GALAXIS
— 02729.HK —

Full-stack Intelligent Intralogistics Robotics Product Catalogue



CONTENTS

GALAXIS TECHNOLOGY 02

Intelligent Intralogistics Software 05

Intelligent Intralogistics Software 05

Software Architecture 06

Digital Operations & Applications 10

Software Security 13

Open Ecosystem & Seamless Integration 14

Automated Storage & Retrieval Robots(AS/RS) 15

Two-Way Tote MSR - LASER 15

Four-Way Tote MSR - FLASH 17

Side Case Robot 19

Four-Way Pallet MSR - FLASH-TP 21

Pallet Stacker Cranes - G-xtore 23

Autonomous Mobile Robots (AMR) 25

Very-narrow-aisle Fork-type Robot - VFR 25

Under-ride lift AMR - Flexi Mover 37

Conveyor & Sortation Robots (CSR) 39

Tote Conveyors 39

Pallet Conveyors 41

Sorters 43

Robotics for the New Energy Industry 45

High-speed Battery Cell Conveying 45

Tray Stacker Cranes 53

Battery Cell Assembly Equipment 55

GALAXIS TECHNOLOGY

Full-stack Intelligent Intralogistics Robotics

GALAXIS TECHNOLOGY is a full-stack intelligent intralogistics robotics provider dedicated to advancing automation and operational efficiency in modern warehousing. We offer a diverse range of robots built around three core product lines: multidirectional shuttle robots (MSRs), autonomous mobile robots (AMRs), and conveying and sorting robots (CSRs). Its robotics portfolio spans the full spectrum of intralogistics operations, covering the core functions of storage, transport, and sorting.

As an established player in the intelligent intralogistics robotics industry, GALAXIS combines broad robotics capabilities with a diverse portfolio of self-developed products. Its solutions support a wide range of height and payload specifications, enabling flexible deployment across various application scenarios. Leveraging strong system design and integration expertise, GALAXIS integrates advanced robotics with intelligent software to deliver flexible and scalable automation solutions. These solutions enhance operational efficiency, improve system reliability, reduce costs, and adapt to evolving business needs. Our solutions transform traditional warehouses into intelligent facilities capable of meeting the dynamic demands of contemporary commerce, while significantly reducing reliance on manual labor and rigid infrastructure.

Through sustained investment in R&D, GALAXIS has established a comprehensive intellectual property portfolio, including invention patents, utility models, and design patents. Over the years, we built extensive experience in delivering integrated intralogistics solutions across multiple industries. Through large-scale implementations, GALAXIS has developed a systematic approach to solution design and deployment, seamlessly integrating robotics and software systems to address the inherent complexity of modern intralogistics operations, earning strong recognition from customers in manufacturing and distribution sectors.

VISION

To become a global leader in intelligent intralogistics robotics.

MISSION

Making logistics more intelligent
Making the world more efficient

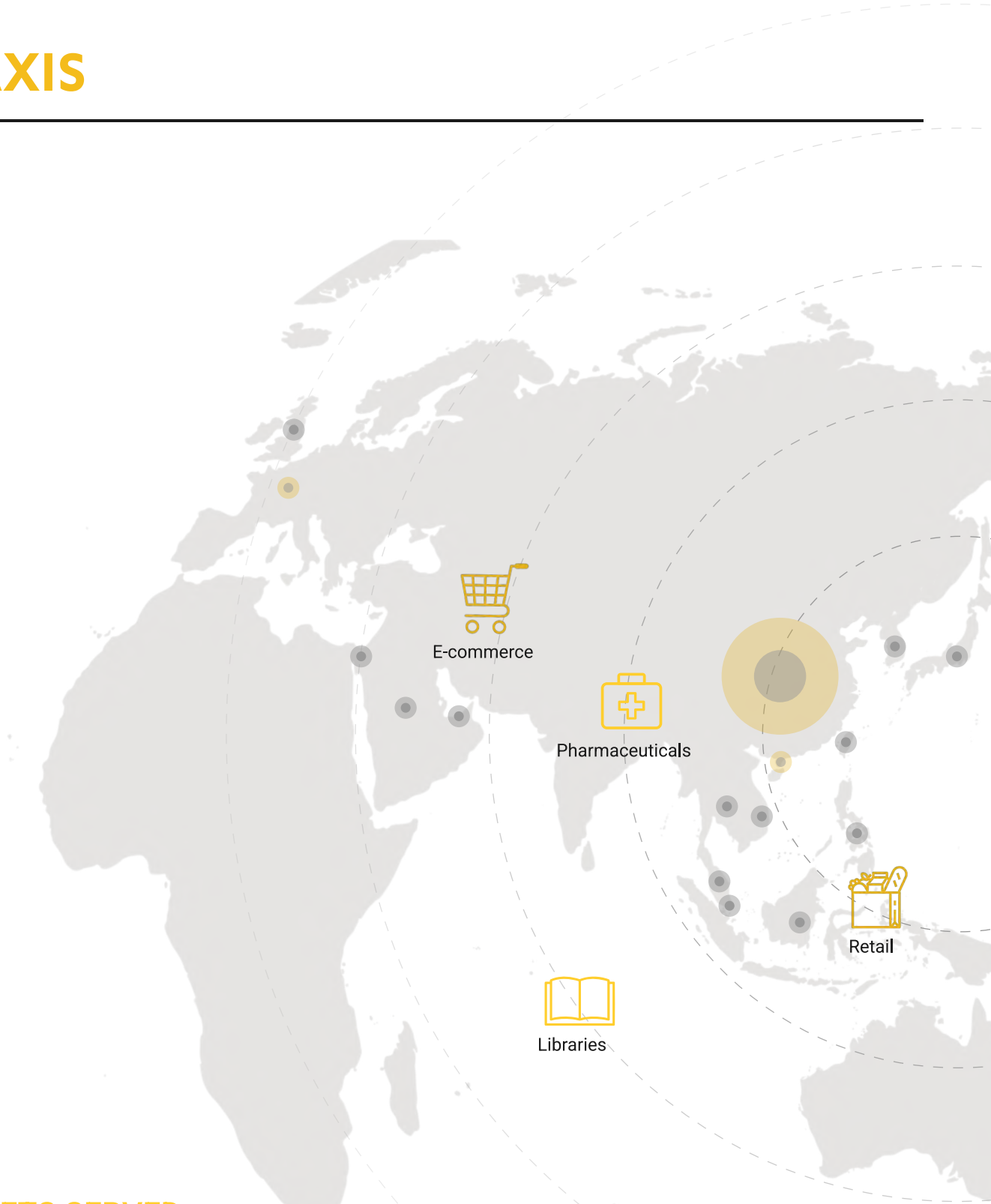
PHILOSOPHY

Application-led
Technology-driven
Value Creation

VALUE

Customer-centric focus;
Talent-based empowerment;
Craftsmanship spirit and continuous innovation;
Open collaboration with genuine transparency

GALAXIS



MARKETS SERVED

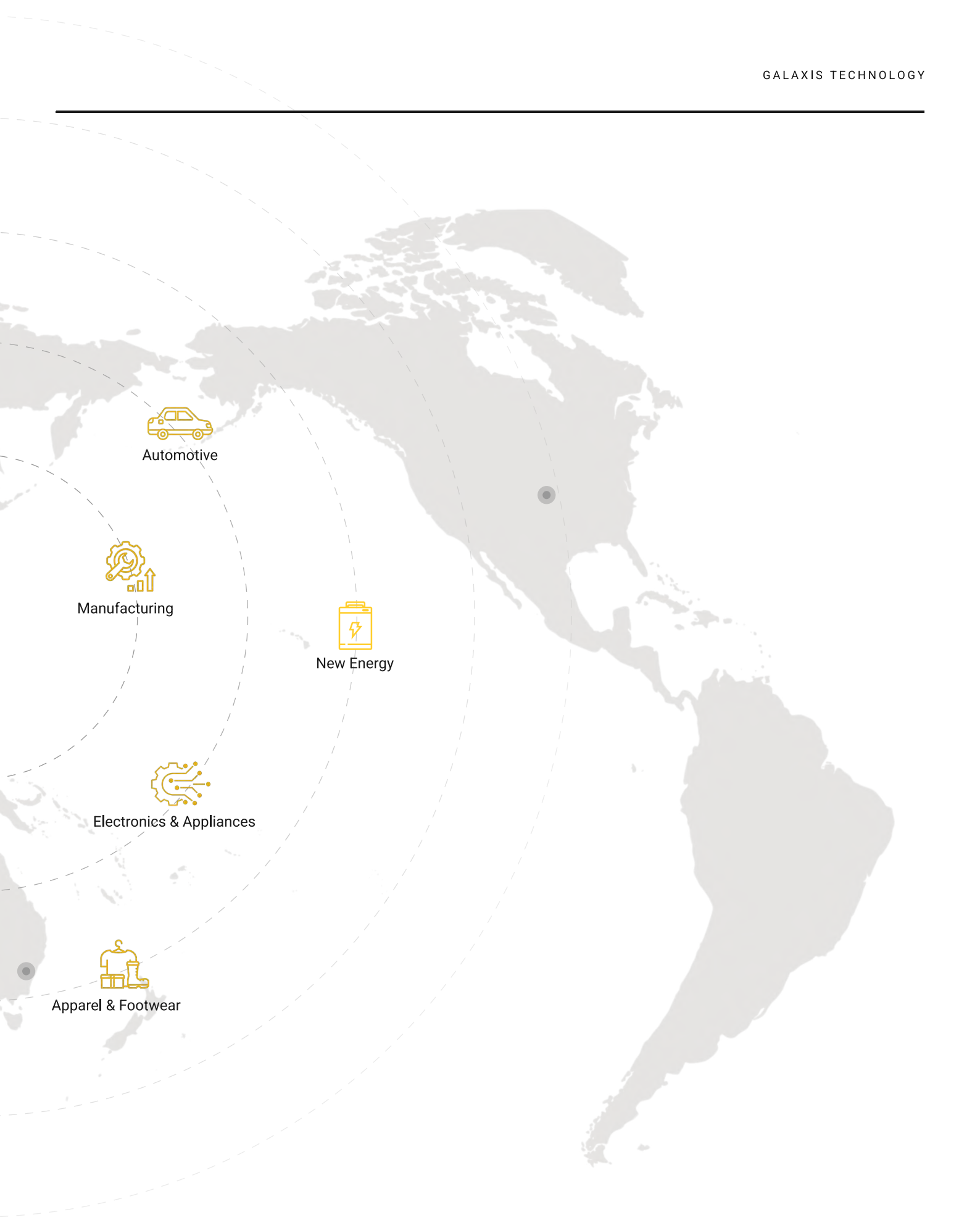
China, East Asia, Southeast Asia, Oceania, Europe, Middle East, North America, South America

OFFICES

China, Hong Kong (China), Hamburg

PARTNERS

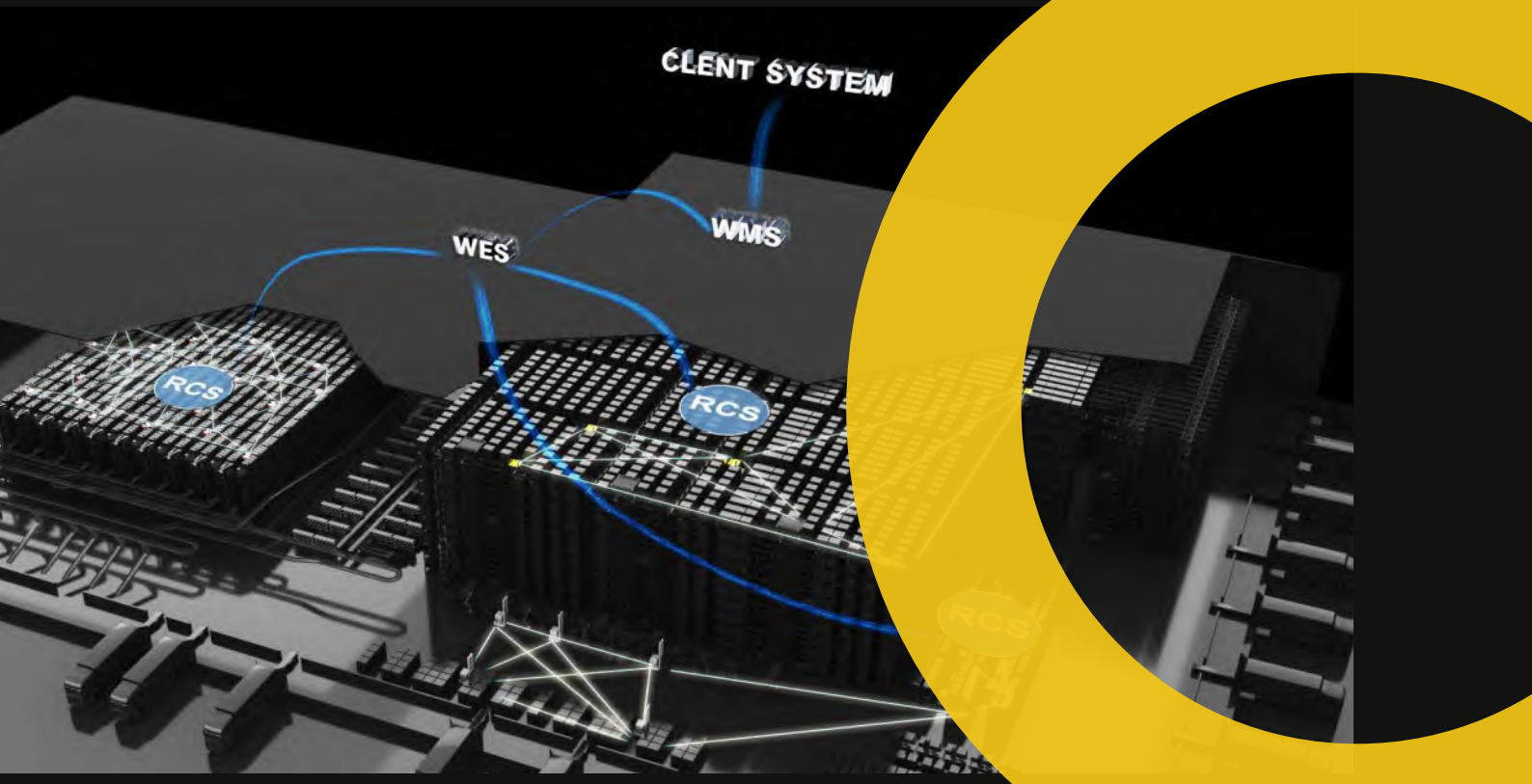
USA, UK, Hong Kong (China), Taiwan (China), South Korea, Japan, Thailand, Vietnam,
Indonesia, Singapore, Malaysia, Australia, Israel, Philippines,
UAE, Saudi Arabia, Brazil, Austria, Chile, Czech Republic, Canada, New Zealand


Automotive
Manufacturing
New Energy
Electronics & Appliances
Apparel & Footwear

Connecting Business, Equipment & Intelligent Execution

GALAXIS Intelligent Intralogistics Software

An efficient, transparent and scalable digital framework, from warehouse management to equipment coordination.



WMS
Warehouse Management

WES
Execution & Equipment Integration

RCS
Coordinated Robot Dispatching

One Architecture, from Business to Robots

Based on business requirements, GALAXIS integrates warehouse management, order execution, equipment control and visualisation within one digital framework, integrating existing enterprise systems and diverse logistics equipment.

Layered Architecture. Connected Execution.

Enterprise Systems

ERP / MES / OMS / SRM: master data, orders and business status exchange

↓

WMS - Warehouse Management

Inbound, inventory, internal, outbound and multi-site operations; waves, lots, serial numbers and traceability

↓

WES - Warehouse Execution

Task breakdown, resource allocation, workflow coordination, dynamic priorities and monitoring

↓

RCS - Robot Control

VFR / AMR / RGV fleet management, task allocation, path planning, traffic control and monitoring

↓

Shop-floor Execution

Shuttles, stacker cranes, conveyors, lifts, AMRs / AGVs, robotic workstations and other equipment

BUSINESS VALUE

Digital Visibility
Visibility across orders, inventory and operations

Flexible Coordination
Support for mixed equipment and workflows

Built to Evolve
Modular architecture for phased deployment

Illustrative interface. Actual screens vary by version.

WMS - Warehouse Management

For multi-site enterprises, factory warehouses and distribution centres, WMS manages the full inbound-to-outbound cycle, connecting manual tasks, mobile terminals and automated operations.

Orders & Booking › Receiving / QC › Replenishment / Stock › Picking / Check › Shipping / Trace

Inbound Management

Procurement, finished goods, returns and transfers; receiving checks, lot and quality status management, and putaway strategies.

Inventory & Internal Operations

Multi-level location and container management; stock holds, relocation, replenishment, counting, shelf-life and ageing alerts.

Outbound Fulfilment

Order pools, waves, inventory allocation, task grouping, checking, packing, consolidation and dispatch.

Detailed Traceability

Multi-owner and multi-site support; full records of goods, lots, serial numbers, containers and operational events.

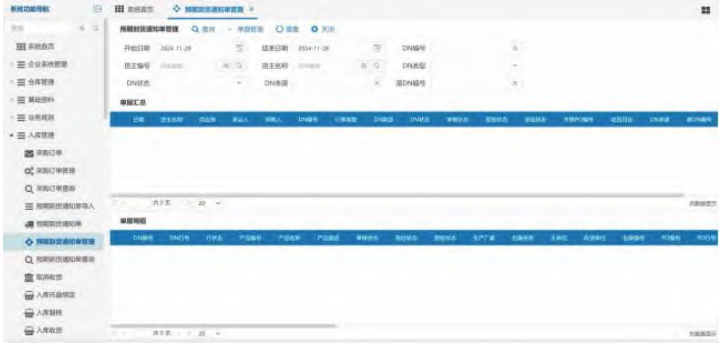
Flexible Workflows for Every Application

Order / Batch Picking | Goods-to-Person | Order-to-Person | Zone / Relay Picking | FIFO / FEFO | RF / Barcode / RFID

A configurable rules engine defines execution strategies by order, load attributes, zone, resources and priority, supporting standard workflows and business-specific requirements.

SOFTWARE INTERFACE





Illustrative interface. Actual screens vary by version.

WES - Coordinating Automated Equipment

WES connects business orders with automated equipment, coordinating devices, optimising execution, reporting status and allocating resources under complex operating conditions.

From Equipment Operation to Coordinated Execution

Task Breakdown & Coordination

Translate orders into executable tasks, track progress and coordinate equipment across zones.

Dynamic Dispatching

Allocate tasks by priority, equipment condition and load to balance throughput and continuity.

Equipment Integration

Integration with conveyors, cranes, lifts, shuttles and third-party WCS platforms

Exception Management

Exception detection, status feedback, fault alerts and manual intervention

Connected Storage, Handling & Picking



Shuttle AS/RS illustration. Tasks and equipment workflows are configured to suit each project.

Inbound
Putaway strategies select storage zones, locations and equipment for automated receiving and storage.

Outbound
Inventory allocation, station loads and order timing coordinate continuous retrieval and picking.

Monitoring
Task, equipment and exception data support on-site operational decisions.

RCS - Robot Fleet Scheduling

For VFRs, AMRs, RGVs and other mobile equipment, RCS coordinates tasks, robot capacity and on-site traffic to manage complex intralogistics workflows.

Unified Dispatching / Smart Traffic Control / Mixed Fleets / Open Integration

01 / Task Management

Allocate and adjust tasks by priority, equipment status and timing.

02 / Equipment Dispatching

Coordinate mixed robot fleets with lifts, conveyors and peripheral equipment.

03 / Traffic Control

Time windows, loop control and footprint collision checks reduce route conflicts.

04 / Real-time Monitoring

View operating status, routes and task progress on web and mobile devices.

05 / Alerts & Reports

Task and equipment alerts with operational reporting and analytics.

06 / Open Integration

RESTful APIs and project-specific system integration.

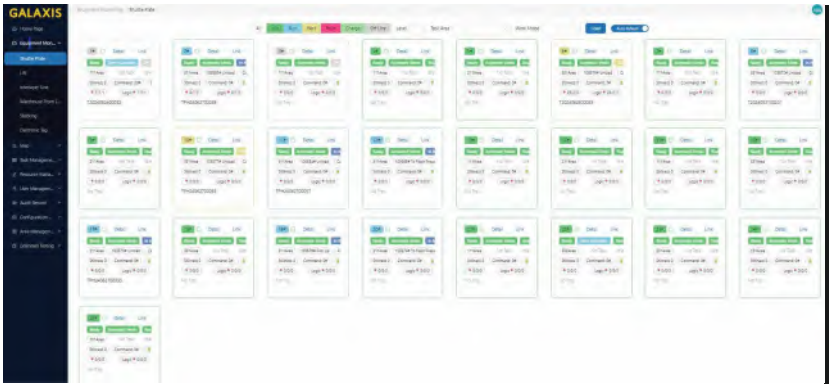
Connecting Routes, Traffic & Tasks

Path Planning
A* Routing / Route Traffic

Conflict Resolution
Time Windows / Zone Control

Dynamic Avoidance
Rerouting / Reverse Manoeuvres

Capacity Balancing
Station Flow / Task Allocation



LIVE OPERATIONS

Maps / Equipment /Tasks Unified Visibility

Real-time monitoring and visual management keep operations and maintenance teams informed of status and exceptions.

Project-specific deployment options connect with WMS, WCS and other business systems.

Illustrative interface. Actual screens vary by version.

Data-driven Visibility across Operations

Combine orders, inventory, equipment, robot tasks and live operations. WMS dashboards, RCS maps and equipment status connect operational monitoring with exception handling.



Screenshot of the visual dashboard in the original materials.

Operational Metrics

Multi-dimensional views of inventory, orders, task progress, storage resources and completed work.

Equipment Status

Equipment availability, task status, exceptions and fault locations

Traceability & Audit

Searchable records of inventory transactions, tasks and user actions

Continuous Improvement

Analyse bottlenecks, station loads and resource use to refine strategies

Visibility that Drives Operational Improvement

Identify Issues › Find Causes › Adjust Strategies › Verify Results

Specialist Software for Complex Operations

Modular architecture, business rules and equipment interfaces support manufacturing, pharmaceutical,retail and logistics workflows, combining a standard foundation with application-specific configuration.

Smart Manufacturing

Connect MES and production requirements with inbound materials, line-side delivery, finished goods storage and production timing.

Pharmaceuticals & Life Sciences

Manage lots, shelf life, quality status, cold-chain data and traceability; support customer computerised system validation.

Retail & Distribution

Support high-frequency, multi-order and multi-SKU operations, wave picking, checking, packing and dispatch.

Complex Automated Warehouses

Connect shuttles, stacker cranes, conveyors, lifts, AMRs and other equipment across operational units.

Open Interfaces for Existing IT & OT

ERP / MES / OMS ⇄ Unified Interfaces & Data Exchange ⇄ WMS / WES / RCS

Flexible Multi-system Integration

APIs, JSON, XML and CSV support batch, event-driven and other project-specific integrations.

Project Delivery & Services

01

Requirements & Blueprint

Process review, scope, interface and solution design

02

Configuration & Integration

Rule configuration, testing and equipment integration

03

Go-live & Optimisation

Trial operation, acceptance, maintenance and improvement

Regulatory compliance and computerised system validation depend on the region, scope and project; they do not constitute automatic industry certification.

From Warehouse Data to Precise On-site Execution

GALAXIS software connects warehouse operations, task optimisation, robot control and equipment integration to support the digital transformation of intralogistics.

WMS	WES	RCS
Digital Operations	Coordinated Execution	Intelligent Robotics

GALAXIS TECHNOLOGY

Making logistics more intelligent, making the world more efficient.

www.galaxis-tech.com

Functions, configurations, interfaces and service terms are subject to the technical agreement and commercial contract.

Compliance & Information Security · A Trusted Software Ecosystem

Security is embedded throughout software development and delivery across four areas: information security,industry compliance, data governance and internal controls, supported by management system certifications.

Regulatory alignment, process traceability and data lifecycle compliance for warehouse and industry needs

01 Information Security
ISO 27001 information security Aligned with CRA, NIS2, NIST CSF and local regulations

»

02 Industry Compliance
GMP / GSP / FSMA requirements
CSV validation support
FDA 21 CFR Part 11

»

03 Data Governance
Data classification
Endpoint encryption and access control Full data lifecycle security

»

04 Internal Controls
Role-based permissions
Least privilege and audit trailsTraceable operating records

Defence in Depth - Security by Design

End-to-end Encryption | Multi-factor Authentication | Fine-Grained Role-Based Access Control (RBAC) | Full Audit Trail | Testing & Remediation

Certifications & Management Systems

✓ CMMI-DEV Level 5 | ✓ ISO 9001 | ✓ ISO 27001 | ✓ CRA / IEC 62443

Note: applicability and validation depend on the region, system scope and project; no automatic industry certification.

Security & Compliance across the Software Lifecycle

Requirements & Design › Development & Testing › Delivery & Acceptance › Operations & Improvement

Open Ecosystem. Seamless Integration.

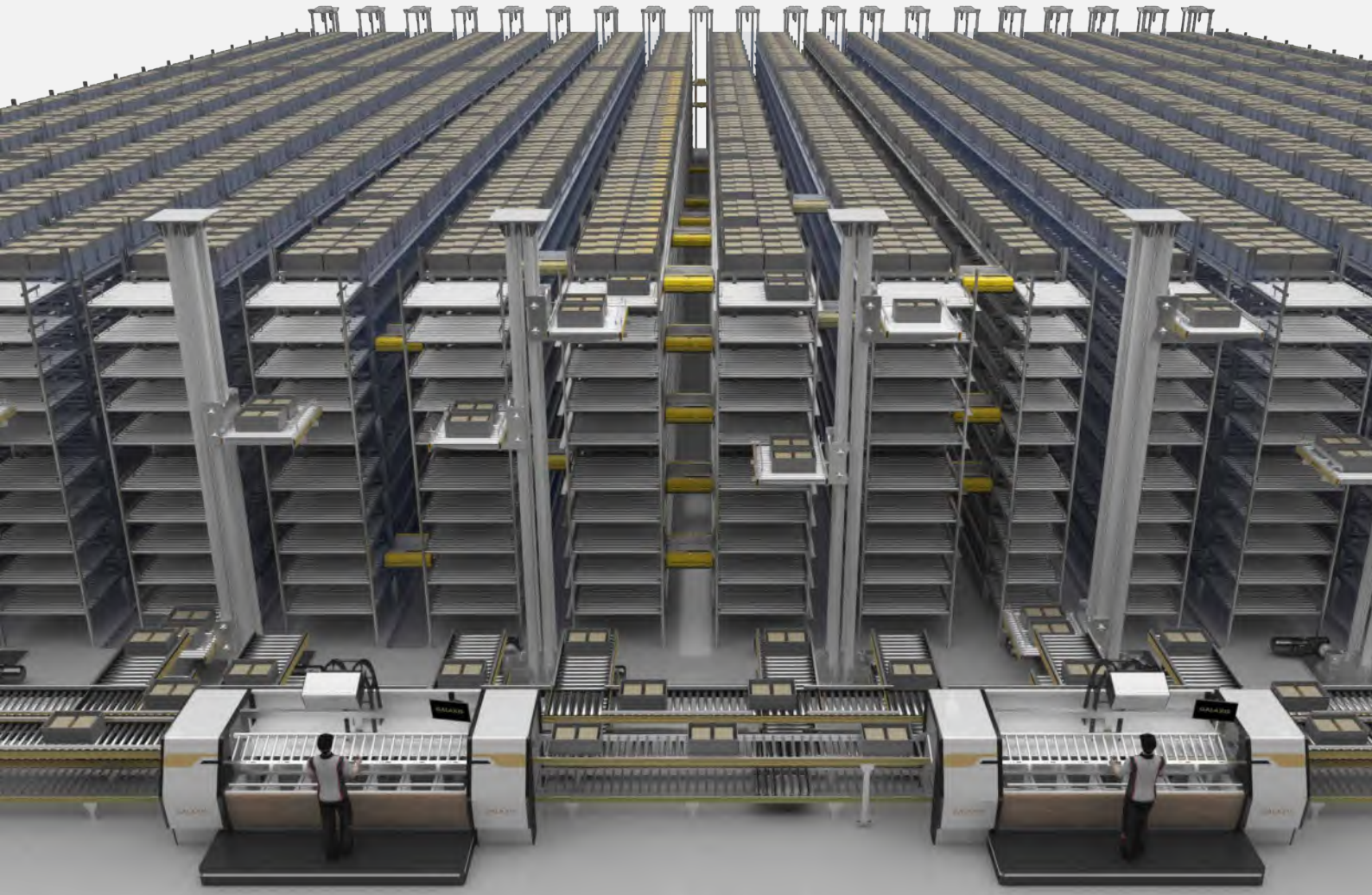
Standard interfaces connect SAP, Yonyou, Kingdee, Oracle, Microsoft Dynamics and other major ERP platforms, automating the flow of orders, inventory and financial data.



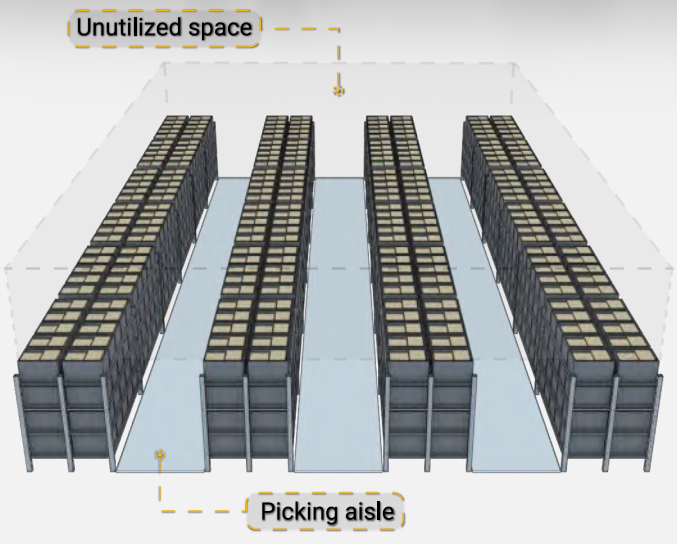


Automated Storage & Retrieval (AS/RS)

Two-way Tote MSR (LASER)



Manual Picking



Goods-to-person Picking with MSR System

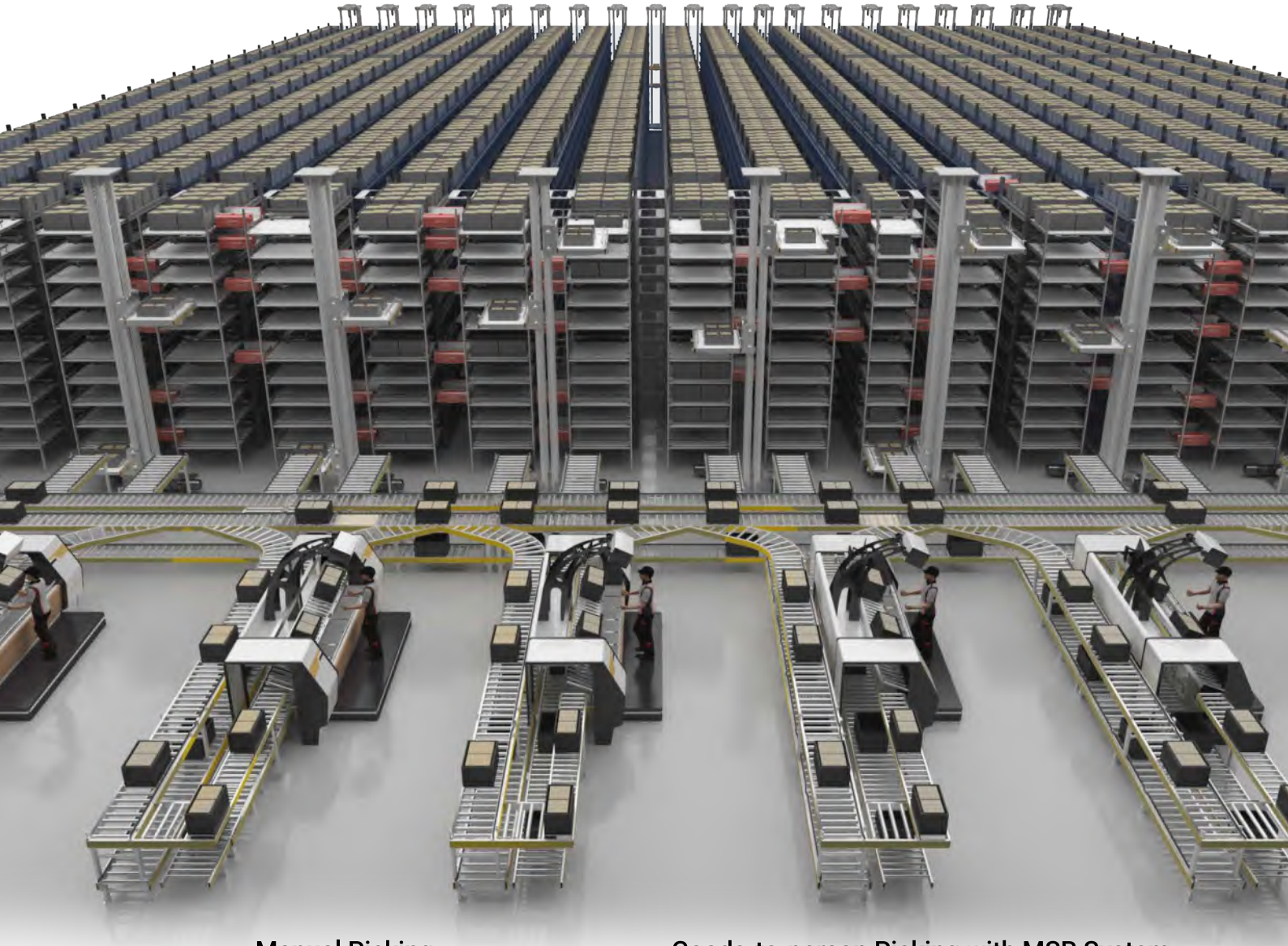


LASER Two-Way Tote MSR - Specifications

Specification	LASER 6040	LASER—V 8560
External dimensions	1,056 × 936 × 215 mm	1,456 × 936 × 215 mm
Weight of Shuttle	77 kg	80 kg
Max. Speed without Load	5 m/s	5 m/s
Max. Speed with Load	5 m/s	5 m/s
Max. Acceleration	2m/s²	2 m/s²
Max. Payload	60 kg	60 kg
Type of Load Handling Device	Single & Double Deep Storage & Customized	Single & Double Deep Storage & Customized
Controller	GALAXIS PC ARM / SIEMENS PLC	GALAXIS PC ARM / SIEMENS PLC
Positioning Method	Encoder + Sensor	Encoder + Sensor
Positioning Accuracy	±1 mm	±1 mm
Type of LHD	STD	FLEX
Max. HU Dimension (Standard)	600(Length) × 400(Width) mm	800(Length) × 600(Width) mm
Min. HU Dimension	200(Length) × 200(Width) mm	200(Length) × 200(Width) mm
Min. HU Height	100 mm	100 mm
Min. Rack Level Pitch (HU height≤225 mm)	350 mm	350 mm
Min. Rack Level Pitch (HU height>225 mm)	125 mm+HU height	125 mm+HU height
Communication	Wi-Fi or 5G	Wi-Fi or 5G
Power Supply	Super Capacitor + Li-ion battery/Busbar	Super Capacitor + Li-ion battery/Busbar
Charging Voltage	48 V	48 V
Humidity	45 % ~ 95 % non-condensing	45% ~ 95 % non-condensing
Ambient Temperature Range	-25 °C ~ 45 °C	-25 °C ~ 45 °C

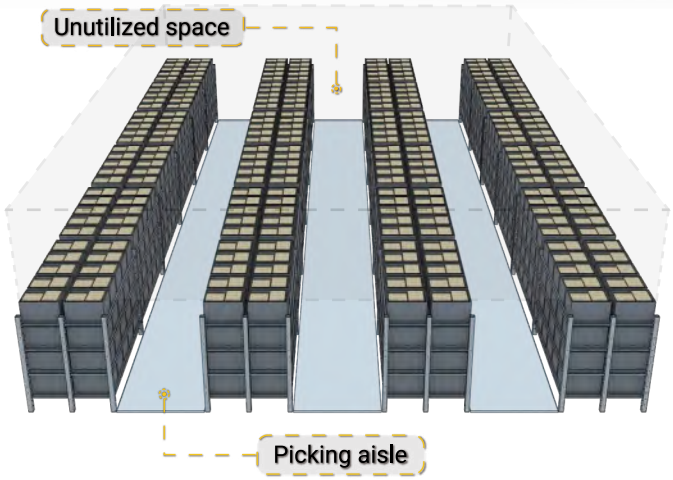
※ Products can be customized in size. Please contact our sales team for details.

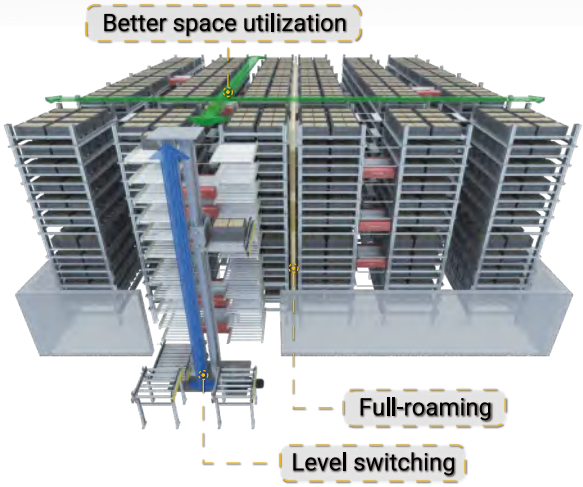
Four-way Tote MSR (FLASH)



Manual Picking

Goods-to-person Picking with MSR System





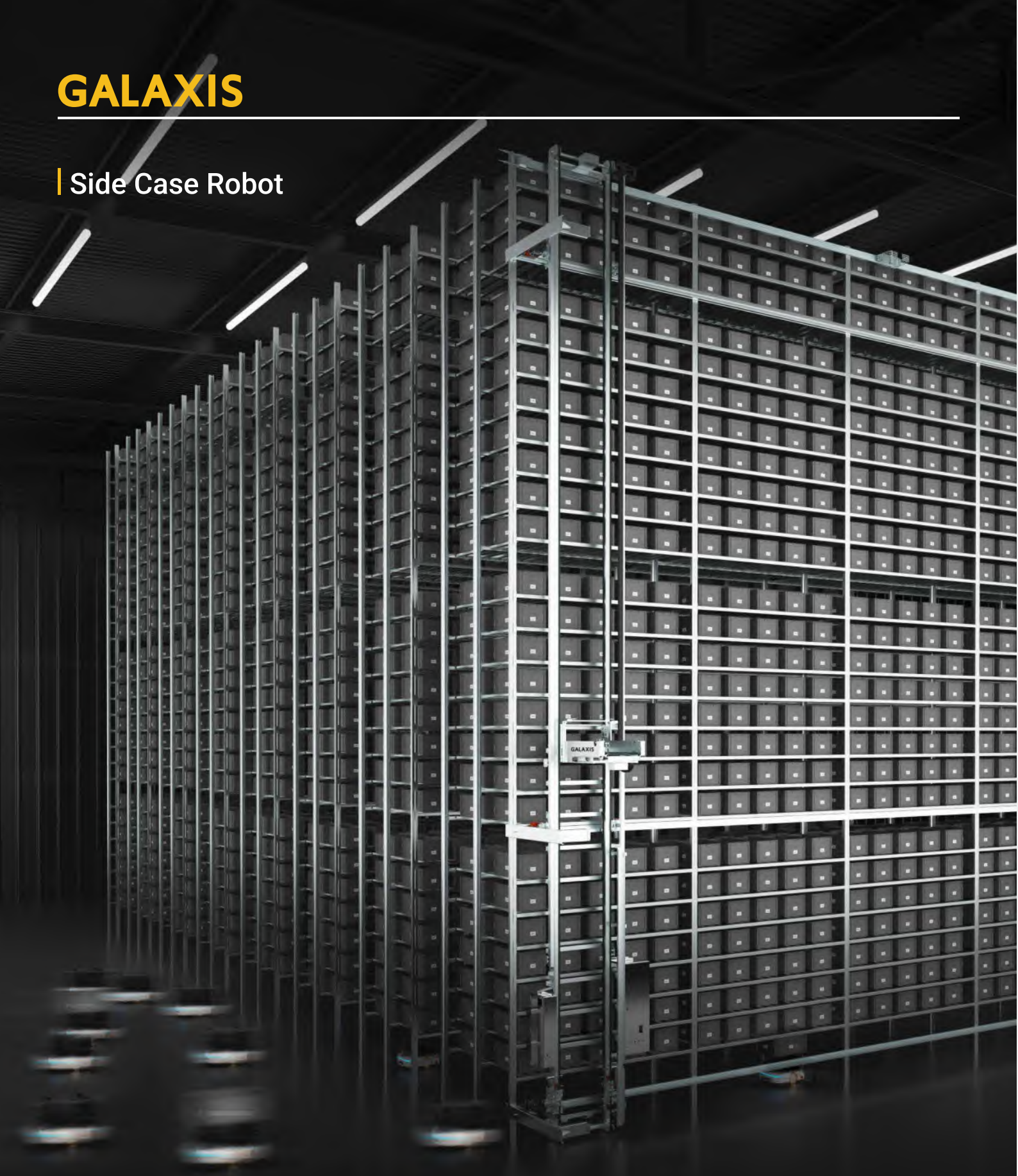
FLASH Four-Way Tote MSR - Specifications

Specification	FLASH 6040	FLASH 8060
External dimensions	1,186 × 936 × 285 mm	1,586 × 936 × 285 mm
Weight of Shuttle	100 kg	104 kg
Max. Main Speed without Load	5 m/s	5 m/s
Max. Main Speed with Load	5 m/s	5 m/s
Max. Cross-Aisle Speed	2 m/s	2 m/s
Max. Main Acceleration	2 m/s²	2 m/s²
Max. Payload	60 kg	60 kg
Type of Load Handling Device	Single & Double Deep Storage & Customized	Single & Double Deep Storage & Customized
Controller	GALAXIS PC ARM / SIEMENS PLC	GALAXIS PC ARM / SIEMENS PLC
Positioning Method	Encoder + Sensor	Encoder + Sensor
Positioning Accuracy	±1 mm	±1 mm
Type of LHD	STD	STD
Max. HU Dimension (Standard)	600(Length) × 400(Width)mm	800(Length) × 600(Width)mm
Min. HU Dimension	250(Length) × 250(Width)mm	300(Length) × 200(Width)mm
Min. HU Height	140 mm	140 mm
Min. Rack Level Pitch (HU height ≤ 225mm)	375 mm	375 mm
Min. Rack Level Pitch (HU height>225mm)	150mm+HU height	150mm+HU height
Communication	Wi-Fi or 5G	Wi-Fi or 5G
Power Supply	Super Capacitor + Li-ion battery	Super Capacitor + Li-ion battery
Charging Voltage	48 V	48 V
Humidity	45 % ~ 95 % non-condensing	45 % ~ 95 % non-condensing
Ambient Temperature Range	-25 °C ~ 45 °C	-25 °C ~ 45 °C

※ Products can be customized in size. Please contact our sales team for details.

GALAXIS

Side Case Robot



- Ultra-High Efficiency
- Continuous Operation
- Operational Safety
- Easy Maintenance

Side Case Robot Product Specifications



Maximum travel speed 3 m/s



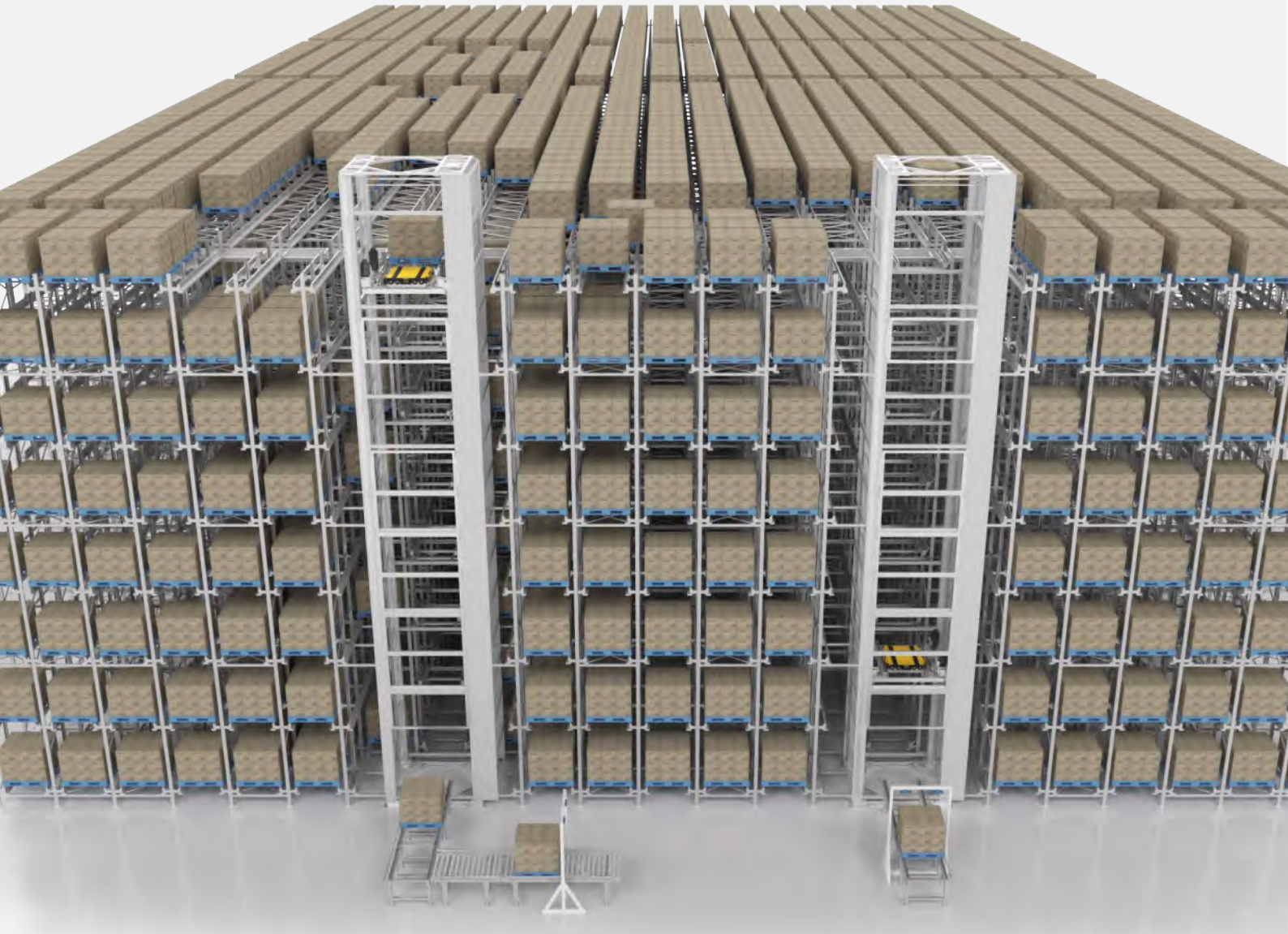
Aisle width only 850 mm



200 totes/hour (in/out)

Specification	6040DD	8060SD	6060DD
Fork type	Clamp fork	Clamp fork	Lift fork
Storage depth	Double-deep	Single-deep	Double-deep
Max. equipment height	12m	12m	12m
Min. pickup height	400mm	400mm	400mm
Max. cargo size	600*400mm	800*600mm	600*600mm
Max. Payload	50Kg	50Kg	50Kg
Max. lifting speed	3m/s	3m/s	3m/s
Max. travel speed	3m/s	3m/s	3m/s
Lifting positioning accuracy	±2mm	±2mm	±2mm
Travel positioning accuracy	±2mm	±2mm	±2mm
Power Supply	Sliding contact	Sliding contact	Sliding contact
Charging Voltage	380V/48V	380V/48V	380V/48V
Input frequency	50Hz	50Hz	50Hz
Ambient Temperature Range	-10°C~45°C	-10°C~45°C	-10°C~45°C
Min. Rack Level Pitch	350mm	350mm	/

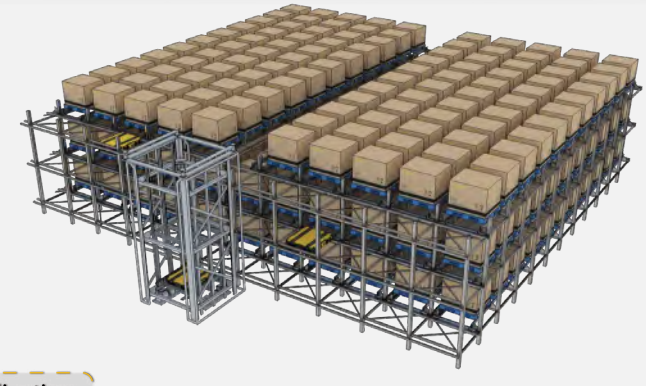
Four-way Pallet MSR (FLASH-TP)



Traditional Warehouse



Storage with Pallet Shuttle System



Improved Space Utilization

FLASH-TP Pallet MSR - Specifications

Specification	FLASH-TP-SLIM1210	FLASH-TP-H1210
External dimensions	1,030×989×125 mm	1,030×989×210 mm
Max. Speed without Load	2 m/s	2 m/s
Max. Speed with Load	1.5 m/s	1.5 m/s
Max. Acceleration	1 m/s²	1 m/s²
Max. Payload	1,500 kg	3,000 kg
Lifting Stroke	40 mm	40 mm
Controller	GALAXIS PC ARM / SIEMENS PLC	GALAXIS PC ARM / SIEMENS PLC
Positioning Method	RFID + Photoelectric	RFID + Photoelectric
Positioning Accuracy	±2 mm	±2 mm
Max. HU Dimension (Standard)	1,500 (Length) × 1,500 (Width) mm	1,500 (Length) × 1,500 (Width) mm
Min. HU Dimension	1,100 (Length) × 800 (Width) mm	1,100 (Length) × 800 (Width) mm
Mother rail spacing	912 mm	912 mm
Sub-rail spacing	883 mm	883 mm
Guide rail height	147 mm	147 mm
Communication	Wi-Fi or 5G	Wi-Fi or 5G
Power Supply	Li-ion battery	Li-ion battery
Charging Voltage	48 V	48 V
Humidity	45 % ~ 95 % non-condensing	45 % ~ 95 % non-condensing
Ambient Temperature Range	-25 °C ~ 45 °C	-25 °C ~ 45 °C

Products can be customized in size. Please contact our sales team for details. An optional gearbox configuration is available, which is maintenance-free and requires no additional lubrication.

Pallet Stacker Cranes - G-xtore

Designed for three-runner pallet loads, GALAXIS pallet stacker cranes handle 1,000-2,000 kg at equipment heights of 8-24 m. Twin-mast steel or aluminium structures travel on steel rails and wheels. Applications include raw materials, pharmaceutical and finished goods AS/RS. Three sub-families cover straight-rail (D-IB / D-IC), curved-rail (D-UB / D-UC) and twin-rail (D-DE) configurations.



Straight-rail Pallet Stacker Crane Specifications

Model	D-IB.1.01	D-IB.3.01	D-IB.1.02	D-IB.3.02	D-IC.1.02	D-IC.3.02
Max. Payload	1000kg	1000kg	2000kg	1500kg	2000kg	1500kg
Equipment Height	16m	16m	16m	14m	24m	24m
Fork Type	Single Deep	Double Deep	Single Deep	Double Deep	Single Deep	Double Deep
Max. Travel Speed	3m/s	3m/s	3m/s	3m/s	3m/s	3m/s
Travel Acceleration	0.33 m/s²	0.33 m/s²	0.33 m/s²	0.33 m/s²	0.33 m/s²	0.33 m/s²
Load Carrier	**Three-runner Pallets W, L≤1400mm**					

Curved-rail / Twin-rail Stacker Crane Specifications

Model	D-UB.1.01	D-UB.3.01	D-UC.1.01	D-UC.3.01	D-DE.1.03	D-DE.3.01
Max. Payload	1500kg	1500kg	1500kg	1500kg	1000kg	1000kg
Equipment Height	14m	14m	20m	20m	8m	8m
Fork Type	Single Deep	Double Deep	Single Deep	Double Deep	Single Deep	Double Deep
Max. Travel Speed	2.7 m/s	2.7 m/s	2.7 m/s	2.7 m/s	2 m/s	2 m/s
Travel Acceleration	0.33 m/s²	0.33 m/s²	0.33 m/s²	0.33 m/s²	0.5 m/s²	0.5 m/s²
Load Carrier	**Three-runner Pallets W, L≤1400mm**					


1号托盘库
第四列
1号托盘库
第三列

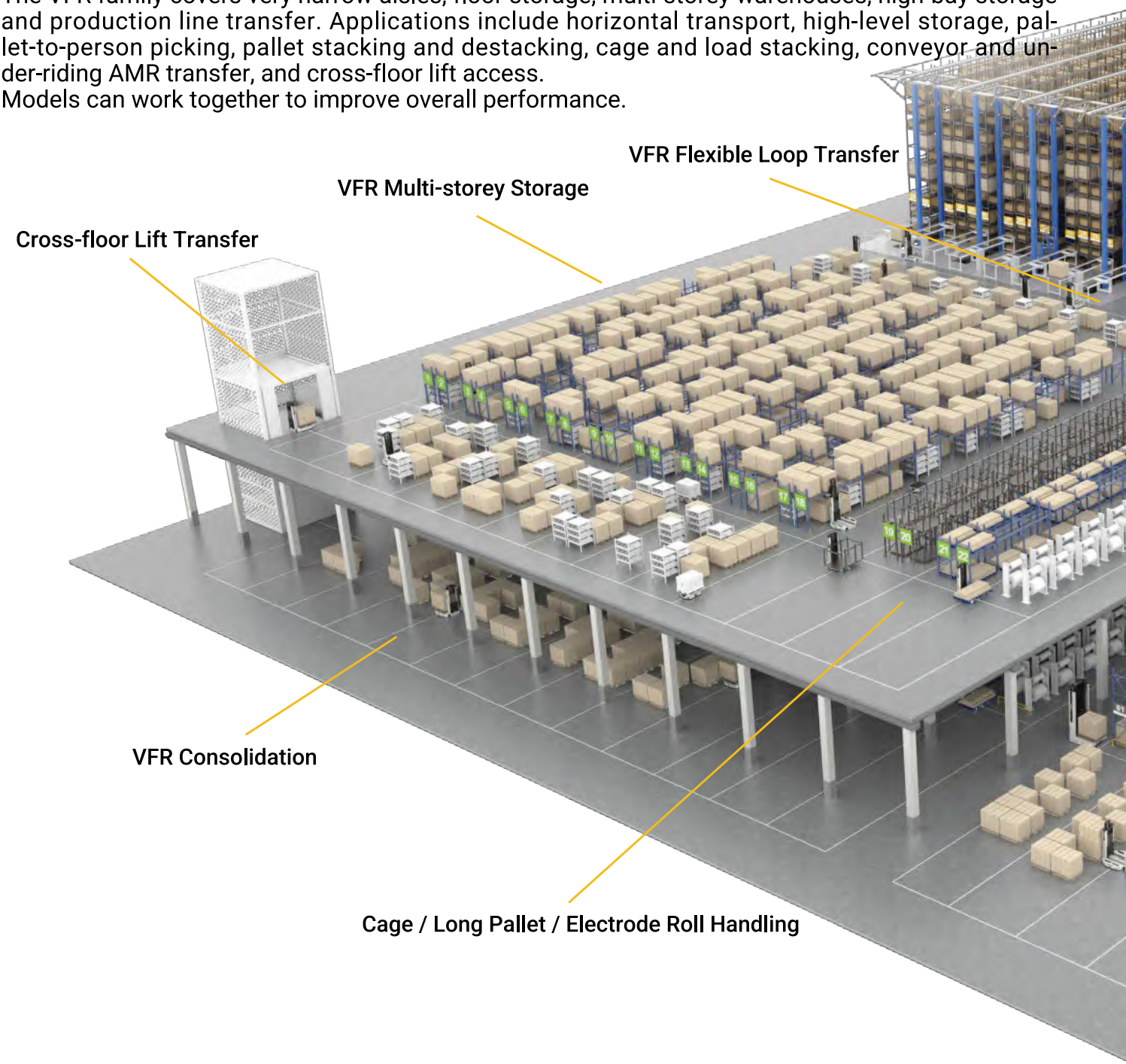
Autonomous Mobile Robots (AMR)

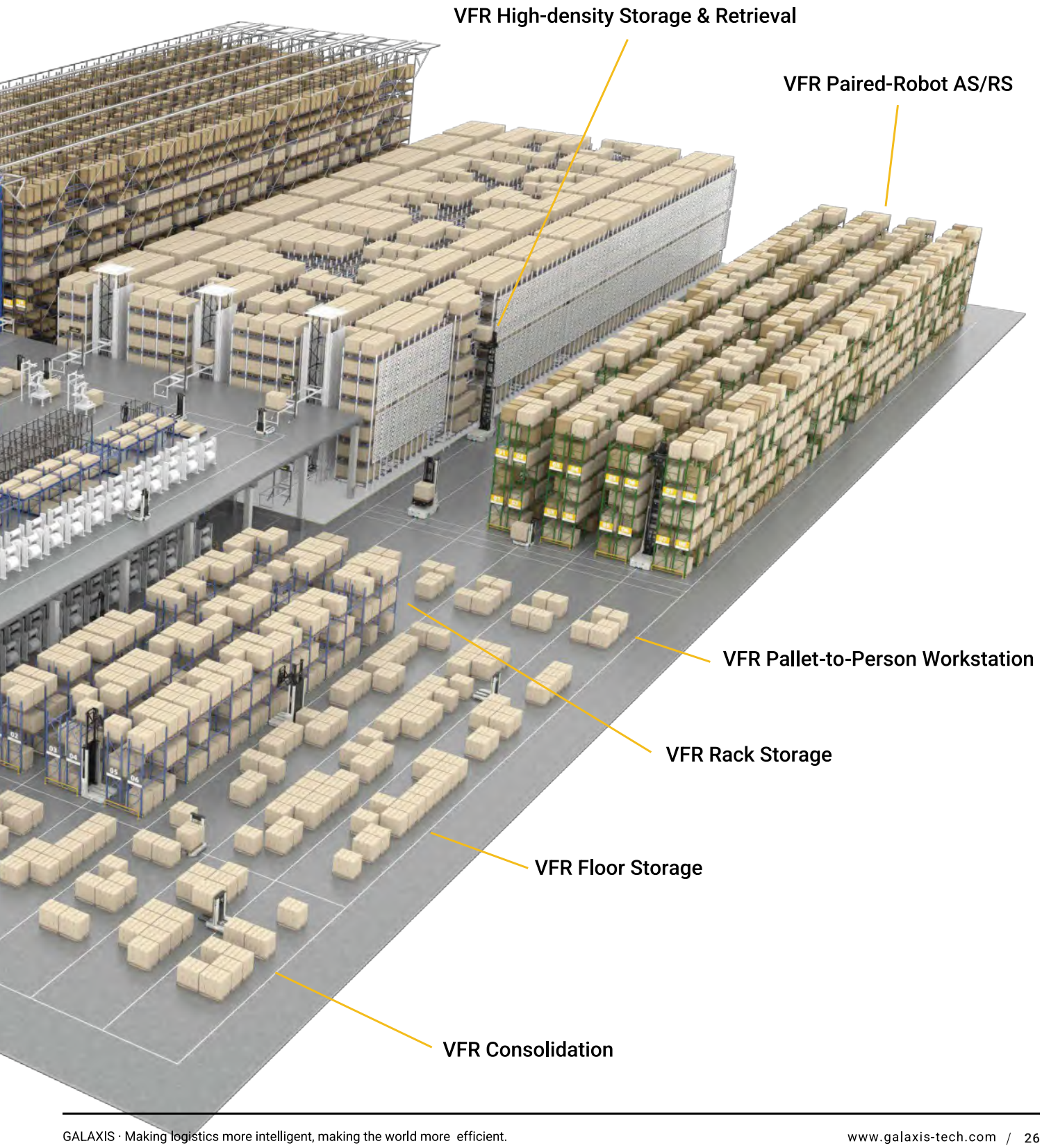
Very-narrow-aisle Fork-type Robot - VFR

VFR stands for Very-narrow-aisle Fork-type Robot. This next-generation fork-type mobile robot family offers a comprehensive upgrade over conventional automated forklifts.

Designed for higher storage density, productivity, positioning accuracy, safety, reliability and cost efficiency, VFR robots serve storage, transport and sorting applications.

The VFR family covers very narrow aisles, floor storage, multi-storey warehouses, high-bay storage and production line transfer. Applications include horizontal transport, high-level storage, pallet-to-person picking, pallet stacking and destacking, cage and load stacking, conveyor and under-riding AMR transfer, and cross-floor lift access.
Models can work together to improve overall performance.




VFR High-density Storage & Retrieval
VFR Paired-Robot AS/RS
VFR Pallet-to-Person Workstation
VFR Rack Storage
VFR Floor Storage
VFR Consolidation

VFR-CL Series

VFR-CL Series features side-reaching forks that enable pallet storage and retrieval without the robot turning in the aisle, allowing operations in aisles as narrow as 1.65 m.

CL1 offers a lifting height of 2.2 m, a payload capacity of 1 ton, and positioning accuracy of ±5 mm. It also supports pallet stacking and destacking.

CL2 enhances operational flexibility with a circular chassis that enables on-the-spot rotation and easy changes of direction. Its two-stage telescopic mast keeps the overall height below 2 m, enabling inter-floor transport via elevators. The model supports both Chinese and Europe standard pallets, with optional 3D obstacle avoidance and load recognition.

CL3 extends the lifting height to 3.8 m while maintaining a 1-ton payload capacity, even at 3 m. An adaptive drive-wheel pressure adjustment system helps distribute the load more evenly for improved stability.

CL4 delivers a lifting height of up to 5 m and a maximum payload capacity of 1.5 tons, while supporting a 1-ton load at 3.6 m. A high-power motor enables faster lifting and lowering operations.

Across the series, intelligent navigation and safety features include chassis-mounted QR code cameras, multi-LiDAR and computer vision sensor fusion, elevated obstacle detection, overload alarms, and fork-tip contact alerts. VFR-CL Series complies with ISO 3691-4 and is CE certified.



CL1 CL2 CL3 CL4

1.65m

Narrow-aisle Operation

Higher Space Utilisation

Flexible Transfer

Direct floor-to-conveyor and rack transfer

5G

Flexible Communication Options

Safety

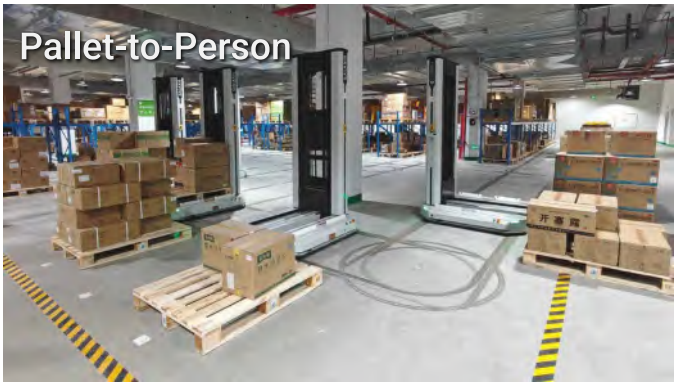
Multiple sensors support safe operation

Intelligent Correction

Automatic pallet offset detection and fork correction













VFR-CS Series

VFR-CS Series is designed for handling closed pallets in very narrow aisles, enabling efficient storage and retrieval in space-constrained environments.

CS1 features an integrated mast and chassis with scissor-reach forks, enabling the handling of closed pallets without additional support legs. It offers a lifting height of up to 5.1 m and operates in aisles as narrow as 1.75 m, maintaining its rated load capacity up to 4 m. The combination of 3D cameras and LiDAR enables load recognition and adaptive stacking at different heights.

CS3 builds on the CS1 design with extended fork reach to accommodate larger pallets. Its optimized fork attachments support 1.2 m-long pallets while maintaining a minimum aisle width of 1.75 m. Long-range environmental sensing and close-range load recognition enhance operational flexibility and precision.

Both models support paired-robot AS/RS operations, with high-lift robots handling storage and retrieval at elevated rack levels, while compact robots manage inbound and outbound pallet transfers.



CS1



CS3

1.75m

Narrow-aisle Operation

Higher Space Utilisation

Flexible Transfer

Direct floor-to-conveyor and rack transfer

5G

Flexible Communication Options

Safety

Multiple sensors support safe operation

Intelligent Recognition

3D cameras and LiDAR
for intelligent container recognition

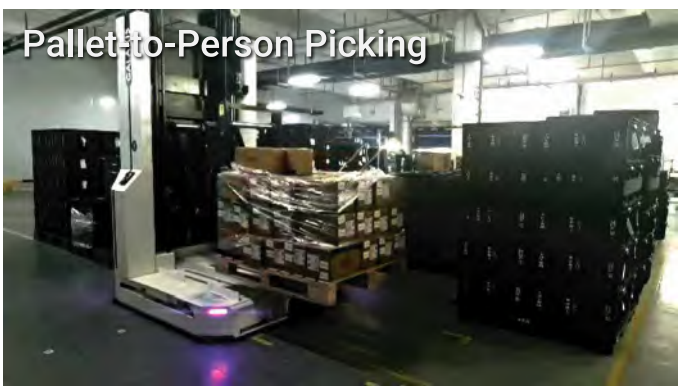












VFR-CC Series

VFR-CC Series is designed for high-lift pallet handling and high-density storage, combining vertical reach, stability, and intelligent operation.

CC6 offers a lifting height of up to 6.3 m, with a payload capacity of 1.5 tons at 3.5 m and 1 ton at 5 m, making it suitable for high-bay pallet storage applications.

CC9 extends the operating height to 9 m, featuring a reinforced double-frame outer mast, a three-stage structural design, and a weighted chassis for greater stability at elevated heights. A high-power motor enables lifting speeds of up to 550 mm/s. Designed to operate in environments compatible with the CC6, it also offers flexibility for future upgrades.

The series integrates 2D/3D LiDAR, 3D cameras, overload and tilt sensors, and safety edges to provide comprehensive sensing and protection around the mast and chassis. An embodied intelligence control architecture integrates perception, decision-making, and action to adapt to pallet positioning deviations.

Both models support paired-robot AS/RS operations, combining high-lift robots for rack storage and retrieval with compact robots for inbound and outbound pallet transfers.



CC6



CC9

1.8m

Narrow-aisle Operation

Higher Space Utilisation

Pallet Compatibility

Open & Closed Pallets | Chinese, European & Japanese Standards

5G

Flexible Communication Options

Safety

Multiple sensors support safe operation

Embodied Intelligence

Sense, decide and act to adapt to pallet offsets













VFR Paired-Robot AS/RS Solution

VFR paired-robot AS/RS combines compact robots for low-level aisle transport and transfer with high-lift robots for upper-level storage and retrieval, delivering high efficiency, lower cost and larger buffers.

Once compact robots position pallets at low-level transfer points, high-lift robots store or retrieve them with minimal travel. Compared with conventional automated forklift/VNA combinations, this reduces travel, workload and the number of high-lift robots required.

Lower rack levels serve as inbound/outbound buffers and fast-moving stock locations, without secondary transfers. This supports demand surges, faster access to high-frequency items and higher throughput for pallet-to-person picking operations.


In-Aisle Transfer


High-lift VFR Placement & Retrieval


Lower-level Handling


Multi-Level VNA Storage


High-Density Pallet Storage


High-Bay Storage & Retrieval

Lower Cost

Compact robots handle low-level work
Fewer high-lift robots reduce fleet cost.

Higher Efficiency

Compact robots transfer; high-lift robots store
Less travel for higher productivity.

Larger Buffers

Low-level buffers provide ample space
for smooth material flow.



VFR-CL Robot Specification

Specification	VFR-CL1	VFR-CL2	VFR-CL3	VFR-CL4
External Dimension (L*W*H)	1,500*1,500*3,050 mm	1,500*1,500*1,970 mm	1,500*1,520*2,630 mm	1,690*1,550*3,500 mm
Weight	1,200 kg	1,200 kg	1,500 kg	1,900 kg
Min. Rotation Radius	925 mm	800 mm	930 mm	1,000 mm
Aisle Width	1,650 mm	1,650 mm	1,700 mm	1,750 mm
Rated Load	1,000 kg	1,000 kg	1,000 kg	1,500 kg
Max. Lifting Height	2,200 mm	2,400 mm	3,800 mm	5,000 mm
Operating Temperature	0-40 °C	0-40 °C	0-40 °C	0-40 °C
Rated Speed	1.2 m/s	1.2 m/s	1.2 m/s	1.2 m/s
Loaded Speed	1.0 m/s	1.0 m/s	1.0 m/s	1.0 m/s
Navigation	QR code/SLAM+ QR code	SLAM+ QR code	SLAM+ QR code	QR code/SLAM+ QR code
Position Accuracy	±5 mm	±5 mm	±5 mm	±5 mm
Obstacle Clearance Height	5 mm	5 mm	5 mm	5 mm
Obstacle Clearance Width	30 mm	30 mm	30 mm	30 mm
Climbing Ability	3 %	3 %	3 %	3 %
Battery Type	LFP	LFP	LFP	LFP
Charging Mode	Manual / Auto	Manual / Auto	Manual / Auto	Manual / Auto
Charging Cycles	≥1,500	≥1,500	≥1,500	≥1,500
Charging Time	2 h	2 h	2 h	2.9 h
Run Time	12 h	12 h	8 h	8 h

VFR-CS/CC Robot Specification

Specification	VFR-CS1	VFR-CS3	VFR-CC6	VFR-CC9
External Dimension (L*W*H)	1,650*1,550*3,610 mm	1,990*1,550*3,689 mm	2,223*1,550*4,500 mm	2,350*1,550*4,710 mm
Weight	3,100 kg	2,900 kg	5,100 kg	6,850 kg
Min. Rotation Radius	1,035 mm	1,175 mm	1,900 mm	1,900 mm
Aisle Width	1,750 mm	1,750 mm	1,800 mm	1,800 mm
Rated Load	1,000 kg	1,000 kg	1,500 kg	1,500 kg
Max. Lifting Height	5,100 mm	5,100 mm	6,300 mm	9,300 mm
Operating Temperature	0-40 °C	0-40 °C	0-40 °C	0-40 °C
Rated Speed	1.2 m/s	1.2 m/s	1.0 m/s	1.0 m/s
Loaded Speed	1.0 m/s	1.0 m/s	1.0 m/s	1.0 m/s
Navigation	QR code/SLAM+ QR code	QR code/SLAM+ QR code	QR code	QR code
Position Accuracy	±5 mm	±5 mm	±5 mm	±5 mm
Obstacle Clearance Height	5 mm	5 mm	3 mm	3 mm
Obstacle Clearance Width	30 mm	30 mm	5 mm	5 mm
Climbing Ability	3 %	3 %	3 %	3 %
Battery Type	LFP	LFP	LFP	LFP
Charging Mode	Manual / Auto	Manual / Auto	Manual / Auto	Manual / Auto
Charging Cycles	≥1,500	≥1,500	≥1,500	≥1,500
Charging Time	2.9 h	2.9 h	1.5 h	1.6 h
Run Time	8 h	8 h	8 h	8 h

Under-ride Lift AMR - Flexi Mover



FM50



FM600



FM1000

FM Robots

Product Highlights

Flexible & Efficient
- Connect Workflows across Applications

Customisation Available
- Versatile Application Support

Rapid Deployment
- Easy Retrofit & Upgrade

Drive Type
- Differential Drive

Precise Docking
- Docking Accuracy: ±5 mm
  Navigation

Navigation
- SLAM / QR Code

Flexi Mover - Specifications

Model	FM50	FM600	FM1000
Dimensions L x W x H (mm)	700*450*440	960*650*250	1150*820*260
Turning Diameter (mm)	730	963	1200
Weight (kg)	70	130	200
Rated Payload (kg)	50	600	1000
Load Handling	Lifting	Lifting	Lifting
Navigation	QR Code	QR Code + SLAM	QR Code + SLAM
Max. Travel Speed (m/s)	2	1.9	1.8
Operating Speed (m/s)	2	1.5	1.5
Stopping Accuracy (mm)	±10	±5	±5
Angular Accuracy (°)	±1	±1	±1
Drive Type	Differential Drive	Differential Drive	Differential Drive
Travel Direction	Bidirectional	Bidirectional	Bidirectional
Max. Obstacle Height (mm)	10	5	5
Gradeability (%)	5 (3°)	6 (3°)	5 (3°)
Rated Operating Time (h)	6	8	8
Rated Voltage (V)	48	48	48
Charging Cycles	1500	1500	1500

Conveyor & Sortation Robotics (CSR)

Tote Conveyors

GALAXIS tote conveyors handle totes, returnable containers and cartons in warehouses and smart factories. Standard modules combine continuous transport, sorting and merging.

Configured to accommodate different facility layouts, SKU profiles and throughput requirements, they connect receiving, storage-area transfers and outbound sorting, providing a foundation for logistics automation.



Swivel-wheel Sorter



Pop-up Transfer



Curve Conveyor Module



Powered Roller Conveyor Module



Alignment Conveyor Module



Divert / Merge Conveyor Module



Belt Curve Conveyor

Pallet Conveyors

GALAXIS pallet conveyors provide heavy-duty handling across warehousing, production and distribution. Transfer, chain, roller and lift modules work with mobile robots to connect AS/RS, production lines and dispatch areas. Rigid, high-capacity construction supports stable operation, with flexible layouts for high-throughput, high-volume pallet flows.



Roller Transfer



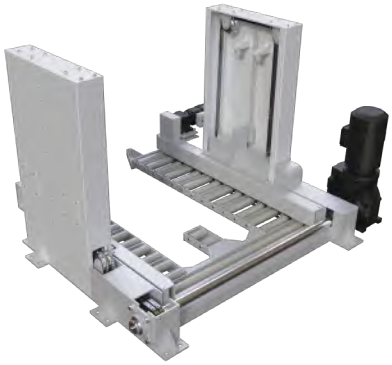
Electric Chain Lift Transfer



Dual-station RGV



Chain Driven Roller Conveyor



Floor-mounted Lift



Two-strand Chain Conveyor



Three-strand Chain Conveyor



Pallet Stacker / Destacker



Reciprocating Pallet Lift

Sorters

Loop Cross-belt Sorter

The GALAXIS loop cross-belt sorter combines an energy-efficient loop drive, servo-driven cross-belts and a low-noise carrier mechanism. With a capacity of 20,000 items/h per unit items/h per unit, it supports batch and destination sorting, increasing throughput for peak e-commerce and shopping festival demand.

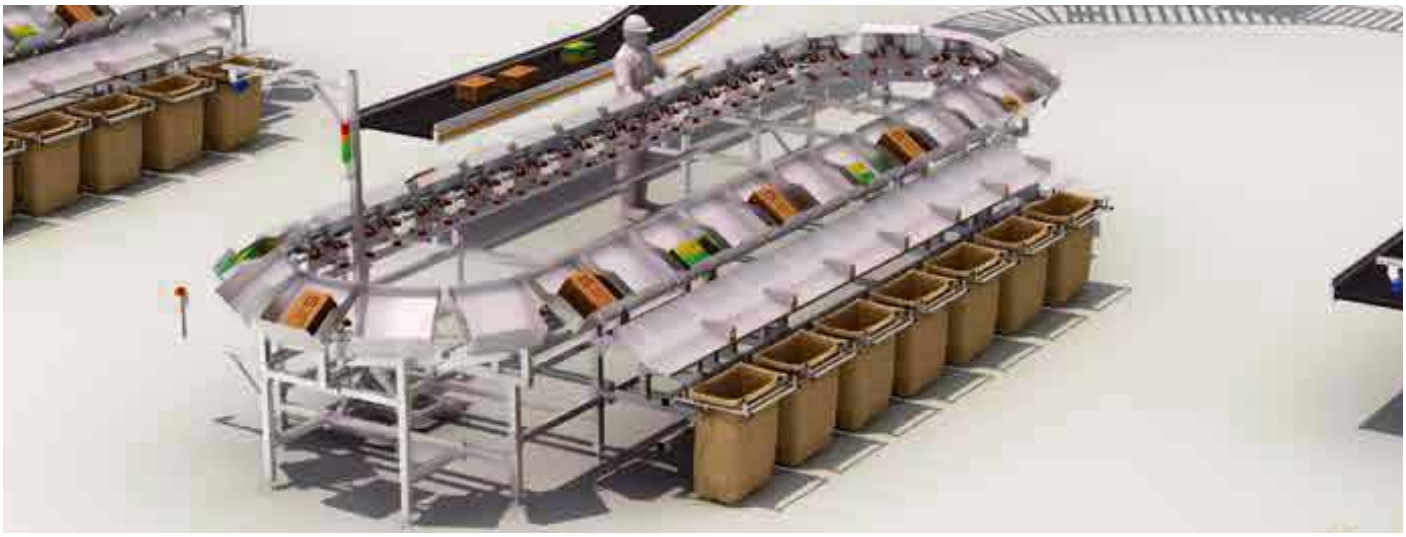


Specifications

Technical Specifications	Blitz CS Series
Operating Speed (m/s)	1.2～2.5
Item Weight (kg)	0.005～30
Carrier Pitch (mm)	500
Carrier Width (mm)	700
Belts per Carrier	1
Belt Acceleration (m/s²)	3
Min. Item Size (mm)	L100*W100*H1
Max. Item Size (mm)	L700*W350*H350
IBB/IOB Detection	Yes
3D Curve Section	Yes
Optional Incline / Decline Angle	±12°
Noise Level (dB)	≤68

Sliding Tray Sorter

This compact loop sorter combines performance, precision, flexibility and low energy use for small-item sorting. Four-sided tray walls accommodate soft packs, irregular items and a wide range of packaging.
Stable mechanics and lower investment support cost-effective handling of diverse products.



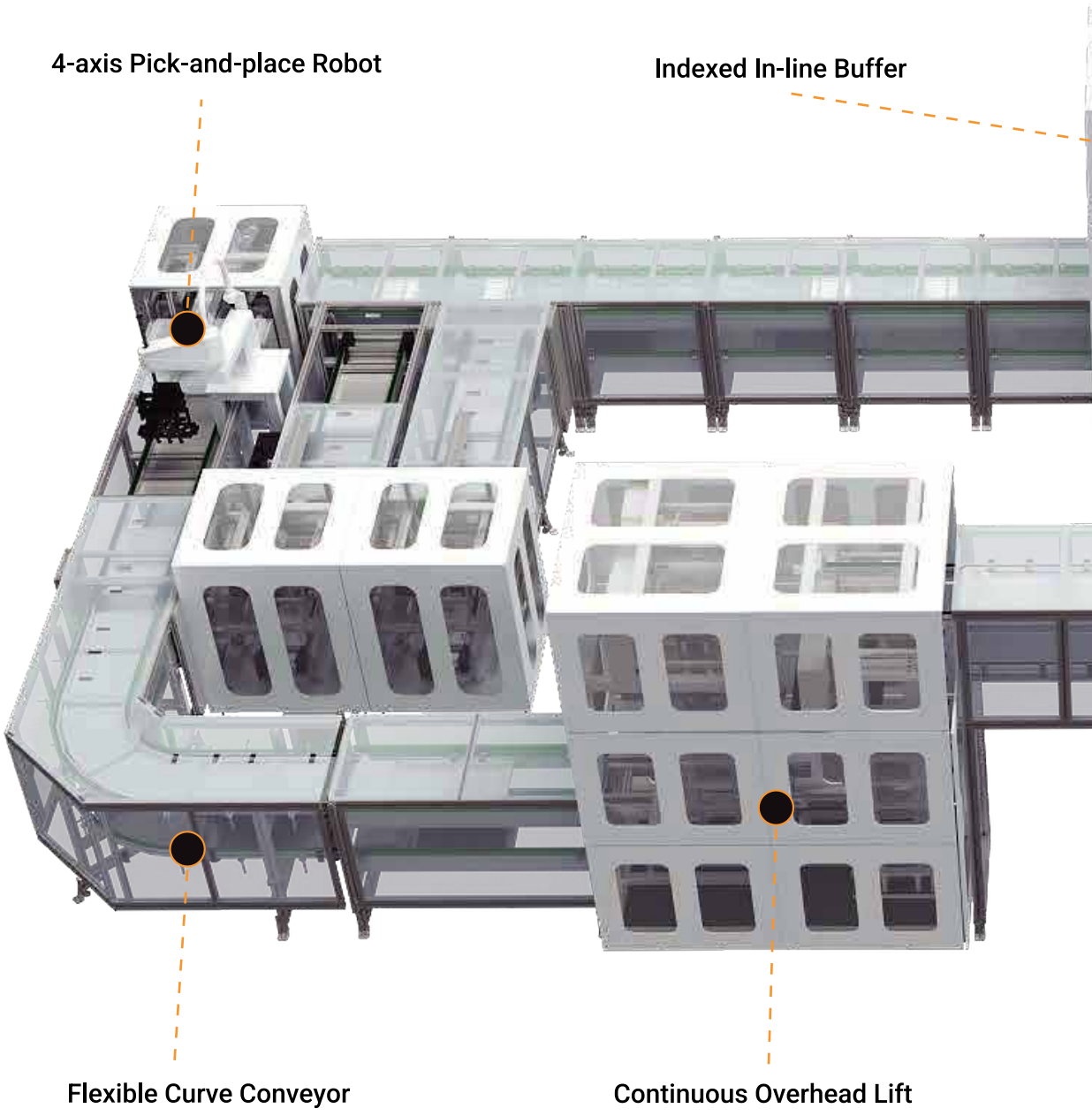
Specifications

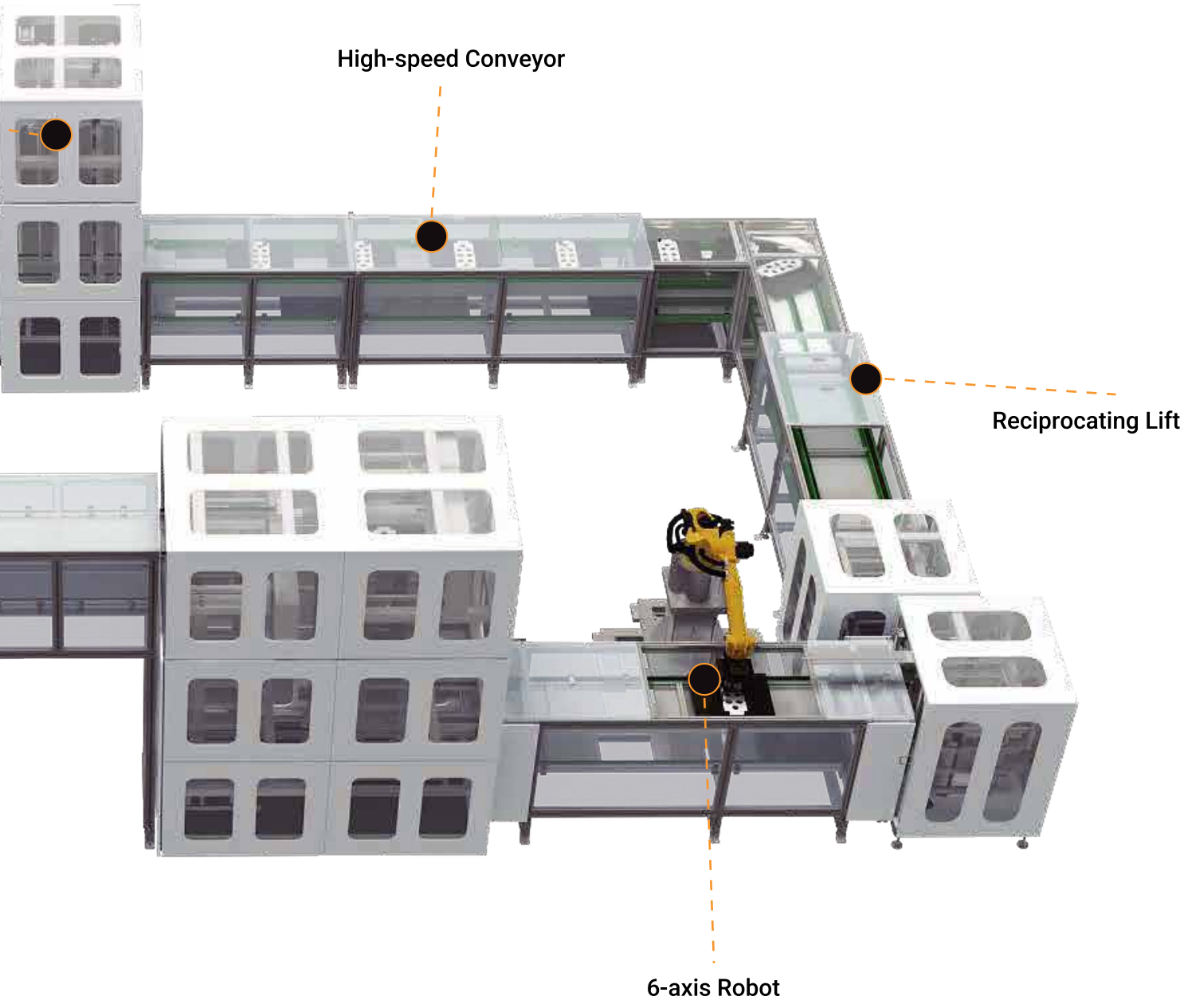
Technical Specifications	Blitz E600-TS-M Series
Mechanical Throughput	≥7,200 Carriers/h
Recommended Min. Item Size	L100×W100×H1 (mm)
Recommended Max. Item Size	L400×W400×H400 (mm)
Recommended Min. Item Weight	50g
Recommended Max. Item Weight	10kg
Item Types	Cartons, polybags, envelopes, parcels
Sorting Direction	Single-sided
Carrier Pitch	600mm
Power Supply	380 V Industrial Supply
Usable Carrier Dimensions	495mm*495mm
IP Rating	IP54
Sorting Speed	≤1.2m/s

Robotics for the New Energy Industry

High-speed Battery Cell Conveying

GALAXIS high-speed battery cell conveying uses zoned control and sensors to detect trays in each section. When a tray leaves the upstream section, the next section starts and transfers its tray forward. Independently driven conveying and acceleration zones carry one tray at a time to avoid collisions, tray displacement and accumulation. Distributed fieldbus control simplifies wiring and improves response speed.




High-speed Conveyor
Reciprocating Lift
6-axis Robot

Indexed In-line Buffer

Product Benefits

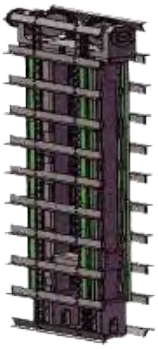
- Servo control for smooth motion and precise positioning
- Customisable multi-tray buffering
- Modular design for installation anywhere along the line
- Overhead layout saves floor space
- Storage/retrieval cycles as fast as 2 s/piece



Specifications

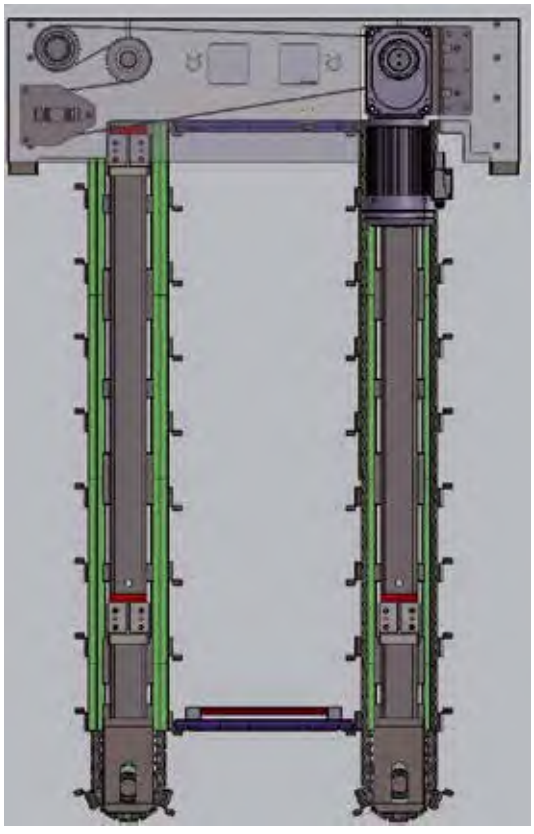
Parameter	Specification
Lift Speed (m/min)	15-40
Drive Type	Servo Motor
Conveying Method	High-strength Chain
Max. Load (kg)	600
Tray Size	Standard Trays (Customisable)

Modular Design



Synchronisation Mechanism

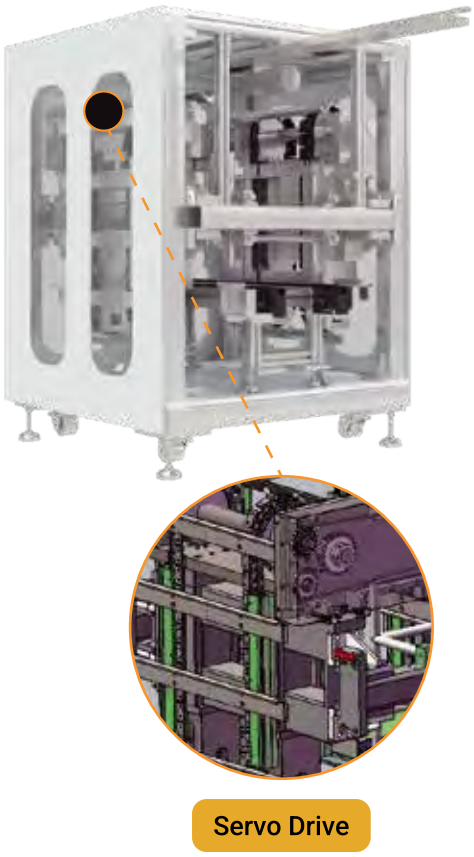
Servo Drive



Versatile Tray Compatibility



Continuous Lift



Product Benefits

- Tray transfer between two or more conveyor levels
- Single- or multi-tray handling with accumulation
- Supports different production cycle times
- Adjustable travel within range; custom designs available

Specifications

Parameter	Specification
Lift Speed (m/min)	0-50
Drive Type	Servo Motor
Conveying Method	Steel-cord Belt
Lift Height	Project-specific
Max. Permitted Load (kg)	120

Flat-belt Conveyor



Product Benefits

- Wear-strip support plates
- Stable high-speed operation
- Simple structure; easy installation and maintenance

Specifications

Parameter	Specification
Conveyor Speed (m/min)	18-45
Drive Type	VFD / Stepper / Servo Motor
Conveying Method	PU Belt
Conveyor Length (mm)	800/1200/1500/2000/2500 (Customisable)
Tray Size	Standard Trays (Customisable)

Zoned Powered Conveyor

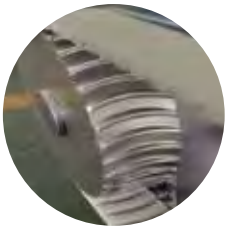
Product Benefits

- Curved teeth provide self-tracking belt alignment
- Combined blowing/suction airflow collects dust
- Rollers support the belt, replacing sliding with rolling friction to reduce friction

Specifications

Parameter	Specification
Conveyor Speed (m/min)	20-40
Drive Type	VFD / Stepper / Servo Motor
Conveying Method	Fabric-covered Toothed Belt
Conveyor Length (m)	750/1000/1500/2000/2500 (Customisable)
Tray Size	Standard Trays (Customisable)









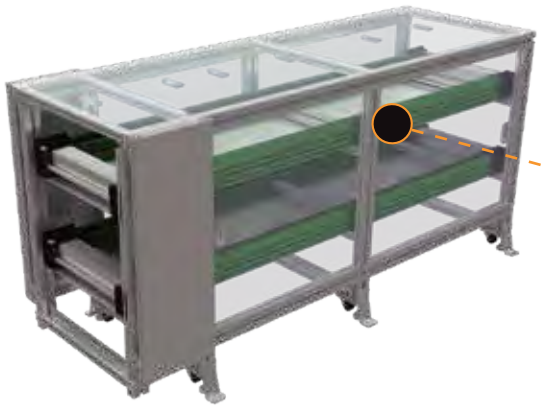
Attachment Chain Conveyor

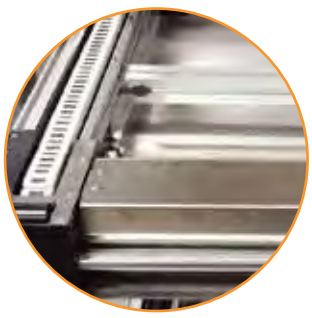
Product Benefits

- Stable attachment-chain conveying
- Rolling friction for quiet, dust-free operation
- Simple structure; easy installation and maintenance

Specifications

Parameter	Specification
Conveyor Speed (m/min)	18-45
Drive Type	VFD / Stepper / Servo Motor
Conveying Method	Attachment Chain Drive
Conveyor Length (mm)	800/1200/1500/2000/2500 (Customisable)
Tray Size	Standard Trays (Customisable)





Servo Drive

Flexible Curve Conveyor

Product Benefits

- Continuous curved tray conveying
- Maintains tray travel orientation
- Straight extensions can be added before and after the curve
- Custom configurations available

Specifications

Parameter	Specification
Conveyor Speed (m/min)	0-20
Drive Type	VFD Motor
Conveying Direction	Clockwise / Anticlockwise
Max. Permitted Load (kg)	90
Tray Size	Standard Trays (Customisable)



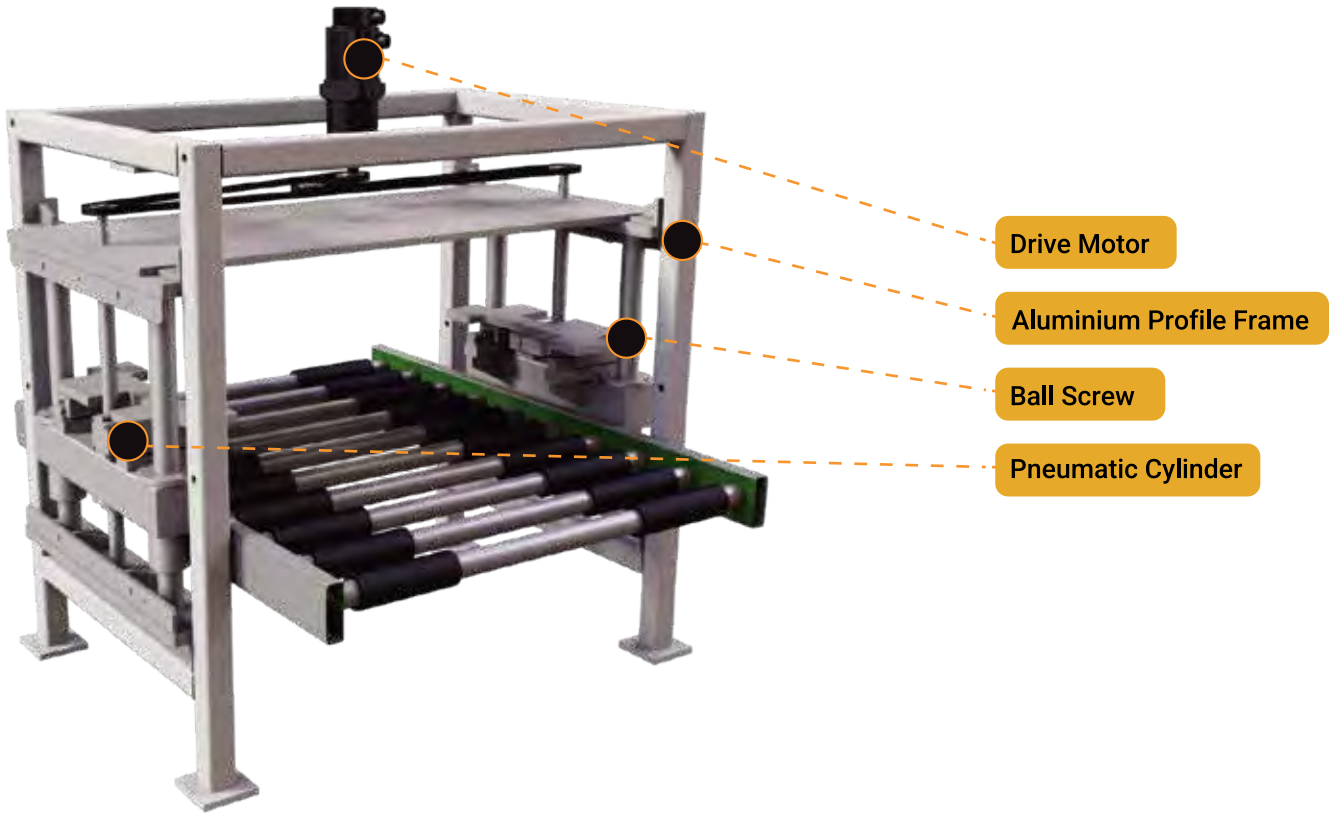
Tray Stacker / Destacker

Product Benefits

- Fast pneumatic clamping
- Dual motor-driven ball screws for precision and stability
- Coordinated, synchronised operation

Specifications

Parameter	Specification
Lift Speed (m/min)	12
Lift Drive	Motor
Clamp Drive	Pneumatic Cylinder
Transmission	Ball Screw
Surface Finish	Electrostatic Powder Coating
Roller Pitch	≤1/4 of Load Length (Subject to Design)



Flexible Material Transfer Line



The transfer line connects electrode die-cutting and stacking, reducing manual handling, transfer time and labour requirements.

- Lower manual handling costs and inter-process transfer time
- Compact footprint and flexible layouts
- Fast response between upstream and downstream processes
- Flexible support for customer-specific requirements
- Reduced metal dust contamination for safer batteries







Tray Stacker Cranes for the New Energy Industry

Designed for lithium battery formation, grading and ageing AS/RS, these tray stacker cranes combine speed, stability and lightweight construction. Payloads range from 200 to 500 kg and heights from 12 to 16 m. Rubber-coated wheels run on aluminium rails, with acceleration from 0.5 m/s² (single drive) to 1.0 m/s² (dual drive). Two subfamilies are available: aluminium-mast (I-D) and steel-mast (I-A).





Specifications

Model	D-ID.1.03	D-ID.3.03	D-ID.2.03	D-ID.4.03	D-IA.1.03	D-IA.3.03	D-IA.2.03	D-IA.4.03
Max. Payload	400kg	400kg	200kg	200kg	500kg	500kg	250kg	250kg
Equipment Height	12m	16m	12m	12m	16m	16m	16m	16m
Fork Type	Single Deep	Double Deep	Single Deep	Double Deep	Single Deep	Double Deep	Single Deep	Double Deep
Max. Travel Speed	3 m/s	3 m/s	3 m/s	3 m/s	3 m/s	3 m/s	3 m/s	3 m/s
Max. Travel Acceleration	1 m/s²	1 m/s²	1 m/s²	1 m/s²	1 m/s²	1 m/s²	1 m/s²	1 m/s²
Load Carrier	Standard Trays W, L ≤1000 mm				Standard Trays W, L ≤1200 mm			



Stacker crane for lithium battery formation and grading, with an armoured load platform and fire suppression.

Battery Cell Assembly Equipment

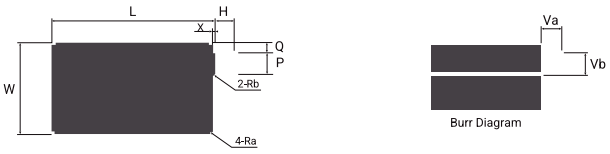
High-speed Automatic Die-cutting Machine



Specifications

Model	KLSHCQ390	KLSHCQ590
Throughput (pcs/min)	270-300	160-200
Formed Dimension Tolerance (mm)	±0.2	±0.2
Burr Size (μm)	Transverse Va <12; Longitudinal Vb <10	Transverse Va <12; Longitudinal Vb <10
Max. Electrode Roll Size (mm)	Φ700	Φ700
Die Service Life	2 Million Strokes / Service; 10 Regrinds; 20 Million Total	
Cutter Life	2 Million Strokes / Service; 10 Regrinds; 20 Million Total	
Equipment Availability	98.0%	
Product Yield	99.5%	
Dimensions (mm)	7000x1800x2400	

Supported Cell Dimensions

Cell Dimension Diagram		
Electrode Width W (mm)	65-240	80-200
Electrode Length L (mm)	100-350	250-590
Tab Height H (mm)	≤30	
Tab Width P (mm)	15-80	
Tab Edge Distance Q (mm)	5-30	
Tab Material Extension X (mm)	0-3	
Electrode Corner Radius Ra (mm)	2-5	
Electrode Corner Radius Rb (mm)	2-5	

Product Benefits

- Up to 300 cuts/min with in-line vision inspection, with competitive throughput performance
- Multi-point automatic alignment for precise electrode cutting
- Multi-stage dust extraction reduces electrode contamination
- 80% standard modules and 20% customisation for stable operation and application flexibility

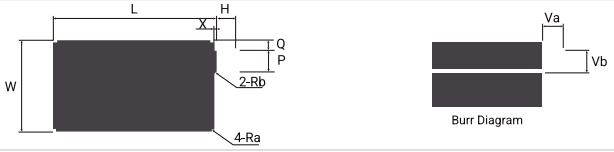
High-performance Die-cutting Machine



Specifications

Model	KLSHCQ650
Electrode Width W (mm)	80-200/±0.2,CPK≥1.33
Electrode Length L (mm)	300-650/±0.2,CPK≥1.33
Tab Shoulder Width Dt (mm)	0-50/±0.2mm,CPK≥1.33
Tab Width Wt (mm)	20-100mm/±0.2mm,CPK≥1.33
Throughput (pcs/min)	150-180
Total Die Life (Strokes)	Total Life >15 Million Strokes
Transverse Die-cut Dimension Va	≤12 μm (Relative to Foil)
Longitudinal Die-cut Dimension Vb	≤10 μm (Relative to Foil); >500,000 Strokes per Service
Total Die-cutting Life	Total Life >15 Million Strokes
Transverse Cutting Burr	≤12 μm (Relative to Foil)
Longitudinal Cutting Burr	<10 μm (Relative to Foil); >500,000 Strokes per Service
Dimensions (mm)	7280x1700x2460
Product Yield	≥99.5%
Failure Rate	≤3%

Supported Cell Dimensions

Cell Dimension Diagram	
Electrode Width W (mm)	80-150
Electrode Length L (mm)	400-620
Tab Height H (mm)	≤30
Tab Width P (mm)	15-80
Tab Edge Distance Q (mm)	3-50
Tab Material Extension X (mm)	0-3
Electrode Corner Radius Ra (mm)	2-5
Electrode Corner Radius Rb (mm)	2-5

Product Benefits

- Vertical or horizontal configurations suit workshop layouts
- Dynamic cam-curve correction
- XFC sampling technology supports precise control
- Constant-speed virtual master axis for smooth, fast operation

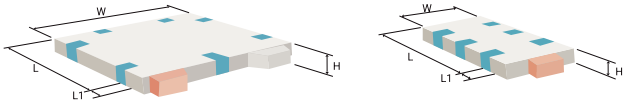
Dual-station High-speed Stacking Machine



Specifications

Model	KLSHQDP390
Cycle Time (s/piece)	(0.45-0.6)
Auxiliary Time per Cell (s)	<7.5
Separator Edge Alignment (mm)	±0.3
Adjacent Electrode Alignment (mm)	±0.2
Overall Electrode Alignment (mm)	±0.3
Equipment Availability	95.0%
Product Yield	99.5%
Dimensions L x W x H (mm)	5500x2500x2300

Supported Cell Dimensions

Cell Dimension Diagram	
Electrode Width W (mm)	80-200
Electrode Length L (mm)	250-390
Cell Thickness H (mm)	8-20
Exposed Tab Length L1 (mm)	≤30

Product Benefits

- 3-5 s unloading auxiliary time versus 8-10 s for comparable equipment, improving throughput
- CCD in-line inspection at ±0.05 mm precision
- Special suction-cup materials leave no marks on electrodes
- U-shaped taping produces tighter cell stacks

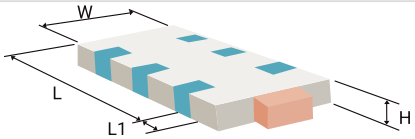
Blade Cell Stacking Machine



Specifications

Model	KLSHQDP650-A
Cycle Time (s/piece)	(0.7-0.8)
Auxiliary Time per Cell (s)	<10
Separator Edge Alignment (mm)	±0.3
Adjacent Electrode Alignment (mm)	±0.2
Overall Electrode Alignment (mm)	±0.3
Equipment Availability	95.0%
Product Yield	99.5%
Dimensions L x W x H (mm)	6500x3200x2200

Supported Cell Dimensions

Cell Dimension Diagram	
Electrode Width W (mm)	80-160
Electrode Length L (mm)	300-620
Cell Thickness H (mm)	8-23
Exposed Tab Length L1 (mm)	≤30

Product Benefits

- Auxiliary time 30% shorter than comparable equipment
- CCD in-line inspection at ±0.05 mm precision
- Wide electrode size range improves equipment utilisation
- Integrated die-cutting and stacking support, with >98% electrode transfer yield between processes
- 80% standard modules and 20% customisation

Large-format Cell Stacking Machine

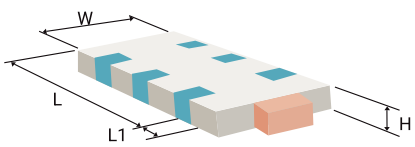


Specifications

Cell Width W (mm)	400-800
Cell Length L (mm)	220-400
Cell Thickness H (mm)	8-16
Cell Tab Length L1 (mm)	8-20
Cycle Time (s/piece)	Overall: 0.6-0.7 s/piece; Per Station: 1.2-1.4 s/piece
Adjacent Electrode Alignment (mm)	±0.20
Auxiliary Time per Cell (s)	6-10
Separator Alignment (mm)	±0.25
Overall Cell Stack Alignment	±0.3
Electrode / Separator Centre Alignment	±0.3
Dimensions (mm)	6000x4500x3060
Product Yield	≥99.5%

Product Benefits

- Large-format lithium cells up to 400 x 800 mm
- CCD in-line inspection at ±0.05 mm precision
- Automatic loading/unloading reduces transfer time
- Suitable for defence, aerospace and marine applications
- Supports semi-solid-state battery production and inspection



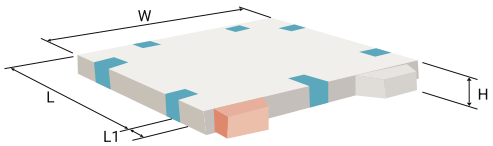
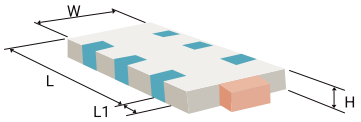
Integrated Cutting & Stacking Machine



Specifications

Model	GTQDYT390	GTQDYT590
Overall Cycle Time (s/piece)	0.15-0.2	0.23-0.26
Separator Edge Alignment (mm)	±0.3	±0.3
Adjacent Electrode Alignment (mm)	±0.2	±0.2
Overall Electrode Alignment (mm)	±0.3	±0.3
Equipment Availability	95.0%	95.0%
Product Yield	99.5%	99.5%
Dimensions L x W x H (mm)	14000x4500x2300	14900x4500x2300

Supported Cell Dimensions

Cell Dimension Diagram		
Electrode Width W (mm)	80-200	80-200
Electrode Length L (mm)	250-390	350-560
Cell Thickness H (mm)	8-20	8-20
Exposed Tab Length L1 (mm)	≤30	≤30

Product Benefits

- Integrates unwinding, die-cutting, cutting, stacking, hot pressing, taping and unloading
- Closed-loop CCD in-line dimensional inspection
- CCD inspection precision: ±0.05 mm
- Balanced pressure control distributes force evenly
- Taping or adhesive dispensing options improve unloading efficiency
- 80% standard modules and 20% customisation



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