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How digitalization can improve industry safety

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Content

Digitalization in R&D

Digitalization in the MEWP industry

Digitalization in After-sales Service

Sinoboom Intelligent Manufacturing

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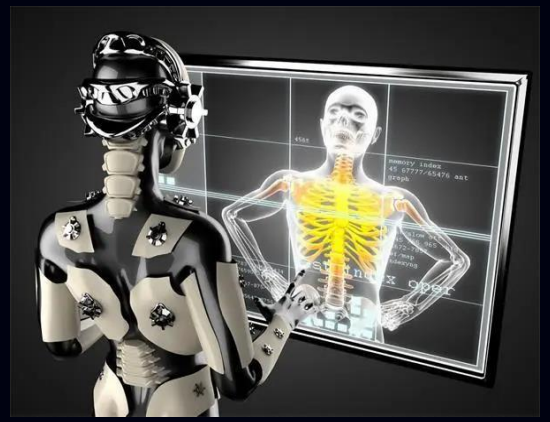
PART 01

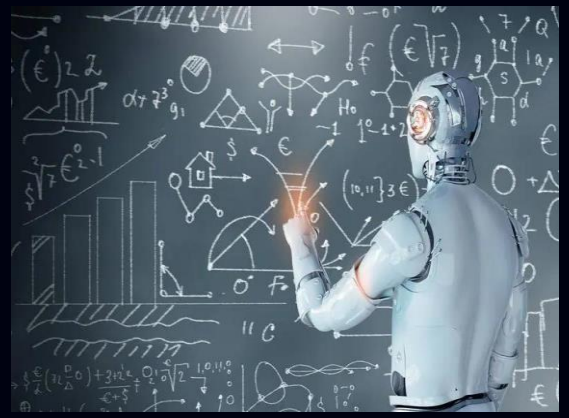
Digitalization in the MEWP industry

Digitalization in other industries

Medical industry



Educational industry



Car industry

Safety and security industry

Digitalization in the MEWP industry

Automatic control

Such as automatic positioning, automatic balancing, automatic raising and descending

Visual recognition

Timely detection and avoidance of potential dangers, improving safety

Intelligent maintenance

Achieving more accurate and timely maintenance management

Data analysis

Optimization of operation processes, improving operation efficiency

Remote monitoring

Effectively reducing operation risks and difficulties, improving operation safety and efficiency

Traditional MEWP industry

High risk

Low efficiency

Low flexibility

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Digitalization in the MEWP industry

More intelligent

More safety

More flexibility

More sustainability

Higher penetration rate

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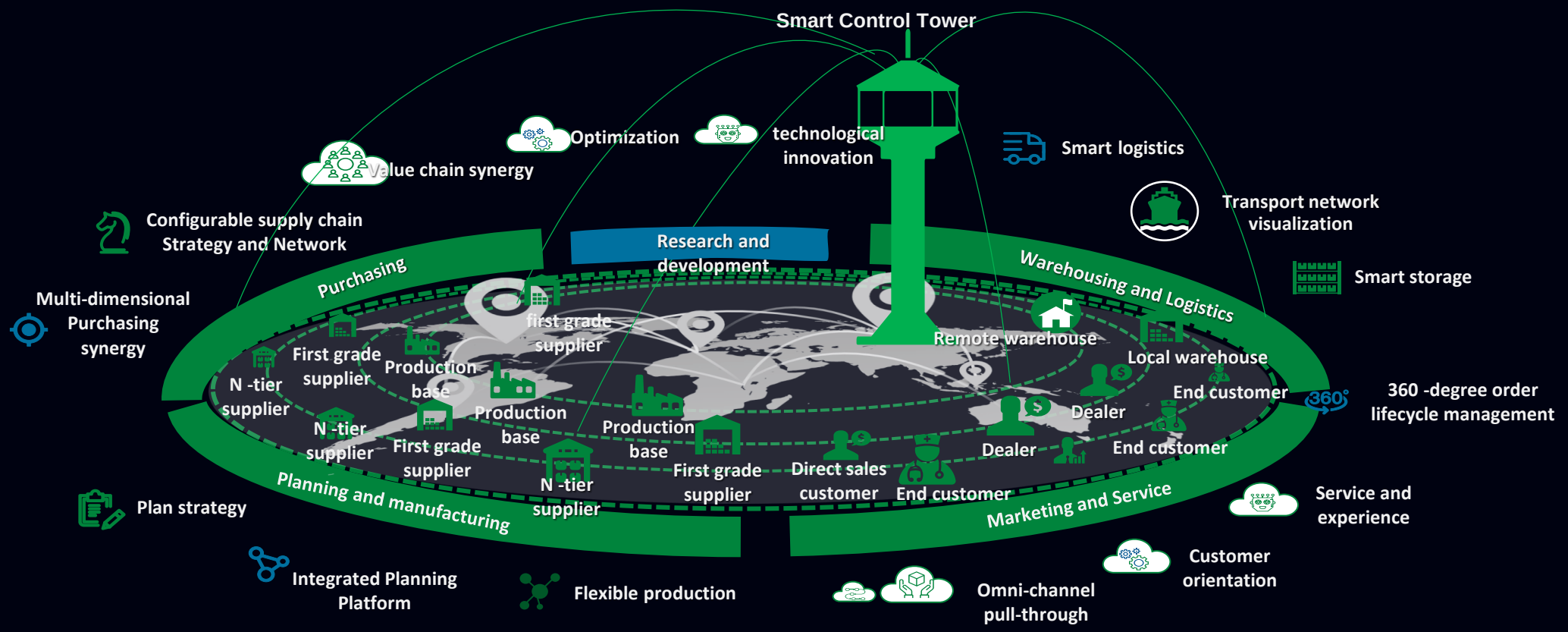
Digitalization in Sinoboom

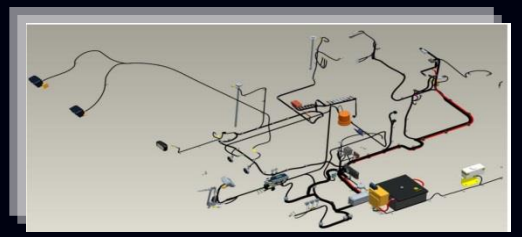


PART 02

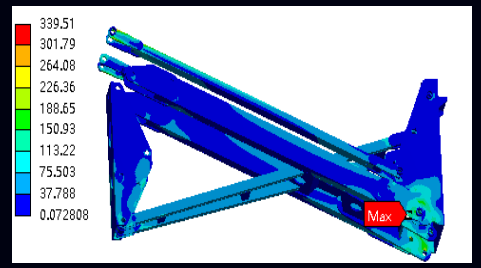
Digitalization in R&D

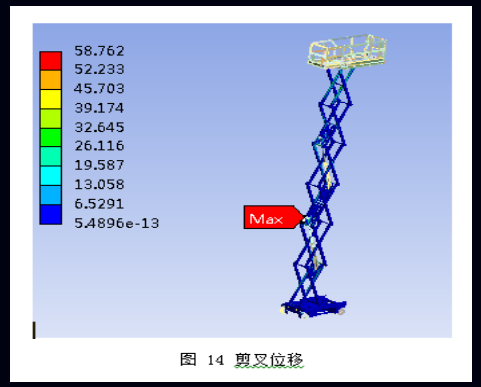
Digitalization in R&D

By using software tools such as 3D design and simulation analysis, closed-loop management is achieved through 3D modeling analysis, test verification, and optimization, which improves the accuracy of design and R&D efficiency, while also ensuring the safety and reliability of products.



3D modeling





Calculation and simulation

Rigorous test validation

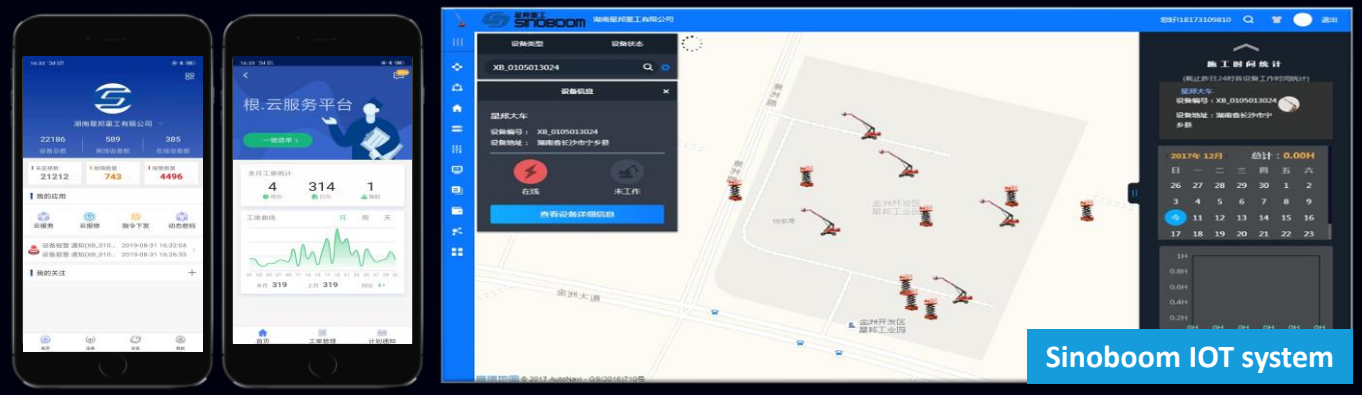
Digitalization in R&D

Security --- safe and smart

Intelligent application

- **Sinoboom IOT system:** Efficient management and monitoring of user behavior through telematics data, enabling data interaction and monitoring management among clients, products, operation management, and partners. Facilitates enterprise management upgrades, and network-based connection with partners and customers.

Smart wearables



Sinoboom IOT system

Intelligent anti-collision

Triple intelligence

Job intelligence

Automatic load curve identification and matching of working range. One-button HV function, intelligent voice control.

Safety intelligence

Intelligent anti-collision, intelligent wearables, intelligent recognition of terminal speed reduction.

Management intelligence

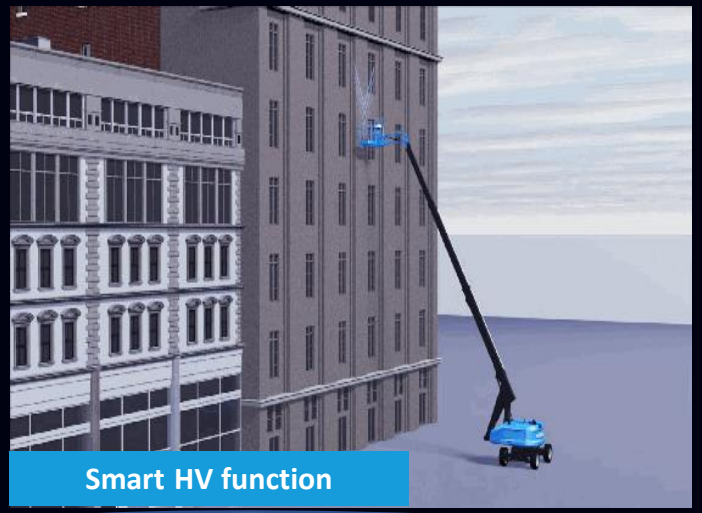
Sinoboom IOT system: client, product, operation management and partner side through the cloud platform data interaction and monitoring management.

Digitalization in R&D

Security --- security intelligence

Intelligent application

- **HV function:** Intelligent control of the combined boom luffing and telescoping actions. Compared with the traditional boom, the working track of the boom is arc-shaped, and it can be automatically controlled as a straight line under the HV function. It can be widely used in glass curtain wall construction, hull surface painting and other working conditions.



The development trend of artificial intelligence application in the field of aerial work

Pure manual operation	Automatic completion of local actions	Simple voluntary actions under ideal conditions	Autonomous movement in impaired environments	Autonomous movement and operation in complex environment	Completely unmanned autonomous walking and operation

PART 03

Sinoboom Intelligent Manufacturing

Sinoboom Intelligent Manufacturing

Smart manufacturing

MANUFACTURE END TO END BUSINESS PULL THROUGH

Production Plan → Production preparation → Production execution → Exception management → Production completed

- Quality control of incoming materials to ensure the quality and safety of parts and components
- Refined management of the production process, ensuring product quality accuracy and traceability of production process quality and safety
- Initial and final inspection of the production line; quality and safety control throughout the entire process

CORE BUSINESS SCENARIOS

Informatization			Digitizing			Intelligent		
5	Automatic reporting	C	1	Dynamic automatic scheduling	B	8	Intelligent equipment management	E
6	Feed on demand	F	2	Production Planning Simulation	A	9	Equipment preventive maintenance	E
7	Production exception management	E	3	Factory digital twin	D	10	Factory cockpit	D
			4	Factory IoT	G			

BUSINESS TARGET VALUE

Informatization	Digitizing	Intelligent
Business process automation and online, **the system** reflects the production status in real time	Interconnection between systems **improves collaboration efficiency**	Utilization of new technologies such as big data and artificial intelligence to **reshape business capabilities**

Sinoboom Intelligent Manufacturing

Sinoboom Intelligent Manufacturing Park

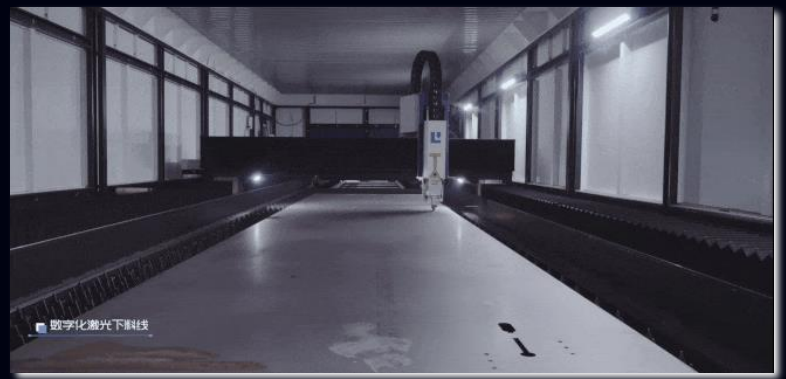
Covered area **1.2m sqm**

Total investment **900 million USD**

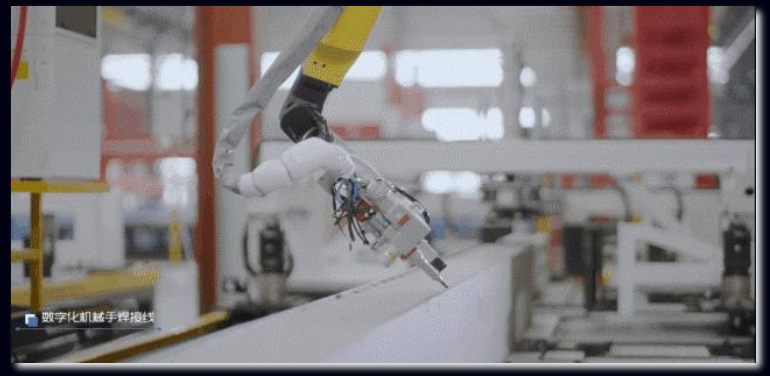
Annual output **80,000 units**

Sinoboom Intelligent Manufacturing

Intelligent uploading



Intelligent cutting



Intelligent welding

Intelligent painting

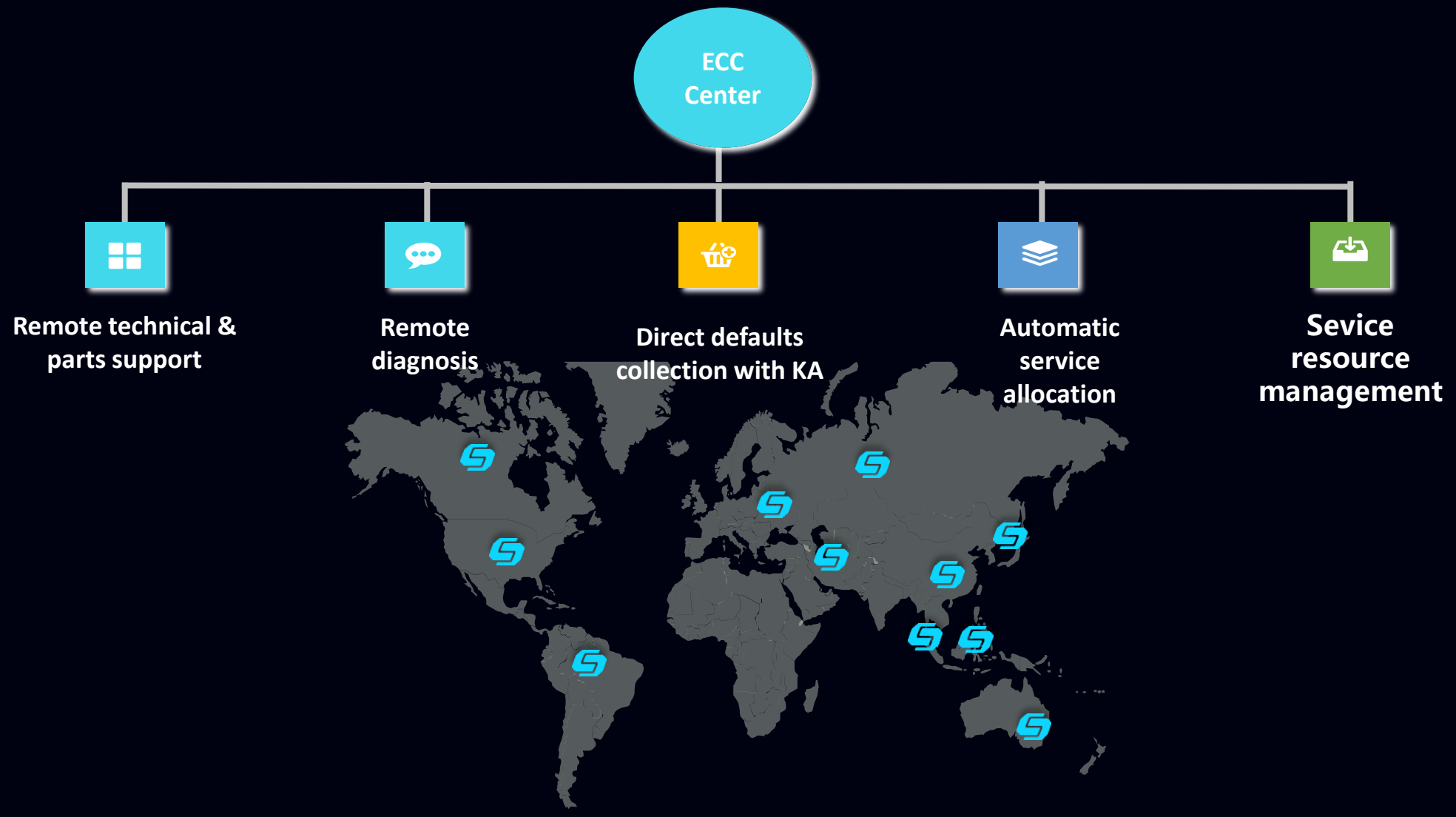
Intelligent assembly

Intelligent delivery

PART 04

Digitalization in After-sales Service

Digitalization in After-sales Service



Digitalization in After-sales Service

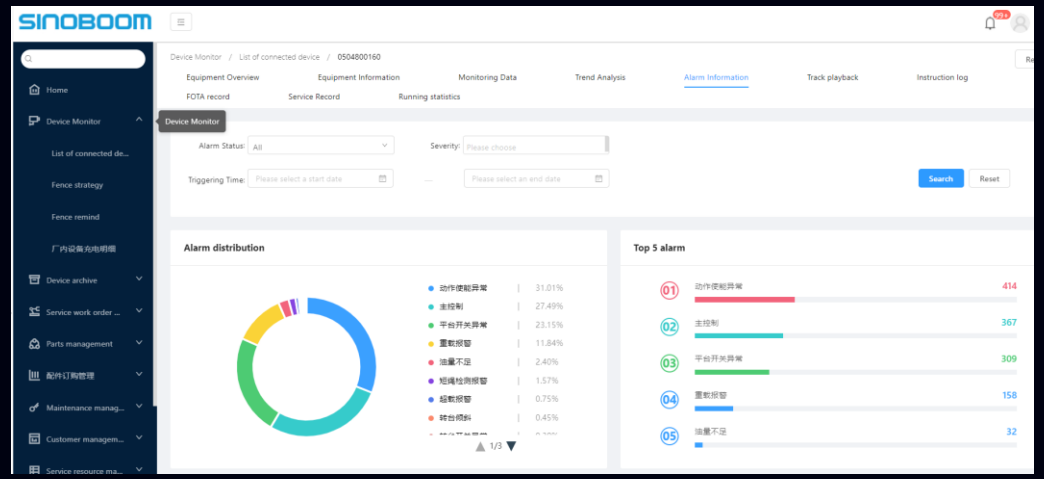
Sinoboom product intelligent management platform

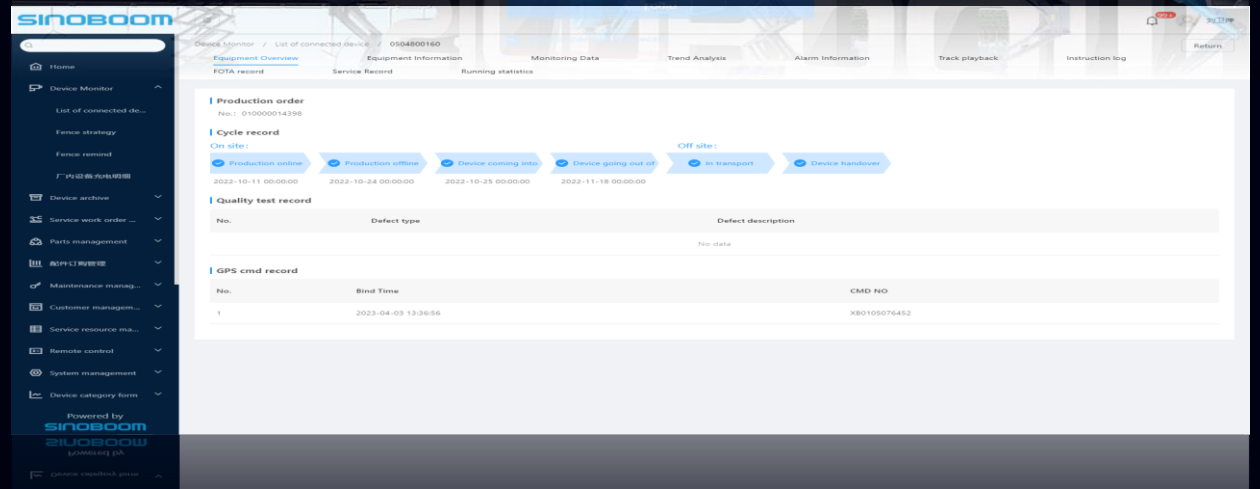
The “Sinoboom Intelligent ECC Big Data" platform enables monitoring of the manufacture status, factory operation, global equipment usage, providing worldwide customers with equipment digital services (such as real-time data, alarm information, trend analysis, etc.). Allows the convenient understanding of equipment usage without leaving home, and safer and more efficient equipment management.

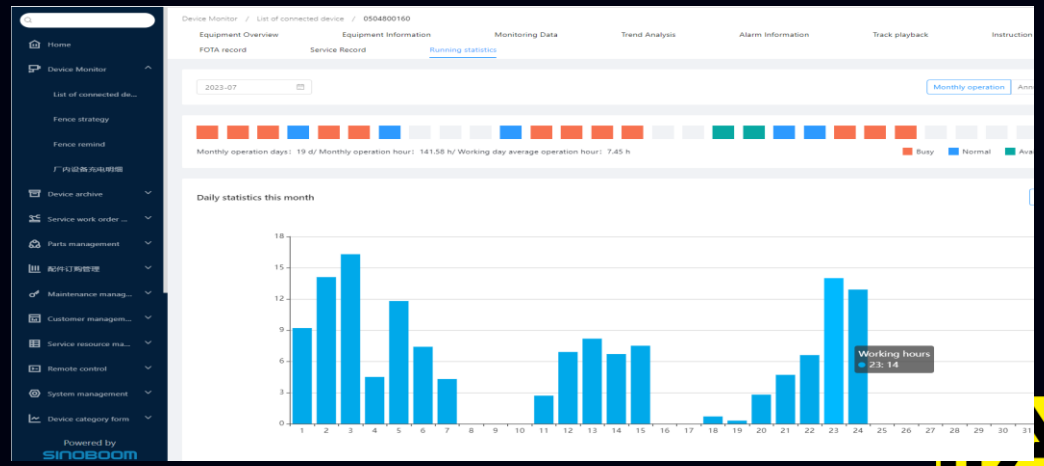
Digitalization in After-sales Service

Aftermarket digital support system - equipment life cycle management

A strong aftermarket system is also a guarantee to ensure the safety of equipment use. From the start of the equipment on-line production, the key node information is synchronized to the after-market intelligent management platform through SAP. The management of the whole life cycle of the equipment is realized, from production, transportation, delivery and use, and recording all the information in the process of equipment use in detail, so that the equipment is always in a state of safety and can be used with peace of mind.



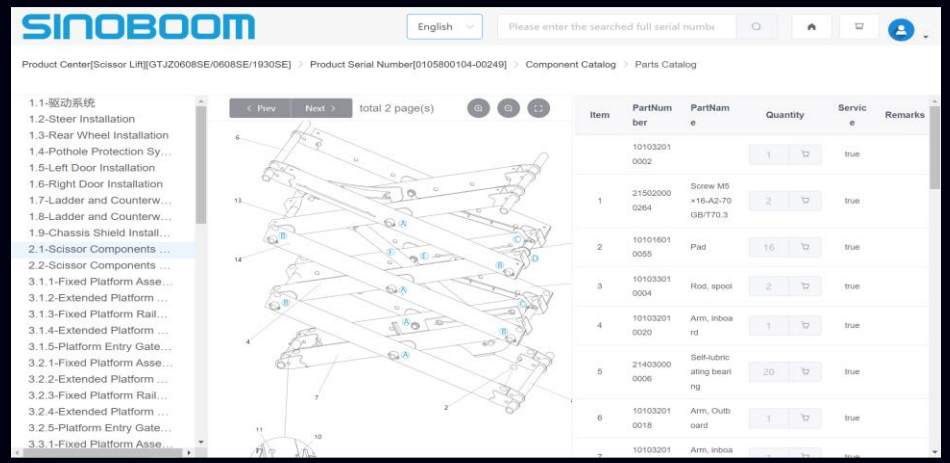


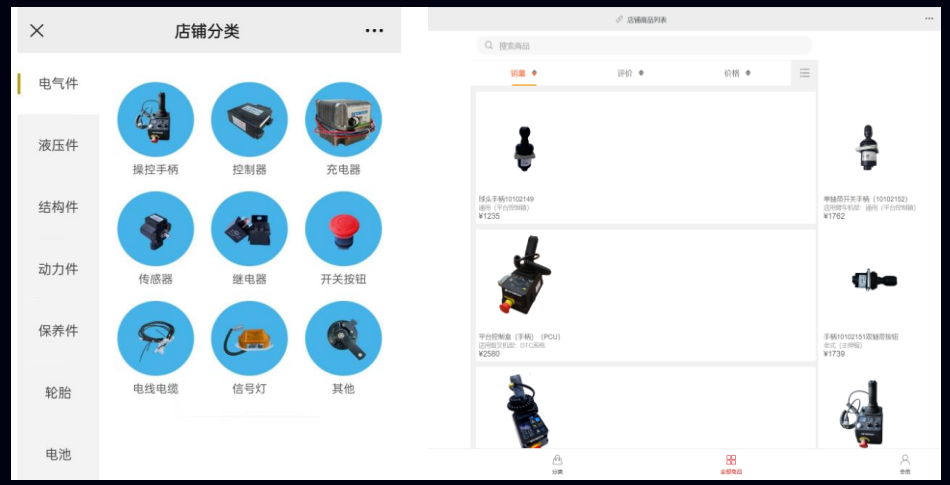


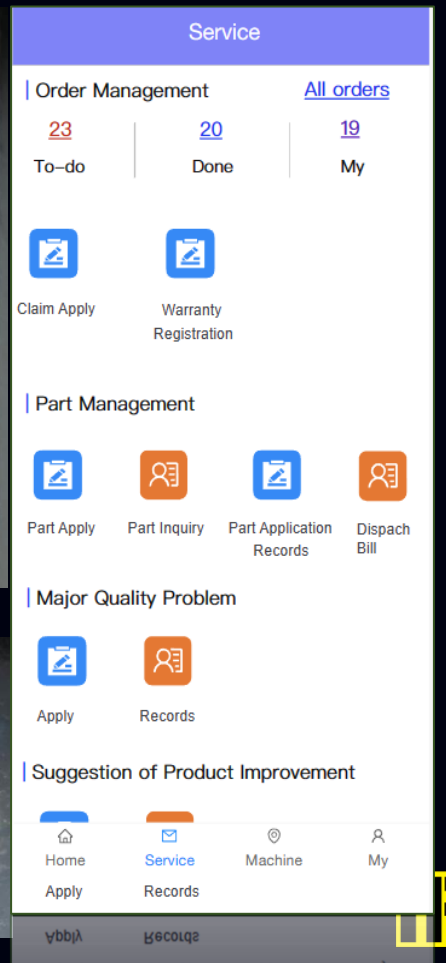
Digitalization in After-sales Service

Aftermarket digital support system - equipment life cycle management

1. A fast and convenient online ordering system for parts enables speedy and accurate ordering, providing sufficient parts in the case of equipment failure.
2. The mobile app allows for quick repair reporting and feedback of fault information anytime and anywhere, facilitating quick resolution of faults and making equipment usage safer.





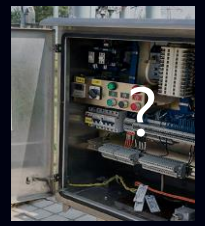


Digitalization in After-sales Service

VR & AR digital technology in the aftermarket

Task ticket

Task release



Service personnel repairing encountered problem

Ask for assistance

Customer service personnel

Via AR glasses, mobile client, and tablet client

Accept request

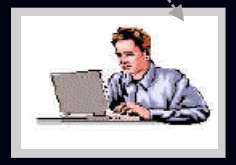
Technologist A.

Multi-expert remote conference

Invite other off-site experts

AR remote guidance

Solve problems in real time



Technologist B.

- Process record
- Safe storage
- Security audit

1. VR has been widely used in the field of service operation training, so that operator training is more convenient and safe.
2. AR technology is used in remote troubleshooting guidance, meaning that there is no obstacle to equipment troubleshooting, and the equipment is quickly restored to safe use.

Digitalization in the Future

Industry safety

Product safety

Production safety

Management security

Lean

Lean tool popularization and production system construction

Improve enterprise competitiveness

Reduce waste

Cut costs

Digitizing

End-to-end connection, building a decision-making control tower

Introduce advanced management platform to realize digital manufacturing

Improve the enterprise's response speed to the market

Improve the speed of enterprise innovation ability

Improve enterprises' competitiveness

Automation

Automation and MES/SCADA integration

Integration with automation

Increase production efficiency

Improve production safety

Increase productivity

Intelligent

Intelligent Technology Decision Business Management

Optimal production technology

Optimal management

Optimal organizational manpower

Optimal business model

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Thank you!

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