的附屬裝置，由母車通過WIFI進行控製，并且用於多種存儲通道中進行托盤的自動取回/存儲操作。

不同的系統配置為托盤提供了必要的起升/降低系統，以便將托盤運至SUNLIMOVER能夠處理的不同通道，并且為單獨作業的SUNLIMOVER搬運推車提供了不同層級的起升/降低系統。
對於SUNLIMOVER，也是由我們的WMS軟件進行系統管理。

+PLUS

- 該系統整體上具有更多可用性
- 同具有相同潛能的其它系統相比，其成本更低
- 該系統的整體性能更為優越
- 該系統的能耗更低
- 安裝迅速、簡便
- 最大程度地減少技術援助和維護成本
- 其工作温度範圍為-30℃至40℃
- 在設備進行維護期間依然可使用該設備
- 極佳的分揀靈活性以及簡潔性

SUNLIMOVER: for multi-deep storage tray bit general purpose Automatic advanced moduleSystem.
SUNLIMOVER include:

- Like carriers, fixed line on the track and the storage channel perpendicular to the parent vehicle, loaded in each
- SUPERCAP, attachment board by the parent vehicle controlled by WIFI, And it is used to store a variety of channels carried the tray automatically retrieve / store operations.

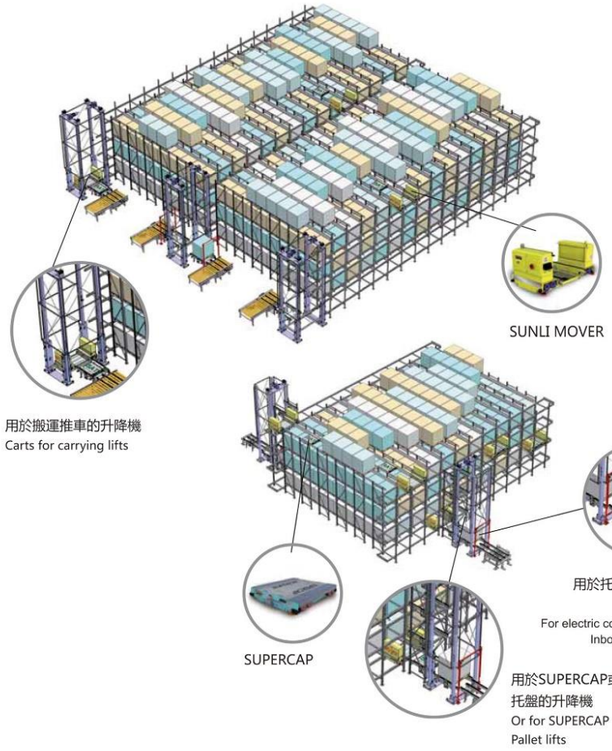
Different system tray configured to provide the necessary lifting / lowering system so that the tray SUNLIMOVER transported to different channels that can be processed, and as a separate job SUNLIMOVER handling carts provide different levels of lifting / lowering system.
For SUNLIMOVER, but also by our WMS software system administration.

+ PLUS

- The system has more overall availability
- With other systems as compared with the same potential, lower cost
- The overall performance of the system is superior
- Lower power consumption of the system
- Install quickly and easily
- To minimize maintenance costs and technical assistance
- Its operating temperature range is -30 to -40
- In the equipment during maintenance you can still use the device
- Sorting excellent flexibility and simplicity

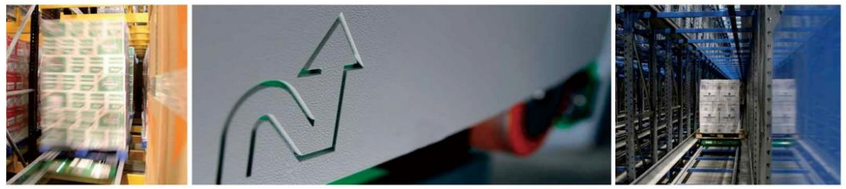
SYSTEM CONFIGURATION

系統配置



配置具有很大的靈活性且對於專用區域具有很強的適應性。以下為某些示例：
Configured with great flexibility and for special area has a strong adaptability. Following is some examples:





應用範圍

- 通過選擇SUNLI MOVER，所有目前使用典型“免下車”托盤存儲的行業均可擁有全自動系統：
  ——食品行業
  ——低溫冷凍環境
  ——化學及製藥行業
  ——物流業
- 目前正在使用SUNLI MOVER 或類似設備進行托盤存儲且欲最大程度的滿足客戶需求的所有工廠
- 管理著少量貨物但具有高架搬運操作的所有工廠
- 需要在工廠大部分區內完成生產自動化系統，且滿足市場需求及將管理成本控製在預定範圍的所有工廠

Applications

- By selecting SUNLI MOVER, all currently using the typical "drive-in" careDisk storage industry can have a fully automated system:
  --Food Industry
  --Cryogenic environment
  --Chemical and pharmaceutical industry
  --Logistics
- Currently using SUNLI MOVER or similar storage devices and want to maximize tray Meet customer demand for all factories
- It manages a small amount of goods but all plants with overhead handling operations
- We need to complete production automation systems in most of the factory area, and to meet the market demand and Cost control will manage all factories within a predetermined range

SUNLIMOVER的特點	
速度 / Speed	200M/分鍾 / 200M / min
SUNLIMOVER 電源 / SUNLI MOVER Power	電源母線 / Power bus
SUPERCAP 電源 / SUPERCAP Power	超級電容 / Super capacitor
工作溫度 / Operating temperature	-30℃至45℃/-22℉至113℉ / -30 ℃ to 45 ℃ / -22 ℉ to 113 ℉
顏色 / Colour	黃色RAL 1021 / Yellow RAL 1021

型號 / model	容量 / Capacity 最大值（kg）/Max (kg)	深度/ Depth 托盤（mm） / Tray (mm)	寬度/ Width 托盤叉車邊（mm）/Pallet truck side (mm)
MOV.0812	1500	800	1200
MOV.1012	1500	1000	1200
MOV.1212	1500	1200	1200
MOV.4048	1500	1016	1200

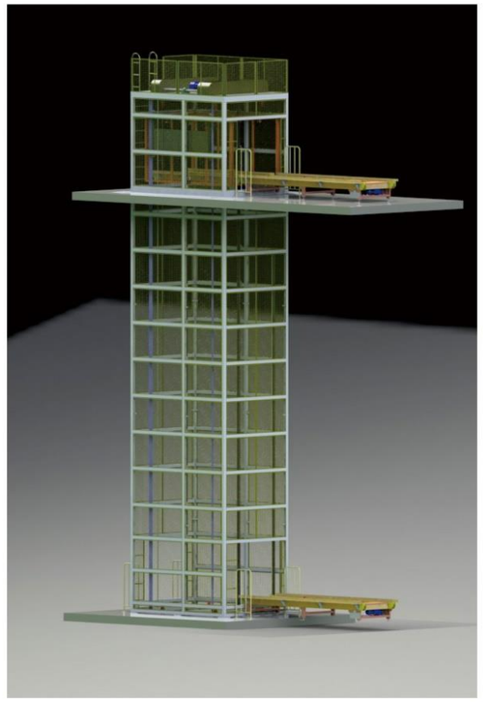
HOIST
(VERTICAL TRANSPORTATION EQUIPMENT)

提升機
（垂直輸送設備）

提升機：通過與安裝於提升機出入口的線體配合運行以及豎直方向運行來實現貨物在高度方面的搬運，多用於貨物的穿層使用。按結構可以分為往復提升機和連續提升機。

It lifts cargo on vertical path with inlet and outlet access as well as profile detector.There are reciprocating and continuous style hoist.





CORPORATE PROFILE

智能周邊設備

指在一定的時間和空間里，由所需輸送的物料和包括有關的設備、輸送工具、倉儲設備、人員以及通信聯繫等要素構成的具有特定功能的有機整體。

It is referred to conveyor system, material handling storage system, personnel as well as communication methods.





链条线 Chain Line

LIGHT TRANSMISSION SORTING EQUIPMENT SYSTEMS

轻型輸送分揀裝備系統

輸送分揀裝備系統是將隨機的、不同類別、不同去向的物品，按其要求進行分類（按產品類別或產品目的地不同分類）的一種物料搬運系統

Conveyor&sorting system is the material handling System,it can sort all types of cargoes by category and direction during continuous conveying.







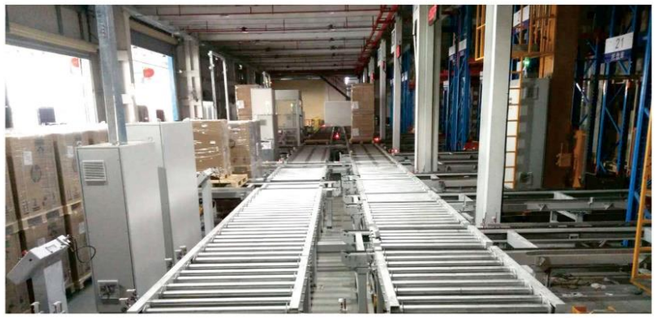
PALLET CONVEYOR SYSTEM

托盤輸送系統主要包括滾筒機、鏈式機、移載機、旋轉臺等。
分爲托盤輸送機和托盤升降機。

Pallet conveyor system includes pallet roller.chain machine, transfer machine,rotating machine other facilities.
Composed of conveyor machine and lifting system.

重型托盘輸送系統





LASER NAVIGATION FORKLIFT AGV (carry type)

激光导航叉车AGV（搬运型）



产品概述：

激光导航式AGV（搬运型），定位精确，行驶路径多变，能适应复杂的行驶环境。该类型叉车AGV适用于栈板类货物搬运，大大地提升了无人搬运的工作效率。可广泛应用于汽车、电子、家电、新能源、仓储、医药、电力、烟草等各种复杂需物流搬运的行业中。

Product Overview:

Laser Navigation Forklift AGV (carry type) , accurate positioning, variable driving path, be able to adapt to complex driving environment. This type of AGV is suitable for pallet cargo handling, which greatly improve the efficiency of unmanned handling. It can be widely used in automobile, electronics, household appliances, new energy, storage, medicine, electric power, tobacco and other complex industries requiring logistics and transportation.

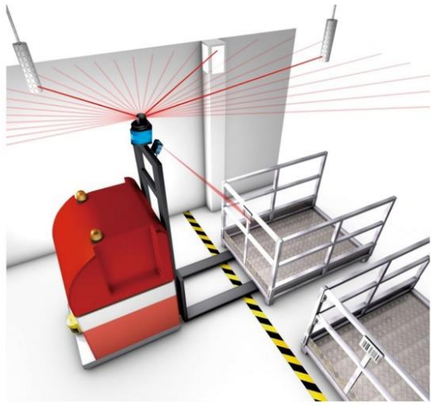
参数及规格 Parameters and Specifications

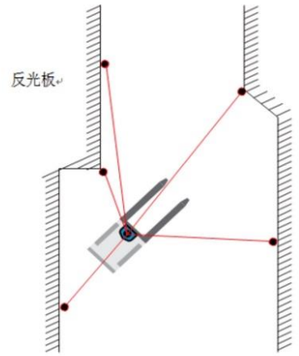
产品名称 Product Name	激光导航叉车AGV（搬运式） Laser Navigation Forklift AGV	产品尺寸 Product Dimensions	L2200mm*W800mm*H2200mm(可定制) (Customizable)
AGV型号 AGV Model	SL-AGV-1000BY-01	转弯半径 Turning Circle	⩾1500mm
导航类型 Navigation Type	激光导航 Laser Navigation	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/后退/转弯 Forward/Back/Turn	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络 WIFI Network	爬坡能力 Grade Ability	⩽5°
驱动方式 Drive Mode	舵轮控制 Steering Wheel Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	1000KG（可定制） 1000KG（Customizable）	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	托盘搬运 Pallet Handling	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert +Starlight Alarm
最小通道宽度 Minimum Aisle Width	⩾2500mm	设计寿命 Design Life	⩾10年 ⩾10 years
行走速度 Running Speed	直线前进0-72m/min;直线后退0-36m/min;转弯0-18m/min Straight forward 0-72m/min; Straight back 0-36m/min; Turning 0-18m/min.		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

激光导引AGV工作原理简介：

Laser Navigation Forklift AGV Working Principle:

激光测量系统，能够在激光束的帮助下在一个平面内扫面周围轮廓，在一个二维极坐标下测量周围环境。当一束测量光束照射到物体，它的位置会以距离、方向和角度来确定，用从光发出到经反光板反射到激光传感器的传播时间可以计算出物体的距离。
The laser measuring system with the help of laser beam,can scan the surrounding contour of a plane and measure the surrounding environment in a two-dimensional polar coordinate. When a beam of measuring light strikes an object, the position is determined by distance, direction and angle, and the distance can be calculated by calculating the time of propagation from the light emitted to the laser sensor reflected through the reflector.





应用场景

Applications Scenarios





LASER NAVIGATION FORKLIFT AGV (Lifting type)

激光导航叉车AGV（举升型）

产品概述：

激光导航式AGV（举升型），定位精确，行驶路径多变，能适应复杂的行驶环境，该类型叉车AGV适用于货物搬运和高库位的出入库工作，大大地提升了无人搬运的工作效率。可广泛应用于汽车、电子、家电、新能源、仓储、医药、电力、烟草等各种复杂需物流搬运的行业中。

Product Overview:

Laser Navigation Forklift AGV（Lifting type）,accurate positioning, variable driving path,is able to adapt to complex driving environment. The AGV of this type is suitable for cargo handling and high warehouse entry and exit,which greatly improves the working efficiency of unmanned transportation.It can be widely used in automobile,electronics,household appliances,new energy,storage, medicine,electric power,tabacco and other complex industries requiring logistics and transportation.

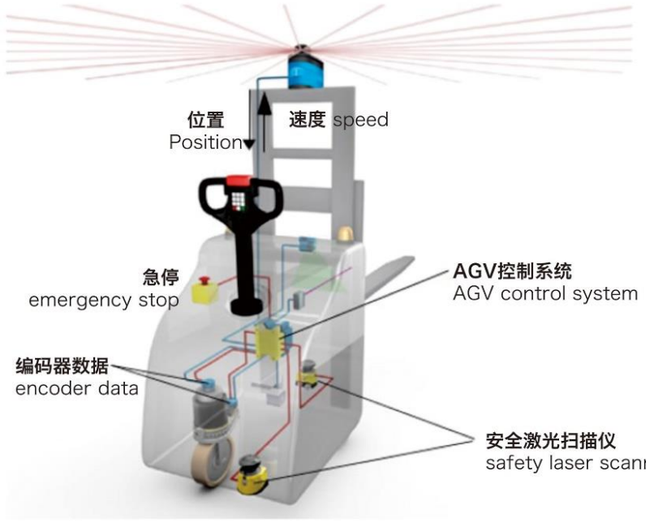


参数及规格 Parameters and Specifications

产品名称 Product Name	激光导航叉车AGV（举升式） Laser Navigation Forklift AGV	产品尺寸 Product Dimensions	L1950mm*W796mm*H2200mm(可定制) (Customizable)
AGV型号 AGV Model	SL-AGV-1500DD-01	转弯半径 Turning Circle	⩾1500mm
导航类型 Navigation Type	激光导航 Laser Navigation	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/后退/转弯 Forward/Back/Turn	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络 WIFI Network	爬坡能力 Grade Ability	⩽5°
驱动方式 Drive Mode	舵轮控制 Steering Wheel Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	1500KG（可定制） 1500KG（Customizable）	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	托盘搬运和举升堆高 Pallet Handling and Lifting Stacking	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert+Starlight Alarm
最小通道宽度 Minimum Aisle Width	⩾2500mm	设计寿命 Design Life	⩾10年 ⩾10 years
行走速度 Running Speed	直线前进0-72m/min;直线后退0-36m/min;转弯0-18m/min Straight forward 0-72m/min; Straight back 0-36m/min; Turning 0-18m/min.		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

激光导航AGV配置简介：

Laser Navigation Forklift AGV Configuration Introduction



应用场景

Applications Scenarios





UNIDIRECTIONAL LATENT AGV

单向潜伏式AGV



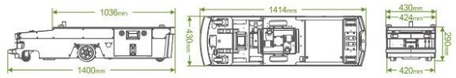
产品概述：

单向潜伏式AGV可潜伏到台车底部，利用自身的牵引机构实现料车的自动挂接与脱挂。该车型结构紧凑，行走灵活，广泛应用于汽车、家电、电器、电子等行业。

Product Overview:

Unidirectional Latent AGV can lurk to the bottom of the tralley,using its own traction mechanism to achieve automatic hook-up and hook-off the wagon.The AGV of this type has compact structure,flexible walking, widely used in automobile,household appliances, electrical appliances,electronics and other industries.

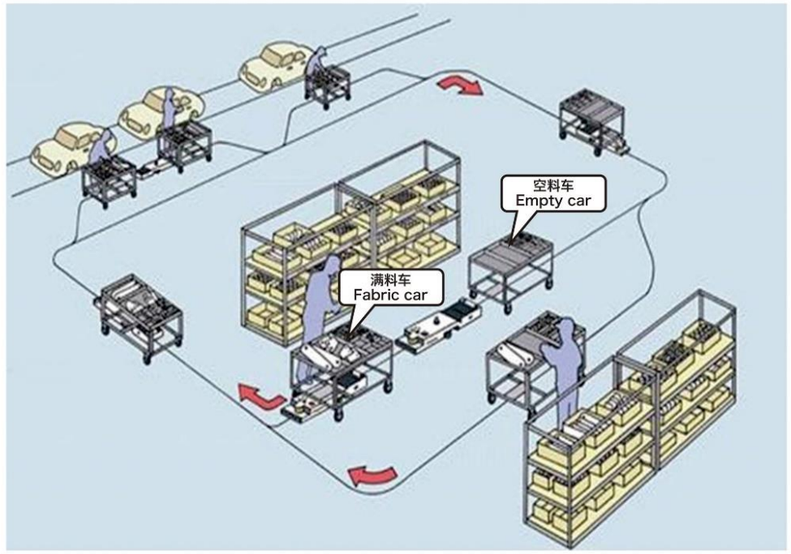
参数及规格
Parameters and Specifications



产品名称 Product Name	单向潜伏式AGV Unidirectional Latent AGV	产品尺寸 Product Dimensions	L1400mm*W420mm*H290mm
AGV型号 AGV Model	SL-AGV-1400DX-01	转弯半径 Turning Circle	⩾700mm
导航类型 Navigation Type	磁条导引 Magnetic Stripe Guidance	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/转弯 Forward/Turn	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络 WIFI Network	爬坡能力 Grade Ability	⩽2°
驱动方式 Drive Mode	差速控制 Differential Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	500KG/800KG	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	潜伏式 Latent Type	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert+Starlight Alarm
设计寿命 Design Life	⩾10年 ⩾10 years		
行走速度 Running Speed	直线满载行走0-35m/min;直线空载行走0-45m/min;转弯0-15m/min Move Straight with full-load 0-35m/min; Move Straight with no-load 0-45m/min;Turning 0-15m/min		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

单向潜伏式AGV作业方式：

Unidirectional Latent AGV Operation Mode:



应用场景

Applications Scenarios





BI-DIRECTIONAL LATENT AGV

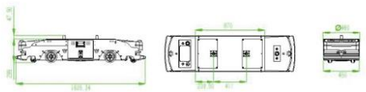
双向潜伏式AGV



产品概述：
双向潜伏式AGV可潜伏到台车底部，利用自身的牵引机构实现料车的自动挂接与脱挂。该车型结构紧凑，行走灵活，广泛应用于汽车、家电、电器、电子等行业。

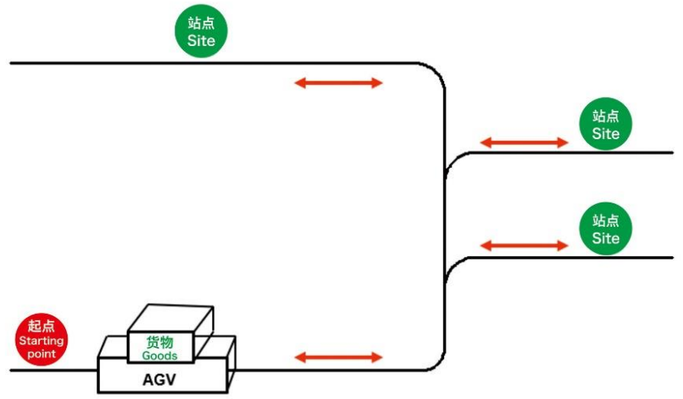
Product Overview:
Bi-Directional Latent AGV can lurk to the bottom of the tralley,using its own traction mechanism to achieve automatic hook-up and hook-off the wagon. The AGV of this type has compact structure, flexible walking,widely used in automobile,household appliances,electrical appliances,electronics and other industries.

参数及规格
Parameters and Specifications



产品名称 Product Name	双向潜伏式AGV Bi-Directional Latent AGV	产品尺寸 Product Dimensions	L1600mm*W450mm*H295mm
AGV型号 AGV Model	SL-AGV-1600SX-02	转弯半径 Turning Circle	⩾800mm
导航类型 Navigation Type	磁条导引 Magnetic Stripe Guidance	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/后退/转弯（可定制为原地旋转和横向移动功能） Forward/Back/Turn (customizable for in-situ rotation and lateral movement)	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络/射频网络 WIFI Network/RF Network	爬坡能力 Grade Ability	⩽2°
驱动方式 Drive Mode	差速控制 Differential Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	500KG/800KG	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	潜伏式 Latent Type	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert+Starlight Alarm
设计寿命 Design Life	⩾10年 ⩾10 years		
行走速度 Running Speed	直线满载行走0-25m/min;直线空载行走0-35m/min;转弯0-15m/min Move Straight with full-load 0-25m/min; Move Straight with no-load 0-35m/min;Turning 0-15m/min.		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

双向潜伏式AGV作业方式：
Bi-Directional Latent AGV Operation Mode:



作业方式基本与单向潜伏相同，区别在于双向（或单向）行走，不用设置环形路线，适用于狭小的空间。
The operation mode is basically the same as Unidirectional Latent AGV.The difference lies in unidirectional(or bi-directional) walking,which is suitable for small space without setting circular route.

应用场景
Applications Scenarios

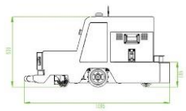


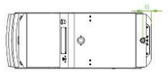


SINGLE-WAY TUGGER TYPE AGV

牵引式AGV









产品概述：
牵引式AGV小车，到达指定地点后，人工把料车挂在牵引钩上，AGV通过磁条导引读取地标指令，把料车牵引到指定位置后，自动卸下料车。一次可牵引多台料车，此车有多站点选择功能。广泛应用于汽车和家电等行业的物料及成品搬运。

Product Overview:
After arriving at the specified location,the Single-way Tugger Type AGV manually hung on the traction hook and reads the landmark instruction through the magnetic strip guide,then pull the cart to the specified location,the cart is automatically discharged.This kind of AGV can tow several cars at a time,and has the function of selecting multiple station.It is widely used in the transportation of materials and finished products in automobile and household appliances industries.

应用场景
Applications Scenarios





牵引式AGV作业方式
Single-way Tugger Type AGV Operation Mode



料车挂钩与牵引式AGV尾部牵引棒挂接，牵引式AGV拉着料车移动到设定的位置。
Single-way Tugger Type AGV pulls the cart to the set position,after the wagon hook is connected to the trailing traction rod of the AGV.

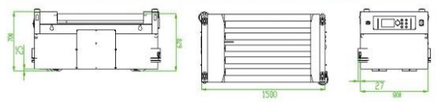
参数及规格
Parameters and Specifications

产品名称 Product Name	**牵引式AGV** Single-way Tugger Type AGV	**产品尺寸** Product Dimensions	**L1095mm*W420mm*H530mm**
AGV型号 AGV Model	SL-AGV-1178QY-01	转弯半径 Turning Circle	⩾600mm
导航类型 Navigation Type	磁条导引 Magnetic Stripe Guidance	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/转弯 Forward/Turn	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络/射频网络 WIFI Network/RF Network	爬坡能力 Grade Ability	⩽2°
驱动方式 Drive Mode	差速控制 Differential Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	500KG/800KG	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	牵引式 Tugger Type	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert+Starlight Alarm
设计寿命 Design Life	⩾10年 ⩾10 years		
行走速度 Running Speed	直线满载行走0-35m/min;直线空载行走0-45m/min;转弯0-15m/min Move Straight with full-load 0-35m/min; Move Straight with no-load 0-45m/min;Turning 0-15m/min.		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

ROLLER PLATFORM TYPE AGV

背负滚筒式AGV

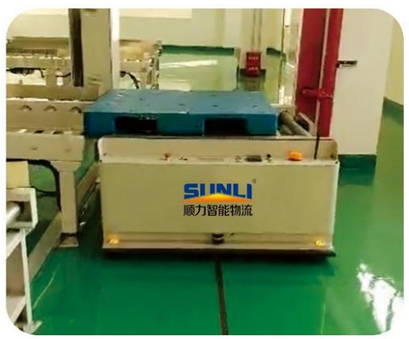




产品概述：
背负滚筒式AGV可在狭小的空间内运行，可实现左右横移，360旋转等功能，其大大节省了现场运行空间。可精确地与线边设备自动对接，实现自动上下料，达到无人操作的高度自动化，广泛应用于汽车、家电、电子等行业。

Product Overview:
Roller Platform Type AGV,which can realize functions such as horizontal movement from left to right, 360 rotation,etc., can be operated in a narrow space and greatly saves the field operation space.It can automatically dock with the line edge equipment accurately,realize automatic feeding and unloading , achieve high automation of unmanned operation. It is widely used in autombile,household appliances, electronics and other industries.

应用场景
Applications Scenarios





背负滚筒式AGV作业方式
Roller Platform Type AGV Operation Mode



滚筒**AGV**通过**RFID**卡以及镜面光电实现与线边设备精确对接，并自动传送、自动放行。
Roller Platform Type AGV is precisely connected with the line edge equipment through RFID Card and mirror photoelectricity, and automatically transmitted and released.

参数及规格
Parameters and Specifications

产品名称 Product Name	背负滚筒式AGV Roller Platform Type AGV	产品尺寸 Product Dimensions	L1500mm*W800mm*H700mm
AGV型号 AGV Model	SL-AGV-1500GT-01	转弯半径 Turning Circle	⩾800mm
导航类型 Navigation Type	磁条导引 Magnetic Stripe Guidance	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/后退/转弯/原地旋转/横移 Forward/Backward/Turn/Spin in Place/Move Sideways	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络/射频网络 WIFI Network/RF Network	爬坡能力 Grade Ability	⩽2°
驱动方式 Drive Mode	差速控制 Differential Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	1000KG（可定制） (Customizable)	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	滚筒式 Roller Type	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert+Starlight Alarm
设计寿命 Design Life	⩾10年 ⩾10 years		
行走速度 Running Speed	直线满载行走0-35m/min;直线空载行走0-45m/min;转弯0-15m/min Move Straight with full-load 0-35m/min; Move Straight with no-load 0-45m/min;Turning 0-15m/min.		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

TWO-WAY PLATFORM TYPE AGV

双向背负式AGV





产品概述：

双向背负型AGV，可背负至少100KG货物，可前进、后退、转弯、分支，旋转等行驶功能。AGV钣金车身采用喷塑处理工艺，外观美观，表面坚固，耐腐蚀。AGV侧面为四根国标4040铝型材，可非常方便使用相关配件进行扩展。此款AGV可沿设定的路线自动行走，路线可由用户直接进行编程设定，可实现柔性化生产需求，最大化提高企业效率。

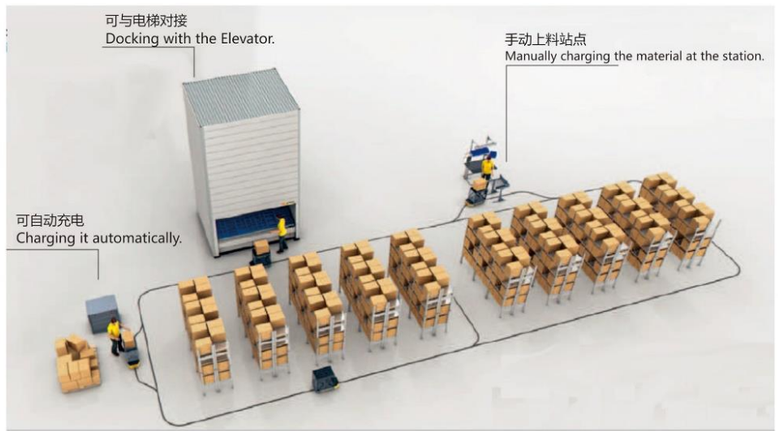
Product Overview:

Two-way Platform Type AGV,which can carry at least 100KG of goods,has move forward,backward,turn,branch,rotate and other driving functiions.

This kind of AGV sheet metal body adopts spray-plastic treatment technology, has beautiful appearance,solid surface,corrosion resistance.The side of AGV is four national standard 4040 aluminum profiles,which can be easily extended with relevant accessories.Two-way Platform Type AGV can automatically walk along the set route,which can be programmed directly by users,which can realize flexible production requirements and maximize enterprise efficiency.

双向背负式AGV作业方式

Two-way Platform Type AGV Operation Mode



双向背负式**AGV**外形小巧，行走方向灵活，适合于空间狭小的车间，如**SMT**车间的供料等。

Two-way Platform Type AGV is small in shape and flexible in walking direction.It is suitable for small workshop, such as the material supply of SMT workshop.

应用场景

Applications Scenarios





参数及规格

Parameters and Specifications

产品名称 Product Name	双向背负式AGV Two-way Platform Type AGV	产品尺寸 Product Dimensions	L700mm*W500mm*H300mm
AGV型号 AGV Model	SL-AGV-700BF-01	转弯半径 Turning Circle	⩾500mm
导航类型 Navigation Type	磁条导引 Magnetic Stripe Guidance	导航精度 Navigation Accuracy	±10mm
行走方向 Walking Direction	前进/后退/转弯/原地旋转/横移 Forward/Backward/Turn/Spin in Place/Move Sideways	停止精度 Stop Accuracy	±10mm
网络方式 Network Way	WIFI网络 WIFI Network	爬坡能力 Grade Ability	⩽2°
驱动方式 Drive Mode	差速控制 Differential Control	工作方式 Operating Mode	24小时作业 24-hour operation
驱动电源 Drive Power	DC24V	充电方式 Charging Mode	手动充电/自动充电 Manual Charging/Automatic Charging
额定负载 Rated Load	1000KG（可定制） (Customizable)	蓄电池 Battery	铅酸电池/锂电池 Lead-acid Batteries/Lithium Batteries
运载类型 Carrier Type	背负式 Platform Type	报警方式 Alarm Method	语音提醒+星光报警 Voice Alert+Starlight Alarm
设计寿命 Design Life	⩾10年 ⩾10 years	自身重量 Sheer Weight	50KG
行走速度 Running Speed	6m/min-42m/min		
安全感应范围 Safe Induction Range	⩽3m可调，紧急制动距离小于20mm ⩽3m is adjustable, the emergency braking distance is less than 20mm.		
安全防护 Security	前方障碍物检测传感器+机械防撞机构双重防护 Double protection of obstacle detection sensor and mechanical anti-collision mechanism.		

AGV CONTROL SYSTEM

AGV控制系统

顺力AGV综合管理系统产品概述：

本系统是整个AGV信息系统的核心组成部分，负责管理调度AGV、向视图提供必要数据以及驱动第三方插件与第三方设备软件对接。

主要功能：

路劲规划：

采用通用的广度优先Bellman-Ford算法计算最短路劲采用动态权值的方式，引导AGV进行动态路劲变换，根据实际情况快速寻找最短路劲。

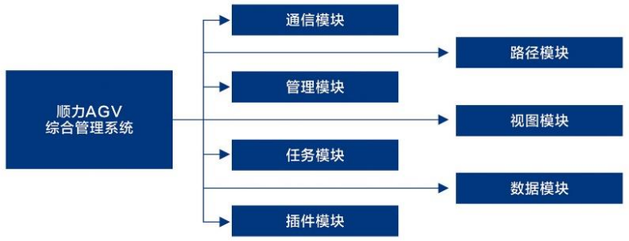
交通管制：

本系统基于动态的路劲规划算法，衍生出了与测试的交通管制。即根据路劲规划，分配并锁定沿途的路劲线，提前预知交通问题并改变路劲策略。交通管制不会管理AGV的启动、停止和速度。

MQTT通信：系统管理器与AGV之间采用MQTT标准协议。MQTT（Message Queuing Telemetry Transport,消息队列遥测传输）是IBM开发的一个及时通讯协议。该协议支持所有平台，几乎可以把所有联网物品和外部连接起来，被用来当做传感器和制动器的通信协议，非常适合AGV。

Sunli AGV Control System Product Overview:
This system is the core component of the whole AGV information system, responsible for managing and scheduling AGV,providing necessary data to the view,and driving third-party plug-ins to connect wiht third-party device software.
Main Functions:
Road Planning:
The general breadth first bellman-ford algorithm is adopted to calculate the shortest path.By using the dynamic weight method,AGV is guided to conduct dynamic path transformation,and the shortest path is quickly found according to the actual situation.
Traffic Control:
The system derived and tested traffic control based on dynamic routing algorithm.That is ,according to the road routing planning,the road strength lines along the distribution and lock,in advance to predict traffic problems and change the road strength strategy.Traffic control does not regulate the start,stop and speed of AGV.

MQTT Communication:
The MQTT standard protocol is used between the system manager and AGV.MQTT(Message Queuing Telemetry Transport,message queue telemetry transport)is a timely communication protocol developed by IBM. This protocol supports all platforms and can connect almost all networked objects to the outside world.It is used as a communication protocol between sensors and brakes and is very suitable for AGV.



1 SUNLI-VIEW AGV信息监控系统

SUNLI-VIEW AGV Information Monitoring System:

系统概述与主要功能：

与顺力AGV综合管理服务器交互，获取AGV的实时运行状态信息、任务状态信息、报警信息等，并在电子地图和数据列表的方式展示出来，供操作员查看、排障。

增强型功能：

可以设置地图元素的呈现样式；可以设置不同报警等级下的AGV车辆的颜色；车型匹配。

System Overview and Main Functions:
Interact with Sunli AGV comprehensive management server to obtain real-time AGV operational status information,task status information,alarm information,etc. ,and display them in the form of electronic map and data list for operators to view and troubleshoot.
Enhanced Functions:
You can set the rendering style of map elements.
The color of AGV vehicles which under different alarmlevles can be set.
Model Matching



2 SUNLI-TMS系统 SUNLI-TMS SYSTEM:

概述：

TMS全称为Transport Task Management System(运输任务管理系统），主要是负责对取料、送料的输送需求的信息的管理，规范任务信息并且把任务的需求转换成调度指令下发给AGV综合管理系统，以实现调度车辆执行任务的目的。

主要功能：

任务管理

各种设备的对接，包括：叫料盒，滚筒设备，线边机台设备，光电设备，立体库，第三方软件接口（MES,ERP,WCS,WMS）等等.....对接方式可使用：HTTP(Webservice,WCF)，TCP/IP(Socket),串口（Modbus,Host Link）,数据库（SQL Server,MySql,Oracle等）。

Overview:
TMS is called Transport Task Management System,which is mainly responsible for the management of the information on the transportation requirements of the material pickup and delivery,standardizing the task information and converting the task requirements into the AGV integrated Management Syetem under the scheduling instruction,so as to achieve the purpose of scheduling the vehicle to perform the task.
Main Functions:
Task Management
The docking of various equipment,including:material box,roller equipment,line edge machine platform equipment,photoelectric equipment,stereo library,thirty-party software interface(MES,ERP,WCS,WMS)etc.Docking methods can be used:HTTP(Webservice,WCF),TCP/IP(Socket),serial port(Modbus,Host Link),database(SQL Server,MySql,Qracle,etc.)





3 叫料系统Material Ordering System:

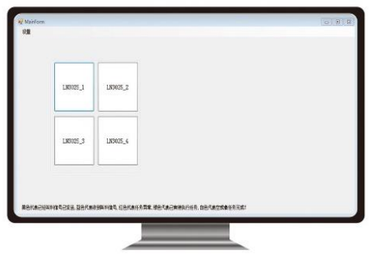
叫料系统是工业制造领域中不可缺少的一部分，该系统配合中央控制系统和AGV可实现生产和物流方面真正的无人化搬运，系统界面友好，可根据客户实际需求实现手动叫料切换功能。

系统特点：

1、手动自动叫料切换功能。2、叫料信息存储与统计功能。

3、系统对接叫料功能。4、定时自动叫料功能。

The material ordering system is an indispensable part of industrial manufacturing field.It can realize the real impersonal handling in production and logistics with the cooperation of the central control system and AGV.The system has a friendly interface and can realize the manual material ordering switching function according to the actual needs of customers.
System Features:
1.Manual Automatic Material Ordering Switching Function.
2.Material Ordering Information Storage and Statistics Function.
3.System Docking Material Ordering Function.
4.Timing Automatic Material Ordering Function.



AGV CONTROL SYSTEM

AGV控制系统

顺力AGV智能管理系统产品概述：

顺力AGV智能控制系统，是一个同时对多台AGV进行实时监管、控制和调度的系统。用户可以从系统界面实时了解到每台在线AGV的设备状态、位置、工作情况等，还可以自动或手动呼叫空闲AGV进行任务分配。该系统结合了工业生产物流配送自动化实际现场应用，设计的界面友好美观，开放式菜单管理，更加方便了客户的应用。

Sunli AGV Control System Product Overview:

Sunli AGV Control System is a system which supervise, control and schedule multiple AGVS at the same time.Users can learn the status,location and working statua of each online AGV in real time from the system interface, and also can call idle AGV automatically or manually for task assignment.The system combines the practical field application of industrial production and logistics distribution automation, the designed interface is friendly and beautiful,and the open menu management makes the application of customers more conveninent.

系统特点：

①交通管制功能，在多台AGV运行时可有效避免AGV在交汇或转弯处的“撞车”行为。

②实时AGV动态监控，包括AGV的运行状态，位置信息，报警信息，稼动率等

③在线远程控制功能，能实时远程控制AGV的各种状态参数。另外，控制系统软件预留了与客户系统进行对接的强大功能。

④可与MES\WMS\WCS等系统进行对接，可将AGV所有数据与外部系统进行交互。

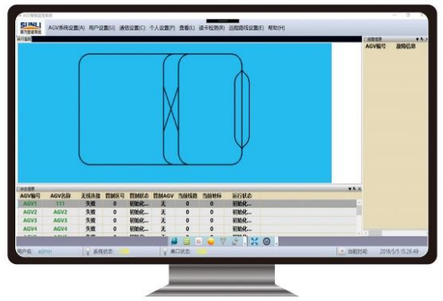
System Features:

The traffic control function can effectively avoid the “collision” behavior of AGV at the junction or turn of AGV when multiple AGCS are running.

Rea-time AGV dynamic monitoring,including AGV operation status,location information,alarm information,utilization rate and so on.

The on-line remote control function enables real-time remote control of AGV’s various state parameters.In addition,the control system software reserves the powerful function of docking with the customer system.

It can connect with MES/WMS/WCS and other systems,and interact all AGV data wiht external systems.



4 SUNLI-MapEdit

MapEdit地图编辑器

绘制AGV的行驶路径

配置交通管制区域

配置AGV的待命点，活动站点等

关联活动站点动作码，导航点的一些参数设定和路段的参数设定，以配合交通管制的灵活设置。

生成地图文件供AGV和系统管理器使用。

MapEdit map editor

Draw the path of AGV

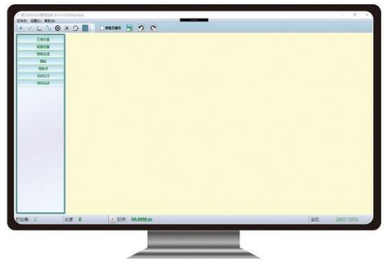
Allocation of traffic control areas

Configure AGV standby points,active sites,etc.

Link the activity site action code,some parameters of the navigation point and the parameter setting of the section to match the flexible setting of traffic control.

Generate map files for AGV and system manager.





5 SUNLI-VCS

软件概述：Software Overview:

Vehicle Control Software(车辆控制软件），顾名思义即控制车辆运动的一个软件。

Vehicle Control Software，as the name implies,is a software to control vehicle movement.

主要单元模块：

与MCU单元交互，发送各种运动指令。

与上位机（AGV综合管理系统）交互，接收调度任务和交管信号，并实时上报车辆的各种设备数据信息。

设置车辆的各种参数值，包括各种传感器，驱动单元，控制板，声音控制设备，对MCU,DIU接口的参数等.....

串口通信单元实现与MCU的交互，网口通信单元实现与上位机的接口通信。

Main Unit Modules:

Interact with the MCU unit and send various motion instructions.

Interact with the upper computer(AGV CONTROL SYSTEM),receive scheduling tasks and handover signals,and report various equipment data information of the vehicle in real time.

Set various parameters of the vehicle,including varios sensors,driving units,control panel,sound control equipment,parameters of MCU,DIU interface,etc.

The serial communication unit realize the interaction with MCU,and the network communication unit realize the interface communication with the upper computer.



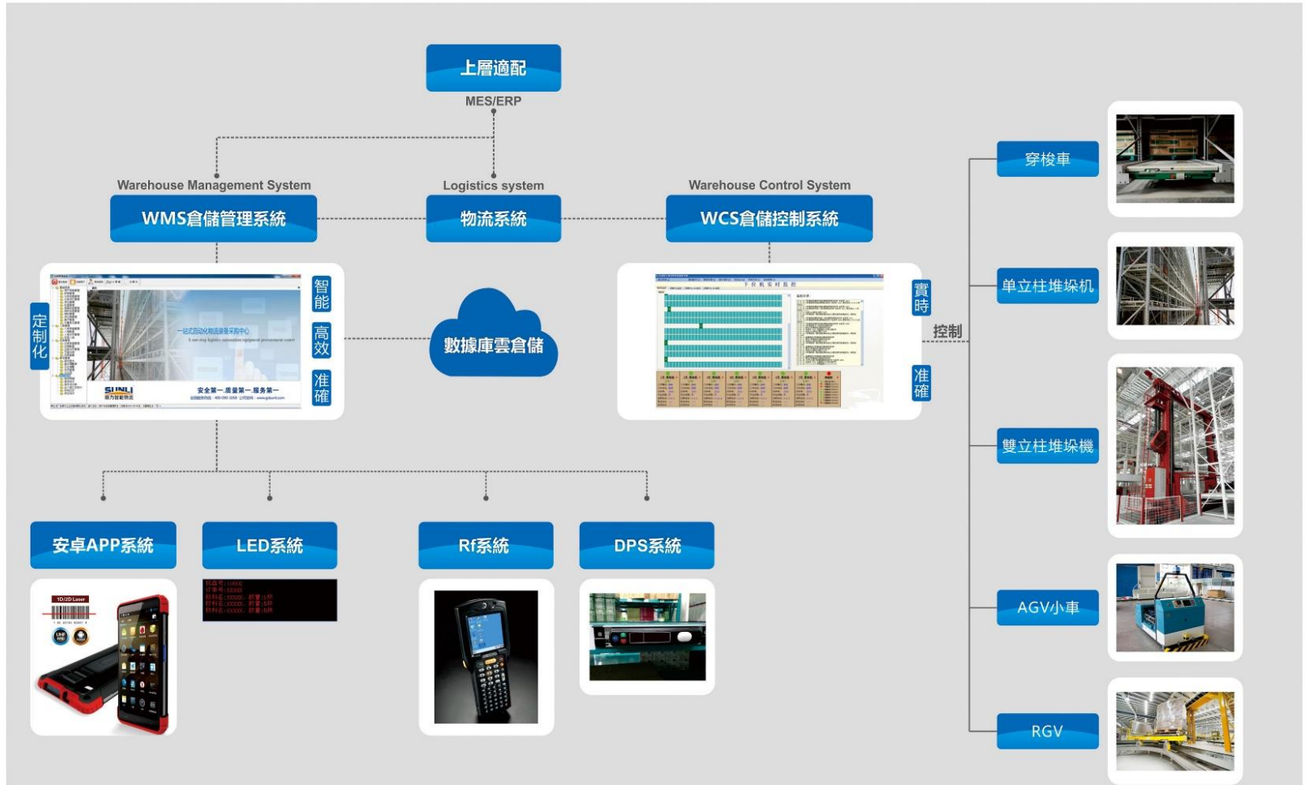


MAREHOUSE MANAGEMENT SYSTEM

倉儲管理系統

順力WMS倉儲管理系統是一款基于電子智能制造管理和倉庫管理資訊化而開發的現代化運營管理系統。是以精益生產（JIT）為理論基礎，通過數據庫技術、條碼技術、API技術（應用程序接口）和相應的通信機制與外部系統的對接集成，能有效地對倉庫流程和空間進行管理，實現批次管理、快速出入庫和動態盤點。并快速幫助企業的倉庫管理人員對庫存物品的入庫、出庫、移動、調撥、盤點、配料等操作進行全面的控制和管理，有效的利用倉庫存儲空間，提高企業倉庫存儲空間的利用率及企業物料管理的質量和效率，提高倉庫庫存管理水平和生產效率，實現物料防錯和追溯管理，降低企業庫存和人力成本，提升企業市場競爭力，以滿足日益變化的供應鏈需求，實現完善的企業倉庫信息管理。

Sunli WMS is based on an intelligent electronic warehouse management and manufacturing management of information technology and the development of Modern Management System. Based on lean production (JIT) as the theoretical basis, through database technology, bar code Docking technology, API technology (Application Programming Interface) and the appropriate communication mechanism with external systems integration, energy Effective warehouse processes and space management, batch management, rapid and dynamic out of storage inventory. and Quick help enterprise warehouse management personnel for inventory items storage, a library, move, transfer,
inventory, distribution Materials and other operations to conduct a comprehensive control and management, effective use of warehouse storage space, improve storage warehouse Quality and efficiency of space utilization and corporate materials management, warehouse inventory management and improve production efficiency,Achieve material error prevention and traceability management, reduce inventory and labor costs, enhance the market competitiveness of enterprises, in order to Meet the changing needs of the supply chain, to achieve complete enterprise information management warehouse.

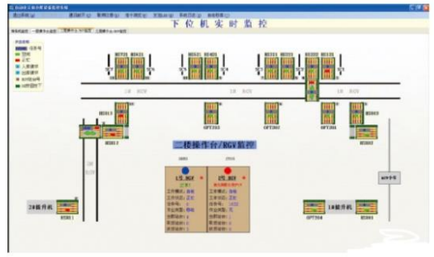


WAREHOUSE

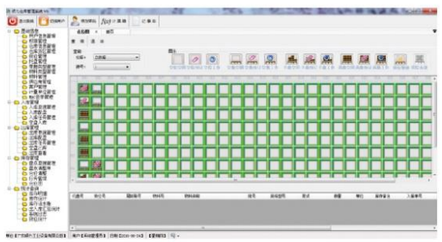
平庫管理系統

平庫管理系統（WMS）是通過物料入庫上架、訂單配貨出庫、物料抽檢、盤點管理、系統基礎信息管理等功能綜合運用的管理系統，有效控制并跟踪倉庫業務的流程和成本管理全過程，實現完善的企業倉儲信息管理。該系統可以獨立執行庫存操作，與其他系統的單據和憑證等結合使用，可提供更為完整全面的企業業務流程和財務管理信息。結合客户現有制造系統，通过接口與現有制造系統交互，提升整個企業的信息化水平。利用叉車、穿梭車等設備在低成本的環境下達到效率的最大化，節省人力成本。

WMS through the material storage shelves,
order picking out library materials sampling,Inventory management, basic information management system and other functions integrated use of management system, and with effective control Warehouse processes and cost tracking service management process to achieve complete enterprise storage and information management. That Inventory system can perform operations independently, in combination with other systems of documents and vouchers, can mention For a more complete and comprehensive enterprise business processes and financial management information. Combined with the customer's existing manufacturing systems,Interface with existing manufacturing system interaction to enhance the level of information throughout the enterprise. The use of forklifts, Shuttle vehicles and other equipment to maximize efficiency at a low cost environment, save on labor costs.







WAREHOUSE CONTROL SYSTEM

倉儲控制系統

WCS 是仓储控制系统(Warehouse Control System) 的缩写。WCS是介于WMS系统和PLC系统之间的一层管理控制系统。一方面，它与WMS系统进行信息交互，接受WMS系统的指令，并将其发送给PLC系统，从而驱动立库及输送设备产生相应机械动作。另一方面，它将PLC系统的状态及数据实时反映在界面上，并提供对PLC系统和输送线的手动调试接口。

WCS is a warehouse control system (Warehouse Control System) .
WCS is the system that can connect WMS and PLC. On the one hand, Information exchange with WMS from receive instructions WMS system, and send it to PLC systems, The orders will be carried out to operute machine on the other hand. it reflects condition,it connects WMS and PLC controller and updates from PLC , providing alless of manual handling.

ELECTRONIC TAGS PICKING SYSTEM

電子標簽揀選系統

工作原理

- 品種、庫位指示
- 出庫数量顯示
- 完成信息確認
- 最終幫助揀貨員完成揀貨系統

電子標簽揀貨系統的優勢

與傳統的紙張揀貨單方式相比，電子標簽具有極大的優勢：
1.實現無紙化作業，不需要打印出庫單、分揀單等紙張單據。減少了出庫前單據處理時間，節省紙張。
2.利用電子標簽揀貨，可大大加快揀貨速度。

- 可以省去庫位尋找和核對的時間
- 可以省去品種核對的時間
- 被揀庫位的直觀顯示，可大大減少揀貨員的行走距離

3.利用電子標簽揀貨，可大大提高揀貨的准確率

- 揀貨員精力主要用于揀貨數量的確認
- 降低揀貨員思考、判斷的時間。
- 由于降低了揀貨的勞動强度，使工作不易疲勞，工作人员始終可以保持較高效率。

4.提高揀貨效率，降低揀貨成本

- 利用電子標簽揀貨系統，對產品、倉庫不熟練的人員也可從事揀貨。降低企業的培訓和管理成本。
- 通过揀貨效率的提升，使揀貨人员數量下降。
- 培训簡单，可以使用兼职人员。

5.增强企業的競争優勢

- 利用電子標簽的高效率，使企業可應对以往幾倍的工作量。
- 縮短交貨時間，使客户服務反應大大加快，提升企業竞争力。
- 揀貨準確率的提高，降低因發貨不準確造成的退貨、投訴和財產損失。
- 適合各種惡劣條件，降低員工的勞動强度。
- 具備各種輔助功能，協助完成盤點、補貨等工作。



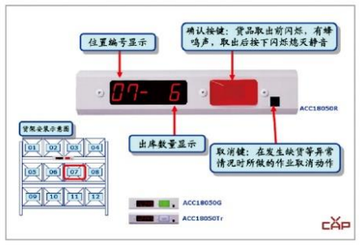
Working principle

- Species, indicating the location
- O/S display
- Complete information confirmation
- Ultimately helping pickers complete picking system

Advantages of electronic tags picking system

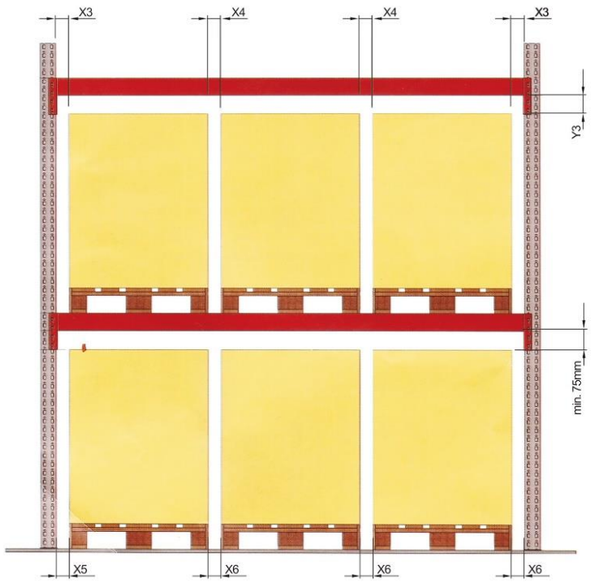
Compared with traditional paper pick lists, the electronic tag has a great advantage:
1. To achieve paperless, no printing Delivery,No sorting lists and other paper documents.during order picking
2. To accelerate speed of picking&soring.Use of electronic tags picking can greatly accelerate the speed.
   - Omitted location to find and check time
   - Variety omitted check time
   - Visual display ,it can greatly reduce the walk distance of the pickers
3. The use of electronic tags picking, can greatly improve the accuracy of the picking
   - Make operator focuson number-picking
   - Reduce judging time.
   - Reduction of labor intensity, the staff keep efficient work condition
4. To improve picking efficiency and reduce the cost of picking
   The use of electronic tags picking system, product, warehouse unskilled personnel can be engaged
   - Picking. Reducing training and management costs.
   - Picking through improved efficiency, so picking the number of personnel decreased.
   - Training is simple, you can use the part-time staff.

5. enhance competitive advantage
   - Efficient use of electronic tags, so that enterprises can cope with huge workload.
   - Shorten delivery time,in-time customer’ s service response and enhance the competitiveness of enterprises.
   - Picking accuracy increases, fewer rejects complaints and loss.
   - For a variety of harsh conditions, reduce labor intensity.
   - With a variety of auxiliary functions to help complete the inventory and replenishment.

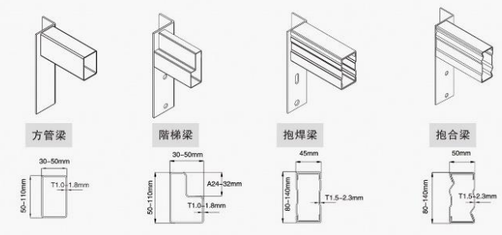


貨架、卡板净空的原則説明

The principle instructions of clearance of shelf and pallet



Raf yukseklig Son travers yukseklig	Raf Slnlfl 400 x3, x4, x5, x6 Y3		Raf Slnlfl 300A x3, x4, x5, x6 Y3		Raf Slnlfl 300B x3, x4, x5, x6 Y3	
3. 000	75	75	–	–	–	–
6. 000	75	75	75	100	100	100
9. 000	75	125	75	120	100	120
12. 000	–	–	75	150	125	150



貨架常用顏色

Standard color of racks

顏色名稱:天藍色
另荷色卡編號 Ral5015 (RAL Color card:RAL 5015)

顏色名稱:桔紅色
另荷色卡編號 Ral2004 (RAL Color card:RAL 2004)

顏色名稱:灰白色
另荷色卡編號 Ral9002 (RAL Color card:RAL 9002)

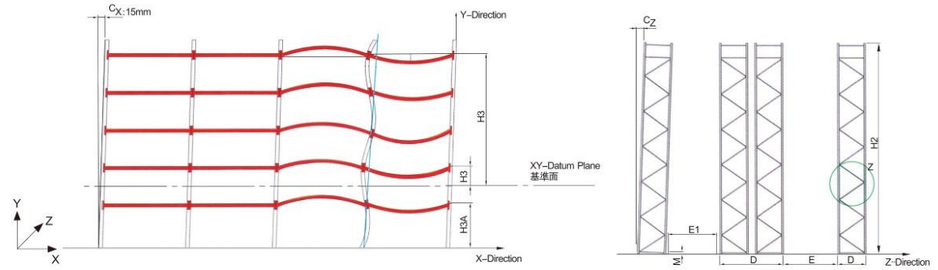
顏色名稱:橘黃色
另荷色卡編號 Ral1033 (RAL Color card:RAL 1033)

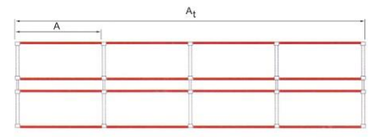
顏色名稱:藍色
另荷色卡編號 Ral5017 (RAL Color card:RAL 5017)

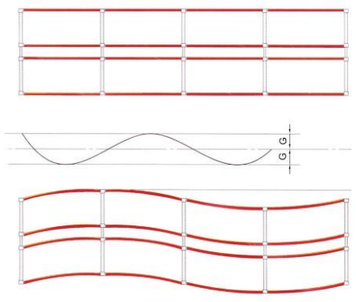
可根據客户提供的色板或色號定做

貨架公差性描述説明

Description of racking tolerance







貨架變形限值 Deformation Limit Value of Racking

貨架構件的變形包括節點位移、橫梁最大位移和懸臂梁最大位移。
貨架各類變形限值按如下表采用

Deformation of racking component include node displacement,
maximum displacement of the beam,and maximum displacement of the cantilever beam.
The following list of various type of deformation limit value of racking.

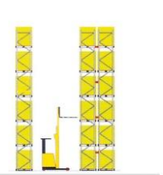
Deformation position 變形位置	Deformation limit value mm		
	自動化立體倉庫貨架 Automatic 3-dimensional warehouse racking	窄巷道托盤貨架 Narrow-aisle pallet racking	普通托盤貨架 Usual pallet racking
節點最大x向位移 Maximum X to node displacement	10	15	15
節點最大y向位移 Maximum Y to node displacement	10	15	15
節點最大z向位移 Maximum Z to node displacement	10	15	15
橫梁最大z向位移（撓度） Maximum Z to the beam	跨度span/300a	跨度span/200b	跨度span/300c
懸臂梁最大z向位移 Maximum Z to the cantilever beam	懸臂梁跨度 Cantilever beam 's span/200	懸臂梁跨度 Cantilever beam 's span/150	懸臂梁跨度 Cantilever beam 's span/100
a.最大不超過10mm maximum more than10mm b.最大不超過15mm maximum more than15mm c.最大不超過15mm maximum more than15mm			

TOLERANS TOLERANS TANIMI 公差性描述		Sinif400	SINIF300A
	Under the maximum deformation range of average load and loading role in the beam bending 橫梁在均布載荷下最大允許變形範圍	L/200	L/200
–f max	Maximum deformation of a cantilever beam(bending) 懸臂橫梁在均布載荷下可允許最大變形	L/100	L/100
	Under the maximum deformation range of average load and loading role in the beam bending 橫梁在均布載荷下最大允許變形範圍	L/200	L/200
–f max	Maximum deformation of a cantilever beam(bending) 懸臂橫梁在均布載荷下可允許最大變形	L/100	L/100

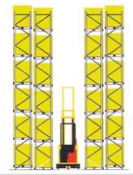
RACKING SELECTION

貨架選型

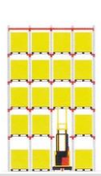
Racking selection



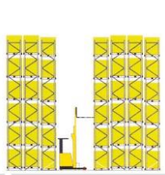
Selective pallet racking
标准托盘货架



Narrow aisle
窄巷道

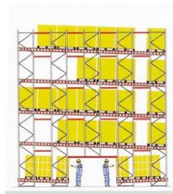


Drive-in
驶入式



Double deep
双重深式

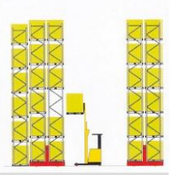
	Selective pallet racking 标准托盘货架	Narrow aisle 窄巷道	Drive-in 驶入式	Double deep 双重深式
Stock rotation 產品周轉	Good 好	Good 好	LIFO 後進先出	Avarage 50% accessible 普遍可達到50%
Product protection 產品保護	Good 好	Good 好	Good 好	Good 好
Order picking selectivity、 accesibility 訂單分揀選擇性、輔助	Good,100% 好,100%	Good,100% 好,100%	Limited 20–30% 有限的20–30%	Avarage,50% 普遍的50%
Floor area、 utilization 容積率、使用	34.57% net pallet area 34.57%	50.37% net pallet area 50.37%	50.49% net pallet area 50.49%	51.23% net pallet area 51.23%
Maxmum height of storage 最大存儲高度	11m	15m	10m	10m
Machinery equipment 機械設備	walk behind or ride on stackers counter balance、reach truck 平衡重、前移式、堆垛機叉車 Reach truck offers up to 30% Improved of floor space to height In excess of 11+m high 叉車可伸到超過11米高的且是30%改良的樓面空間	specialist vna machine–requires super–flat floor surface 三向堆垛叉車 operates within guide rails, standard or low profile or using a wire induction guidance system which operates to a maximum height of 15m 在導軌內操作、標準或低網或使用電綫感應導航系統對最大高度15m的操作。	Counter balance、reach truck 平衡重、前移式叉車	Counter balance、reach truck 平衡重、前移式叉車 match a special forklift with fork 要配帶有伸縮叉的專用叉車
Picking rate 存取率	Fast 快	Fast 快	Avarage 匀速	Avarage 匀速
Popular industry application 應用的行業	In virtually every industry 幾乎所有	Distribution centres 集散中心	Warehouse with products in few species and large quantity 種類少、量大的產品倉庫	Cold storage FMCG distribution centers 冷庫、制造和分配中心
Other remarks 備注	Can be fitted with wide range of partition plate etc. 可配備多種隔板	Require super flat floor 需要超平地面	Suitable for large quantities Of homogenous product 適用于大批量同類產品	Need to match beam on the bottom level 底層需配橫梁



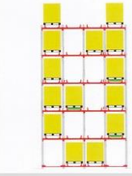
Flow racks
重力自滑（先进先出）



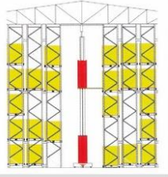
Push back
后推式货架



Mobile racking
电动移动式货架

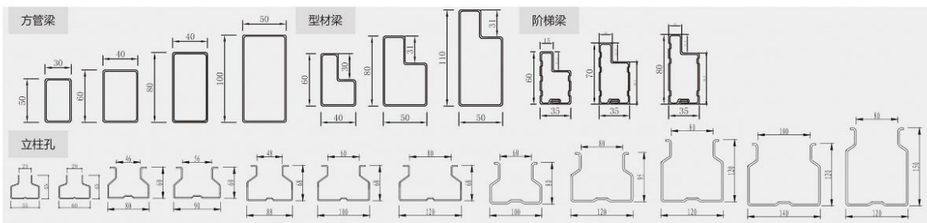


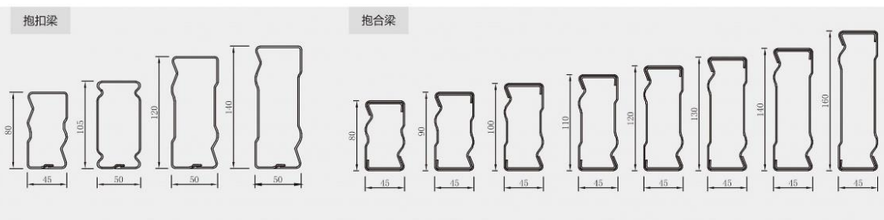
Shuttle shelves
穿梭式货架



Automated warehouse AS/RS system
自动化立体仓库AS/RS系统

	Flow racks 重力自滑（先进先出）	Push back 后推式货架	Mobile racking 电动移动式货架	Shuttle shelves 穿梭式货架	Automated warehouse AS/RS system 自动化立体仓库AS/RS系统
Stock rotation 產品周轉	Exellent usingFIFO principle 優良	First in last out FILO principle 先進後出	Good 好	Limited 好	Good 好
Product protection 產品保護	Good 好	Good 好	Good 好	Good 好	Good 好
Order picking selectivity、 accesibility 訂單分揀選擇性、輔助	Good,100% 好100%	Good,20–30% 好20–30%	Limited,20–30% 有限,20–30%	Good,100% 好100%	Good,100% 好100%
Floor area、 utilization 容積率、使用	60%,net pallet area 60%	70%,net pallet area 70%		70%,net pallet area 70%	60%–85%,net pallet area 60%–85%
Maxmum height of storage 最大存儲高度	10m	9m	10m	11m	40m
Machinery equipment 機械設備	Counter balance、reach truck 前移式、平衡重叉車	Counter balance、reach truck 前移式、平衡重叉車	Counter balance、reach truck 前移式、平衡重叉車	Counter balance、reach truck 前移式、平衡重叉車	Automatic stacker. 自動化堆垛機 Automated stacker:turning, double depth,match radio shuttle car for high density project. 自動堆垛機可轉彎，可做雙重深、可配穿梭車做高密度方案
Picking rate 存取率	Fast 快	Avarage 均速	Avarage 均速	Avarage 均速	High–speed 高速
Popular industry application 應用的行業	Fhight cost environment,eg..cold stores or where space is at premium 冷庫式高成本額外支付的空間	Cold storage FMCG distribution centres 冷庫分散中心	Suitable for large quantities of homogenous products 適合大批量同類產品	Suitable for large quantities of homogenous products 適合大批量同類產品	Warehousing for more than 5000 pallet locations 超過5000個卡板位
Other remarks 備注	The best quality of drum and pallet 滾筒及托盤要質量好，減速裝置	Maximum no more than 6depths 最多不超過6個深	Require super flat floor 需要超平地面	Require super flat floor 需要超平地面	Land building for needing To as per design 土建需按設計要求施工





RADIO SHUTTLE RACKING

SUNLISPACE

穿梭車貨架









穿梭式貨架系統是由穿梭式臺車以及叉車組成的完整的高密度存儲系統，這種高效率的高安全性倉庫空間利用率帶來全新的選擇。

- 高密度存儲，倉庫利用率高
- 工作效率高，大大減少作業等待時間
- 作業方式靈活，貨物的存取方式，也可以先進後出
- 安全性好，減少貨架碰撞，提高安全生產率

多量少樣：食品、飲品、化工、烟草等單品種批量大，品項相對單一的行業冷庫作業:減少低温作業時間，提高工作效率安全性期限管理：對物品批次有嚴格要求，需要先進先出作業管理的倉庫增加庫容：存儲空間有限，需要最大化利用空間的倉庫。

Radio shuttle Racking system consists of supporting rack,shuttle rails and a Radio shuttle cart(Also Called Pallet Runner or Pallet Mole).Fully programmable deep lane storage and retrieval system for maximum and high-security storage.

- Goods can be stored in the warehouses with highest density and low cost.
- better safety and anti-seismic performance,reduce the racking collision and improve the safe production
- Storage Style:FIFO or FILO,Optional tunnel picking.
- As each pallet only needs to be positioned at the beginning of the deep lane storage it increases efficiency within operations.

SUNLIMOVER:用於多伸位托盤存儲的通用式全自動先進模塊化系統。

SUNLIMOVER包括：

- 搬運車，動行於與存儲通道垂直的軌道上的母車，在每個裝載阶段，该母车由电源母线供电。
- SUPERCAP，車上的附屬裝置，由母車通過WIFI進行控製，并且用於多種存儲通道中進行托盤的自動取回/存儲操作。

不同的系統配置為托盤提供了必要的起升/降低系統，以便將托盤運至SUNLIMOVER能夠處理的不同通道，并且為單獨作業的SUNLIMOVER搬運推車提供了不同層級的起升/降低系統。
對於SUNLIMOVER，也是由我們的WMS軟件進行系統管理。

SUNLIMOVER: for multi-deep storage tray bit general purpose Automatic advanced moduleSystem.

SUNLIMOVER include:

- Like carriers, fixed line on the track and the storage channel perpendicular to the parent vehicle, loaded in each
- SUPERCAP, attachment board by the parent vehicle controlled by WIFI, And it is used to store a variety of channels carried the tray automatically retrieve / store operations.

Different system tray configured to provide the necessary lifting / lowering system so that the tray SUNLIMOVER transported to different channels that can be processed, and as a separate job SUNLIMOVER handling carts provide different levels of lifting / lowering system.
For SUNLIMOVER, but also by our WMS software system administration.





横梁式貨架配合叉車作業案例 Case of forklift working for pallet racking



横梁式貨架案例 Case of pallet racking



橋式通道 Underpass



横梁式貨架通道 Channel of pallet racking



横梁式貨架配合叉車作業案例 Case of forklift working for pallet racking



横梁式貨架案例 Case of pallet racking

SELECTIVE PALLET RACKING

SUNLISPACE

標準式托盘貨架

最簡單有效的多元化倉儲貨架,用于將貨物放置在托盘上配合叉車使用存儲，存取 操作靈活快捷，選擇性强，可先進先出,周轉率較高，1T–5T/層，貨架規格可以 按照不同的空間、貨物量身定制。

結構特點：

1、全組合式結構，拆裝簡便快捷，應用靈活；

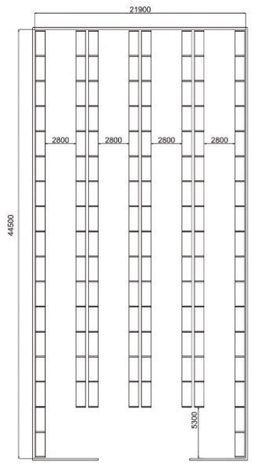
2、立柱設計有每75mm可調孔距，可根據貨物高低靈活調節層間距。

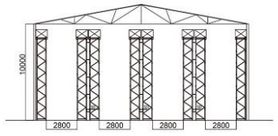
It's the most effective multiple storage racking, working with fork truck,and store or take goods with pallet, It can be highly selected and "first in;first out" with high cycling rate. Load: 1T–5T/layer. The specification for the rack can be customized according to different space and volume of goods.

Structural features:

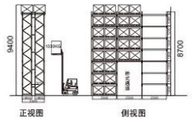
1.All composite structure, it is easy and fast to dismounting, flexible application。

2.Each upright pitch adjusted by 75mm,the beam distance can be adjustable base on the height of storage item.





標準托盘式貨架 正側視圖



案例Case

如圖案例所示As shown in figure case：

倉庫體積爲 Storage's volume:9745.5m，

貨架+托盘體積爲 Shelf+ pallet's volume: 3368.866m；

倉庫空間利用率爲 Warehouse space utilization rate:34.57%。

配前移式叉車 Match reach forklift truck



横梁式貨架配合堆高機作業案例 Case of stacking machine working for pallet racking



駛入式貨架

DRIVE-IN RACKING

SUNLISPACE

適用于儲存樣少量多，批量作業且選擇性較小的貨物。貨物采用托盤一個接一個按深度方向，存放在支撐導軌上，增大儲存密度和空間利用率。叉車可直接駛入巷道內存取貨物，極爲方便。

It's suitable for storing large quantity of goods with less types, goods of batchedworking and small range of selection. The goods are stored on the support guide rail with the pallet one after another in the direction of depth, increasing the storage density and space availability. It's quite convenient for fork truck drives into lane directly to store or take out the goods.



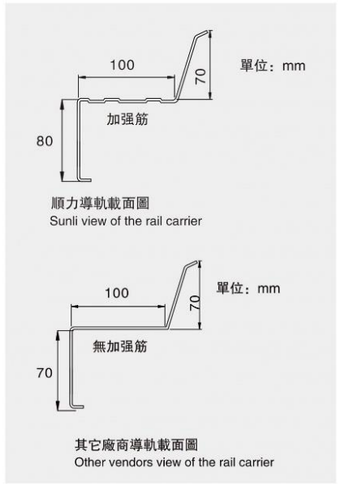
冷彎形導軌 Cold-bending rail



角鋼形導軌 Angle-iron rail





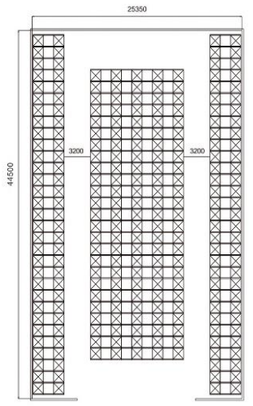


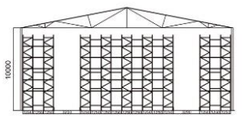
順力導軌對比部分廠家使用大規模加强筋2根，高度可達80mm，用料更大、更美觀，承載力及受力更好。

We will use more 2 pieces of large-scale comparative guide ribs than some manufacturers. Height up to 80mm, material larger, more beautiful, better bearing capacity and force.

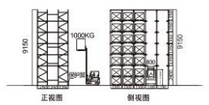
Using suggestion for Drive-in racking
Match with double-sided pallet
Pay attention to the forklift size whether working through the depth smoothly or not.
Keep the cargos not over the edge of the pallet.
Reach forklift truck and counterbalanced forklift trucks are acceptable.
Suitable for loading capacity of per pallet is within 2000KG

駛入式貨架使用建議
基于卡板懸空承載貨物考慮，建議使用雙面卡板
注意叉車護頂架是否能順利通過貨架兩牛腿間。
爲方便進出貨，卡板上貨物盡量不要超出卡板邊緣。
可采用前移式叉車或者平衡重叉車
適用于每板貨物承重2000KG以内。





駛入式貨架 正側視圖



案例Case
如圖案例所示As shown in figure case：
倉庫體積爲 Storage’s volume:11280.75m，
貨架+托盤體積爲 Shelf+ pallet’s volume: 6598.294m；
倉庫空間利用率爲 Warehouse space utilization rate:58.49%。
配前移式叉車(通道passage) Match reach forklift truck3200mm
或平衡式叉車(通道passage)Or counterbalanced forklift trucks
3250mm-4000mm



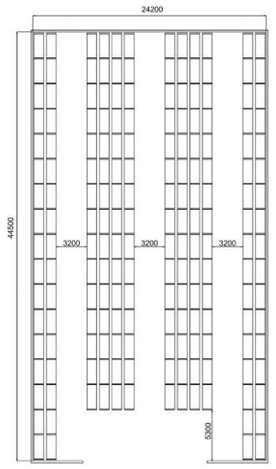
DOUBLE-DEEP STORAGE RACKING

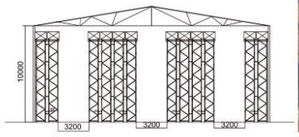
SUNLISPACE

雙重深儲型貨架

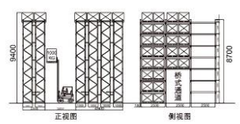
必須使用帶伸缩臂的特殊叉車存取貨物，此貨架設計有效的減少了叉車作業通道，進一步增大存儲量。

You must use a special truck with telescopic arm access to goods, this design effectively reduces shelf forklift operating, and increase the storage capacity.





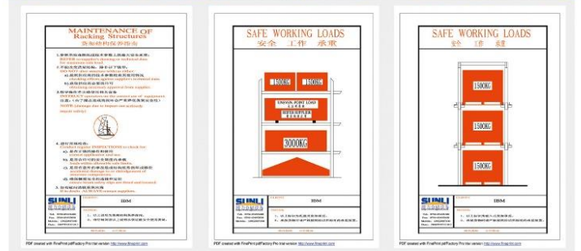
双重深储式货架 正侧视图



案例Case
如圖案例所示As shown in figure case：
倉庫體積爲 Storage’s volume:10769m，
貨架+托盤體積爲 Shelf+ pallet’s volume: 5517.424m；
倉庫空間利用率爲 Warehouse space utilization rate:51.23%
配前移式叉車Match reach forklift truck





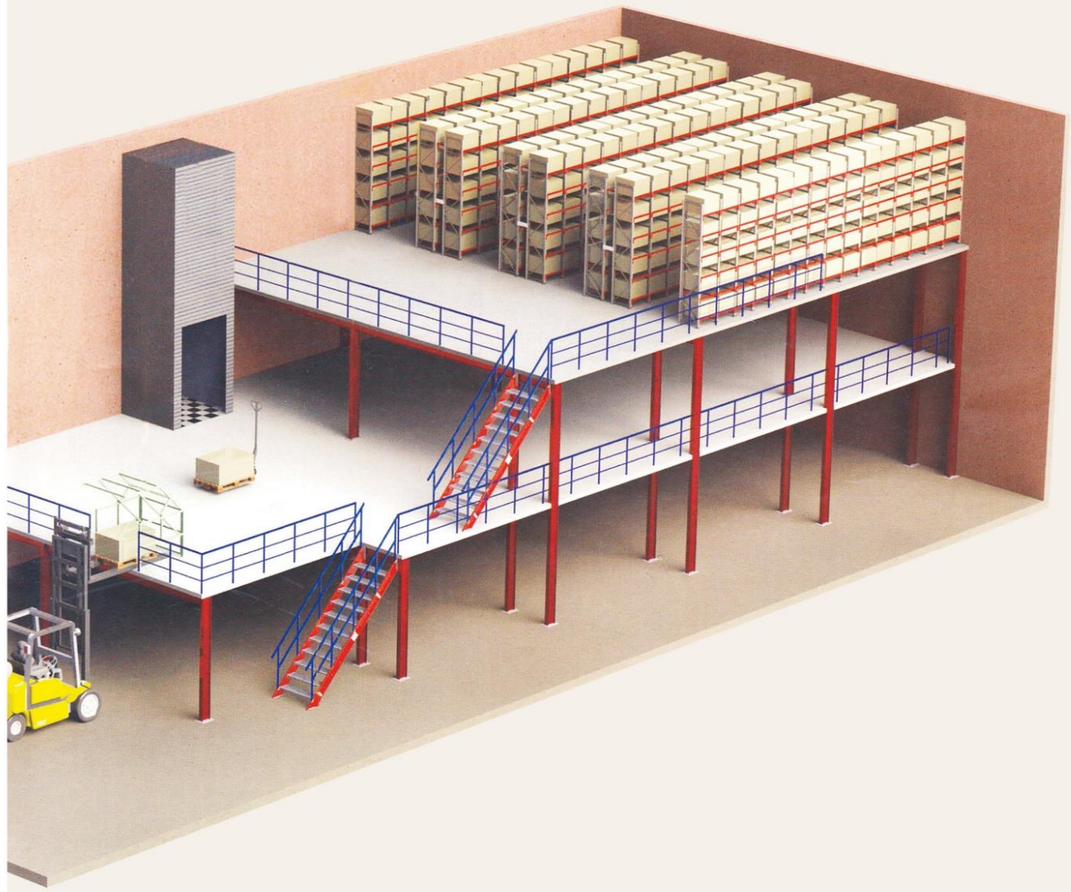


安全標識 Signs containing basic safety rules and recom-mended loading limits should be prominently displayed within the operating area of the racking.

MEZZANINE RACKING SYSTEM

SUNLISPACE

擱樓式貨架





樓面鋪花紋鋼扣板案例 Case of medium duty rack on the ground +platform on the floor.



底層層板式貨架+樓上平臺案例
Case of medium-duty racking on the ground+platform on the floor



二層擱樓式貨架案例 Case of 2 layers mezzanine racking



底層層板式貨架+樓上平臺案例
Case of Heavy-duty racking on the ground+platform on the floor



二層擱樓式貨架案例 Case of 2 layers mezzanine racking



配合升降平臺使用案例 Case of match lifting platform for mezzanine Racking



二層擱樓式貨架案例Case of 2 layers mezzanine floof



配合樓梯用案例Case of matching staircase

通常使用中型層板式貨架或重型橫梁式貨架做主體，配合叉車或液壓升降平臺上下樓上貨物。
多層擱樓式貨架簡單高效的利用倉儲空間

Usually use Medium-sized pallet racking or heavy duty racking to do the main part, match with a forklift or hydraulic lifting platform up and down the upstairs goods on. Multi-storey loft-style shelves simple and efficient use of storage space.



SECTIONAL PLATFORM

SUNLISPACE

組合式平臺

雙倍地利用地面空間，提高空間利潤率，降低運營成本。

可根據倉庫空間設計平臺跨度（3000–6000mm），最大承受重量可達到1000KG/m²,通常搭配升降平臺使用上下貨，效率倍增。樓面空曠處配防護欄，并配置方便上下走動的樓梯使用。平臺面板可選用木板，鋼板或鋼扣板。整體美觀、結構穩固安全、并可拆卸。

Doubly make use of ground space. Increase the utilization of the space and reduce the operation cost. According to the warehouse space, we can design the average span (3000-6000).The bearing limit can reach 1000KG/m².The sectional platform can work in high efficiency combined with lift platform. Floor open area match with a fence and walk up and downstairs easily configured to use. Platform panel can be used wood, steel or steel gusset. Overall appearance, structural stability safety and detachable.



組合式平臺案例Modular platform Case



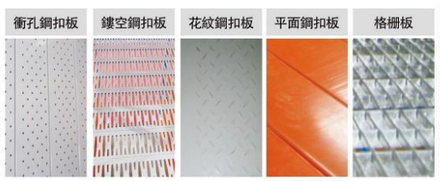
鋼結構大跨度平臺 Steel structure& big span platform



平臺配置方便上下走動的樓梯，美觀穩固耐用
Staircase for platform: nice in appearance,stable and endurable.



平臺案例 Case of platform



幾種不同扣板類型

Different pattern of Floor steel panel



平臺鋪木板案例 Case of platform floor with plywood

MEDIUM-DUTY RACKING

SUNLISPACE

中型層板架

全組合式結構，可拆可調，拆裝簡便快捷，外型美觀，穩固耐用，規格尺寸可 按照客户實際需求訂制。
承重量爲500KG以内，適用于人工存取較輕的零散件貨物。
立柱設有每50mm可調節孔距，可根據貨物高低靈活調制節層間距。主要有鋪設鋼 層板和木質層板兩種。

It's dismountable and adjustable, convenient in assembling, nice in appearance, stable and endurable. The specification and size can be customized according to customer's practical requirements and the capacity is within 500KG. Manually operated, it mainly includes steel veneer and wood veneer.





層板中間設分隔板案例
Case of Match with division plate in the panels



貨架鋪木板案例
Case of rack with plywood



貨架設一面背封網和雙側側封網案例
Case of Match with back wire mesh and double sides wire meshes



層板傾斜一定角度案例
Case of Keep a certain in clination of the steel panel



貨架鋪網層板案例
Case of rack with steel panel



貨架鋪網層板案例
Case of rack with steel panel

BOUTIQUE TUBE FRAME

SUNLISPACE

精益管架

精益管貨架由柔性管和連接件組成，外表面采用熱塑粘合特殊塑料層，内表面覆防腐層組合而成，可任意組裝，結構靈活多變，廣泛應用于家電、汽車、輕工電子等行業工廠中。

Lean shelf is composed of the flexible tube and the connecting units, with special plastic outer surface of thermoplastic adhesive, and inner surface of erosion resistant coating. Easily assembled and flexible in structure , the lean shelf can be, widely used in home appliances, automobiles, electronics and other light industry factories.



精益管架 Boutique tube frame







案例 Case



配合叉車適用 Matching forklift use



案例 Case

GRAVITY RACKING

SUNLISPACE

流利式貨架

貨架上配制流利條，每層前後傾斜3–5°，貨物依靠自身重力向下滑動，保證貨物按照先進先出順序存放，該系統對于管理有保質期的貨物尤其重要，并可縮短挑選時間，提高工作效率與準確性。

Gravity racking match with roller, the inclination is 3-5 degree. Cargo slide down by self weight. Ensure a storage sequence of "First in; first out" for the goods. The system is especially important for management of goods with warranty-period and can reduce the time to select cargo improve work efficiency and precision.



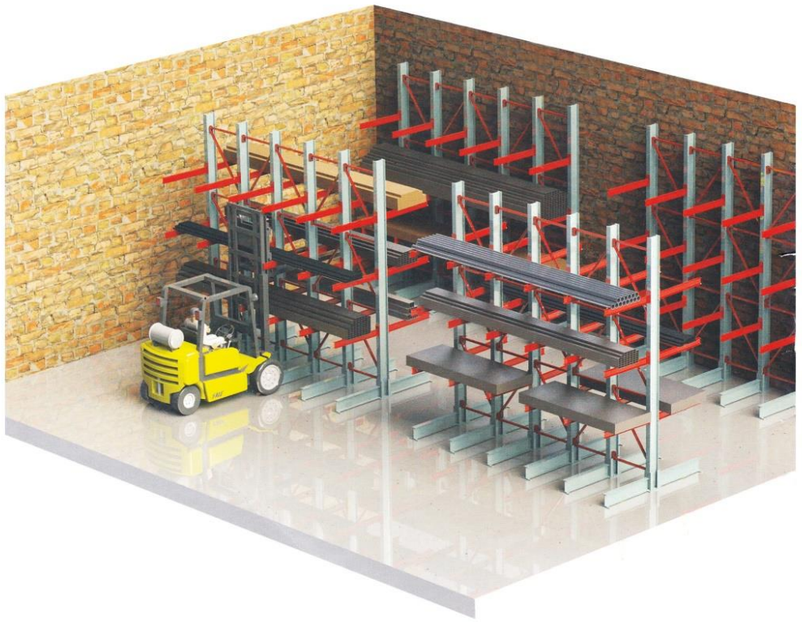
配合閣樓貨架使用案例 Case of mezzanine racking use



流利架細節展示 The detail showing of gravity racking



案例 Case



雙面懸臂案例 Case of double-sides Cantilever racking



雙面懸臂案例 Case of double-sides Cantilever racking



CANTILEVER RACKING 懸臂架

SUNLISPACE

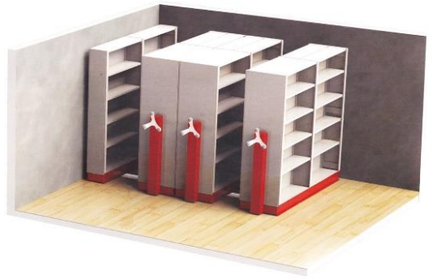
適用于存放特別重又特別長的貨物。如PVC綫管、水管、木條等貨物。
It's suitable for storing heavy and long goods such as PVC conduit, water pipe and wood bar, etc.

MOBILE FILING GABINET 移動櫃

SUNLISPACE









適合少樣多量，低頻率的保管
節省地板面積，使用率達80%以上
保管效率約70%左右
可自由調整存放空間
可直接存取每一項貨品，不受先進先出之限
每座料架皆裝置停止移動系統，確保存取物品時之安全
視覺上美觀的陳列配置
料架可并列集中上鎖，達到防盜保管之效用
每層格板承重100~300kg之內

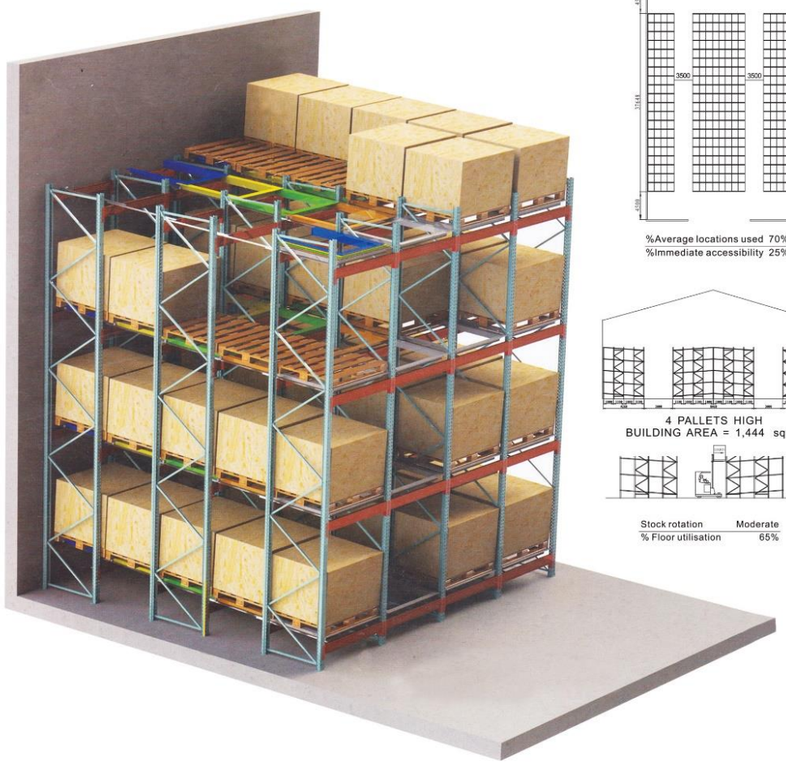
Suitable for the low frequency storage, economize the area of the floor
The rate of using is above 80%
The efficiency of storage is about 70%
Freely shift the space of store
Directly deposit or take every goods,no limitation
Equipped with the system of the pause of moving, safe to deposit or take goods
Decorated with handsome configuration,it looks very nice
Guard against theft,because it can be center-locked
Oevery layer board can hold within 100kg~300kg loading for each layer

PUSH BACK RACKING

SUNLISPACE

後推式貨架





%Average locations used 70%
%Immediate accessibility 25%

4 PALLETS HIGH
BUILDING AREA = 1,444 sq.m.

Stock rotation	Moderate
% Floor utilisation	65%

GAVITY SELF-SLIDE RACKING

SUNLISPACE

重力自滑式貨架

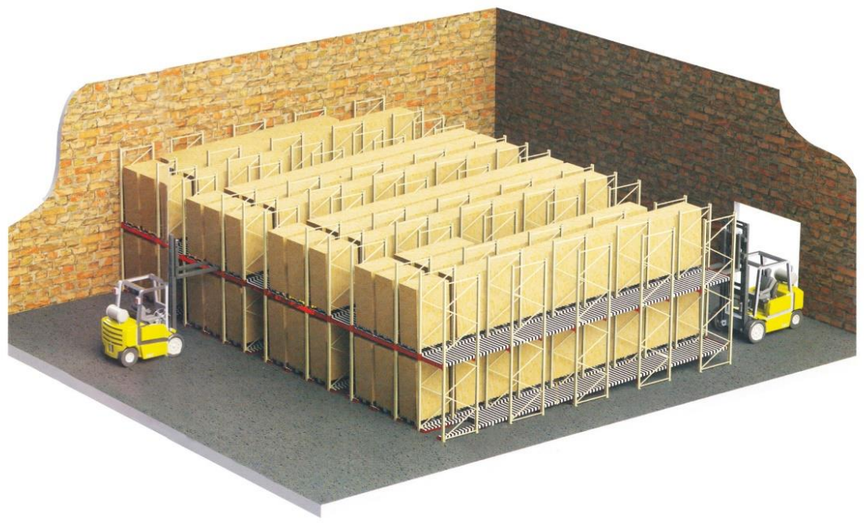
適合先進先出，流量較大的產品。利用滾軸滑動使貨物達到自動存儲流轉，空間利用率達85% 。適合冷庫，物流配送中心等大型倉儲管理使用。普通平衡式叉車可操作。

It's suitable for picking system be "first in; first out" with product in large flow rate. The goods are automatically stored and transferred by sliding the roller shaft; and the space availability reaches 85%. It's suitable for the management of bulk storage plants such as freezing plant and logistics center. The common counter balance forklift can operate.













MOULD RACKING

SUNLISPACE

模具架

適用于各種模具存放，每個層板都可以單獨抽出約2/3，抽拉順暢，方便吊模。每層高度可自由調節，節約儲存及操作空間。配合導軌上移動的手動葫蘆輕鬆存取，每次承重1000–3000KG。
標準規格：L1000*D600*H2000*4層*4格。

It's suitable for storing different kinds of mould with each veneer separately drawable and height of each layer adjustable, saving storage and operation space. Save and take easily by assisting the movable manual chain hoist on the guide rail. Load for each layer: 1000~3000KG.
Standard specification: H2000*L1000*D600*4 layers *4 cases.







FULL-OPEN MOLD RACKING

SUNLISPACE

全開式模具架

采用雙排立柱結構，抽屜式層板可全部抽出，便于吊模，可設計制造承重3噸以下模具架使用。

The tray is drawable and convenient for hanging the mould.
The load bearing for each tray is within 3000kgs.

PARTITIONING

SUNLISPACE

隔斷

Applied to separate different jobs work area, effectively improve the working environment, rational planning and operating the factory space, modular components, folding equipment is simple and flexible in assembling columns can be connected to the ground screw fastening, which is safe to handle.

用于分隔不同工作的作業區域，有效改善工作環境，合理規劃工廠及作業空間，模塊化組件，拆裝簡便，靈活性强。立柱可與地面以螺絲緊固連接，確保安全使用。







WAREHOUSING PLATFORM DOCK LEVELER

SUNLISPACE

貨臺高度調節板

1、歐洲原裝進口單元組成，品質優良，性能卓越。
European imported with original packaging modules, good quality and excellent performance.
2、28噸安全支撐脚設計，操作安全性高。
28Tsafe supporting foot design&high-security operation.
3、'耳片式'關節設計，且設計增加了加强地板，使端面焊位面積更大，關節受力强度更高。
"Lug-type" joint design, and increase strength floor in design so that larger welding area, higher joint resistance strength.
4、框架式底座設計,使設備整體强度更高，避免設備在長途運輸及吊裝過程中的變形、損壞。
Frame-type base design make entire strength of equipment be higher to avoid equipment's deformation and damage in the long distance transport or installation process.
5、人性化安全支撐杆設計，便于設備維修保養及清掃坑位。
Humanized safe support bar design is easy to equipment's maintenance,serves and clean to pit site.
6、臺面骨架采用特殊"工"字鋼制做受力更穩固平均，板面抗扭力更强，承載力更大，堅固耐用。
Meas skeleton adopt special H-steel,more robust force on average,stronger plate area with torsional stiffness , greater loading capacity, sturdy and durable.
7、安全防護板及警示色設計，即便在調節板上升至最高位時，側板也能保證側面安全封閉，可有效避免壓傷脚趾的危險，確保操作人員的安全。
Security baffle & the warning color design , even if dock leveler up to the highest point, side baffle also assure to close safely in the flank in order to avoid the risk of a bruised toe and ensure the safety of the operator.



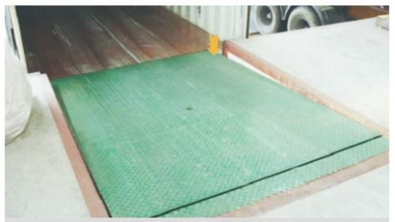
單油缸標準型液壓式貨臺高度調節板
Single cylinder & standard & hydraulic platform dock leveler



氣袋式貨臺高度調節板
Gas-bag platform dock leveler



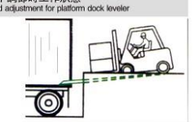
貨臺高度調節板向上調節時工作狀態
The working condition of the upward adjustment for platform dock leveler



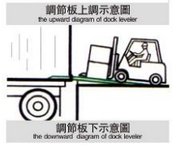
貨臺高度調節板向下調節時工作狀態
The working condition of the downward adjustment for platform dock leveler

現代化的廠房倉庫，爲了便于裝卸，均設計有高起的卸貨平臺，而一般貨車（如貨櫃、厢式車、平板車等）與貨臺之間總會有間隙，且有高度差，使搬運工具（如叉車等）不能直接進出貨車進行裝卸，嚴重影響工作效率及增加作業危險性。而順力海德倉庫貨臺用高調節板正是針對及克服上述問題而設計制造的，利用此高度調節板，可靈活地將貨臺與貨車有效地連接，使裝卸搬運工具順暢進行裝卸作業，大大提高裝卸率及加强人員和貨品安全，現已被衆多的大、中企業廣泛應用。

Modern factory warehouse are designed with unloading platform for easing of stevedoring,whereas,Between the common truck(such as container,Van, lorry....)and platform have a gap and the different in heights,which makes removal tool (suchas forklifts...)can not be launched directly lorry to loading and unloading .thus seriously affecting efficiency and increase the risk of job.But Sunli Hyde warehouse platform use dock leveler.Design & manufacture of dock leveler is aimed at and overcame these problem.using dock leveler flexibly can connect platform and lorry effectively so that handling tool will be smother for loading and unloading operation , greatly improving handling rate and enhancing the safety of persons & goods.
So it has been a large number of large, middle enterprise in wide range of applications.



調節板上調示意圖
the upward diagram of dock leveler



調節板下示意圖
the downward diagram of dock leveler

COMMON PLATFORM

SUNLISPACE

多種常見的貨臺形式





多種型號、供您選擇：
1、規格長度：6英尺（1830mm）、8英尺（2440mm）、10英尺（3050mm）；
2、規格寬度：6英尺（1830mm）、6.5英尺（1980mm）、7英尺（2130mm）；
3、標準承重：10噸、15噸、22噸。
4、長度、寬度和承重可任意組合成型，"8英尺×6英尺10T"爲最普通使用之型號；
5、長度爲6英尺和8英尺調節板，調節範圍爲：+300mm/-300mm；
長度爲10英尺調節板，調節範圍爲：+450/-300mm；
6、設備驅動電壓：380V&220V/50Hz；
7、設備功率：0.75KW或0.85KW；
8、亦可根據客户實際使用需求訂做電動機標調節板；

Various models for your choice;
Length: 6 inch（1830mm）、8 inch（2440mm）、10 inch（3050mm）；
Width: 6 inch（1830mm）、6.5 inch（1980mm）、7 inch（2130mm）；
Standard loading capacity: 10T、15T、22T;
Length Width Loading capacity is selective ,Most common specification 8inch*6inch 10T;
The adjusting range for the length is 6 inch and 8 inch of dock leveler is ; +300mm/-300mm;
The adjusting range for the length is 10 inch of dock leveler is ; +450/-300mm;
riving voltage: 380V&220V/50Hz
Power: 0.75KW/0.85KW
It is available to produce dock leveler according to clients' special requirements.



舊貨臺改造
Old platform with reforming



穿墻式貨臺
Through-wall platform



下挖式貨臺（貨臺高度不够使用）
Down-digged platform



開放式貨臺 Opening platform



防爆型貨臺高度調節板（適用于化工類，易燃易爆類倉庫）
Explosion-proof type platform dock leveler.
(apply to chemical classes, flammable and explosive warehouse)



外接型貨臺（貨臺不便挖坑時使用）
External-type platform (platform is convenient to use when digging)



立體庫（調節板與貨架配套使用）
3-dimensional warehouse (a complete set of dock leveler and racking are used.)



懸空式貨臺（調節板下預留尾板空位）
Dangling-type platform(reserved tailgate's vacancy under dock leveler)

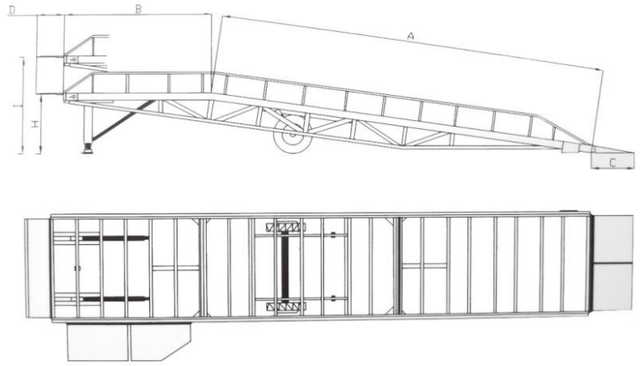
MOBILE RAMP

SUNLI SPACE

移動式登車橋







移動式登車橋應用于裝卸站臺或裝卸位置不同固定以及裝卸場地狹小等場合，實現了貨物快速裝卸。通過它使用叉車等搬運車輛直接進入貨車、無需其它動力，能適用于各種裝卸場合；采用支腿支撐和網絡狀鋼板結構，有更可靠的安全性能。

Mobile Ramp apply to loading platform or loading location being variable and narrow situation for loading.Therefore, realize speed loading & unloading of cargoes, With the performance of mobile ramp, forklift could drive into the truck wilhout extra efforts, Mobile ramp adopt the landing leg to support and structure of gridding steel plate to enhance the antiskid safety performance,





標準型移動登車橋 Standard type–mobile ramp



定做前端平臺寬加移動登車橋 Widen ramp front side as required. –Mobile Ramp



工作狀態中移動登車橋 Working status–Mobile Ramp



承載測試中移動登車橋 Loading capacity test–mobile ramp

移動登車橋常規型號爲：
2000×11000mm，行程：450mm，承重：10噸；亦可根據客户實際使用需求非標訂做。
（亦可定做電動升降等車橋）

Mobile Ramp Standard Specification: 2000* 11000mm, Travel: 450mm, loading capacity: 10T. Non–standard specification is available to produce according to customer' s requirements. [[inluding Electric lifting ramp)

STEEL PALLET

SUNLISPACE
鋼制托盤

鋼制托盤常用規格尺寸表

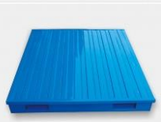
型號	型外尺寸（mm）			承載
	長度(L)	寬度(D)	高度(H)	
SL-TP0001	800	800	150-300	1000-5000KG
SL-TP0002	800	1000	150-300	1000-5000KG
SL-TP0003	800	1200	150-300	1000-5000KG
SL-TP0004	1000	1000	150-300	1000-5000KG
SL-TP0005	1000	1200	150-300	1000-5000KG
SL-TP0006	1100	1000	150-300	1000-5000KG
SL-TP0007	1100	1200	150-300	1000-5000KG
SL-TP0008	1200	1200	150-300	1000-5000KG



鋼制托盤 SL-TP0002
Steel pallet SL-TP0002



鋼制托盤 SL-TP0008
Steel pallet SL-TP0008



鋼制托盤 SL-TP0001
Steel pallet SL-TP0008



鋼制托盤 SL-TP0007
Steel pallet SL-TP0007

產品特性：
可根據要求定制尺寸
全鋼焊接結構，承載牢固
鋼板壓制成瓦楞結構，強度高
使用于各種搬運工具和自動立體庫
單面 雙面

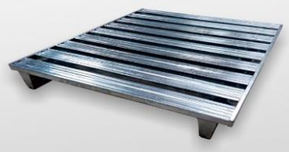
Product features
Customized dimension as per requirement
Full steel& welded structure, loading firmly
Steel plate is press corrugated structure,high strength.
Apply to variety of handling tools and automatic
3-dimensional warehouse
Single side double side

鋼制托盤常用規格尺寸表 steel pallet standard specification form

型號 type	長度L	寬度W	高度H	承載Loading
技術參數technical parameters				
進叉向2向/4向 double entry/ four entry				
材料	鋼板 material steel plate			
表面	噴粉/鍍鋅 surface spraying / galvanizing			



鍍鋅鐵卡板
Galvanizing steel pallet



◀ 款式一（含防滑墊）
Type A Match skid-proof sheet

款式二（不含防滑墊）▶
Type B No skid-proof sheet

產品特性：
1、防滑墊采用優質的PE料制成，防撞、防滑、防變形，使卡板更美觀更耐用；
2、卡板表面光潔，防水防火，不易生銹；
3、鋼托盤的品質，塑料托盤的價格，還比塑料托盤更耐用；
4、符合國際出入口免檢條例，根據自身重量計算單價，動載可達1.2T，靜載2.5T；
5、采用鍍鋅薄鐵板制作，經專用機械成型和焊接，每個卡板平均重量祇有10公斤；
6、平均使用壽命比塑料托盤長一倍，而且還能100%回收，絶不會造成材料浪費；

Product features:
1.Superior PE for anti-skid sheet, anticollision, anti-skid, deformation-proof.
2.Smooth surface for waterproof, fireproof and low rusting.
3.Same price as plastic pallet, but more durable.
4.Meeting international export, import standards, Designed load capacity:1.2T for dynamic,2.5T for static.
5.100% recyclable, environmental.
6.Adopting thin galvanized plate and automatic processing&welding;10kg net weight for each item.

PLASTIC PALLET

SUNLISPACE
塑膠卡板



網格田字型托盤
Grid “田” font type

常用規格：1200*1000*150/1000*1000*150/1100*1100*150;
進叉：四向進叉；顏色：默認爲藍色；材質：高强度聚乙烯;
載重：静載:6.0T；動載：2.0T；架載：1.0T（可内置鋼管）;
適用行業：啤酒行業，飲料行業，工業、商業物流中心;
適用叉車：手動叉車、電動叉車、堆垛車

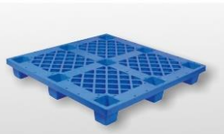
Regular size:1200*1000*150/1000*1000*150/1100*1100*150
Entry type:4-way; **Color**:the default is blue; **Material**:HDPE
Loading capacity: Static loading 6.0T; Dynamic loading 2.0T
Racking loading 1.0T(can be built of steel tube)
Applicable industries: beer industry, beverage industry, industrial, commercial logistics center.
Applicable forklift: manual forklift, electric forklift, stacker.



網格雙面型托盤
Grid double side font type

常用規格：1200*1000*150/1000*1000*150/1100*1100*150;
進叉：四向進叉；顏色：默認爲藍色；材質：高强度聚乙烯;
載重：静載:6.0T；動載：2.0T；架載：1.0T（可内置鋼管）;
適用行業：啤酒行業，飲料行業，化工、面粉、飼料行業，糧油加工行業，
適用叉車：電動叉車、堆垛車

Regular size:1200*1000*150/1000*1000*150/1100*1100*150
Entry type:4-way; **Color**:the default is blue; **Material**:HDPE
Loading capacity: Static loading 6.0T; Dynamic loading 2.0T
Racking loading 1.0T(can be built of steel tube)
Applicable industries: beer industry, beverage industry, chemical industry, flour, feed industry, grain and oil processing industry.
Applicable forklift: electric forklift, stacker.



網格九脚型托盤
Grid nine feet type

常用規格：1200*1000*150/1000*1000*150/1100*1100*150;
進叉：四向推叉；顏色：默認爲藍色；材質：高强度聚乙烯;
載重：静載:2.0T；動載：1.0T；此款卡板不能上貨架
適用情況：適合工廠的周轉、物流；適合各類卡車運輸，方便叉車、液壓托盤車等搬運工具；不適合在倉庫堆垛，不可上貨架，使用時一定要注意載重要求。
適用叉車：手動叉車、電動叉車、堆垛車
Regular size:1200*1000*150/1000*1000*150/1100*1100*150
Entry type:4-way; **Color**:the default is blue; **Material**:HDPE
Loading capacity: Static loading 2.0T; Dynamic loading 1.0T
This plastic pallet can not be on the racking
Applicable industries: Applicable industries: suitable for turnover, the logistics for the factory; suitable for all types of trucks, convenient forklifts, hydraulic pallet trucks and other handling tools; not suitable for stacking in the warehouse, not on the shelf, be sure to pay attention to the loading requirements when using .
Applicable forklift: manual forklift, electric forklift, stacker.



平板川字型托盤
Flat “川” font type

常用規格：1200*1000*150/1000*1000*150/1100*1100*150;
進叉：四向進叉；顏色：默認爲藍色；材質：高强度聚乙烯;
載重：静載:5.0T；動載：1.5T；架載：1.0T（可内置鋼管）;
適用行業：食品、醫藥行業，煙油加工行業；自動化立體庫推薦使用
適用叉車：手動叉車、電動叉車、堆垛車

Regular size:1200*1000*150/1000*1000*150/1100*1100*150
Entry type:4-way; **Color**:the default is blue; **Material**:HDPE
Loading capacity: Static loading 5.0T; Dynamic loading 1.5T
Racking loading 1.0T(can be built of steel tube)
Applicable industries: food, pharmaceutical industry, grain and oil processing industry, automated three-dimensional database is recommended.
Applicable forklift: manual forklift, electric forklift, stacker.



網格川字型托盤
Grid “川” font type

常用規格：1200*1000*150/1000*1000*150/1100*1100*150;
進叉：四向進叉；顏色：默認爲藍色；材質：高强度聚乙烯;
載重：静載:5.0T；動載：2.0T；架載：1.0T（可内置鋼管）;
適用行業：廣泛用于倉儲、汽車配件、機電機械、食品飲料、電子、烟草、醫藥、化工、紡織等行業
適用叉車：手動叉車、電動叉車、堆垛車

Regular size:1200*1000*150/1000*1000*150/1100*1100*150
Entry type:4-way; **Color**:the default is blue; **Material**:HDPE
Loading capacity: Static loading 5.0T; Dynamic loading 2.0T
Racking loading 1.0T(can be built of steel tube)
Applicable industries: Widely used in warehouse, auto parts, electrical machinery, food and beverage, electronics, tobacco, pharmaceutical, chemical, textile and other industries.
Applicable forklift: manual forklift, electric forklift, stacker.



平板雙面型托盤
Flat double side font type

常用規格：1200*1000*150/1000*1000*150/1100*1100*150;
進叉：四向進叉；顏色：默認爲藍色；材質：高强度聚乙烯;
載重：静載:5.0T；動載：1.5T；架載：1.0T;
適用行業：啤酒行業，飲料行業；
適用叉車：電動叉車、堆垛車

Regular size:1200*1000*150/1000*1000*150/1100*1100*150
Entry type:4-way; **Color**:the default is blue; **Material**:HDPE
Loading capacity: Static loading5.0T; Dynamic loading 1.5T
Racking loading 1.0T(can be built of steel tube)
Applicable industries: beer industry, beverage industry.
Applicable forklift: electric forklift, stacker.

FOLDING STORAGE CAGE

SUNLISPACE

折叠式倉儲籠





折叠式倉儲籠規格明細表Folding storage cage specifications list

编号	外型尺寸（mm）LxWxH 含腳高100mm	容积（m^3）	积载层数	线经（mm）	网间隔（mm）	承重（kg）	备注
SL-01	800X500X540	0.16	4-5	6.0	50X50	500	
SL-02	800X600X640	0.22	4-5	6.0	50X50	800	
					50X100	600	
SL-03	1000X800X500	0.28	4-5	6.0	50X50	1000	
					50X100	800	
SL-04	1000X800X840	0.52	4	6.0	50X50	1000	
					50X100	800	
				6.4	50X50	1200	
					50X100	900	
SL-05	1050X1000X890	0.76	3-4	6.0	50X50	1200	
					50X100	1000	
				6.4	50X50	1300	
					50X100	1100	
SL-06	1200X1000X890	0.84	3-4	6.0	50X50	1400	
					50X100	1000	
				6.4	50X50	1800	
					50X100	1200	
SL-07	1300X1250X1200	1.60	3	6.0	50X50	1800	
					50X100	1500	
				6.4	50X50	2000	
					50X100	1500	
SL-08	1800X1200X890	1.60	3	6.0	50X50	2000	
					50X100	1500	
				6.4	50X50	2600	
					50X100	1600	

倉儲籠storage cage

采用先進的金屬絲電焊工藝，超高强度，承重量大。表面經電氣鍍鋅處理。易于運輸，輕便可折叠和堆放，正面用兩獨立門栓固定，堆叠時，開取方便。

說明Instruction

1.可根據客户的需求設計制造非標準的倉儲籠，保證利用最大化，節省成本

2.滿足客户特定需求，加裝塑料萬通板（防漏，刮傷，碰傷），隔層鋼（上下，左右分層）脚輪、前後牽引、貨架支撑等

3.根據客户使用實際需要，爲節省成本，優化設計可選擇綫徑綱距目前制造的最大規格

Adopt advanced metal wire welding technique,ultra-high strength,ultra-large loading.
Surface is dealt with electric galvanizing,easy to transport . be handy folded and stacked.
Using two separated doors to secure in the front. When stacked, easy to open.
We design and manufacture non-standard cage on the basis of customer' s demand to ensure that the max utilization and economical costs.
According to customers' actual needs,and in order to save costs, optimum design, you can select diameter, steel distance.
At present the largest manufacturing specification:

WORKING-TABLE CART

SUNLISPACE 工具車

該推車帶2個萬向型脚輪和2個固定型脚輪,其中萬向型脚輪帶刹車.

The stroller with two universal type casters and two stationary casters, where universal type casters with brakes.




可折叠式臺車 Foldable trolley


堆叠形態 Sta cking type


箱式推車 Box-type cart 該籠絲網四型，網目尺寸50*50mm，可折叠式籠蓋,帶鈕鎖.





OUR CUSTOMERS

我們的客户

我們的工程項目遍及各大行業，食品、電子、物流、醫院、超市、賣場、輕工業等等，以下列舉部分合作夥伴，我們以此為新的起點，不斷完善，持續發展！我們堅持穩健的經營策略，保持前瞻的先進技术，我們提供的產品、服務將協助客戶獲得更多價值！我們真誠希望成為推動客戶事業持續發展的最可靠夥伴，不遺餘力地協助我們的客戶夥伴實現利潤最大化！

Our engineering projects are widely used for major industries, food, electronics, logistics, hospital, supermarket, store, light industry. Enumerated a list of our customers (see next page), we regarded it as the new step for improving and developing consistently. We persist in the temperate strategy and keep the looking forwarded. The equipments and services, which Sunli provided, cooperate with our clients to obtain more profits. We do sincere hope to be the most reliable partners with our clients for pushing continuous improvement of profession. Sparing no efforts assisting for partners with implement max profits.

SUNLI 顺力智能物流

SUNLI SPACE 顺力空间

Intelligent logistics overall solution,
we have been delivering value

智能物流整體解決方案，我們一直在傳遞價值

李锦记 · 中粮 · 中海石油 · 中国外运 · 中国邮政 · 中储粮 · 格力电器

东方海外 · 京东 · 远联物流 · 贝特瑞 · 东方雨虹 · 西门子 · 巨电科技

顺丰快递 · 嗒嘀嗒 · 杰米熊 · 才子 · 安踏 · 恒安集团 · 宝武集团

格兰仕 · 志高空调 · 广州立白 · 加多宝 · 西麦 · 百事 · 统一嘉吉

康师傅 · 真功夫 · 华润雪花啤酒 · 可口可乐 · 松下电子 · 益海嘉里 · 香满楼

燕塘牛奶 · 勤上光电 · TCL · 东芝电器 · 海尔电器 · 美的 · 香雪制药

三九医药 · 飞利浦 · 三星电子 · 方正集团 · 茂森集团 · 金立手机 · 明门实业

创科集团 · 太尔胶粘剂 · 美国摩恩 · 捷普电子 · 招商物流 · 爱默生 · 爱乐缝制

台泥水泥 · 东洋电机 · 南玻集团 · 台一铜业 · 普利司通 · 李宁 · 红蜻蜓集团

合隆制衣 · TR轴承 · 万和电器 · 拓普康 · 先歌乐器 · 恒洁卫浴 · 富士康

唯美电力 · 宜华家居 · 潮流前线 · 爱地雅自行车 · 德力西 · 小猪班纳 · 住润部品

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