



SMART BEE

ORBIX 900

Carousel Inventory Solution

High-density carousel storage for centralized,
fast material access.



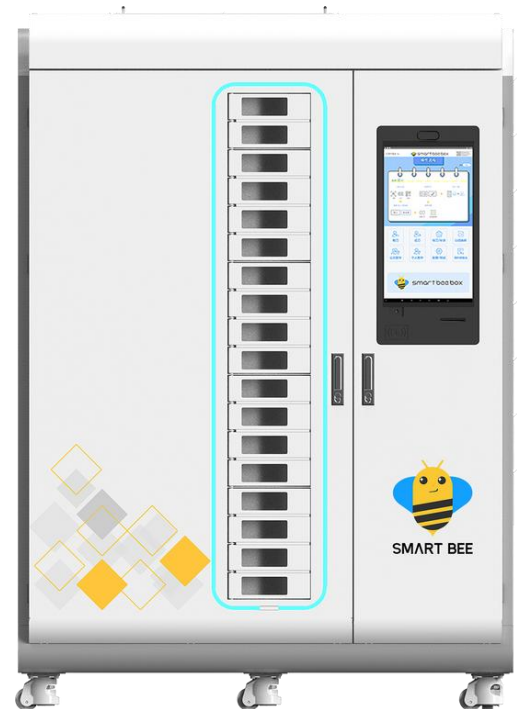


ORBIX 900

360° Carousel System for High-Density Material Storage

Key Benefits:

- 01 Operation efficiency improvement: 24/7 availability, save your time and labor.
- 02 Cost reduction: Save on materials, inventory, and supply chain operations—see measurable results in just 30 days.
- 03 Full traceability: Keep track of all your items and get instant insights with automated reports.



Suitable Materials

- Electronic components
- Spare parts
- Precision tools
- Cutting tools
- Hardware
- PPE
- Mold accessories
- Sample parts



1. Dimensions & Capacity

Item	Spec.
Overall Dimensions (H*W*D)	1900*1350*1100 (mm)
Expansion Cabinet Dimensions (H*W*D)	1900*1150*1100 (mm)
Pick-Up Door	18 layers, up to 50 small bin compartments per layer
Side Compartments (H*W*D)	32 compartments 118*150*240 (mm)
Capacity	Up to 900 SKUs
Load Capacity	Min. compartment load: 0.5 kg Max. compartment load: 10 kg
Expansion Capability	MAX. 1 main cabinets + 7 expansion cabinets



1.1 Expansion Capability



EXPANSION CAPABILITY

Shown configuration: 1 Main Cabinet + 3 Expansion Cabinets

Maximum configuration: 1 Main Cabinet + Up to 7 Expansion Cabinets



2. Industrial All-in-One Configuration

Item	Spec.
Display	18.5" Embedded Display
Aspect Ratio	16:9
Resolution	1920×1080
CPU	Rockchip RK3288 Quad-Core, 1.8 GHz
Memory	4GB + 16GB
OS	Android 7.1.2
I/O Interfaces	4×RS485 DB9, 2×RS232 DB9



3. Electrical Protection & Power System

Item	Spec.
Residual Current Circuit Breaker (RCCB)	NXBLE-63 / C20 / 2P / 30 mA (CE Certified, Chint)
Surge Protective Device (SPD)	NXU-IG / 40 kA / 275 V / 2P (CE Certified, Chint)
EMI Filter	YB21D5-20A-S1, 115/250 V, 20 A
Switching Power Supply	12 V / 100 W (Input: 110-230 V) 24 V / 75 W (Input: 110-230 V) 24 V / 100 W ×2 (Input: 110-230 V)



4. Control & Drive System

Item	Spec.
Control Module	Delta PLC
Drive System	Delta Servo Drive
Servo Motor	Delta Servo Motor
Photoelectric Sensor	E3Z-G61, Sensing Distance 2 m
Door Control Switch	KBM-X123-A-W-1



5. Peripherals & Interactive Components

Item	Spec.
Electronic Lock	ZL28 Lock ×42, Latch Depth 26 mm
Antenna	Suction Cup Antenna ×2
Camera	2MP AI Capture Camera (Integrated on Display)
Printer	MS-N58VII (Integrated on Display)
Card Reader	IC Card Reader (Integrated on Display)
Scanner	E610 Barcode Scanner (Integrated on Display)



6. Lighting & Indication System

Item	Spec.
Compartment Lighting	24 V LED Light Bar (PLC-controlled, dimmable via dimmer)
Indicator Lights	24 V Light Bar (Fluorescent Green, 6500 K) ×18
Indicator Lights	24 V Light Bar (Fluorescent Green, 6500 K) ×18
Control Method	PLC Control Switch



7. Network & Interfaces

Item	Spec.
Network Support	Dual Network
Network Mode	Ethernet Intranet + 4G / WiFi Extranet
Ethernet Port	RJ45 ×1 (10/100 M Auto-negotiation)
USB Interface	USB ×2
Power Cord	National Standard Power Cord, 3 m Length



8. Electrical Control Parameters

Item	Spec.
Electronic Lock Power Supply	12 V Power Supply via Control Board
Industrial All-in-One Power Supply	12 V DC Switching Power Supply
PLC Module Power Supply	220 V Direct Supply
Door Lock Communication	RS485 (DB9)
Light Bar Power Supply	12 V (Connected to Switching Power Supply via Relay)
Cabinet Input Voltage	AC 220 V (Transformer required for 110 V)
Cabinet Output Voltage	DC 12-24 V
Operating Temperature	-20 °C ~ +60 °C
Operating Humidity	40% ~ 60%
Power Consumption	Standby Power: Approx. 60 W; Maximum Power: Approx. 150 W

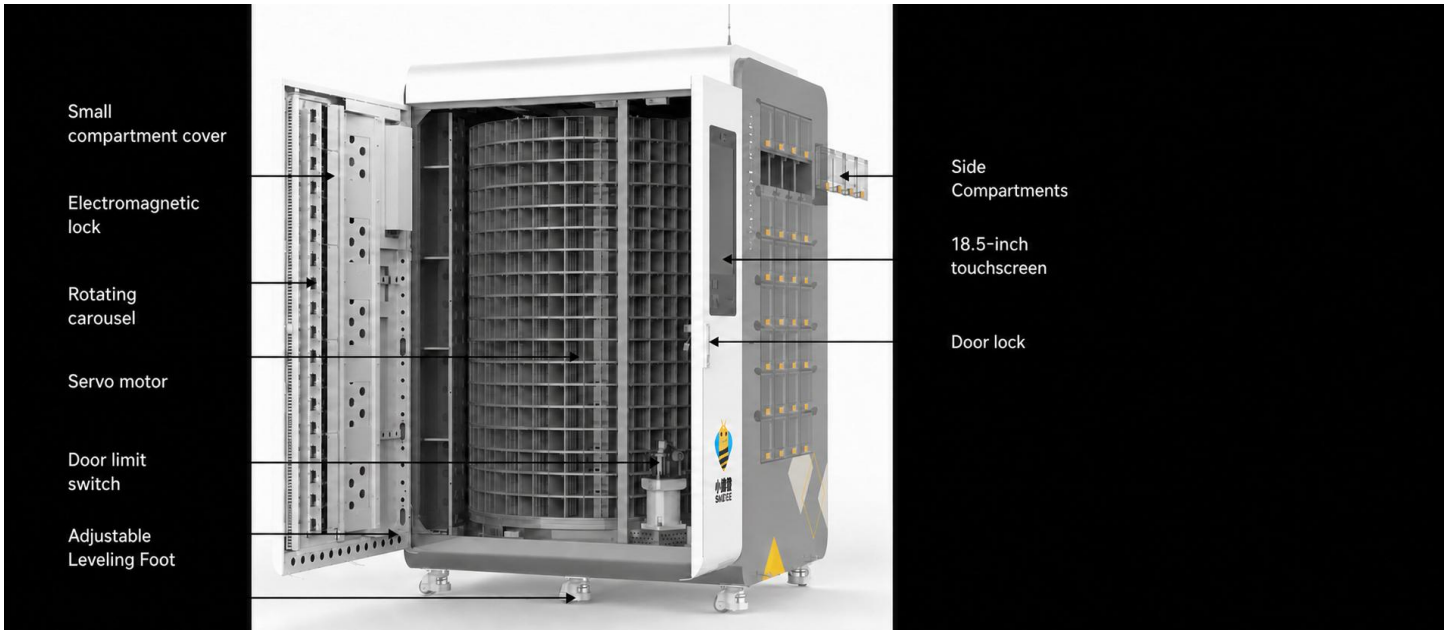


9. Cabinet Structure & Appearance

Item	Spec.
Appearance Design	Safe rounded corner design, high-quality sheet metal
Surface Treatment	Pickling, Phosphating, Electrophoresis, Spraying
Cabinet Color	Light Orange Grain Silver Gray (RAL 9006-1) Light Orange Grain White (RAL 9003)
Logo Marking Process	Screen Printing
Chamfering Method	Rounded Corner



9.1 Cabinet Structure – Main Components



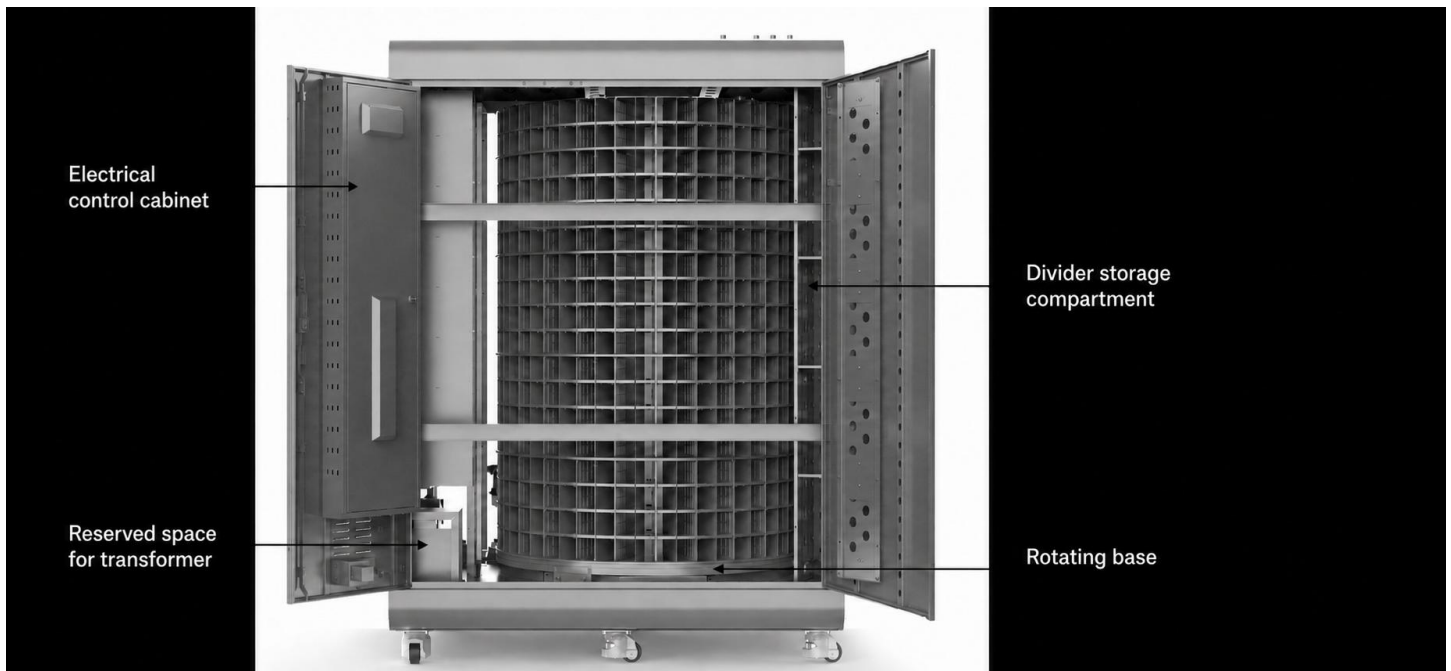
DESIGN OVERVIEW

Core mechanical, drive, access, and security components are integrated into one cabinet for reliable daily operation.

Rotating carousel • Servo drive • Controlled access



9.2 Cabinet Structure – Internal Layout



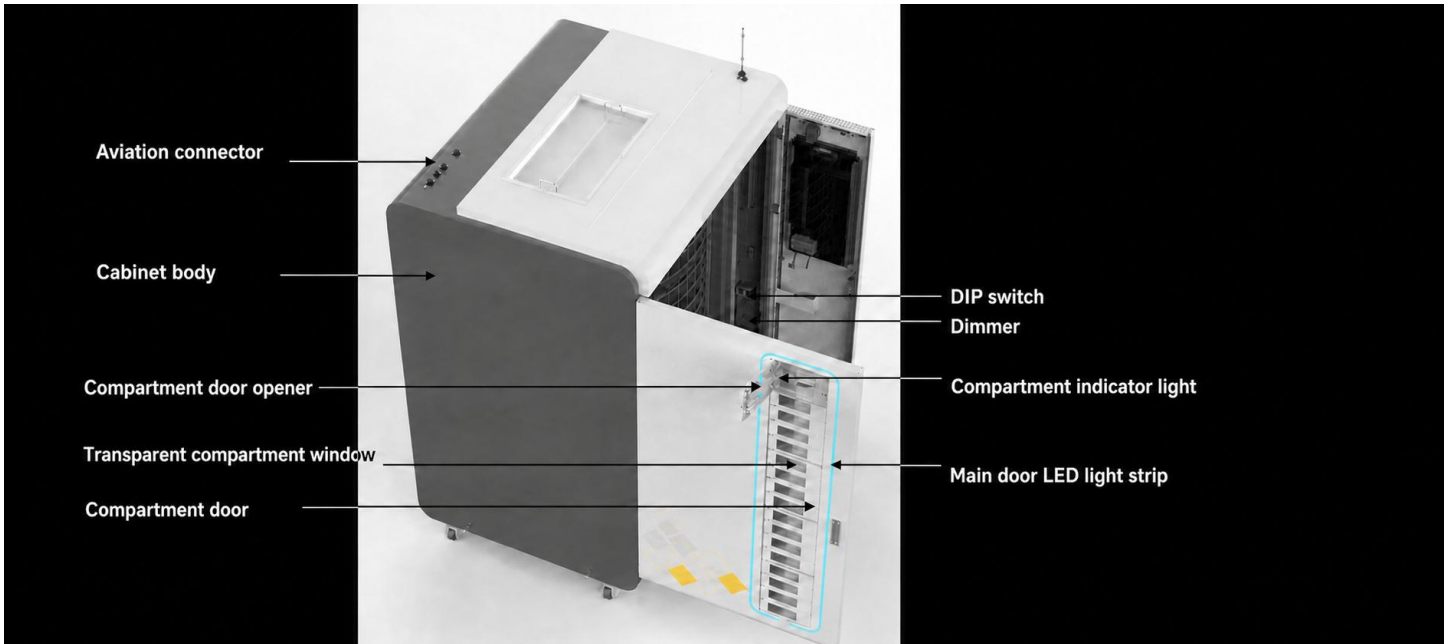
DESIGN OVERVIEW

The storage carousel, electrical control cabinet, and service space are arranged for efficient storage and straightforward maintenance.

Electrical control • Divider storage • Rotating base



9.3 Cabinet Structure – Access & Interface Components



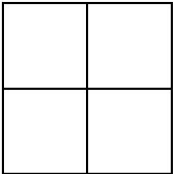
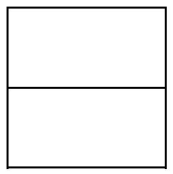
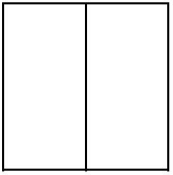
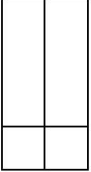
DESIGN OVERVIEW

User-facing access components, status lighting, and external interfaces support clear, controlled operation.

Guided access • Status indication • Service-ready interfaces

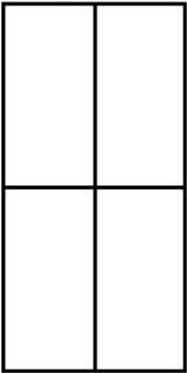
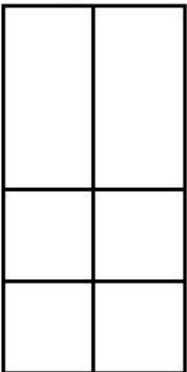
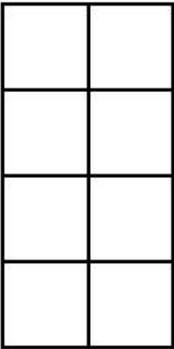


Bin Configuration

Bin Type	Back Width (mm)	Front Width (mm)	Depth (mm)	Height (mm)
	25	58	267	70
	55	123	267	70
	25	58	267	153
	55	123	267	153
	55	123	267	307
	25	58	267	70/228

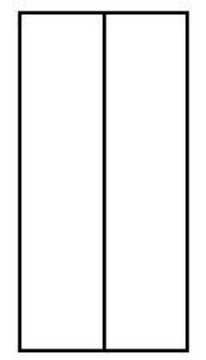


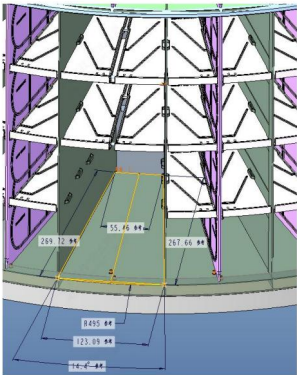
Bin Configuration

Bin Type	Back Width (mm)	Front Width (mm)	Depth (mm)	Height (mm)
	25	58	267	148/151
	25	58	267	70/151
	25	58	267	70



Bin Configuration

Bin Type	Back Width (mm)	Front Width (mm)	Depth (mm)	Height (mm)
	55	123	267	70
	25	58	267	307



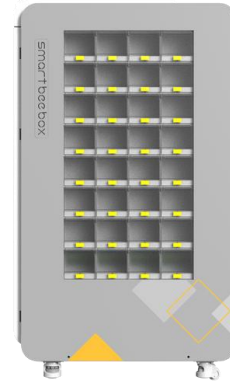
Max planar size:
isosceles trapezoid
123 (bottom) × 55 (top) × 267 (H) (mm)



Feature Highlights

01 High-Capacity Material Storage

One unit handles 900 material types with smart rotation and vertical space reuse, maximizing storage efficiency while minimizing footprint.



02 Flexible Compartment Configuration

Each layer has preset divider slots for flexible compartment sizing, making one cabinet adaptable to various materials and multi-spec storage needs.



03 Smart Rotary Access

Automatic item delivery. Less work. Faster, accurate retrieval.

04 Auto Records, Real-time Tracking

Quickly import material data using templates and automatically track consumption trends and employee usage rankings – every operation is recorded for full traceability.



SMART BEE

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SmartBee

Shenzhen Danfoo Technology Co., Ltd.

WEBSITE

www.smartbee.group

EMAIL

mkt@smartbee.group

ADDRESS

Room 1201, Skyworth Digital Building, Shiyan street,
Bao'an District, Shenzhen, Guangdong

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