

DOUBLE FLOW ERGOSERV 4



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.

 **SOCAMEL**
BY GULLIN

#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® 4 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® 4 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 community meals.



2008 - Version 3

This 3rd generation offers superior technological performances thanks to its new aeraulics, 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® V4 concept also includes traceability in its standard models.

SUMMARY

THERMOCONVECTION | P.6

Socamel Technologies

COOK-SERVE | P.8

The typical sequence

COOK-CHILL | P.9

The typical sequence

COOK-FREEZE | P.10

The typical sequence

DOUBLE FLOW® V4 | P.11

Technical terminal

ERGOSERV® V4 | P.13

Tray transport shuttle

OPTIONS | P.17

For the Double Flow docking station and the Ergoserv tray cart

i - SERV® | P.20

Supervision and traceability software

SYNOPSIS | P.22

Typical organization overview

TESTIMONIAL | P.24

From the kitchen to the consumer

DIMENSIONS | P.26

For the Double Flow terminal and the Ergoserv trolley

THERMOCONVECTION

FORCED & DIRECTED THERMOCONVECTION 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

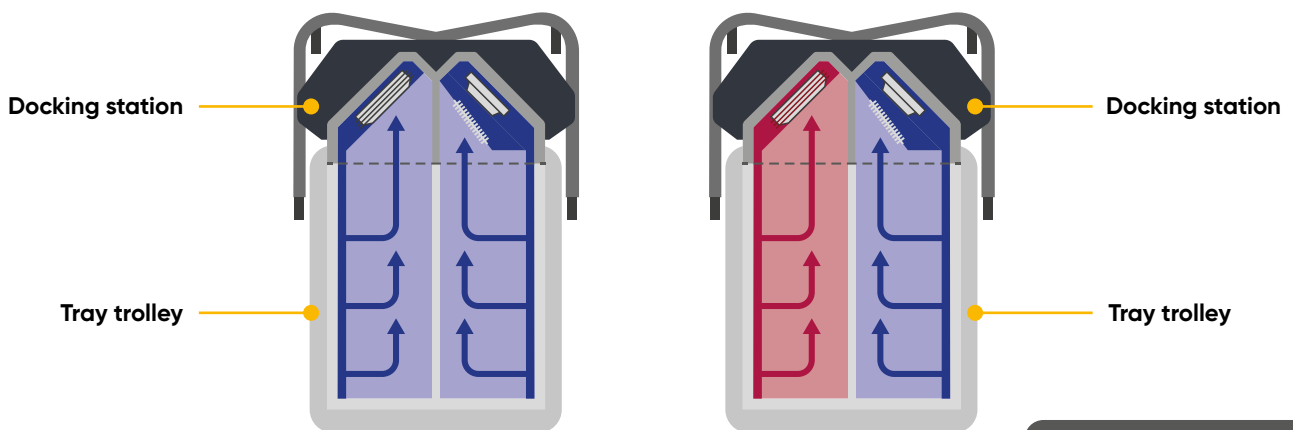
Cook-serve

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

Cook-chill/Cook-freeze

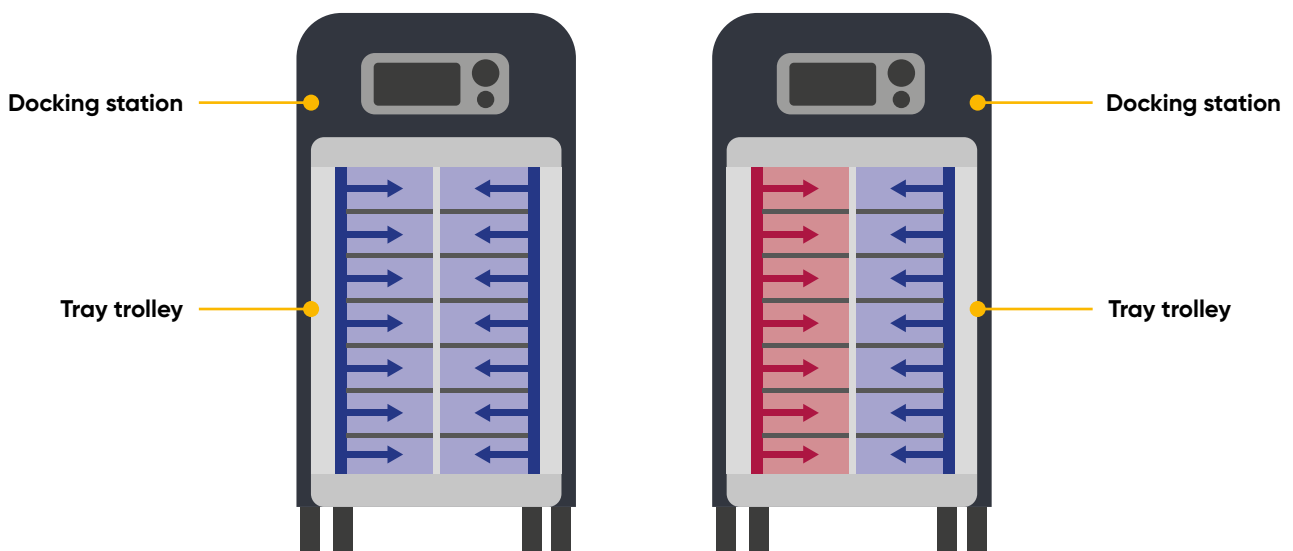
The cycle starts with rapid reduction of temperature and then hold the global temperature between 1 and 3°C. At the programmed time, the cold food temperature is maintained while the hot meals are regenerated.

Top view – horizontal section



Overall cold stabilisation

Bottom view – vertical cross-section



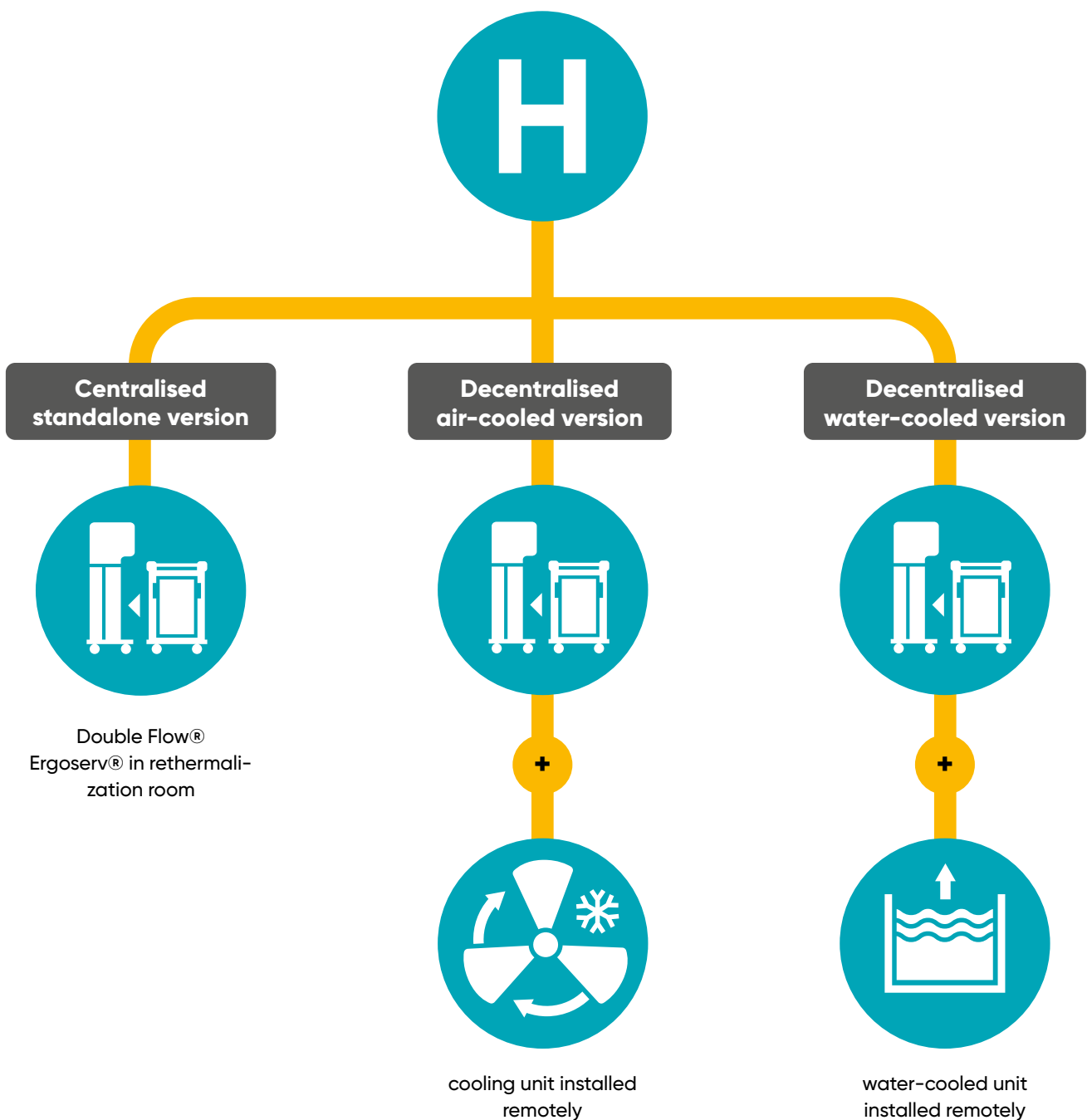
Cold stabilisation followed by rethermalization

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:

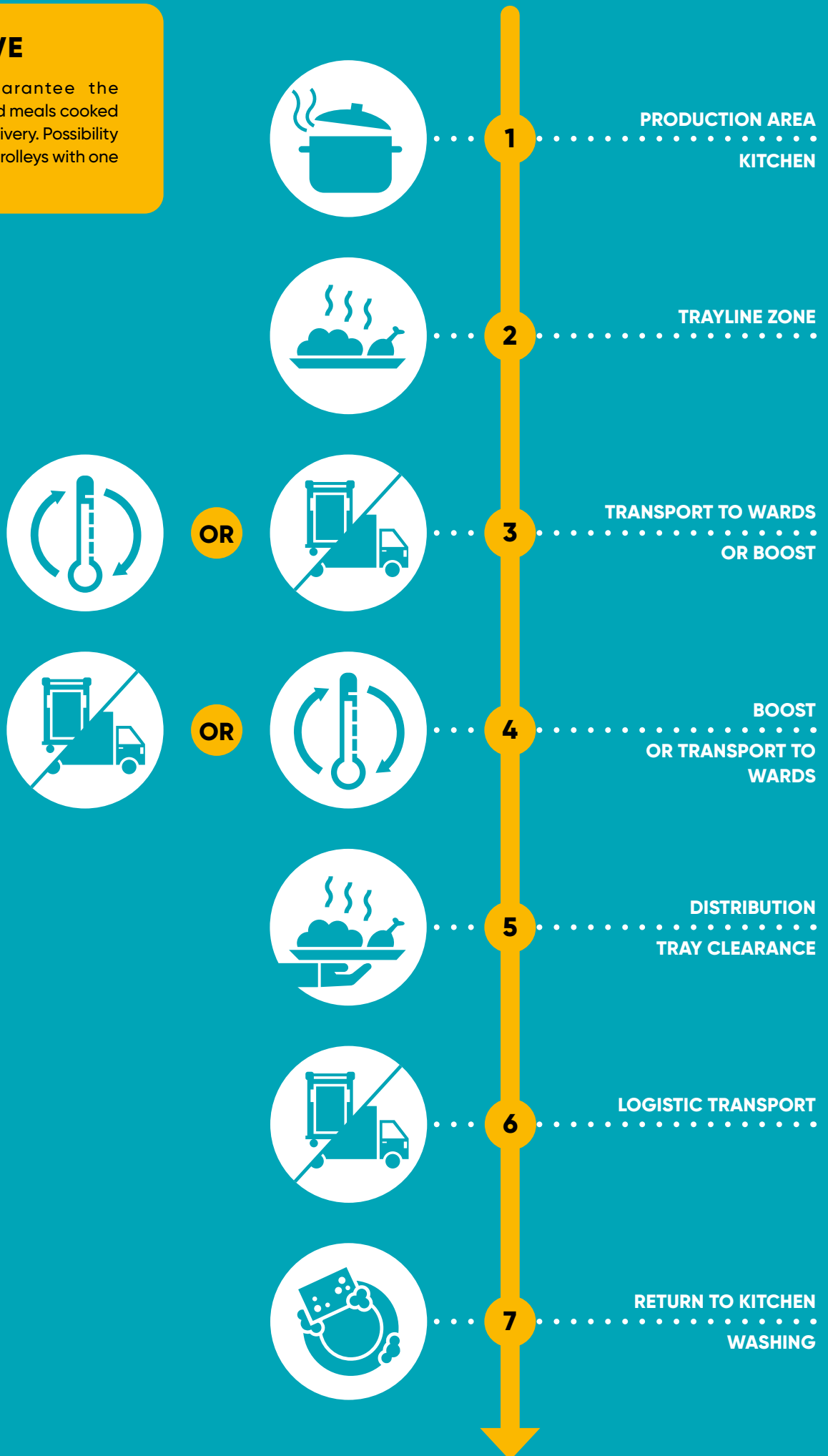


OPERATING PRINCIPLE



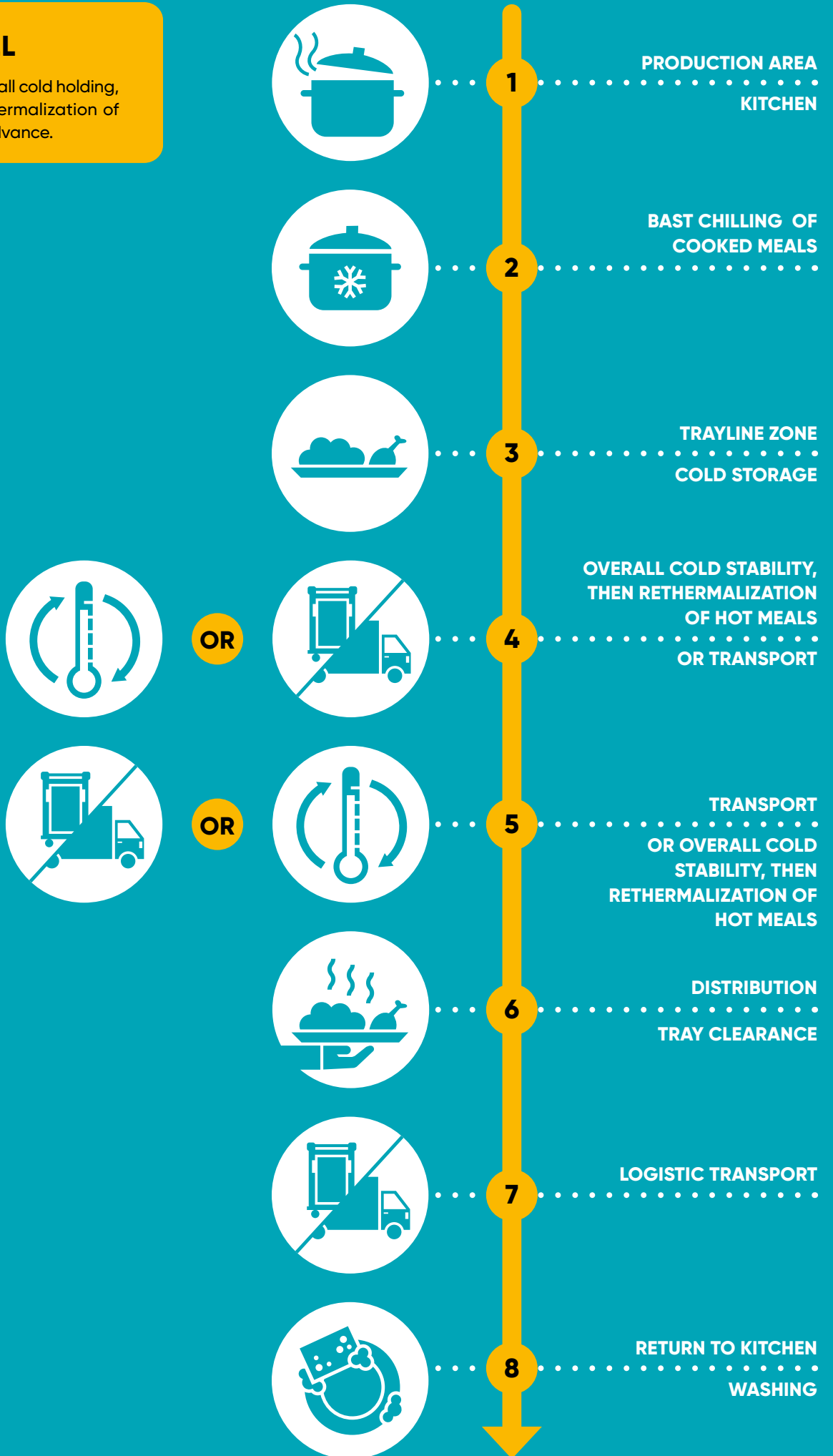
COOK-SERVE

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



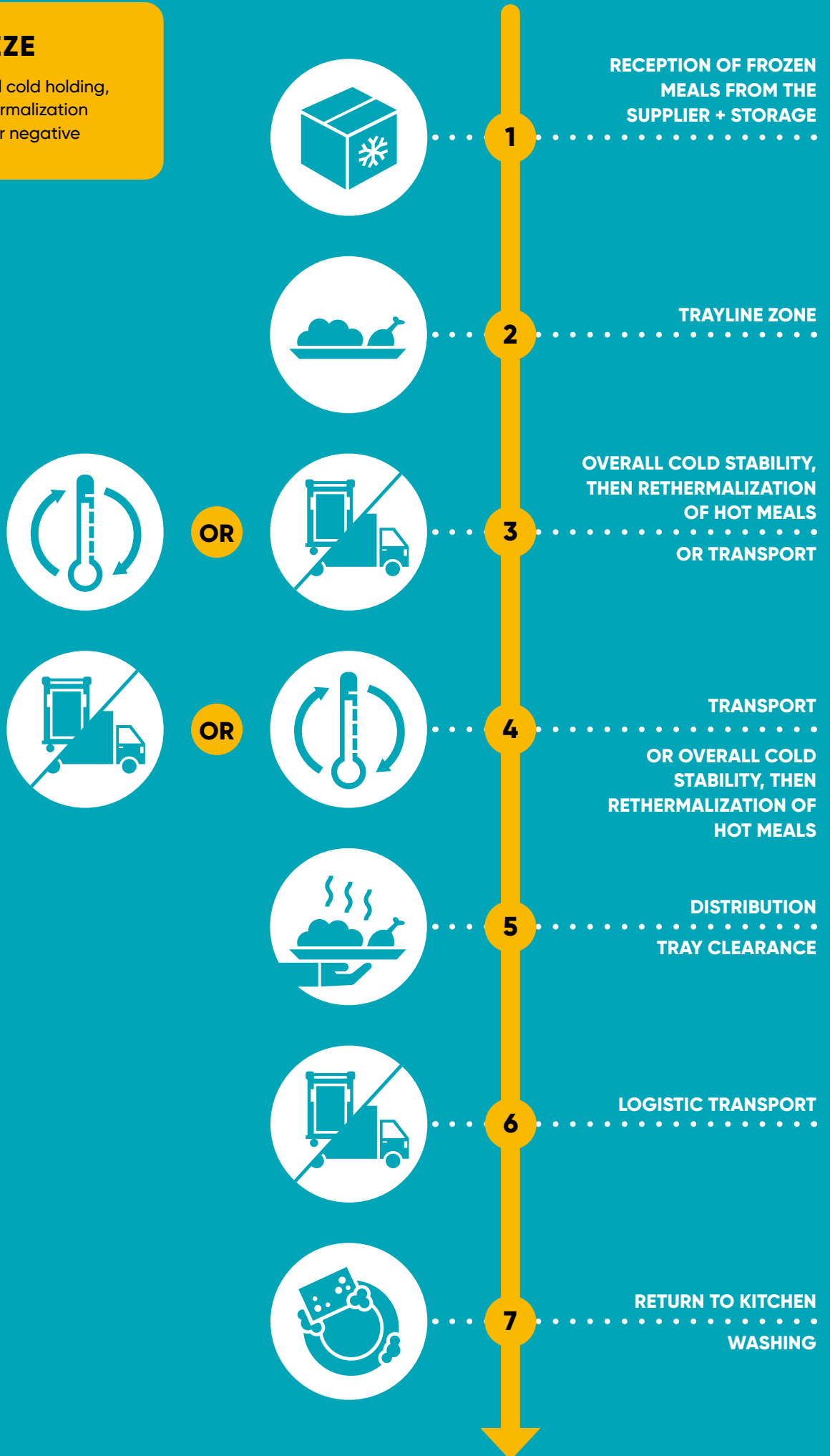
COOK-CHILL

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® 4

THE DOUBLEFLOW® LINE



DOUBLE FLOW® MINI



DOUBLE FLOW® JUNIOR



DOUBLE FLOW® SENIOR

DOUBLEFLOW®/ERGOSERV® V4 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.



THE SCREEN

Digital features

- Simplified use and continuous information on the good progress of the cycles with instant display of the front screen
- Integrated traceability
- Diagnosis, maintenance assistance
- Boost Function

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 three-colour indicator light
- Access to history of temperatures and incidents

Features

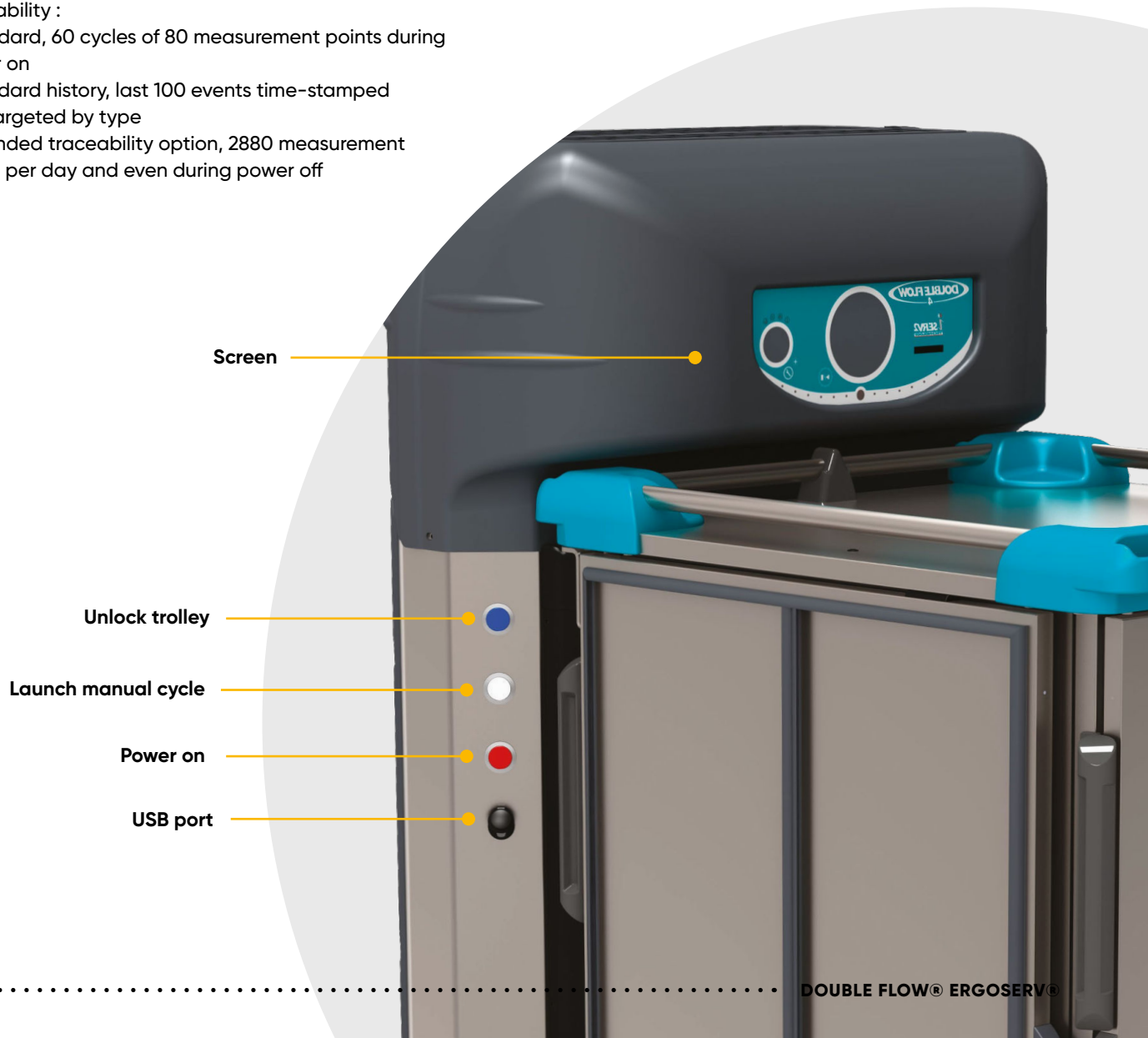
- 3 start-up modes for cycles:
Automatic/Manual/Repetitive
- Programming: 5 programmes for 4 services per day
- Traceability :
 - Standard, 60 cycles of 80 measurement points during power on
 - Standard history, last 100 events time-stamped and targeted by type
 - Extended traceability option, 2880 measurement points per day and even during power off

CYCLE PROGRESS

The food rethermalization involves a rise in in temperature and then stabilization to reach the desired temperature. SOCAMEL's air convection technology ensures the desired temperature and temperature uniformity. In automatic mode, the temperature stabilization at the end of the cycle last for at least 30 minutes, which allows to keep the organoleptic quality of the food at the right temperature, both in the hot and the cold chamber.

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.



Screen

Unlock trolley

Launch manual cycle

Power on

USB port



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 fixes 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 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 530x325mm

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.



ERGOSERV® XS 24

ERGOSERV® XS 36

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

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.

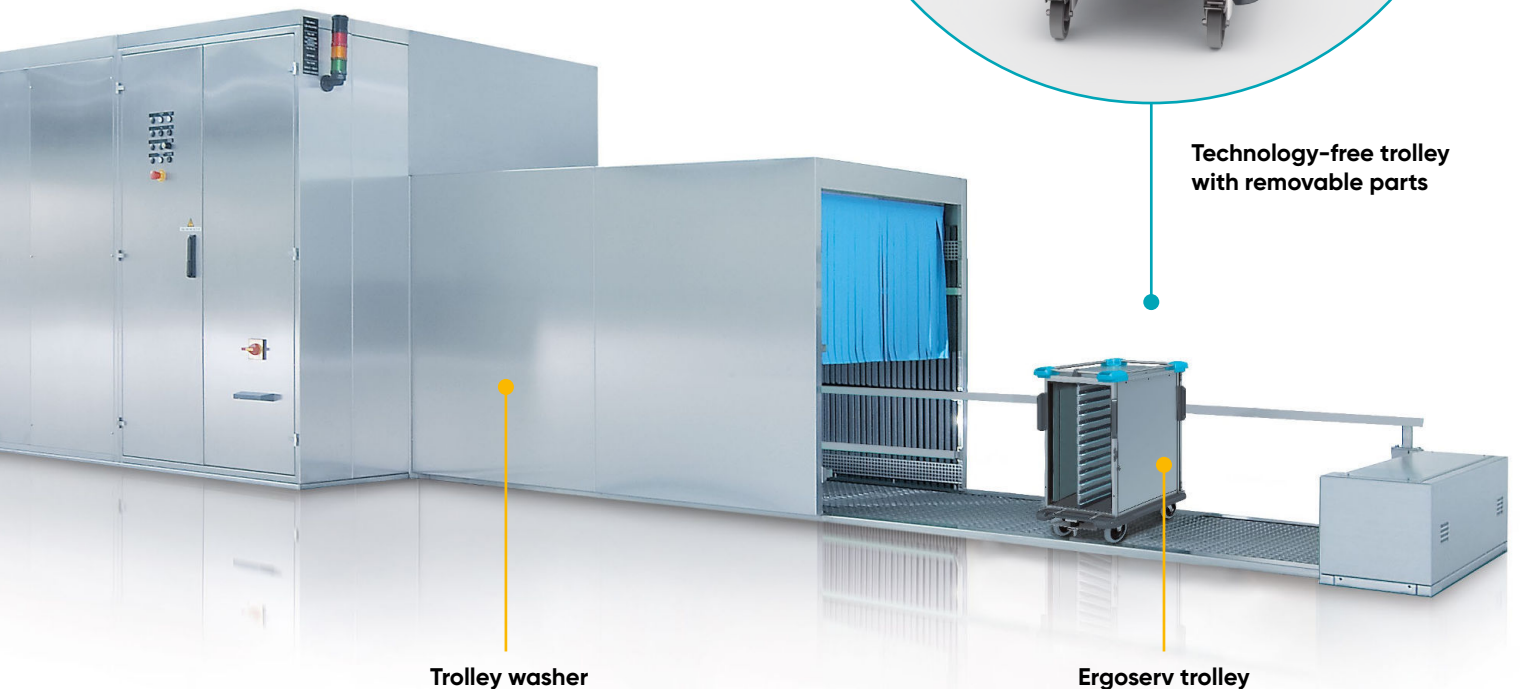
CLEANING

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



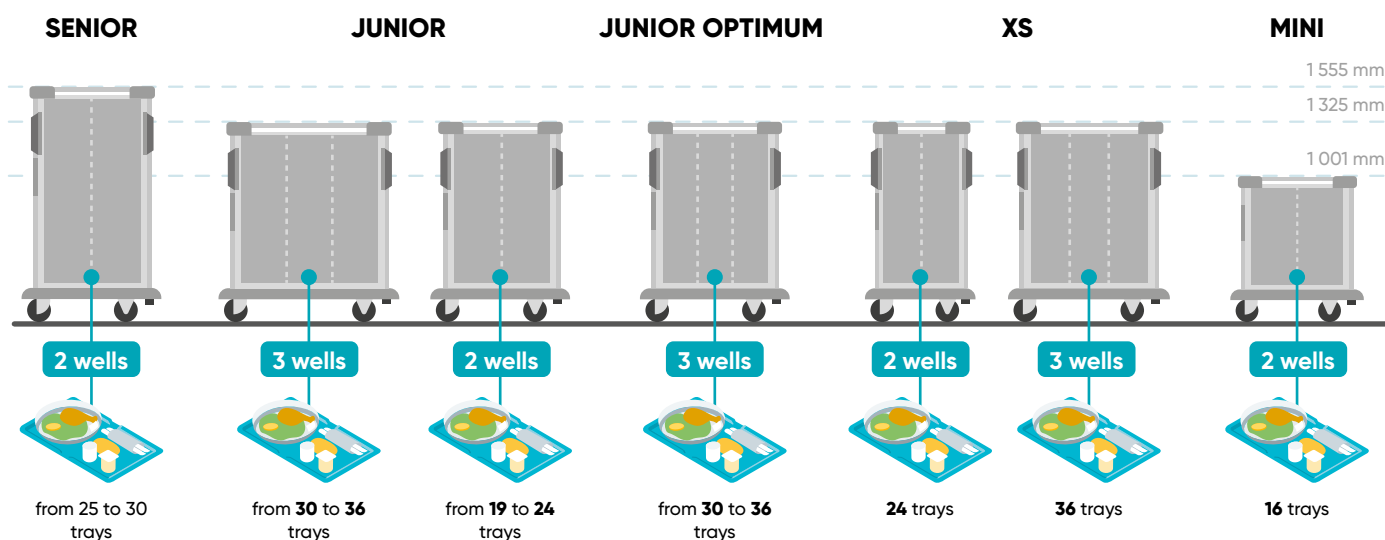
Technology-free trolley with removable parts



Trolley washer

Ergoserv trolley

COMPATIBLE TRAYS



TROLLEY MODEL ERGOSEV®	PRODUCT CODE	NUMBER OF LEVELS	TRAY CAPACITY	TYPE OF TRAYS	PITCH BE- TWEEN 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
	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
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

FLAT GASTRONORM V1
530 x 325 mm



FLAT GASTRONORM V2
530 x 325 mm



2 COMPARTMENTS GASTRONORM
530 x 325 mm



FLAT OPTIMUM
530 x 260 mm



FLAT CONFORT
530 x 370 mm



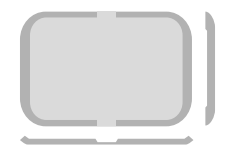
2 COMPARTMENTS CONFORT
530 x 370 mm



GASTRONORM +
570 x 325 mm



GASTRONORM XS
420 x 280 mm

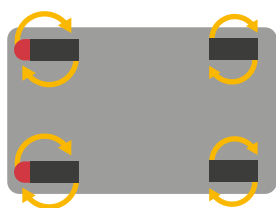


OPTIONS

MAIN INTERNAL OPTIONS

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

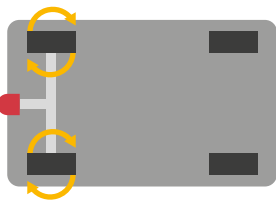
CASTERS



Directional castors:

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

- 2 castors with directional locking
- 2 castors with brakes



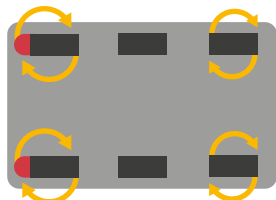
4 zinc plated castors with central brake:

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



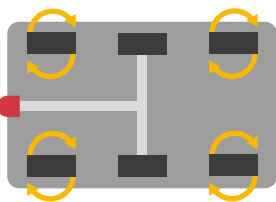
4 stainless steel castors:

- 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 deign. 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

TOWED TRANSPORTS

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, automatic or manual data upload

- Traceability of core and ambient temperatures
- Configurable history depending on geographical area
- Quick, easy supervision of trolley fleet status thanks to a three-colour indicator lighting system
- Remote programming on dedicated PC (Cycle and cycle end time)

Technical supervision

- Remote trolley fleet visualization
- Remote Start/stop of cycles
- Alarm/alert feedback
- Remote diagnosis
- Maintenance reminders



STANDARD USB AND ETHERNET

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

With an USB key

Exports and saves traceability reports in PDF format:

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

Via Ethernet

Real-time tracking and continuous live monitoring:

- Programming
- Supervision of the operating condition of the trolley fleet with analysis assistance
- Control of ambient and core temperatures
- Remote programming
- Consultation of operation history of the trolley fleet



TWO LEVELS OF TRACEABILITY

Standard traceability

As standard, once powered, the cart records the ambient temperatures of the chambers.

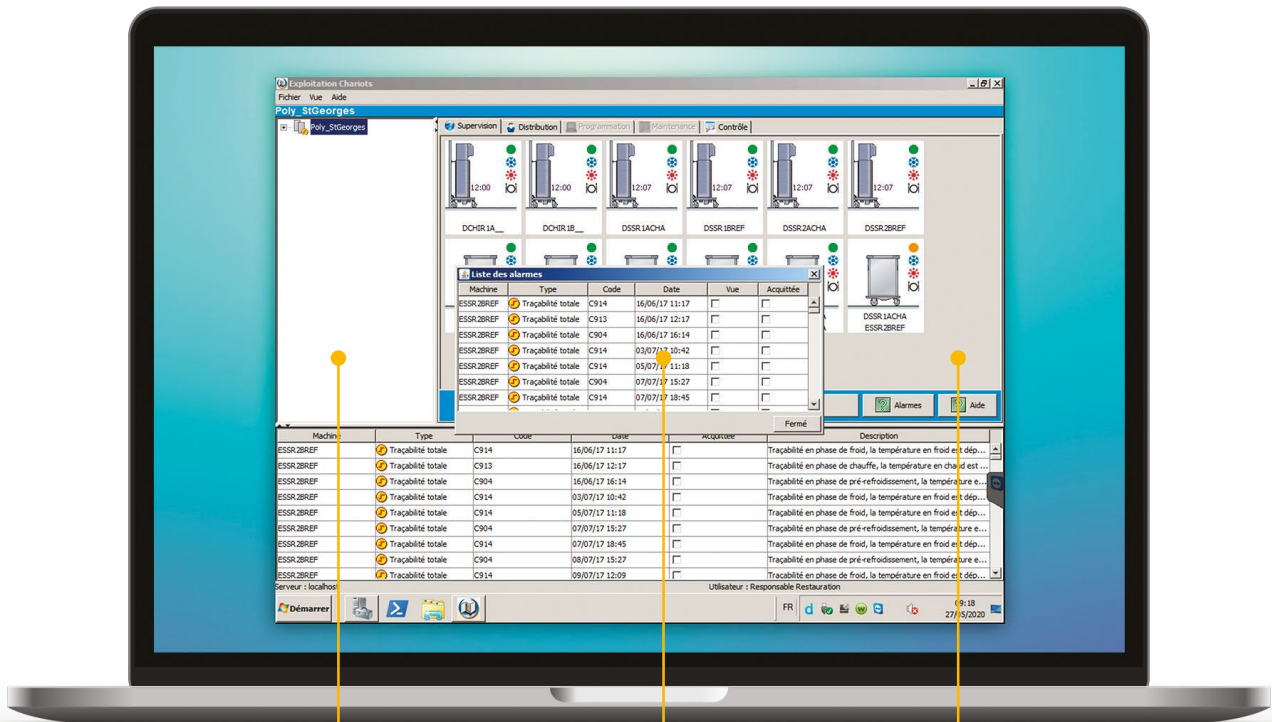
This offer includes the possibility of installing the software on a network for multi-sites management;

Extended traceability

The extended traceability system, with each Ergoserv® equipped with data recording modules, allows users to control all stages of meal distribution from tray assembly, throughout transport, reheating, and up the service of meals

Infrastructure

This traceability pack, the most advanced in the market, allows real time connection to all Socamel equipment through the I-Serv Vision software installed on a dedicated PC or on the client's server. The software allows several connection levels for access to datas and is not limited in number of users.



I-SERV® Software

Real-time tracking

Trolley fleet

MONITOR, REACT AND RECORD IN A VERY SIMPLE WAY

A cart pathway includes numerous operations, some with risks for the food safety. i-Serv® secures the HACCP approach.



1

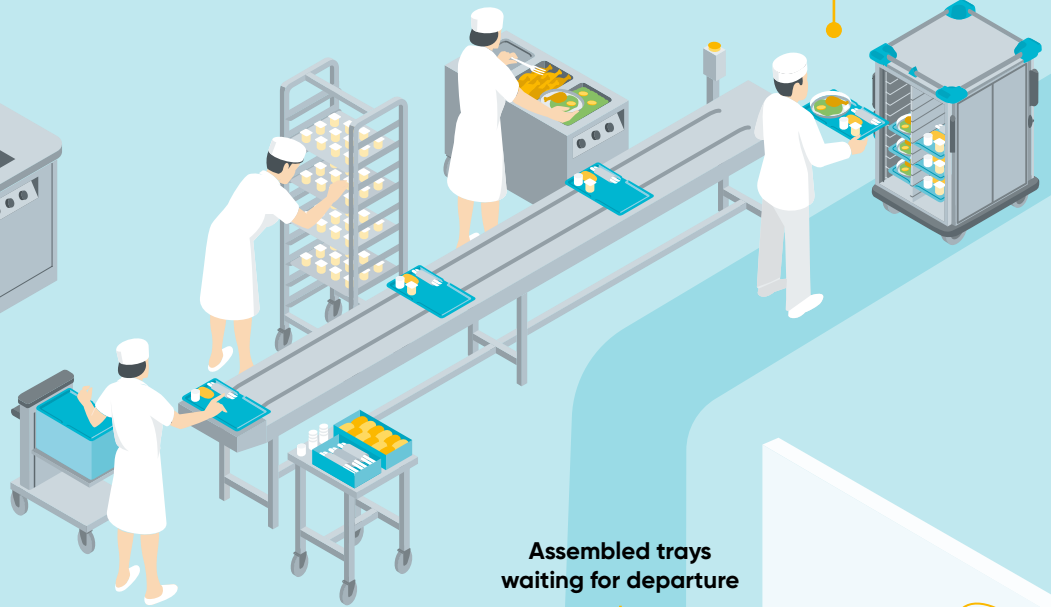
TRAY ASSEMBLY

From that moment on, using i-Serv®'s extended traceability, all meals will be monitored. The kitchen manager can control archiving and traceability remotely using i-Serv® Vision.

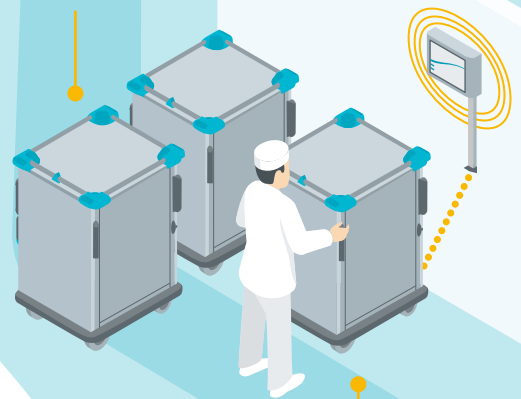
Tray assembly area, loading of Ergoserv®



Cooking area



Assembled trays waiting for departure

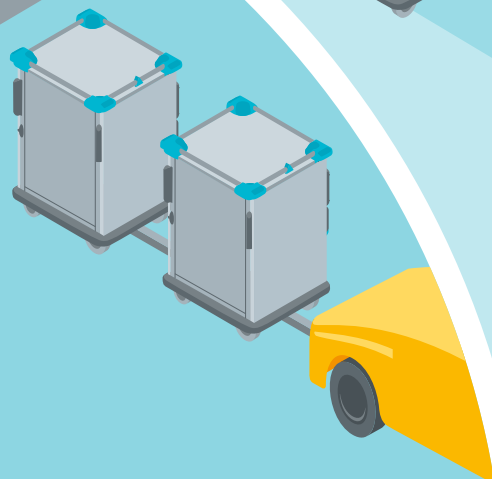


Traceability of temperatures before transport

2

TRANSPORT

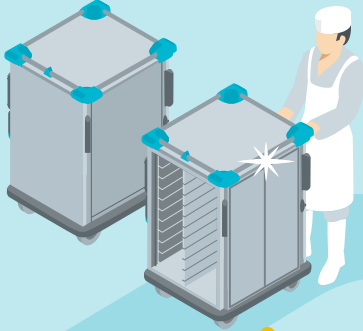
During all logistics operations, i-Serv®'s extended traceability records temperatures of each chamber. Ergoserv® trolleys can be easily transported to different hospital units via (truck transport, towbar and freight elevator, AGV).



5 TROLLEY WASHING

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

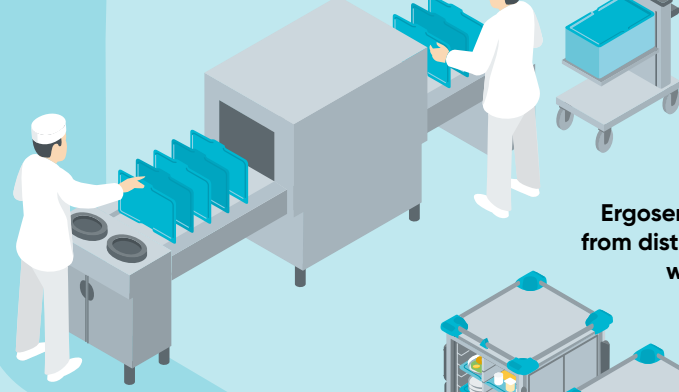
Automatic cleaning of the Ergoserv in trolley washer



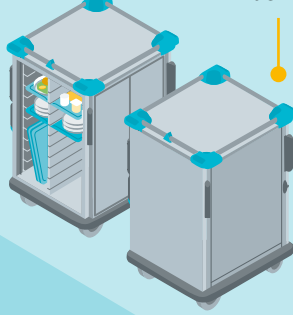
Clean trolleys



Tray/dishware washing area



Ergoserv® returning from distribution before washing



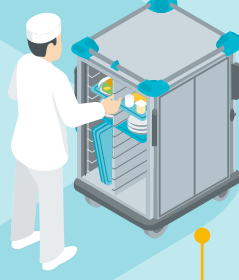
4 EXTENDED TRACEABILITY AND REAL TIME MONITORING

With i-Serv Vision and remote control or in real time, the catering and dietary manager can :

- Start and stop cycles
- Program the whole fleet
- Surveillance, identification of incidents (permanent, automatic information transfert in real time)



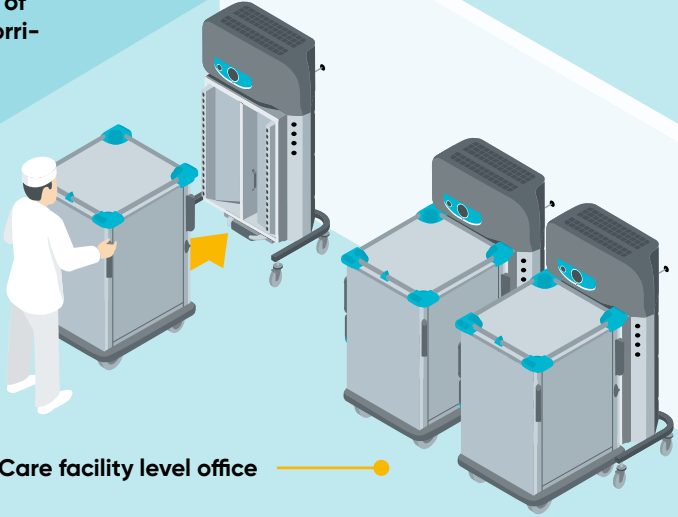
Service in the flow of movement inside corridors



Clearance of soiled trays

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.



Care facility level office

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 on-board 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

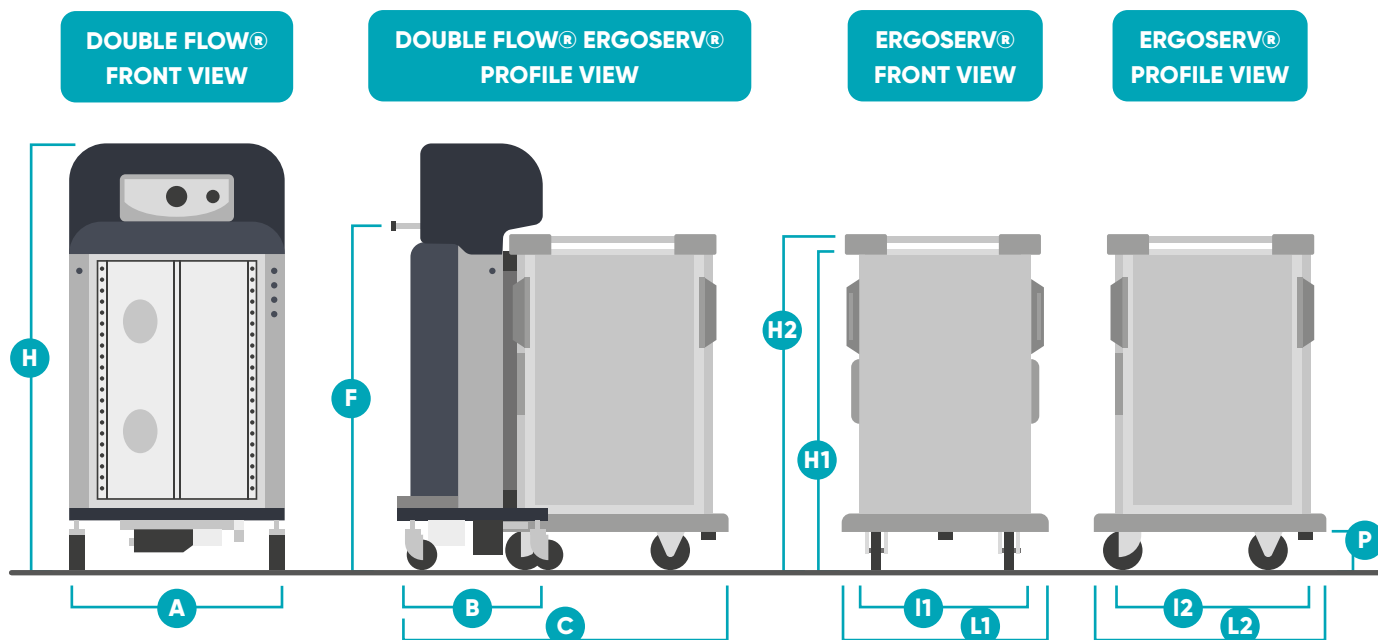


TROLLEYS WITH CUSTOMISED LOOK

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	/	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
Height of contact strip	203	203	205	205	205	205	205
P 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 Width of racks	500	500	680	680	680	680	680
I1 Length of racks	613	961	745	745	865	1060	745
I2 Weight empty in kg	/	/	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

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