

DOUBLE FLOW ERGOSERV 4s



DECOUPLED SOLUTION TO
ENSURE YOUR MEAL DELIVERY
UNDER CONTROL

THE MARKET LEADING SOLUTION !

The latest generation of
Double Flow terminals
and Ergoserv trolleys
for tray catering service.



#weprotectyourfood

OPERATING PRINCIPLE

SOCAMEL's decoupling concept

Comprising of an Ergoserv isothermal transport trolley and a Double Flow docking station, it is designed for the tray catering service with numerous advantages at each step of meal delivery.



The Ergoserv 4s transport trolley

The practical, compact Ergoserv trolley is designed for holding meal trays where hot components are separated from cold ones on the trayline thanks to its isolating panel dividing the trolley into 2 compartments. The automatic air dam guarantees the sealing between the two chambers, ensuring the compliance with food safety regulation.

The Double Flow 4s docking station

The Double Flow docking station using forced convection technology generates hot and cold air, ensuring the temperature holding or rethermalization of hot dishes and preserving the temperature of cold dishes as soon as it is connected to the Ergoserv trolley. The Double Flow docking station, installed in the kitchen or in a pantry depending on your facility configuration and organization, makes possible the service of an optimal quality of the meal prepared by the kitchen team.

HISTORY OF SOCAMEL'S DISSOCIATED TECHNOLOGY



2001 - Version 2

Feedback from our customers allows us to bring technical improvements. The second version of Double Flow Ergoserv includes multiprogramming and enhanced workplace ergonomics.



1990 - Version 1

Socamel Technologies innovates with a revolutionary concept for the health market: the Double Flow Ergoserv V1. The system optimally reorganises the distribution of the community meals.



2008 - Version 3

This 3rd generation offers superior technological performances thanks to its new aerualics, cold generation power, isothermic qualities and sophisticated traceability system.



2015 - Version 4

For optimal day-to-day use, the latest generation is designed for energy consumption, maintenance, and cleaning optimization approach. Respecting the environment and users, the Double Flow Ergoserv 4 concept also includes traceability in its standard models.

SUMMARY

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Ingénierie Socamel Technologies

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The typical sequence

COOK-CHILL | P.9

The typical sequence

COOK-FREEZE | P.10

The typical sequence

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For the Double Flow terminal and the Ergoserv trolley

AIR CONVECTION

FORCED & DIRECTED AIR CONVECTION TECHNOLOGY BY SOCAMEL

Traditionally used in large-scale catering, this technology :

- Respects organoleptic qualities for a wide range of menus including more difficult ones: beef-burgers, puff pastry dishes, gratins, breaded preparations and deep-fried food...
- Allows the use of all shapes and types of crockery, from porcelain and melamine to single-use crockery.
- Guarantees the dynamic and targeted circulation of cold and hot airflows with unparalleled homogeneity for all trays, which is proved by high-level aerulic and thermal analysis.
- High-performance temperature regulation with a double air generator

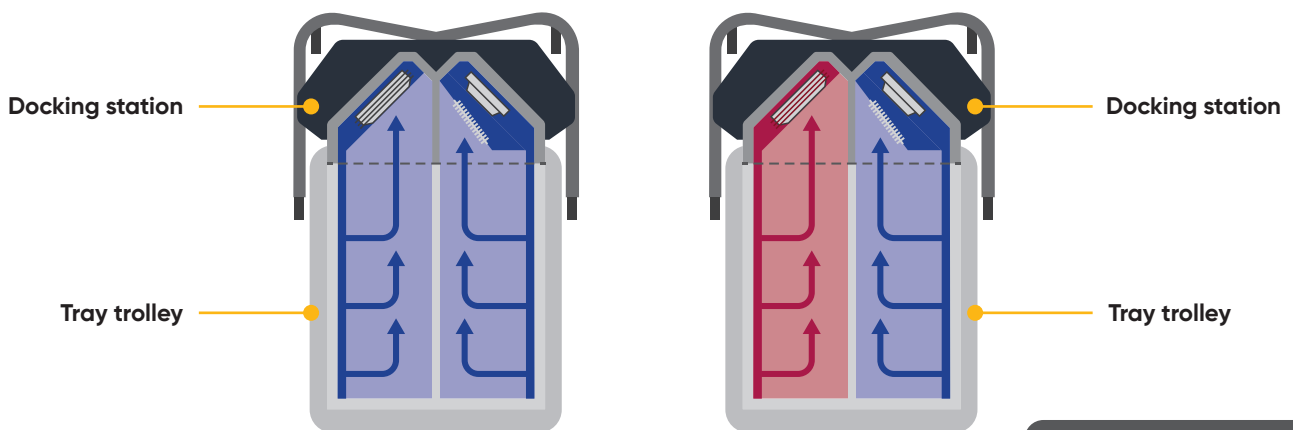
Cook-serve

Boost cold and hot temperature. Its short cycles allow several tray trolleys to be connected to one single docking station.

Cook-chill

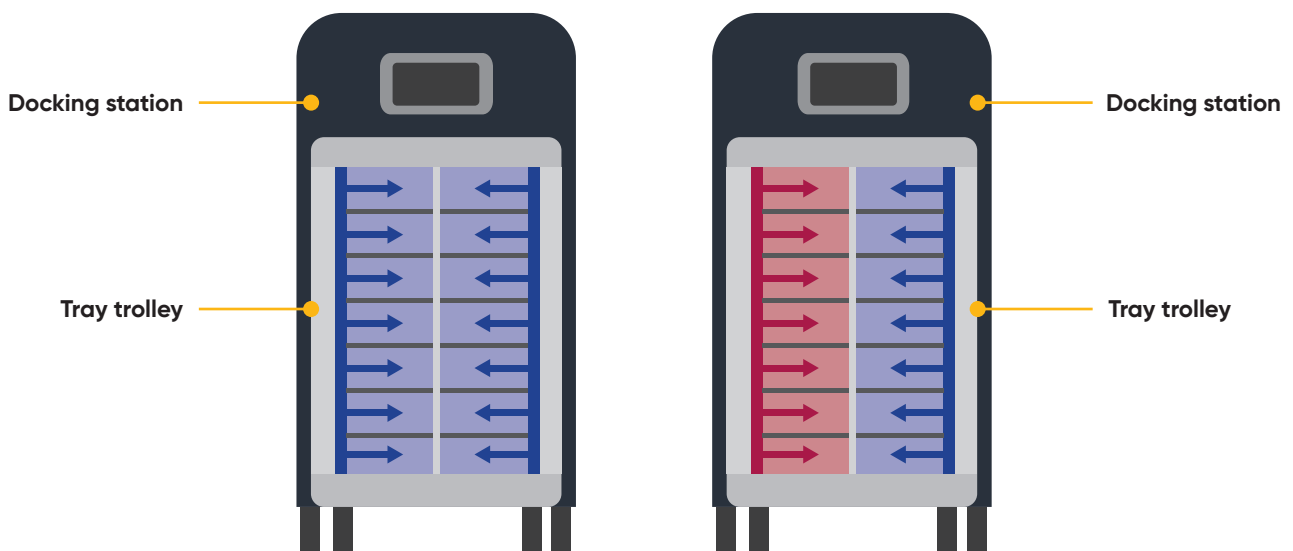
The cycle starts with rapid reduction of temperature and then hold the global temperature between 1 and 3°C. At the programmed time, the cold food temperature is maintained while the hot meals are regenerated.

Top view – horizontal section



Overall cold stabilisation

Bottom view – vertical cross-section



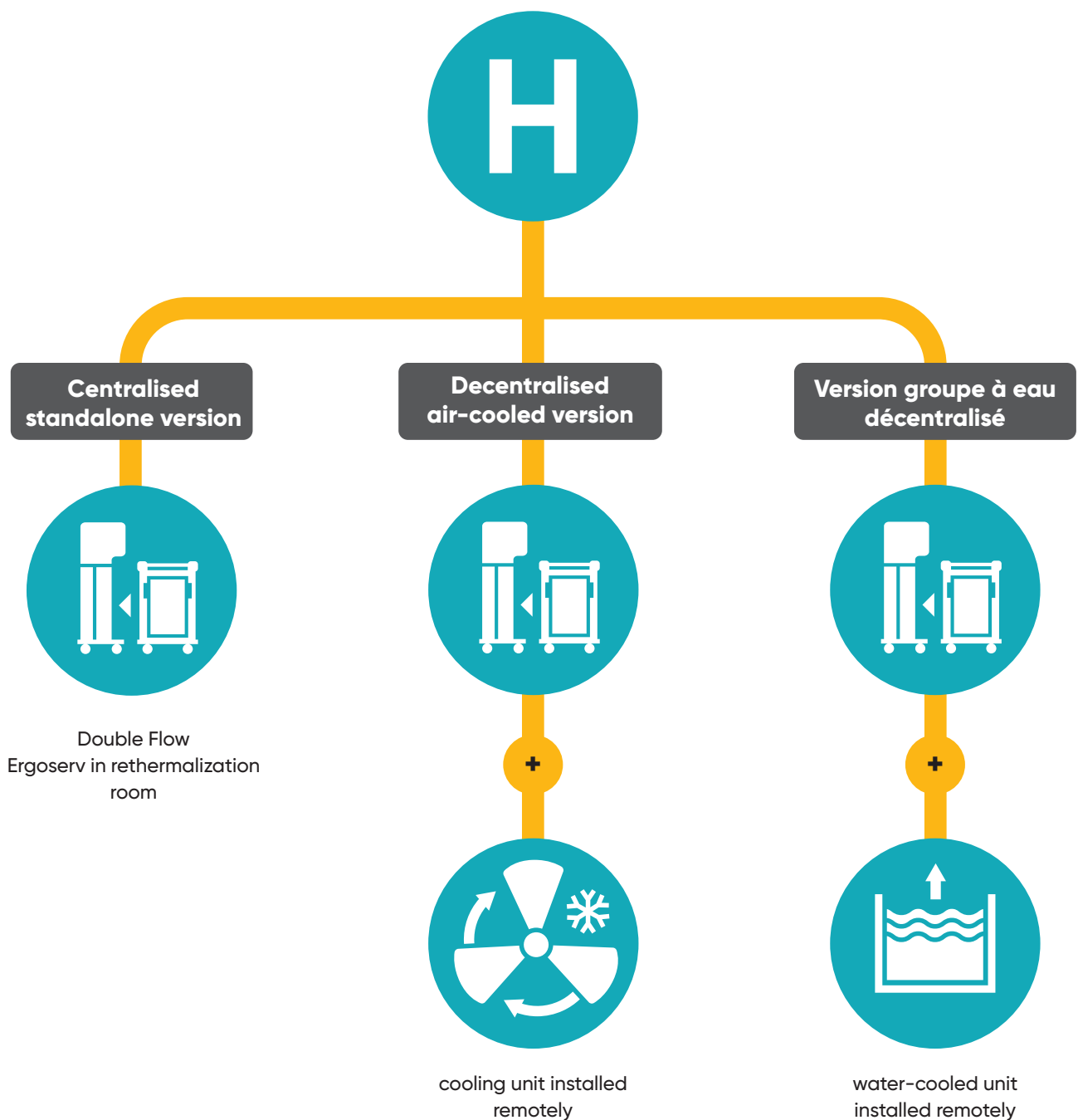
Cold stabilisation followed by rethermalization

SOCAMEL TECHNOLOGIES ENGINEERING

Socamel Technologies' know-how allows it to propose to its customers an optimal solution for cold production totally adapted to the facilities:



OPERATING PRINCIPLE



COOK-SERVE

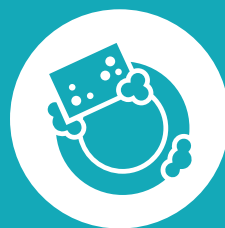
Perfect fit to guarantee the temperature of served meals cooked on the day of their delivery. Possibility of managing several trolleys with one terminal.



OR



OR



1

PRODUCTION AREA
KITCHEN

2

TRAYLINE ZONE

3

BOOST
OR TRANSPORT TO
WARDS

4

TRANSPORT TO WARDS
OR BOOST

5

DISTRIBUTION
TRAY CLEARANCE

6

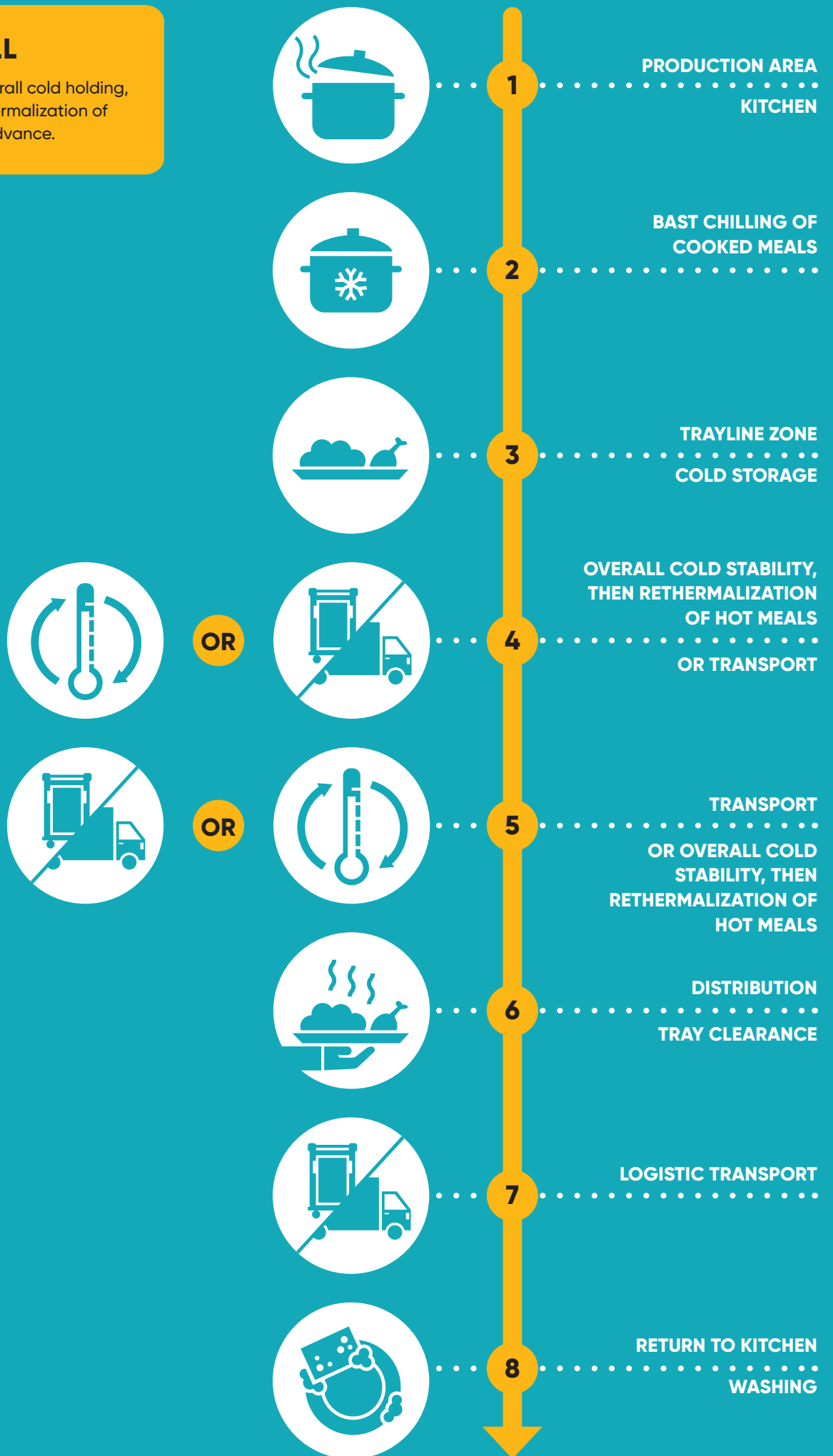
LOGISTIC TRANSPORT

7

RETURN TO KITCHEN
WASHING

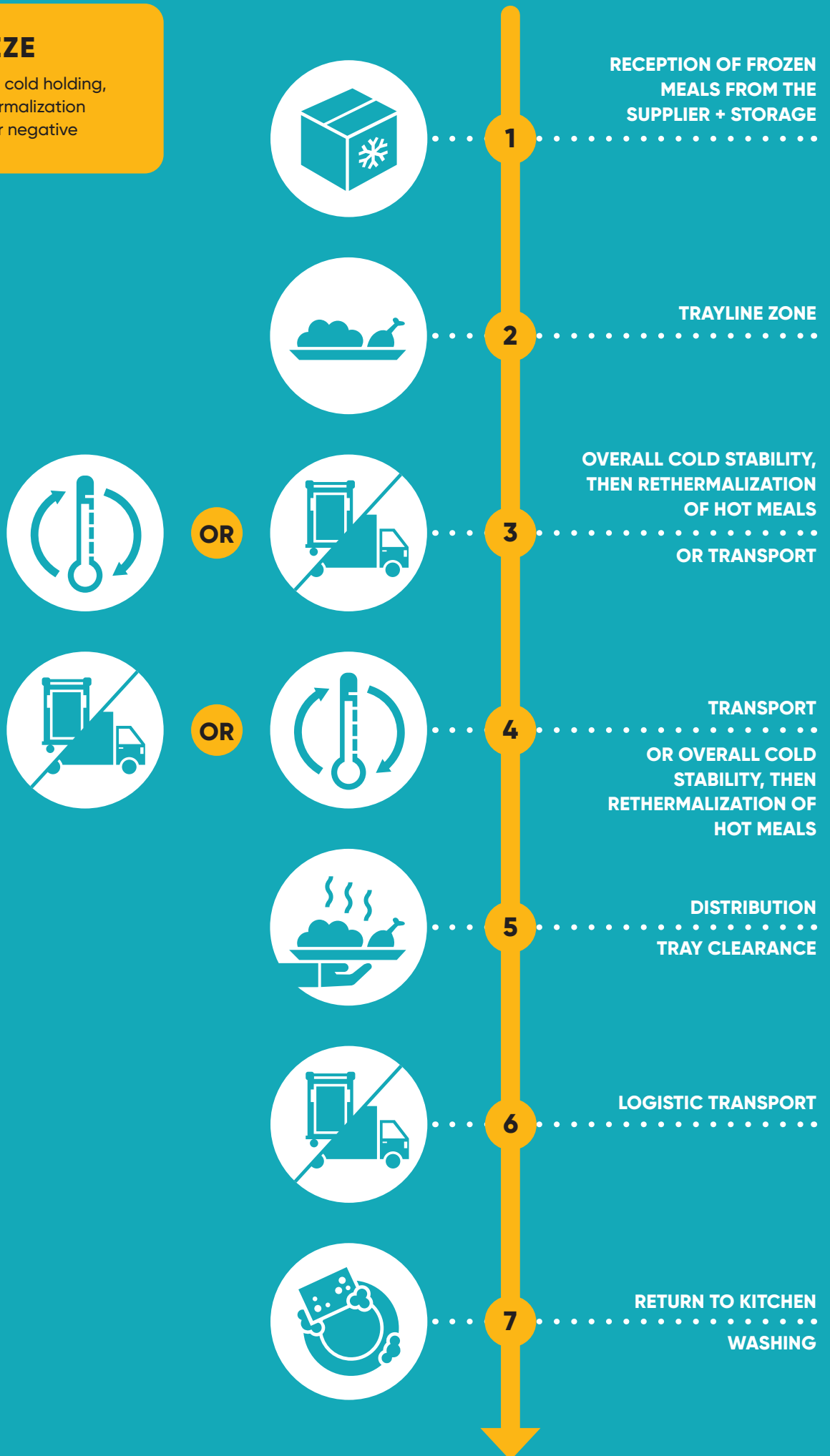
COOK-CHILL

Perfect fit for the overall cold holding, followed by the rethermalization of meals prepared in advance.



COOK-FREEZE

Perfect for the overall cold holding, followed by the rethermalization of meals stored under negative temperatures.



DOUBLE FLOW 4s

THE DOUBLEFLOW LINE



DOUBLE FLOW MINI



DOUBLE FLOW JUNIOR



DOUBLE FLOW SENIOR

DOUBLEFLOW/ERGOSERV 4s CONNECTION

Particularly compact mobile docking station

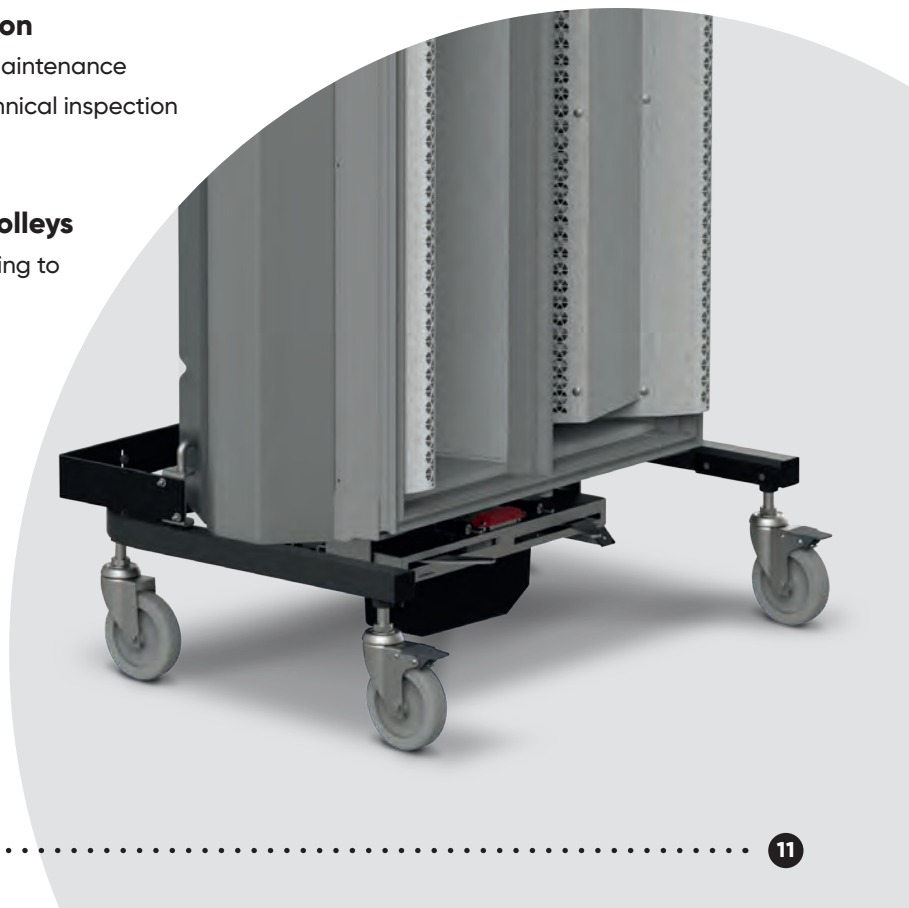
- Simplified installation and mobility to facilitate maintenance
- Space-saving in pantry for easy access and technical inspection
- Saves space thanks to a limited footprint

Automatic, effortless connection to tray trolleys

- Self-centering and aligned with optimal air sealing to the hot and cold compartments
- Immediate start-up of the programmed cycle

MOBILITY

Standard 4 castors with a skate to allow cleaning behind and under the docking station as well as its transport to a technical area or replacement.



I-SERV4

THE SCREEN

The trolley is equipped with an intuitive colour touch screen (7 inches) that displays the activity in progress and provides access to programming.

Digital features

- Full programming
- Manual start and stop of heating
- Manual hold and boost of heating
- Diagnostics, maintenance assistance

Control panel – ergonomics

Allowing :

- Piloting cycles (times, programs, etc...)
- Real-time display of temperatures and remaining time until service
- Display of the good progress of the cycles with threecolour the LED bar
- Access to history of temperatures and incidents

iServ4 new features

- A high level of IT security
- 100% connectable to SOCONNECT
- High level of maintenance
- Unrivalled ergonomics
- Energy management

Caractéristiques

- 3 start-up modes for cycles : Automatic/Manual/Repetitive
- Programming : 5 programmes for 4 services per day
- Standard history, last 1000 events time-stamped and targeted by type
- Traceability :
 - Standard, 50 cycles of 800 measurement points during power on
 - Extended option, 2880 measurementpoints per day and even during power off

SAFETY & MAINTENANCE

IPx4 certified by APAVE, the Double Flow docking station was especially designed to safely manage any water spray. Its water resistance structure provides a total protection of the electrical components and an easy access to technical compartments for maintenance.



ERGOSERV 4s

THE ERGOSERV LINE



ERGOSERV MINI



ERGOSERV JUNIOR



ERGOSERV SENIOR

CHARACTERISTICS

- No on-board technology, no heating or regulation element (resistance)
- Dual-entry tray trolley for comfortable access to trays from both sides
- Exists with 2 or 3 wells
- High-quality, fully stainless steel components
- High-performance insulation
- 2 or 4 doors opening to 270°, blocked open behind bumpers
- Medial high insulation panel with automatic slot air dams which can be removed easily without tools
- Corner bumpers for good, solid, secure protection during transport
- Anti-fall tubular frame
- Rotation-moulded, single-piece bumpers with fluid, non-marking shapes
- Casters allowing spinning in place: 2 fixed Ø 200 mm casters and 2 pivoting Ø160 mm casters with brakes

USE AND ERGONOMICS

The Ergoserv trolley works as a logistic solution allowing food to be transported between the kitchen and the different hospital units or restaurants. Particularly compact, light, and mobile, it ensures an easy and discreet movement on any floor surface. It is designed to ensure a simple service, walking in in the direction of circulation of the corridors with meal distribution by 2 operators simultaneously. Solutions for transport and tray clearing under optimal conditions



THE ERGOSERV RANGE

We have a wide range of Ergoserv trolley models which meet all market needs and therefore accommodate different tray sizes.

STANDARD MODEL

Ergoserv Gastronorme GN1/1 530x325 mm

These trolleys are compatible with standard Gastronorme trays, whose dimensions are ideal for accommodating a full meal (starter, main course and dessert), whilst optimizing the inner space of the trolleys and that of the patients' overbed table.

SMALL CAPACITY MODELS

The XS and the Optimum models are adapted to a small capacity tray since the ergonomics is the first consideration. It's designed to save space and facilitate the handling.

LARGE CAPACITY MODELS

Ergoserv Confort and Ergoserv GN+

These two Ergoserv models are externally identical with the standard Gastronorme model and compatible with large capacity Confort and GN+ format trays. These trays offer a greater surface area, which can accommodate large containers.



ERGOSERV XS 24

ERGOSERV XS 36

Ergoserv XS

The Ergoserv XS model meets the requirements of improving working conditions and logistics optimization. Its footprint is reduced by more than 35% compared to the standard models. The Ergoserv XS trolley is ideal for optimizing space inside trucks, pantries and cold rooms. Compact, maneuverable, and light, it requires less physical effort from staff. The XS trays, which are also smaller, leave extra room on patients' overbed table. This solution is also environmentally friendly in terms of its manufacture and usage, and economical since it helps client to reduce their construction, operational and logistics costs, as well as offering added social value.

Ergoserv Optimum

Externally identical to the Gastronorme trolley, it's able to accommodate smaller trays.



ERGOSERV INSERT

THE ERGOSERV INSERT

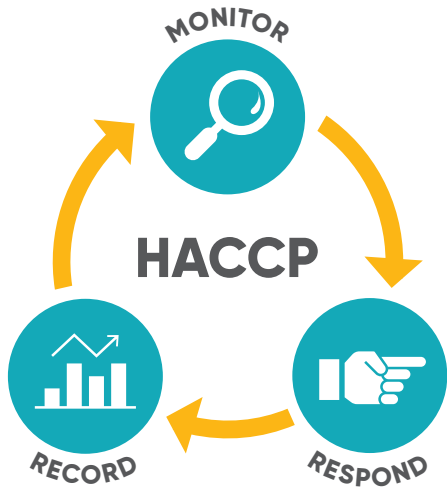
The Ergoserv Insert trolley links up the kitchen with the various hospital or catering units. It has been specially designed to offer an optimal user comfort. This decoupled solution enables to separate the meals regeneration from its delivery. It therefore offers greater flexibility, easy handling and reduces the physical effort.

Jet cleaning

CLEANING

Without any on-board mechanical or electrical technology, our tray trolley can be washed by trolley washer, central cleaning unit, or steam generator.

- Designed and developed to be used in a trolley washer and cleaning with water jet.
- Racks can be removed without tools to have an immediate access
- Interchangeable seals per segment
- Rounded corners
- Smooth panel and bumpers, without roughness
- No water retention zones thanks to the rounded and smooth chamber bottom



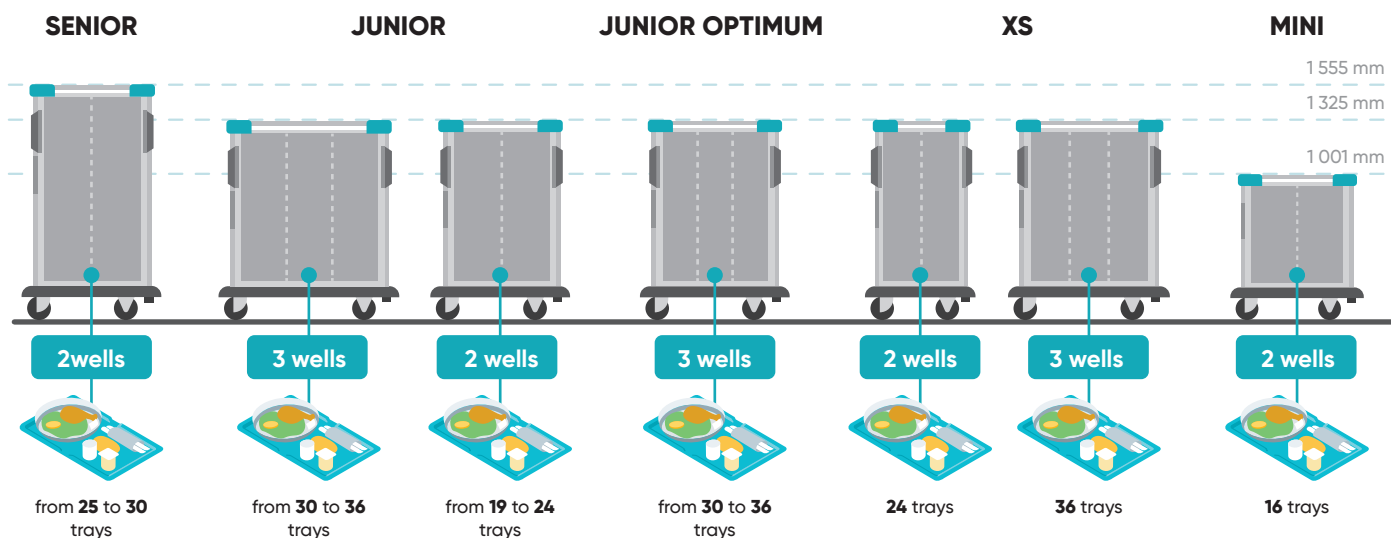
Technology-free trolley with removable parts



Trolley washer

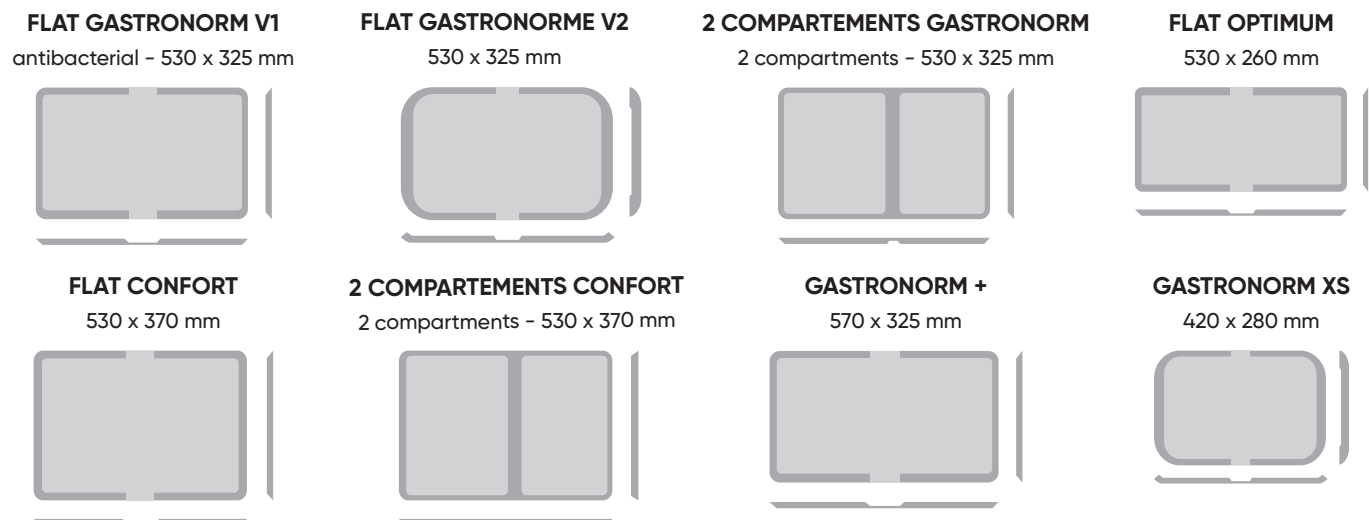
Ergoserv trolley

COMPATIBLE TRAYS



TROLLEY MODEL ERGOSERV	PRODUCT CODE	NUMBER OF LEVELS	TRAY CAPACITY	TYPE OF TRAYS	PITCH BETWEEN LEVELS	USEFUL CLEARANCE BETWEEN TRAYS
XS	0479.04.24	2 x 12	24	GASTRONORM XS	78	74
	0479.04.36	3 x 12	36	GASTRONORM XS	78	74
MINI	0479.00.16	2 x 8	16	GASTRONORM	78	74
JUNIOR	0479.00.20	2 x 10	20	GASTRONORM	90	86
	0479.00.24	2 x 12	24	GASTRONORM	78	74
	0479.01.30	3 x 10	30	GASTRONORM	95	91
	0479.01.36	3 x 12	36	GASTRONORM	78	74
	0479.00.19	9 + 10	19	CONFORT	95	90
	0479.00.23	11 + 12	23	CONFORT	78	74
JUNIOR OPTIMUM	0479.02.30	3 x 10	30	OPTIMUM	95	90
	0479.02.36	3 x 12	36	OPTIMUM	78	74
SENIOR	0479.00.26	2 x 13	26	GASTRONORM	90	86
	0479.00.30	2 x 15	30	GASTRONORM	78	74
	0479.00.25	12 + 13	25	CONFORT	90	86
	0479.00.29	14 + 15	29	CONFORT	78	74

TRAYS

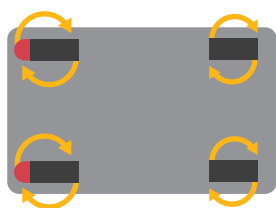


OPTIONS

MAIN INTERNAL OPTIONS

- Anti-fall grills
- Door holder for washing in trolley washer

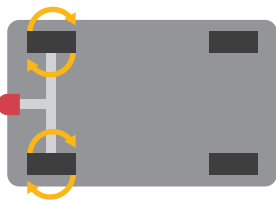
CASTERS



Directional castors :

4 pivoting 160mm diameter castors in stainless steel designed for trolley washer:

- 2 castors with directional locking
- 2 castors with brakes



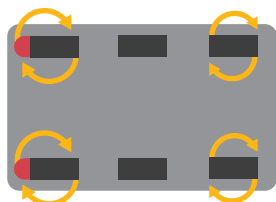
4 zinc plated castors with central brake :

- 2 fixed Ø 200 mm castors
- 2 swivelled Ø 160 mm castors with central brake



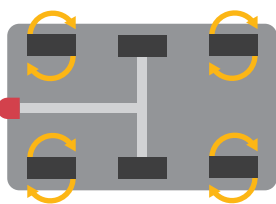
4 stainless steel castors:

- 2 fixed Ø 200 mm castors
- 2 swivelled Ø 160 mm castors with brakes



6 zinc coated castors:

- 2 swivelled Ø 160 mm castors
- 2 swivelled Ø 160 mm castors with brakes
- 2 fixed Ø 200 mm castors



6 zinc plated castors or stainless steel castors with central brake :

- 4 swivelled Ø 160 mm castors
- 2 fixed Ø 200 mm castors with central brake



MAIN EXTERNAL OPTIONS

- 4-door version to maintain inertia of hot and cold partitions
- Lockable door
- Door-ajar device
- Identification plate
- Protective tape



LOGISTICS

Optimizing space

The conception of our solutions has taken into account the logistical constraints. We make no compromise in matter of material quality which makes our decoupling solution the most robust in the market. Our trolleys are resistant to the logistical constraints. The trolley dimensions and easy usage are also the advantages enjoyed by our design. The weight and size of our trolley are optimized to offer more comfort and improve the working conditions of the logistics teams.

Holding tray temperature during transport using dry ice

If you face important logistical constraints, we offer a version of the Ergoserv trolley designed for dry ice insertion. It is equipped with connectors for the CO2 injection pistol, and a compartment to store the dry ice, which allows to keep the components at the good temperature for longer time and thus maintain the cold chain. The CO2 loads are calculated according to the logistic constraints. The calculation is automated thanks to infrared sensors integrated in the pistol.



CO2 Pistol

Ergoserv Trolley

CO2 Station

LES TRANSPORTS TRACTÉS

Tilting towbar



Telescopic towbar



Pivot towbar



Automated Guided Vehicles

Our Double Flow Ergoserv solution is compatible with AGV (Automated Guided Vehicles) transport systems. Ergoserv trolleys are equipped with custom-fit baseplates adapted to the different AGV systems in the market. The AGV allows trolleys to move around the hospital, without any human effort. They guarantee great logistic security, reduce workload and increase equipment durability. This solution is beneficial for your logistics service in every aspect.

Ergoserv Trolley

Automated Guided Vehicles



FOOD SAFETY

Real-time data collection, automatic or manual

- Recording of core and ambient temperatures
- Quick and easy supervision of service status thanks to a tricolour LED bar

Technical supervision

- Fleet management
- Remote start / stop of cycles
- Collection of alarms / alerts
- Reminder of maintenance actions
- Monitoring and recording of temperatures

STANDARD USB OR REALTIME

Two ways of collecting the datas in standard in order to monitor, react and record incidents and curves of temperatures.

With USB stick

Exports and saves traceability reports in PDF format :

- Core temperature
- Ambient temperature of tanks
- Operating history
- Heating program

Realtime

Our new SOCONNECT platform to offer a wide range of services.

- Supervision of the park's operating status with analysis support
- Monitoring of ambient and core temperatures
- Remote programming
- Consultation of trolley operating history

THREE LEVELS OF TRACEABILITY

Standard traceability

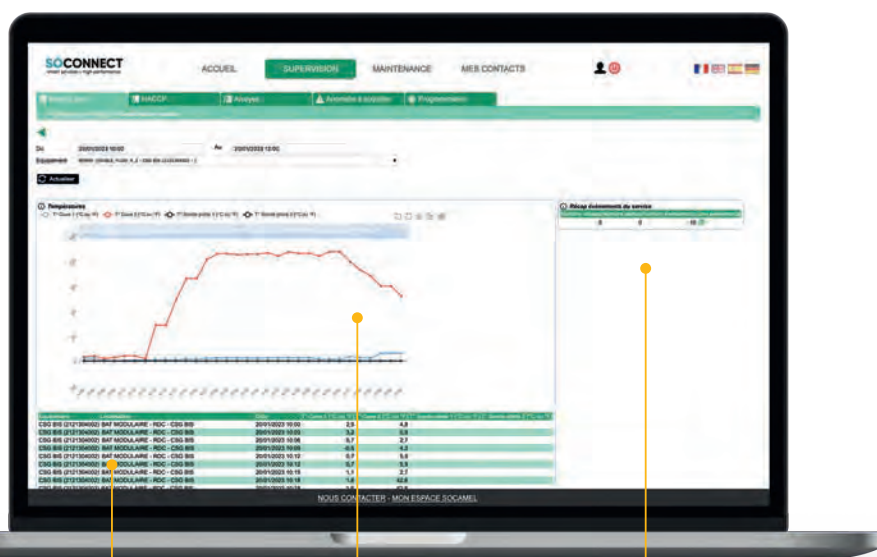
As standard, a first level of traceability records the ambient temperatures of the tanks when the trolley is powered up.

Extended traceability

The extended traceability system, which consists of equipping each Ergoserv with data recording modules, allows users to control all stages of meal distribution 24 hours a day, from allocation, to transport, reheating and service.

Prick probe

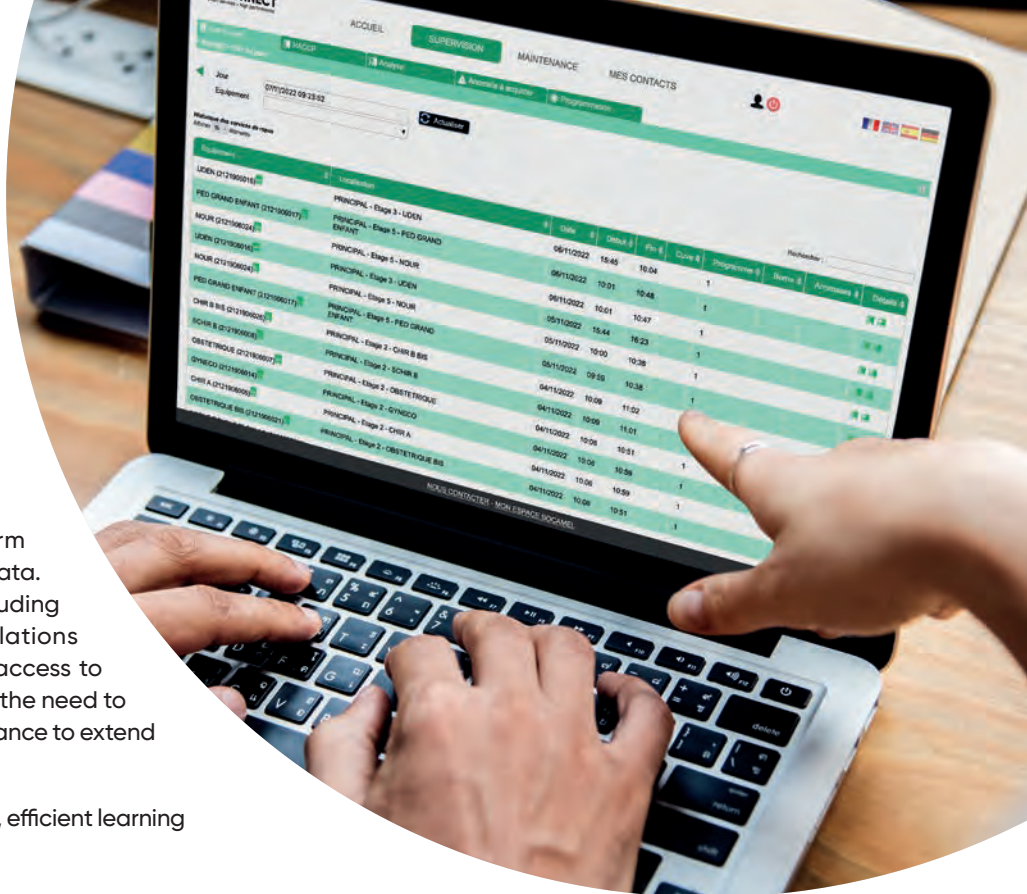
You can complete your equipment by purchasing a prick probe, which can be used to load menus and record the core temperatures of dishes.



SOCONNECT software

Real-time monitoring

Equipment fleet



SOCONNECT is our new software platform for moving from an obligation of means to an obligation of results. This unique 360° solution is designed to optimise meal distribution and equipment management.

Outsourced in the cloud, this platform facilitates maintenance and centralises data. SOCONNECT now provides services including a guarantee of compliance with regulations and performance. It now also provides access to indicators that can be used to anticipate the need to replace equipment and carry out maintenance to extend its lifespan.

SOCONNECT, a platform optimised for fast, efficient learning and 100% controlled performance.

He can be installed on a network for management on several devices.

SOCONNECT

smart services • high performance

MULTIPLE SERVICES



Operating

The SOCONNECT software platform is designed to be quick and efficient to learn. Everything is based on alarms in the form of counters, with regular reporting on the status of the fleet.



Regulations

SOCONNECT offers constant recording of vat temperatures, enabling dishes to be kept cold or reheated. This is not sampling, but a permanent, impartial check on all meals. Any anomalies are instantly reported by SMS or e-mail. Of course, the prick probe is still available.

Performance

The hot and cold performance of the equipment is checked for all meals delivered. In this way, a performance guarantee is provided to ensure that the equipment does not drift over time, as this problem is still too often linked to maintenance or wear and tear issues, but also to use. SOCONNECT is therefore also a management tool.



CMMS (Computerised Maintenance Management System)

In the same way as Socamel, customers' technical departments have access to information on all maintenance operations carried out on their equipment. SOCONNECT is a genuine Computer-Aided Maintenance Management tool, providing total transparency and global support.



Assets

Indicators can be used to anticipate the need to renew equipment, to decide whether to undertake refurbishment campaigns, and to launch maintenance operations while keeping budgets and TCO (Total Cost of Ownership) under control.



Security

In terms of functionality, Socamel offers a 99% service guarantee with software outsourced to a cloud. Maintenance and administration are managed by the manufacturer, which is committed to a responsible security approach with an outsourced risk analysis and a policy of monitoring and updating the latest security patches.

MONITOR, REACT AND RECORD IN A VERY SIMPLE WAY

A trolley's pathway includes numerous operations, some with risks for the food safety. SOCONNECT secures the HACCP process and guarantees the expected level of performance.



1

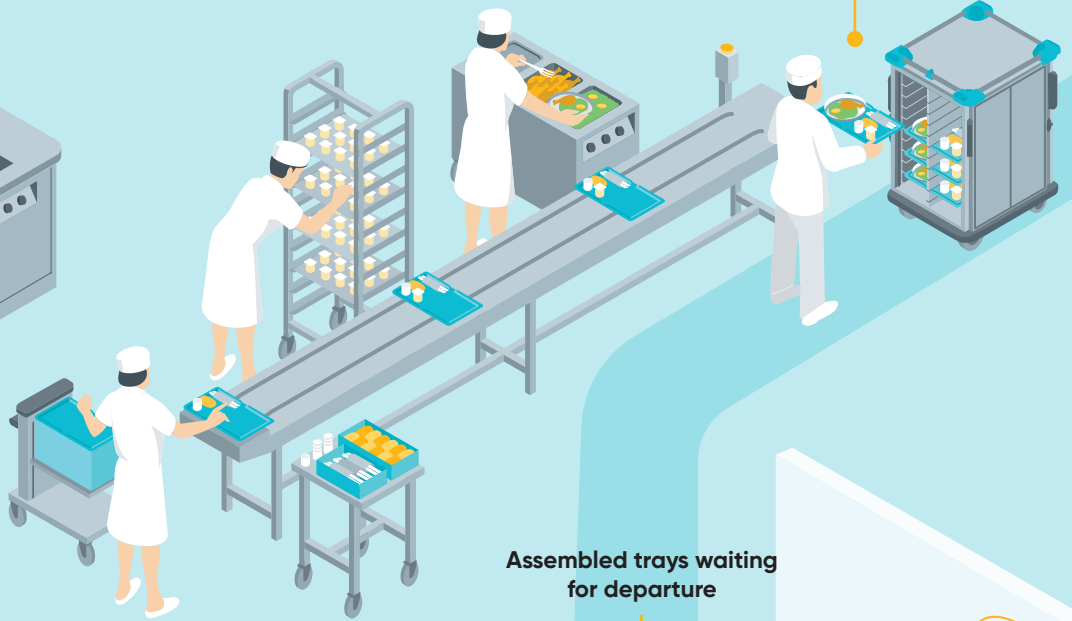
TRAY ASSEMBLY

From that moment on, with the extended traceability of i-Serv, preparations are under surveillance. SOCONNECT checks with the kitchen manager.

Tray assembly area, loading of Ergoserv



Cooking area



Assembled trays waiting for departure

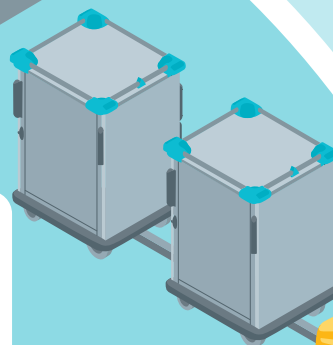


Traceability of temperatures before transport

2

TRANSPORT

Throughout the logistics process, i-Serv's extensive traceability records the temperatures of each tank. Dispatch of Ergoserv shuttles to care units (truck transport, towed transport, goods lift, AGV)

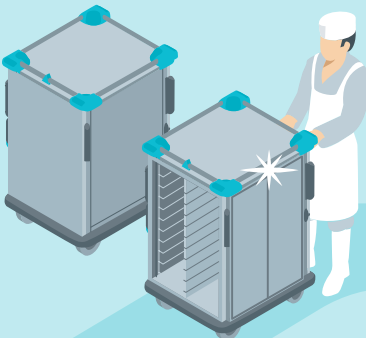


5

TROLLEY WASHING

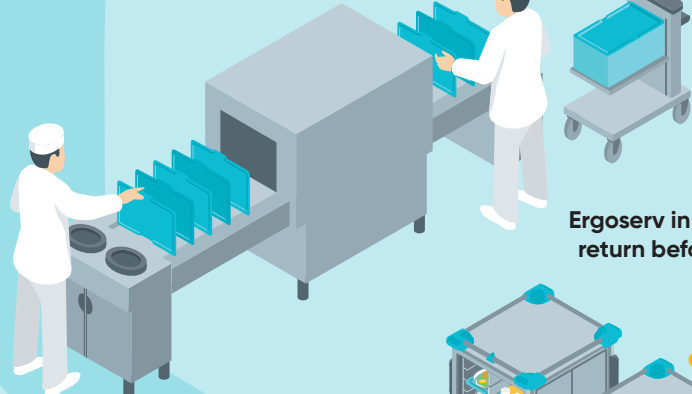
During the operation, the extended traceability records the short raise of temperature inside the trolley (use of hot water).

Automatic washing of Ergoserv in the cab

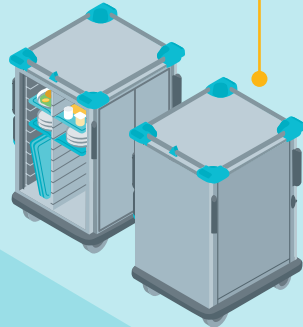


Clean trolleys

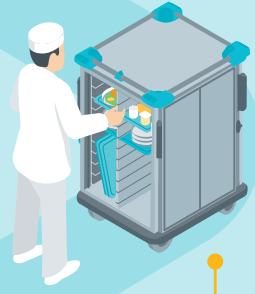
Trays/dishware washing area



Ergoserv in distribution return before laundry



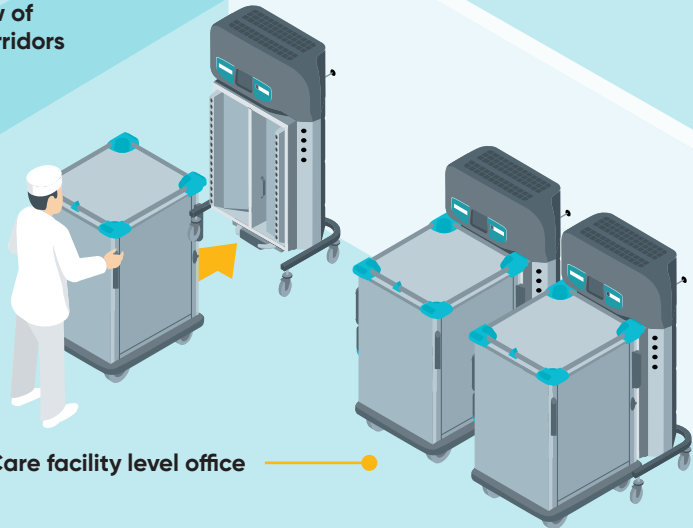
Clearance of soiled trays



Service in the flow of movement inside corridors



Care facility level office



4

EXTENDED TRACEABILITY & REAL-TIME MONITORING

With SOCONNECT, the catering manager and dietician can be informed by counters about :

- Operating incidents
- Temperature compliance
- Dish delivery status
- Equipment usage

3

ERGOSERV & DOUBLE FLOW CONNECTION

As the trolley approaches (5cm), the Double Flow will connect it automatically to start the programmed cycle (temperature holding or reheating). As per the Extended traceability option, the module will automatically recharge the power supply.

THE SOCAMEL DIFFERENCE

FOR THE PATIENT/GUEST

- Choice of menus allowing delicate meal courses, fried or gratin preparations to extend the gastronomic pleasure
- Hotel service on flat trays with upscale presentation on pre-dressed plates, facilitating the distribution of the right dish to the right patient
- No stress for the serving staff when giving out and collecting back the trays, freeing some time for more interaction with the guests

FOR SERVICE STAFF

- Effortless connection to automatic docking stations, with immediate, automatic start-up
- Permanent information on the cycle's operation, its operating status and malfunctioning
- Ergonomics and ease of use for meal distribution
- Simple and quick service, walking in the direction of corridors, the trolley enables to pick up the trays without moving to the other side.
- Ensure an efficient service with possibility of working with two people without any inconvenience

FOR CATERING STAFF

- Guaranteed quality technology used in traditional Grande cuisine.
- Perfect organoleptic restitution for a wide variety of menus
- Compatible with all types of crockery from porcelain to single use
- Trays enable "tailor-made" assembly
- Easy to clean design: All parts accessible and removable without tools. No trolley cleaning restrictions (disinfection unit, trolley washer, water jet, steam etc.) and inside surfaces do not need finishing by hand

FOR MANAGEMENT

- Return on investment, with high quality and reliable equipment
- Possible of connecting 3 trolleys to one docking station when it comes to hotline system
- Mobile, robust, well-protected tray trolleys without onboard heating or regulation technology
- Complement or renewal of fleets (even old ones) at a controlled cost
- The reliability of our products allows the maintenance costs under control throughout their life cycle



FOR MAINTENANCE STAFF

- Standard maintenance traceability
- The mobile docking station Double-Flow
- enables a complete and unrestricted access
- High quality and proven technical components manufactured and assembled in France
- Quick access to technical elements

FOR THE FACILITY'S IMAGE

- The trolley enhances the facility image (elegance and sobriety)
- Environmentally and socially responsible approach
- Our solutions are designed to improve the working conditions of employees

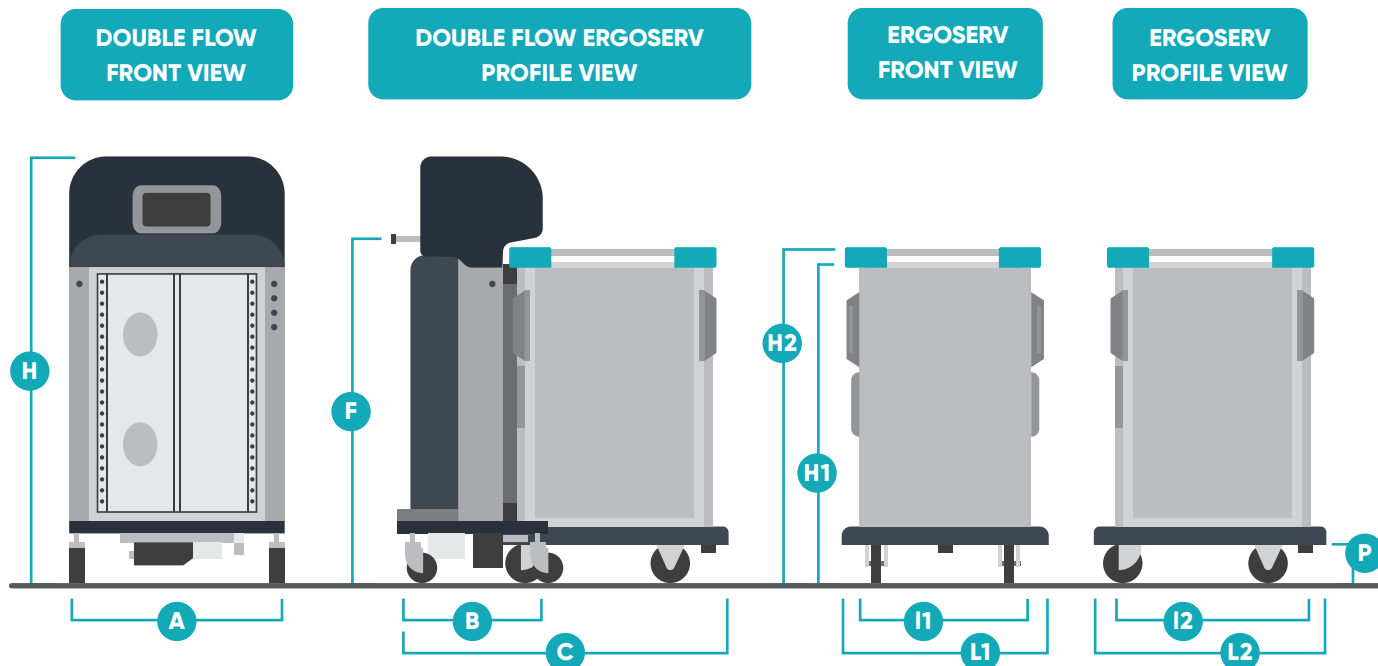


TROLLEYS WITH CUSTOMISED LOOK

Possibility to personalize the carts to bring a touch of originality



DIMENSIONS



DOUBLE FLOW DIMENSIONS / in mm	XS	MINI	JUNIOR	SENIOR
H Height of docking station	1738	1425	1745	1980
A Width of docking station	910	905	905	905
B Depth of docking station	580	580	580	580
C Length of docking station + trolley	1230 / 1580	1360	1360 / 1480 / 1680	1360
F Buffer height	1400	1080	1400	1630
Weight empty in kg	159	136	152	163
Dimensions (B/A/H)	580/910/1738	580/905/1425	580/905/1745	580/905/1980

ERGOSERV DIMENSIONS / in mm	XS 2 WELLS	XS 3 WELLS	MINI 2 WELLS	JUNIOR 2 WELLS	JUNIOR GASTRO 3 WELLS	OPTIMUM 3 WELLS	SENIOR 2 WELLS
H1 Trolley height without rack	1318	1318	1001	1325	1325	1325	1555
H2 Trolley height with rack	1373	1373	1056	1380	1380	1380	1610
P Height of contact strip	203	203	205	205	205	205	205
Trolley width	610	610	795	795	795	795	795
L1 Trolley length	756	1106	920	920	1231	1036	920
L2 Length of docking station + trolley	1232	1581	1360	1360	1675	1480	1360
C Length of docking station + trolley	1232	1581	1360	1360	1675	1480	1360
I1 Width of racks	500	500	680	680	680	680	680
I2 Length of racks	613	961	745	745	865	1060	745
Weight empty in kg	110	161	110	140	197	168	161
Dimensions (L1/L2/H2)	756/610/1373	1106/610/1373	920/795/1056	920/795/380	1231/795/1380	1036/795/1380	920/795/1610



#weprotectyourfood

This solution
is labelled



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