CIRCUS GROUP

CA–1



CA-1 | Circus Autonomy 1

CA-1 is a fully automatic cooking robot. It prepares fresh, hygienic meals without human help. It is great for places with many guests like airports, stadiums, or offices. CA-1 is controlled by Circus Software – a cloud system that allows remote control, order handling, and connection to payment systems.

Overview of the CA-1 Robotic Kitchen

Main Features of the CA-1 Robotic Kitchen
- Small Footprint: Only 6.6 m2 space needed
- Capacity: Up to 500 meals per load without staff
- Easy to install: Plug-and-play system
- Smart control: Circus Software runs the full process – from order to cooking

Technical Specifications of the CA-1 Robotic Kitchen
(Subject to final production version)

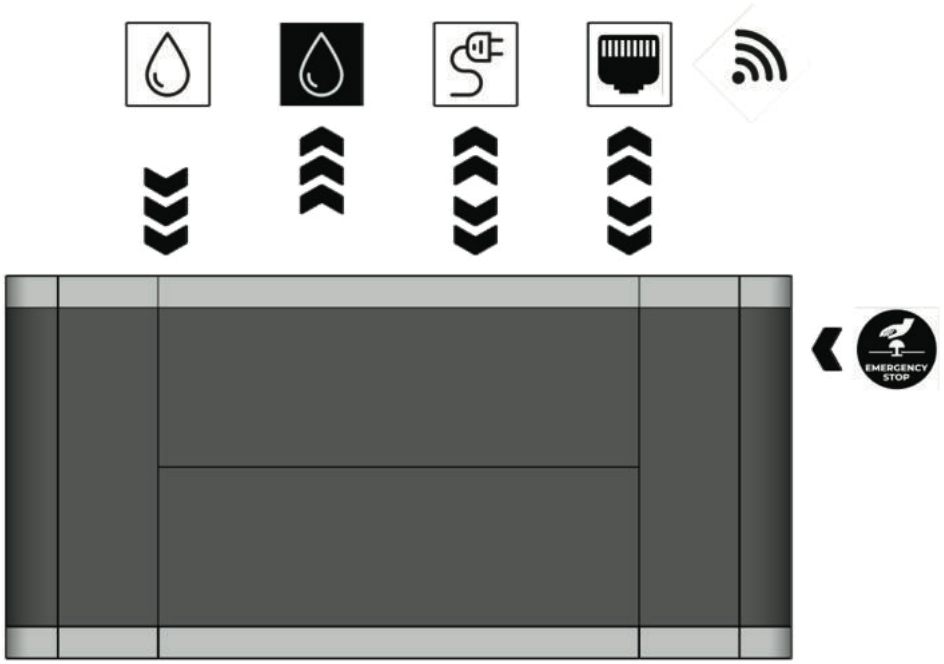
Dimensions (L x W x H):	3700 x 1800 x 2200 mm
Power:	30 kW (maximum)
Network Connection:	CAT7 RJ45 Cable and LTE-Backup
Robotic Kitchen Dimensions (closed) (L x W x H):	3700 x 1800 x 2200 mm
Robotic Kitchen Dimensions (opened)(L x B x H):	4400 x 3600 x 2200
Weight:	3.500 kg (incl. Food, Water und Cleaners)
Maximum Power:	30kW
Power Use:	65 – 72 kWh per 24h (100 – 150 Meals)
Water Use:	110 Liters/Day (150 Meals)
Wärmeabgabe:	10 kW

The system follows EU rules (Directive 2006/42/EC and others).

Installation Needs
- Power, water, and internet must be available
- Circus helps check the site and plan everything

Connections

Network WAN	CAT7 RJ45 (alternative to WLAN)
Power Supply	63A, 400V CEE, 2m cable + male supply provided by Circus
Water Supply	3/4”, 1m hose provided by Circus (female thread)
Waste Water Connection	DN50, 1m hose provided by Circus (external thread)

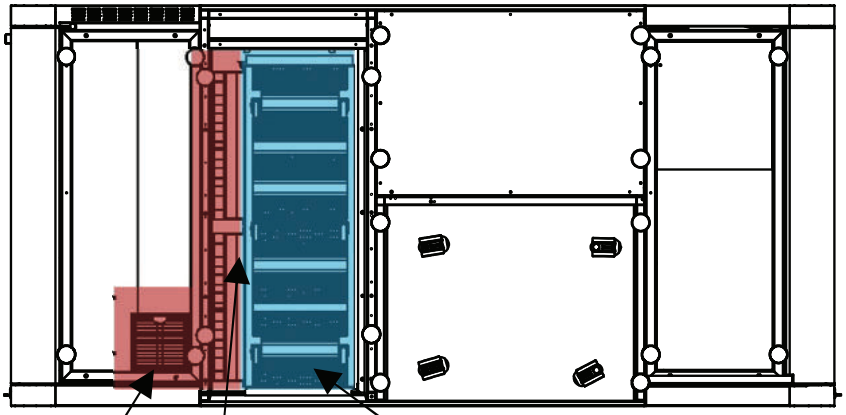


You can place the power, water, and LAN lines anywhere near the unit. For a clean look, install under the unit.

Operating Conditions

Minimum Floor Load	500 kg/m2 (Spread over 20 feet)
Grease Trap	If required locally
Temperature	10 - 30 °C

View from below

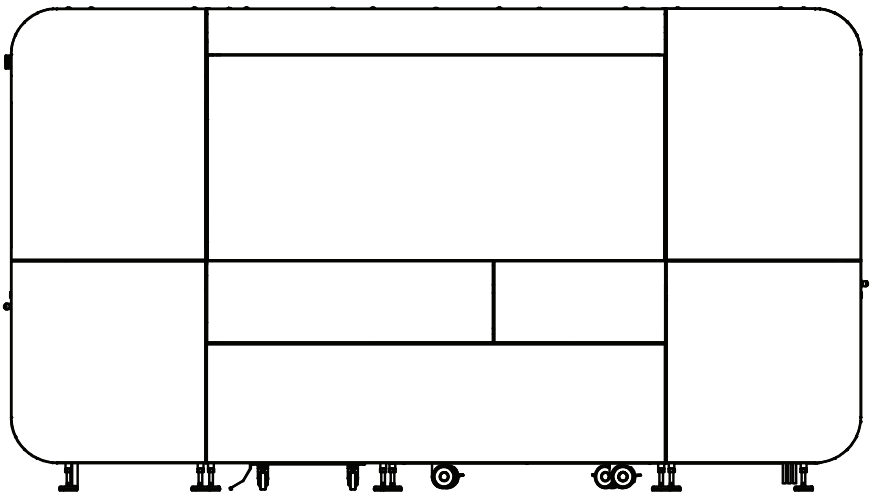


Warm air outlet cooling unit and main cabinet

Separation device for cold/warm airflow

Fresh air intake cooling unit

Rear view



Power connection 63A, 400V
CEE CAT7 RJ45 socket

Water supply hose dishwasher 3/4"

Wastewater hoses dishwasher and condensate water combined to DN 50

Building Access

Door Width	1900 mm (can be reduced to 1200 mm with more install time)
Door Height	2300mm
Ceiling Height	2500mm
Elevator Depth	2100mm

Network Requirements

LTE	LTE backup required
IPSec Tunnel	IPSec tunnel needed for internet access
Minimum Internet Bandwidth	50MBit/s
WLAN-Channels	Free Wi-Fi channels for devices

Important Notes:

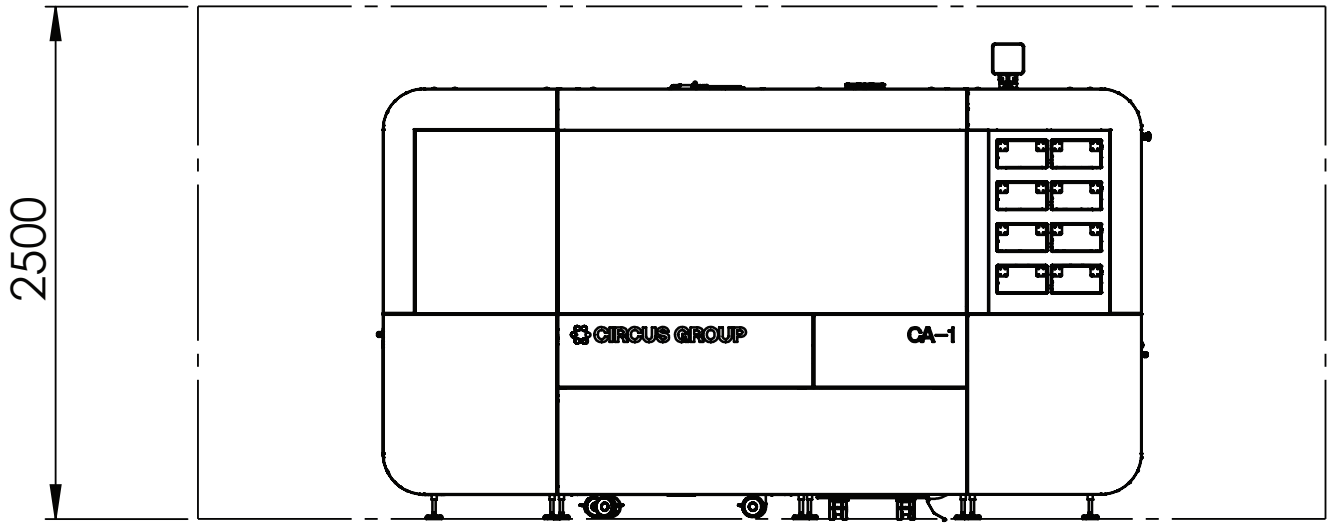
- Stable Internet connection required, preferably via Ethernet connection
- Circus network hardware is equipped with a SIM card. The use of an LTE connection is strongly recommended in the event of a network is strongly recommended.
- CAT RJ45 network socket is available for WAN access
- CA-1 unit sets up a dedicated WLAN network for peripheral devices (e.g. payment terminal)
- The customer's firewall settings must allow a VPN tunnel from the router within the robot kitchen to theCircus Cloud environment.
- The customer's firewall settings must allow outgoing network traffic from CA-1.
- Direct Internet connection is preferred over customer intranet.

Angaben zu verwendeten Verbrauchsmaterialien

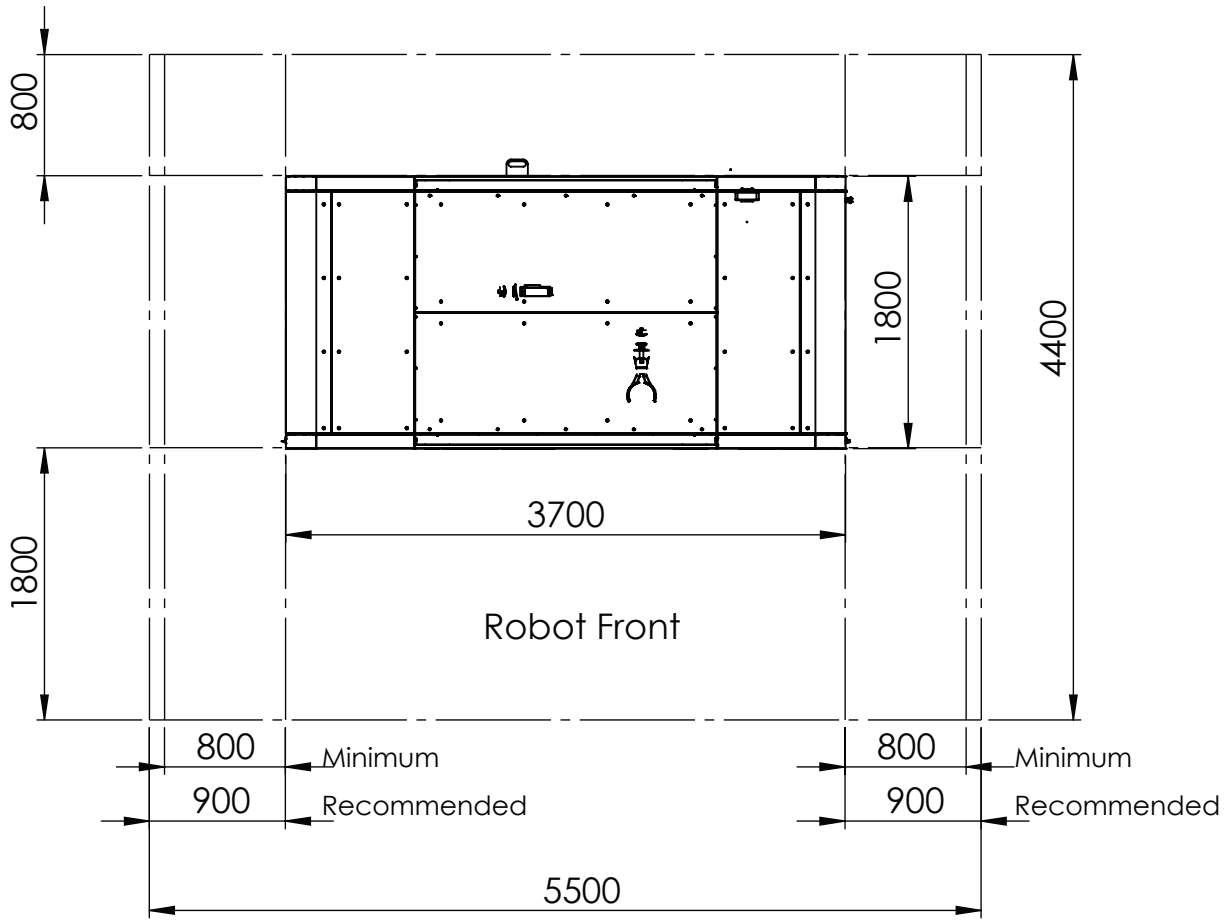
Dish Soap	F 865 Plus
Rinse Aid	B 100 N
Dishwasher Salt	Standard
Cooling Gas	R134a

Drawing and dimensions of the CA-1 robot kitchen

Front View CA-1 — Required Space



Top View CA-1 — Required Space



Ingredient silos & storage space

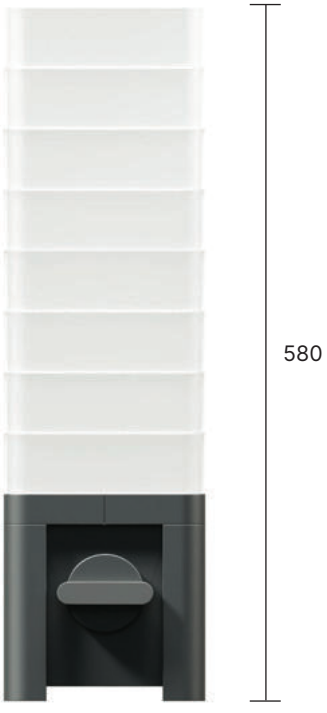
The silos enable the automatic dosing of up to 36 ingredients. Filling is carried out using tablet-based instructions.

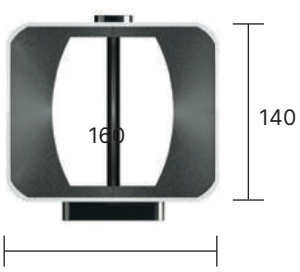
Solid Silos (Dry or solid ingredients)

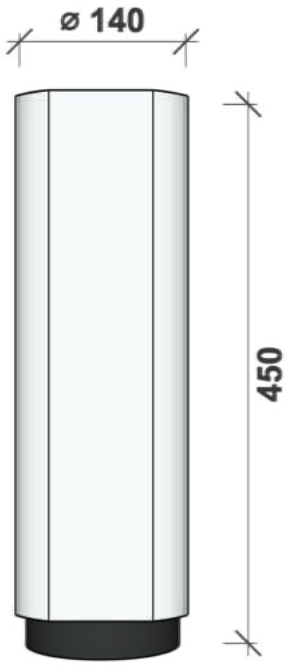


Liquid Silos (Sauces or liquid ingredients)

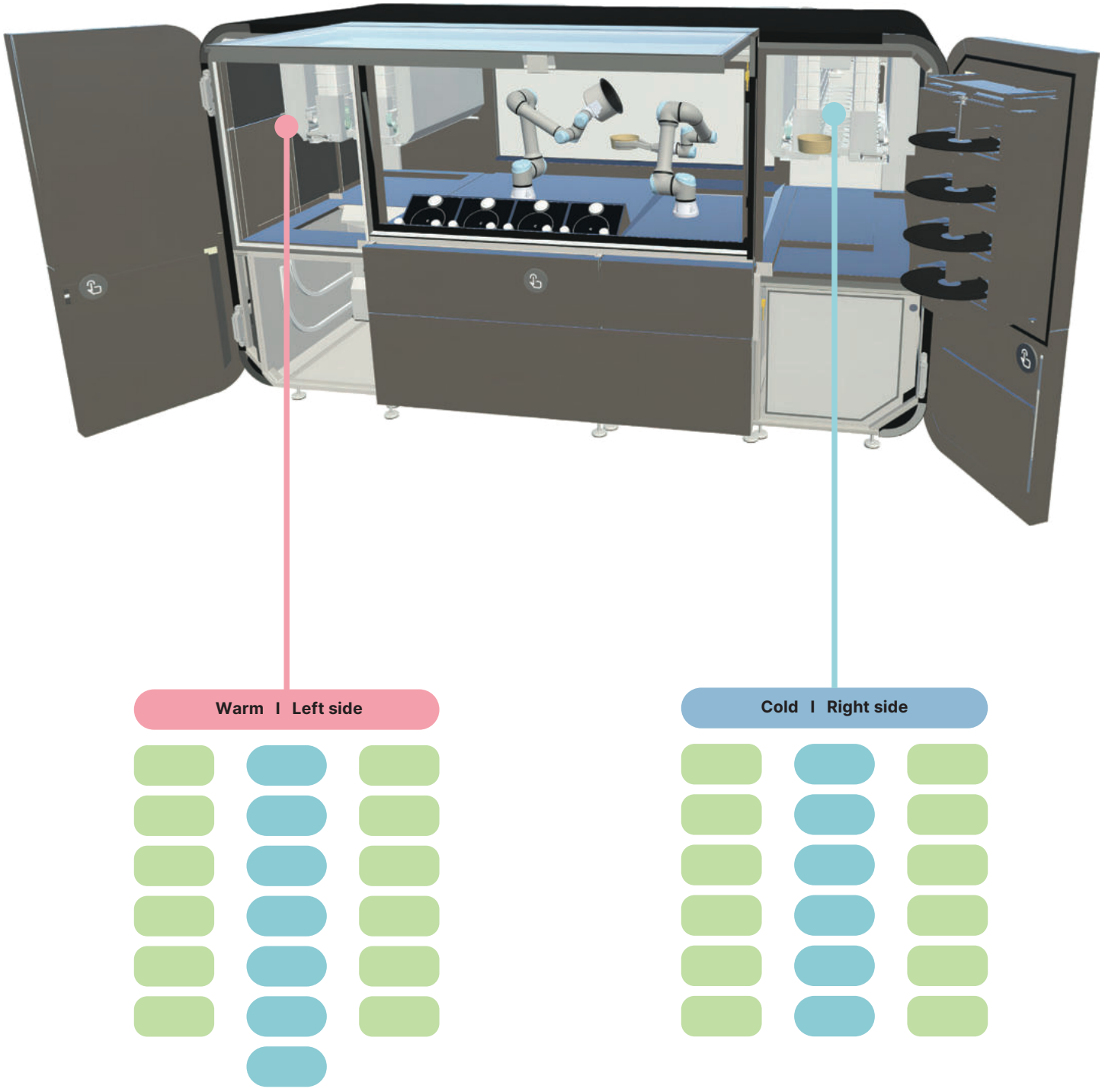








Silo Management
Up to 37 different ingredients can be loaded (13 liquid / 24 solid).



Service overview for the Circus software

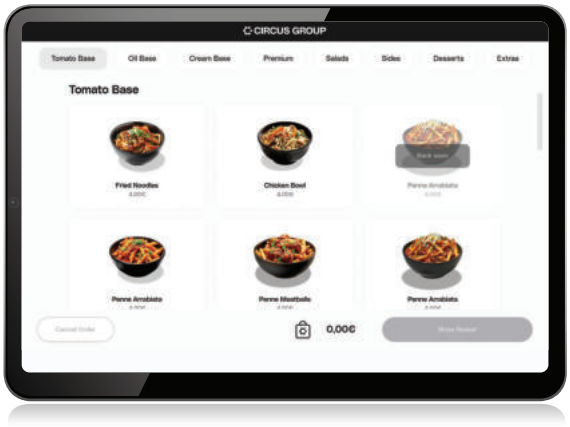
The Circus software enables seamless interaction between front-of-house and back-of-house operations and covers the entire value chain. Below is an overview of the most important services offered:

Main features of the CA-1 Software

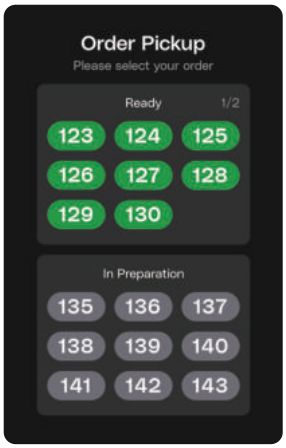
Module	Main Functions	Benefits
1. Order Terminal	• Self-service (menu view, ordering, payment) • Availability display based on ingredient stock • Payment via Adyen terminal	• Intuitive customer experience without the need for training • No order cancelations due to sell-out
2. Order Monitor	• Live order status on a screen • Supports PIN-protected order pickup • Access to customer support	• Clear communication & intuitive experience • Smooth process • No order mix up with PIN • No staff required to manage customer pickup
3. Mobile order tracking:	• Individual live order status tracking via mobile phone • Full order information, incl digital receipts and PIN (if required) • Access to support	• No need to stand in front of the Order monitor to track order status • Smooth process
4. Sales & Menu Dashboard	• Real-time data on sales, dishes, locations	• Data-based decisions for supply, planning and operation
5. Appliance Control & HACCP	• Monitoring: temperature, fill levels, operating status • Maintenance & cleaning procedures incl. HACCP checklists • Remote access & remote diagnostics	• High reliability • Simple operation • Regulatory security
66. Silo Preparation	• Tablet-supported filling with step-by-step instructions • Automatic quantity management based on planning	• Faultless refilling • Less training required
7. Menu management	• Central control of the menu offer • Activation/deactivation of location-specific menus • Activation/deactivation of certain products in the menu • Smart demand forecasting	• Quickly customizable • Low effort • Ideal for multiple locations
8. AI Planning & Forecasting	• Guest count & demand forecast • Connection with planning & purchasing systems	• Avoids overproduction • Reduces storage costs • Supports Procurement

The CA-1 software supports a proprietary ordering system as standard. An interface to existing POS systems or payment providers is technically possible and can be implemented after a successful pilot at additional cost.

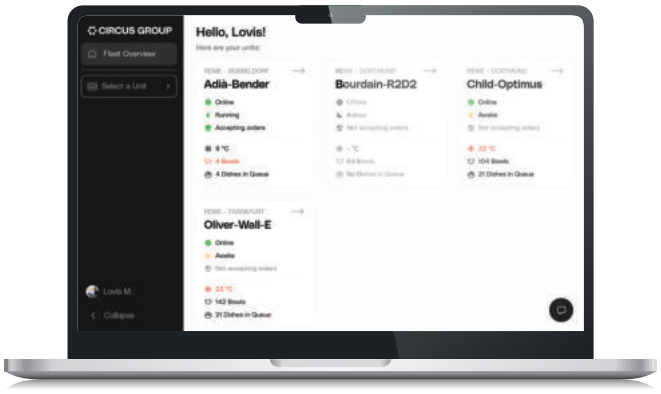
Order terminal



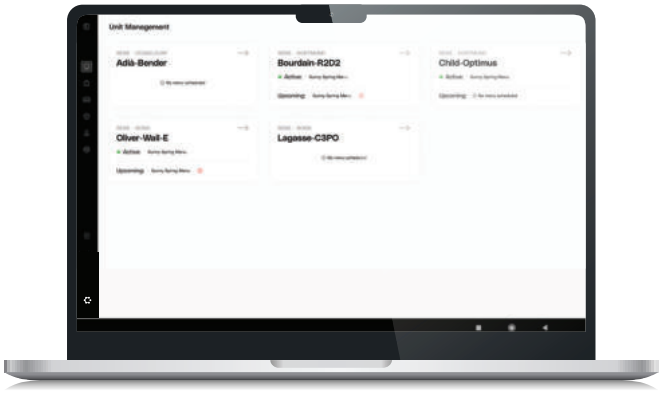
Order Monitor



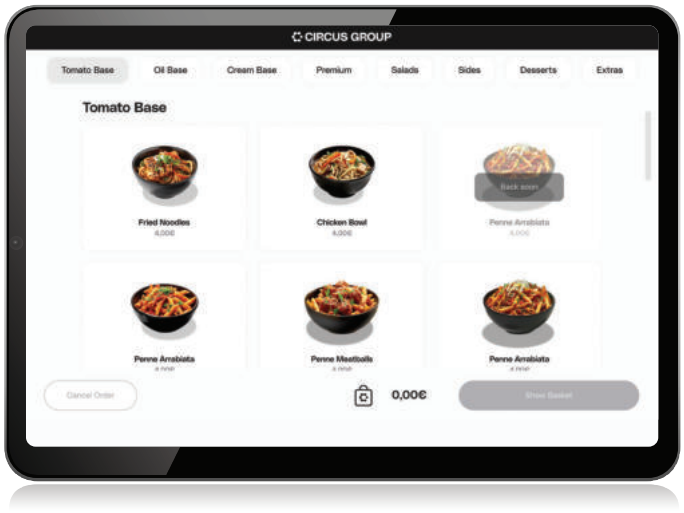
Control & Maintenance

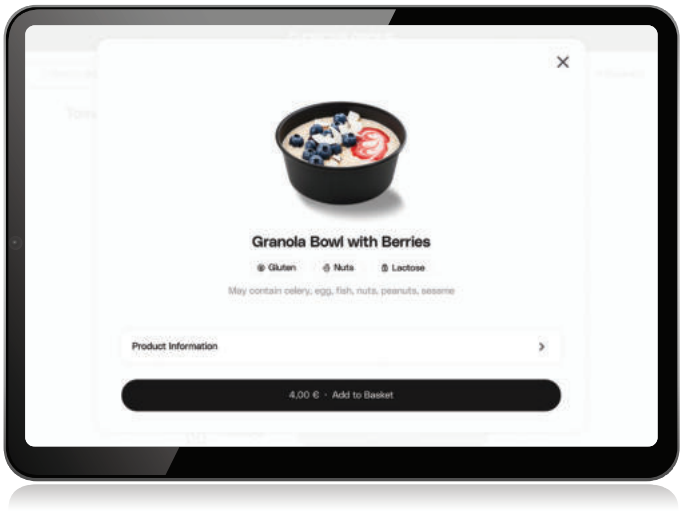


Central Menu and Recipe Planning

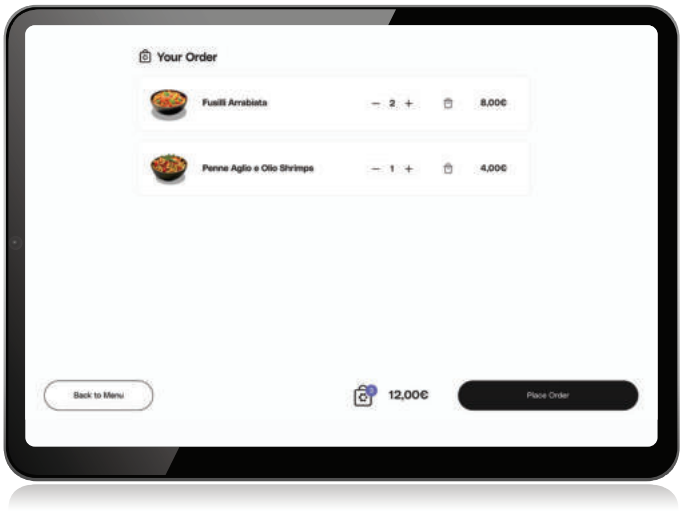


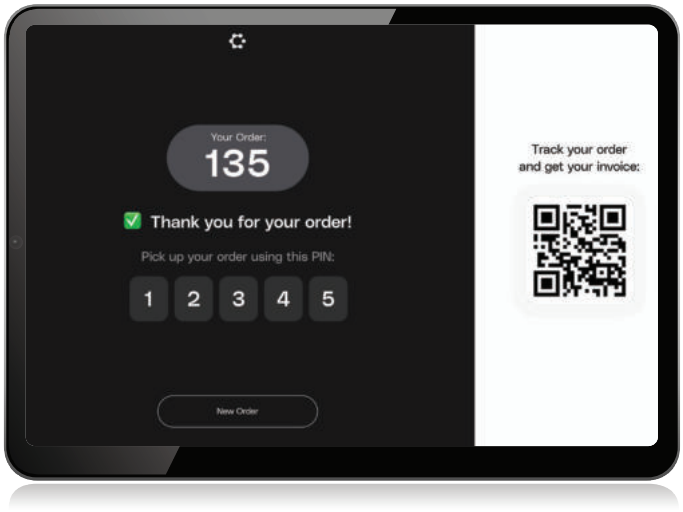
Order terminal



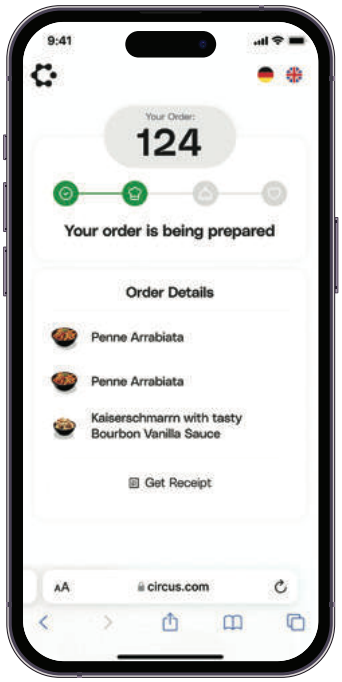


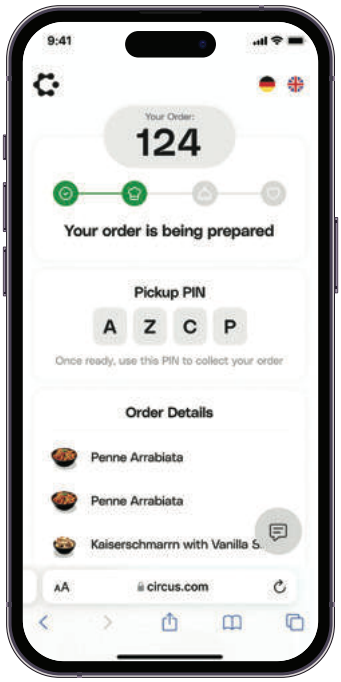


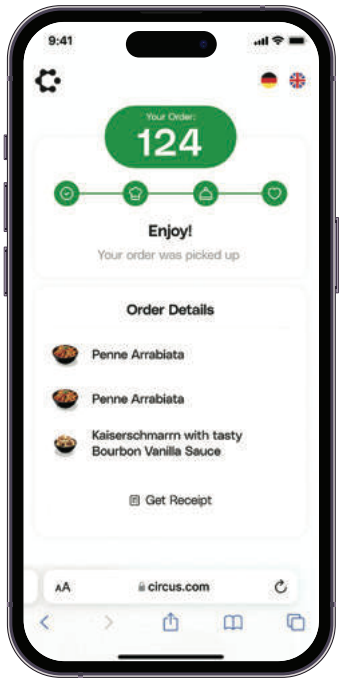




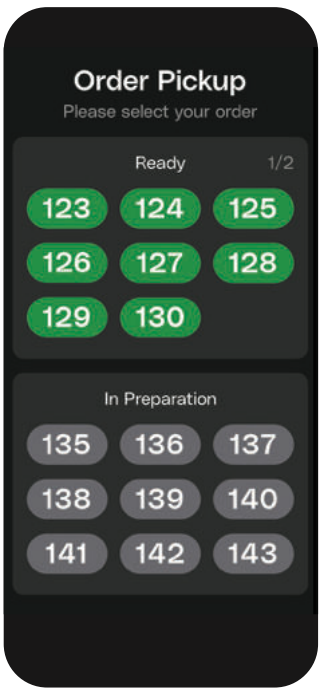
Mobile order tracking

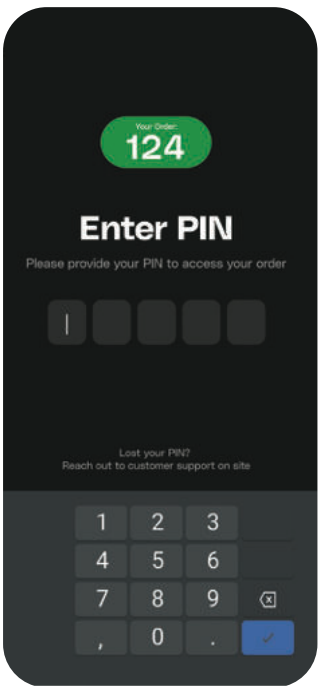


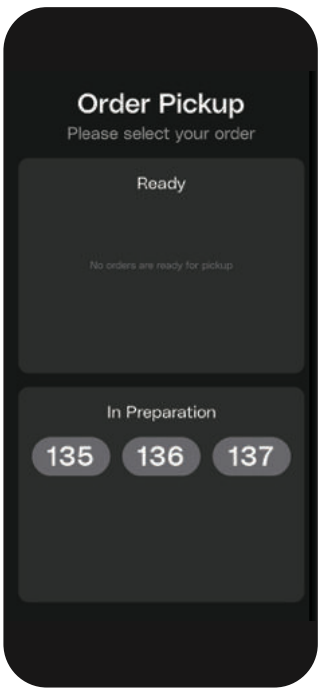


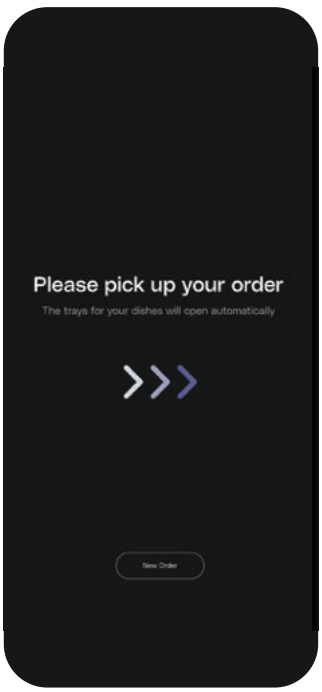


Order Monitor

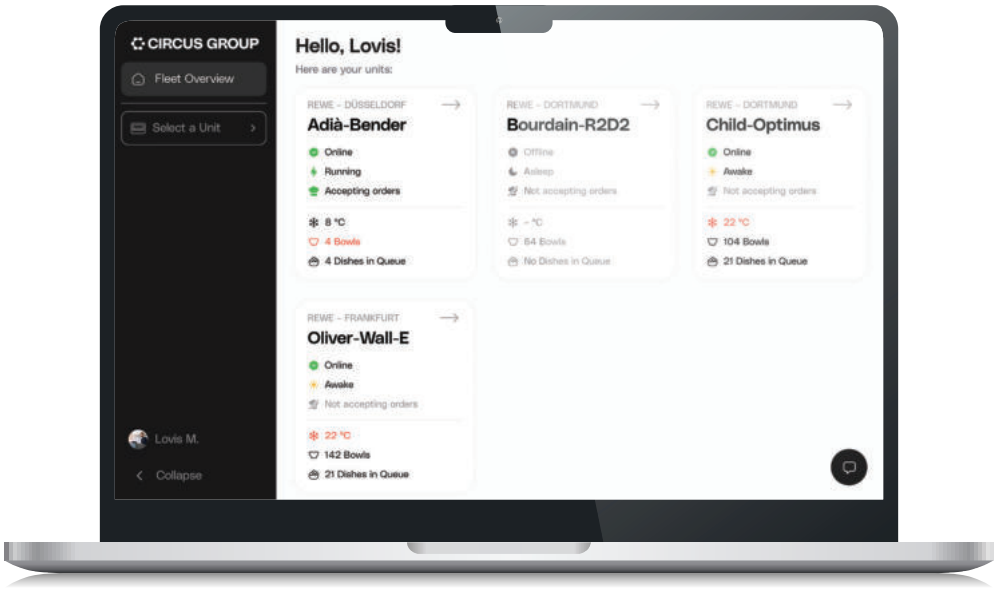


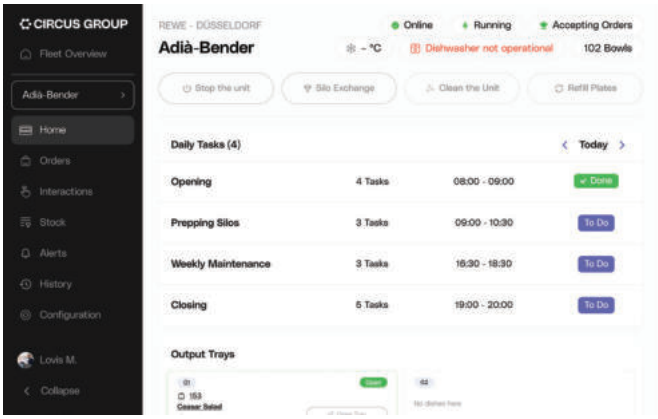


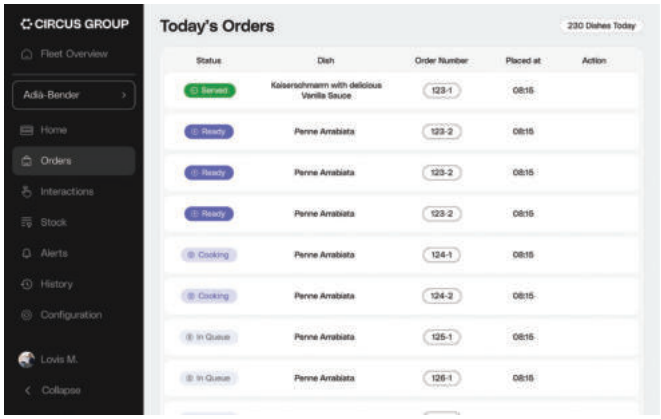


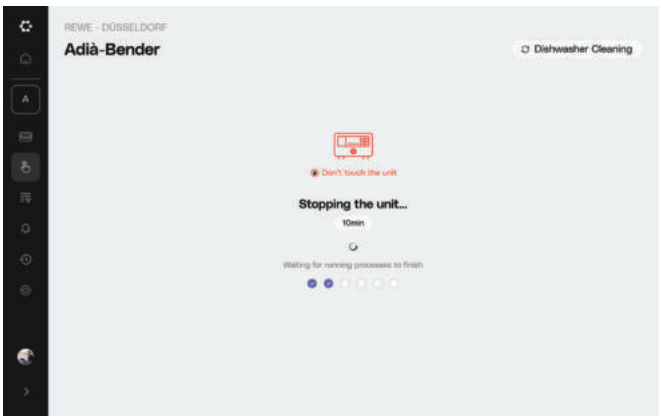


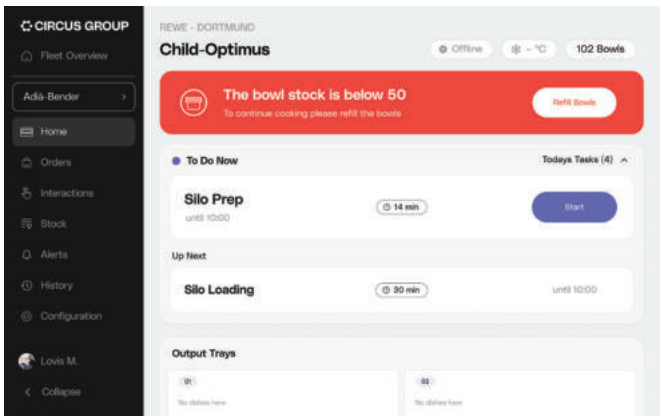
Console for unit control



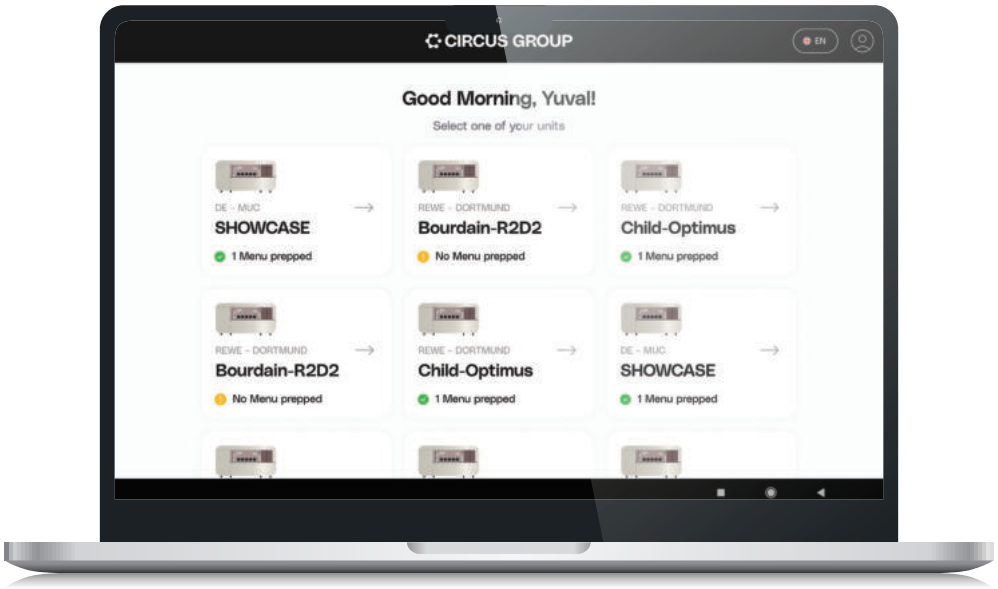


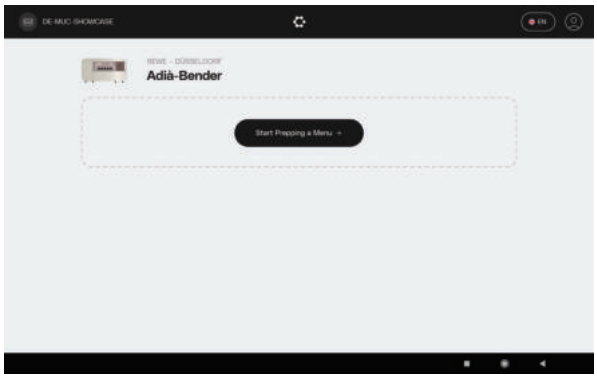


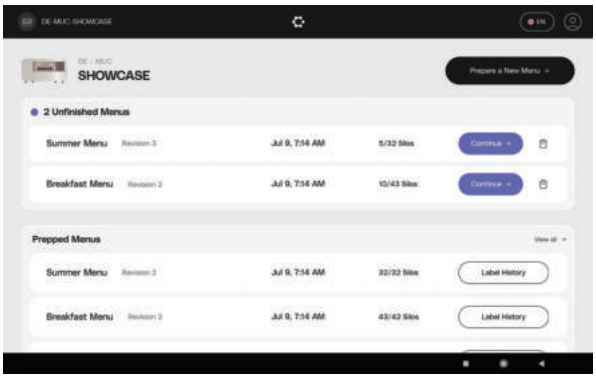


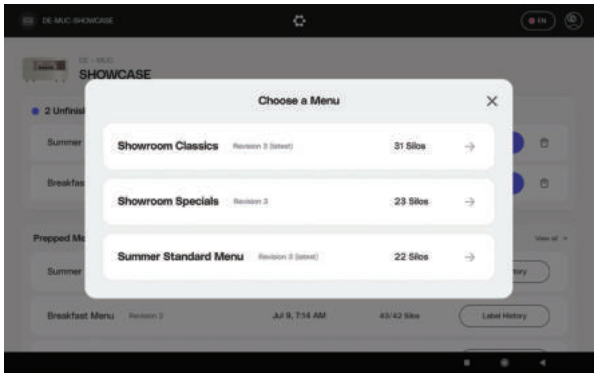


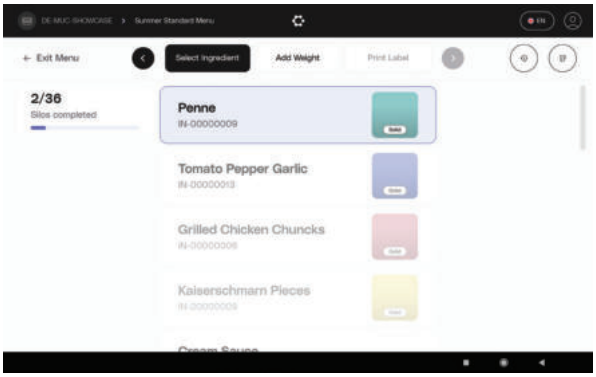
Silo Preparation App

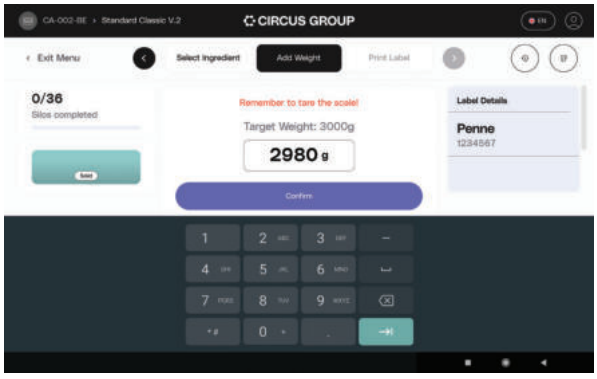


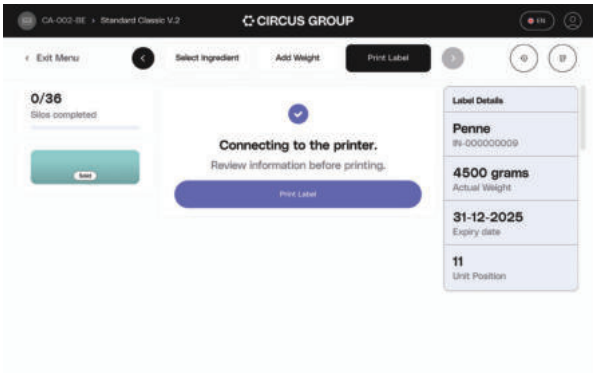




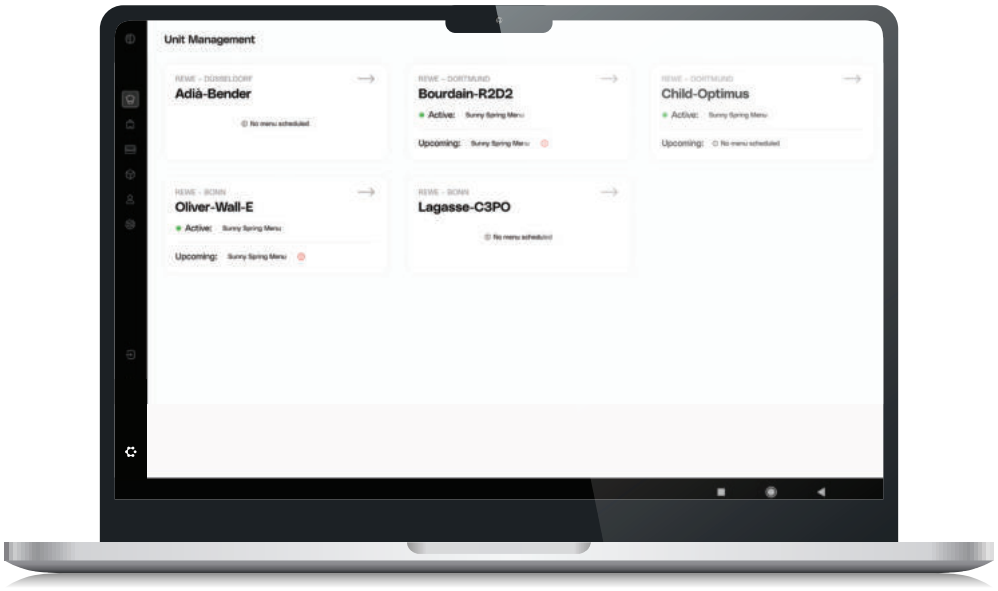








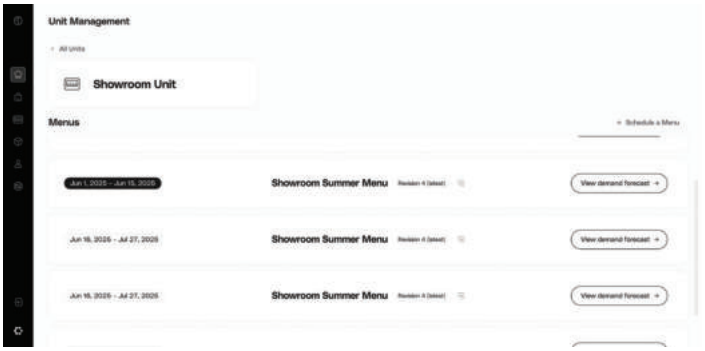
Menu management











CIRCUS GROUP

Germany
Circus SE
Hongkongstraße 6
20457 Hamburg

For more information, please visit:
www.circus-group.com

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