

# DOUBLE FLOW ERGOSERV V4.2



DECOUPLED TECHNOLOGY  
TO ENSURE OPTIMUM MEAL  
DISTRIBUTION

## THE LEADING MARKET SOLUTION !

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



#weprotectyourfood



## OPERATING PRINCIPLE

### SOCAMEL's dissociated concept

Comprising of an Ergoserv® transport tray trolley and a Double Flow®, docking station, it is designed for the distribution of complete meal trays with numerous advantages at each distribution stage.



### The Ergoserv® V4.2 tray trolley

The practical, compact Ergoserv® tray trolley receives meal trays assembled on a packaging line and separates hot and cold dishes thanks to an isolating panel that divides it into compartments. The automatic slot covers guarantee air-tightness between the two sections, thereby respecting temperatures in compliance with legislation.

### The Double Flow® V4.2 docking station

The Double Flow® docking station generates hot and cold pulsed air, ensuring steady temperature or rethermalization of hot dishes and maintaining the temperature of cold dishes as soon as it is connected to the Ergoserv® tray trolley. The Double Flow® docking station, installed in the kitchen or in a pantry depending on the configuration of the company and organisation format, allows perfect preservation of meal quality.

## HISTORY OF SOCAMEL'S DISSOCIATED TECHNOLOGY



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



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



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



For optimal day-to-day use, the latest generation is part of an energy consumption, maintenance and cleaning optimisation approach. Respecting the environment and users, the Double Flow® Ergoserv® V4 concept also includes traceability as standard.



# SUMMARY

## **THERMOCONVECTION | P.6**

Socamel Technologies Engineering

## **HOT LINE | P.8**

Standard approach

## **COOK-CHILL | P.9**

Standard approach

## **COOK-FREEZE | P.10**

Standard approach

## **DOUBLE FLOW® V4.2 | P.11**

Technical doc

## **ERGOSERV® V4.2 | P.13**

Tray trolleys

## **OPTIONS | P.17**

For the Double Flow docking station and the Ergoserv tray trolley

## **i - SERV® | P.20**

Supervision and traceability

## **SYNOPTICS | P.22**

Typical overall organisation

## **SATISFACTION | P.24**

From cook to consumer

## **DIMENSIONS | P.26**

For the Double Flow terminal and Ergoserv trolley

# THERMOCONVECTION

## SOCAMEL TECHNOLOGY'S FORCED DIRECTED THERMOCONVECTION TECHNOLOGY

A product of traditional large-scale catering, this technology:

- Respects organoleptic qualities for a wide range of menus including more sensitive ones: beef-burgers, puff pastry dishes, gratins, breaded preparations and deep-fried food...
- Uses all shapes and types of crockery, from porcelain and melamine to single-use crockery)
- Dynamic, targeted circulation of cold and hot airflows with unparalleled homogeneity for all trays derived from high-level aeraulics and thermal studies
- High-performance temperature regulation with a double air generator

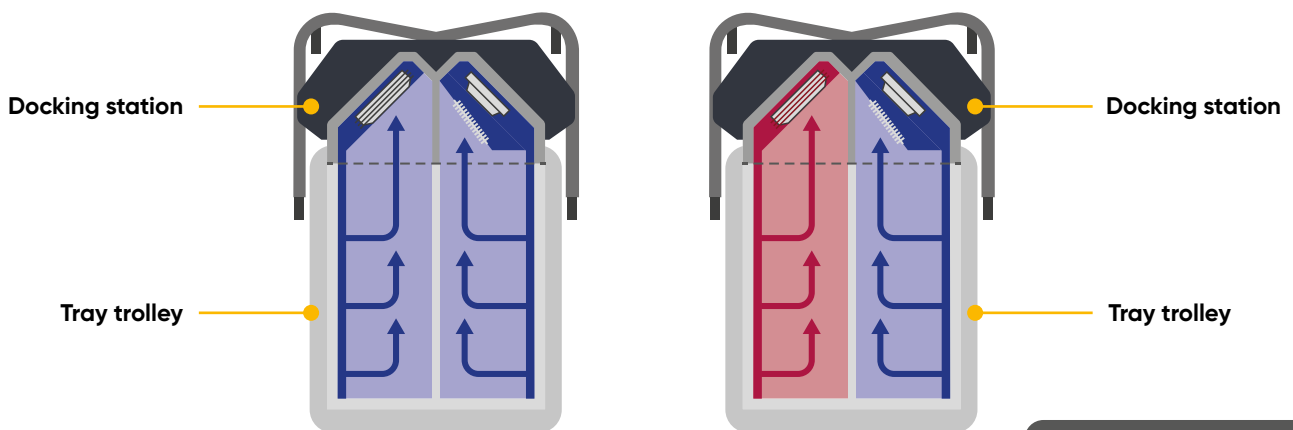
### Hot line

Cycles allow several tray trolleys to be used per docking station.

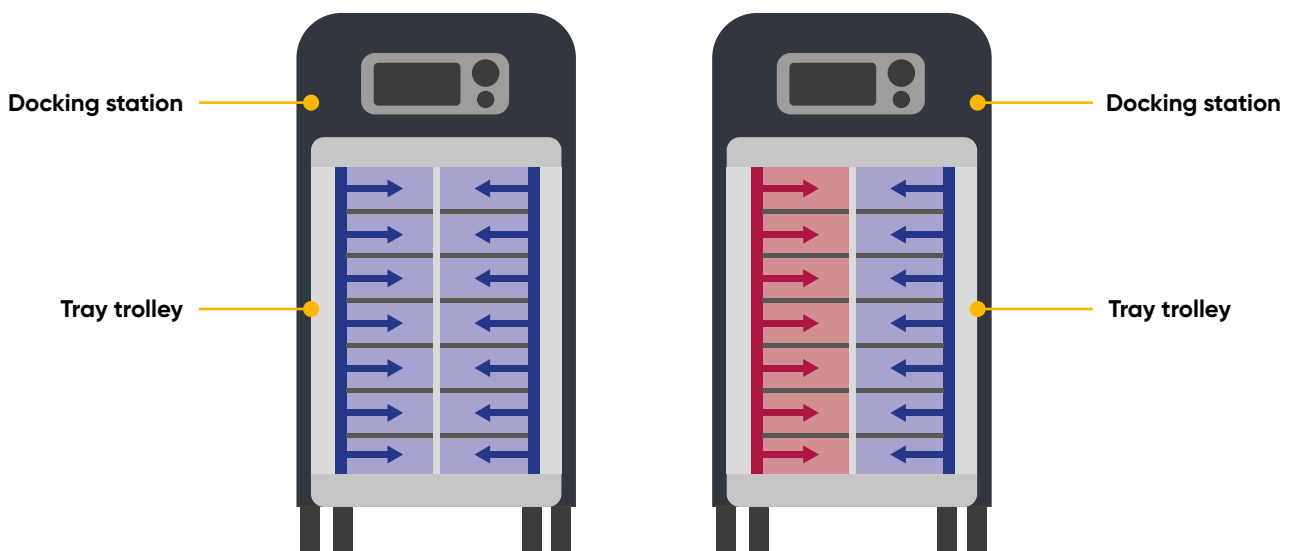
### Cook-chill/Cook-freeze

Beginning of the cycle with rapid descent of cold temperatures and then overall stabilisation at 3°C. At the programmed time, the food temperature is maintained and hot meals rethermalized

Top view – horizontal section



Bottom view – vertical cross-section

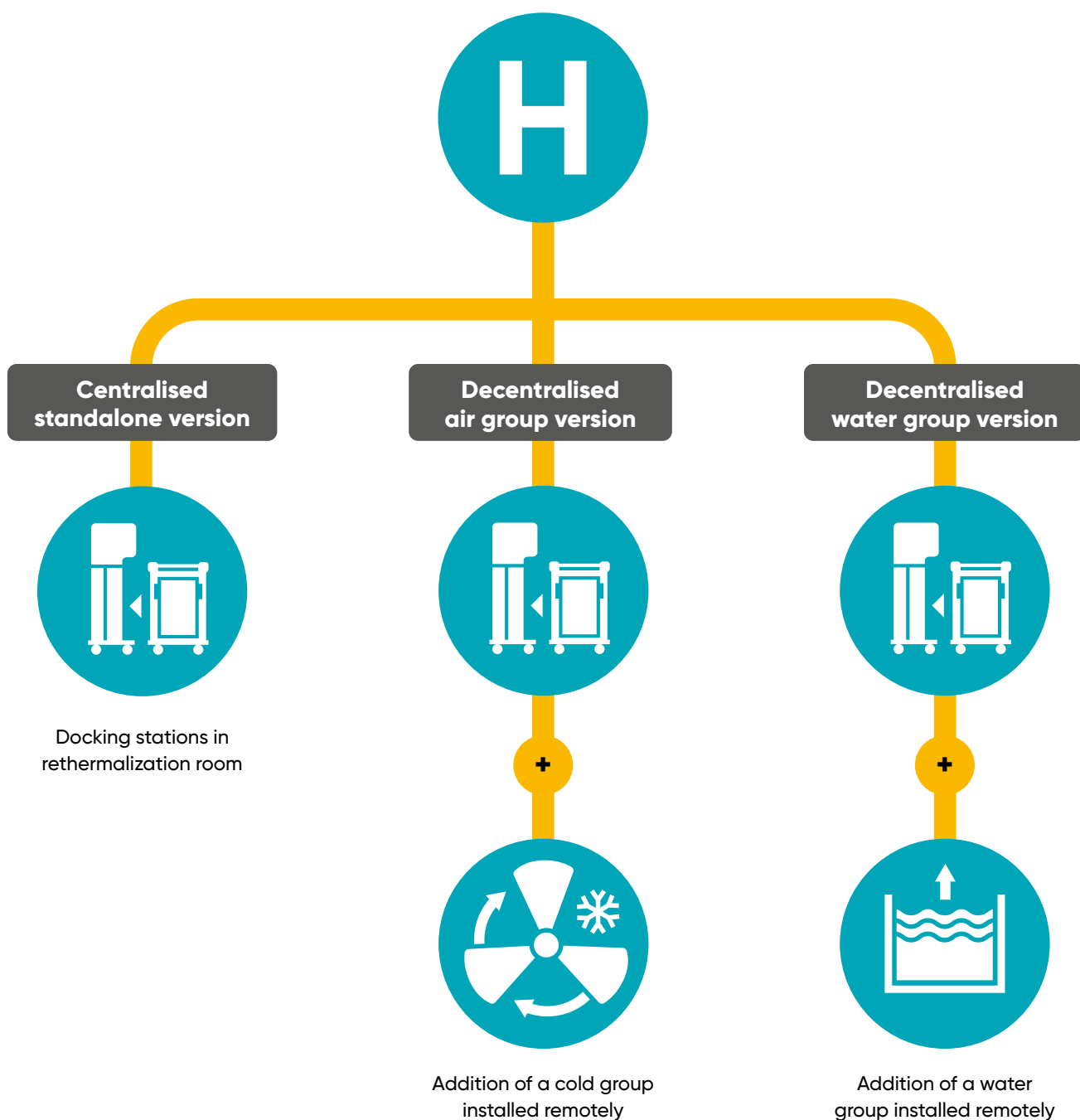


## SOCAMEL TECHNOLOGIES ENGINEERING

Socamel Technologies has optimised its know-how available for its customers to propose cold production solutions that are best adapted to the establishment so as to:

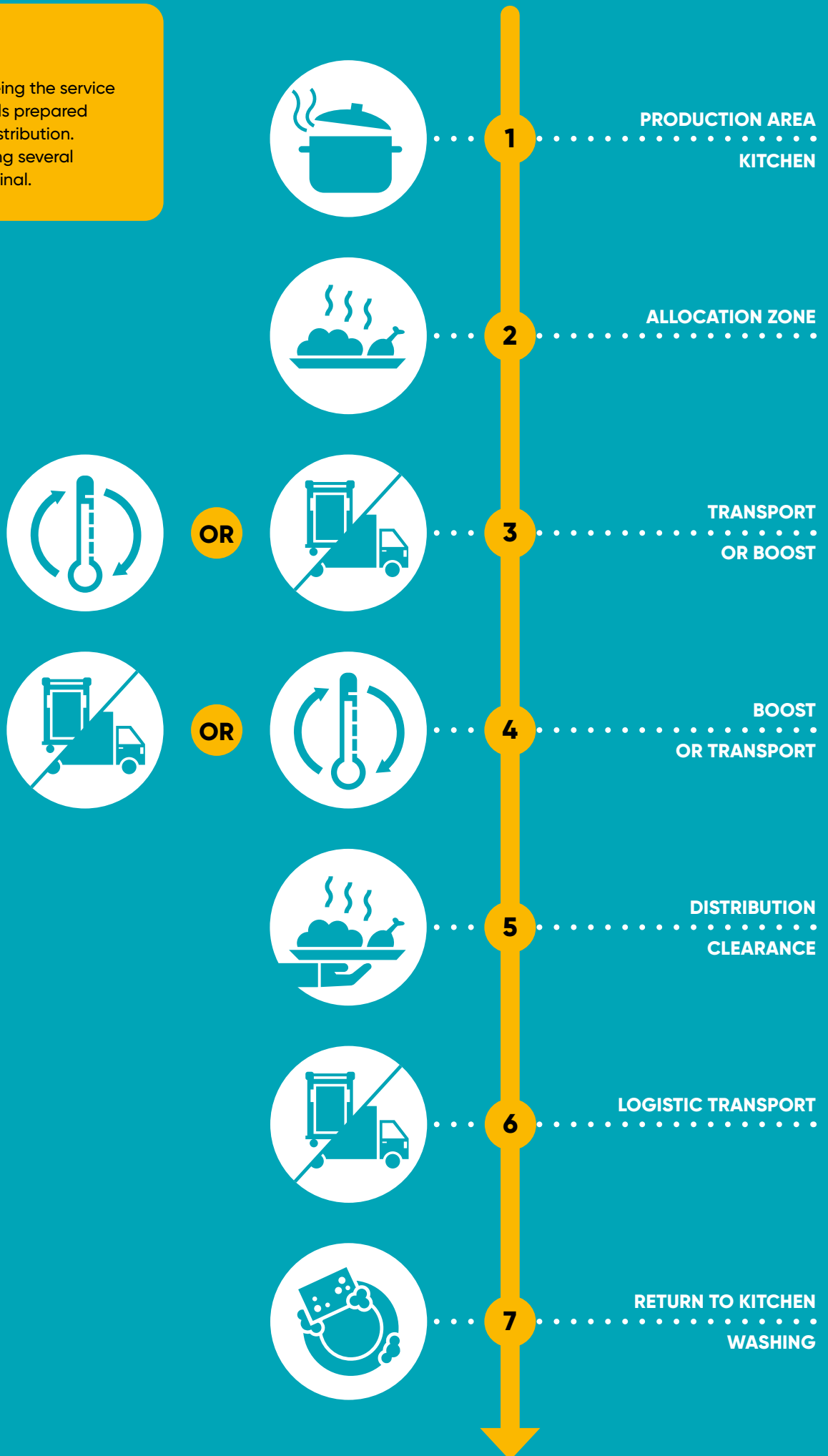
- Make service reliable
- Control costs
- Centralise maintenance

### OPERATING PRINCIPLE



## HOT CHAIN

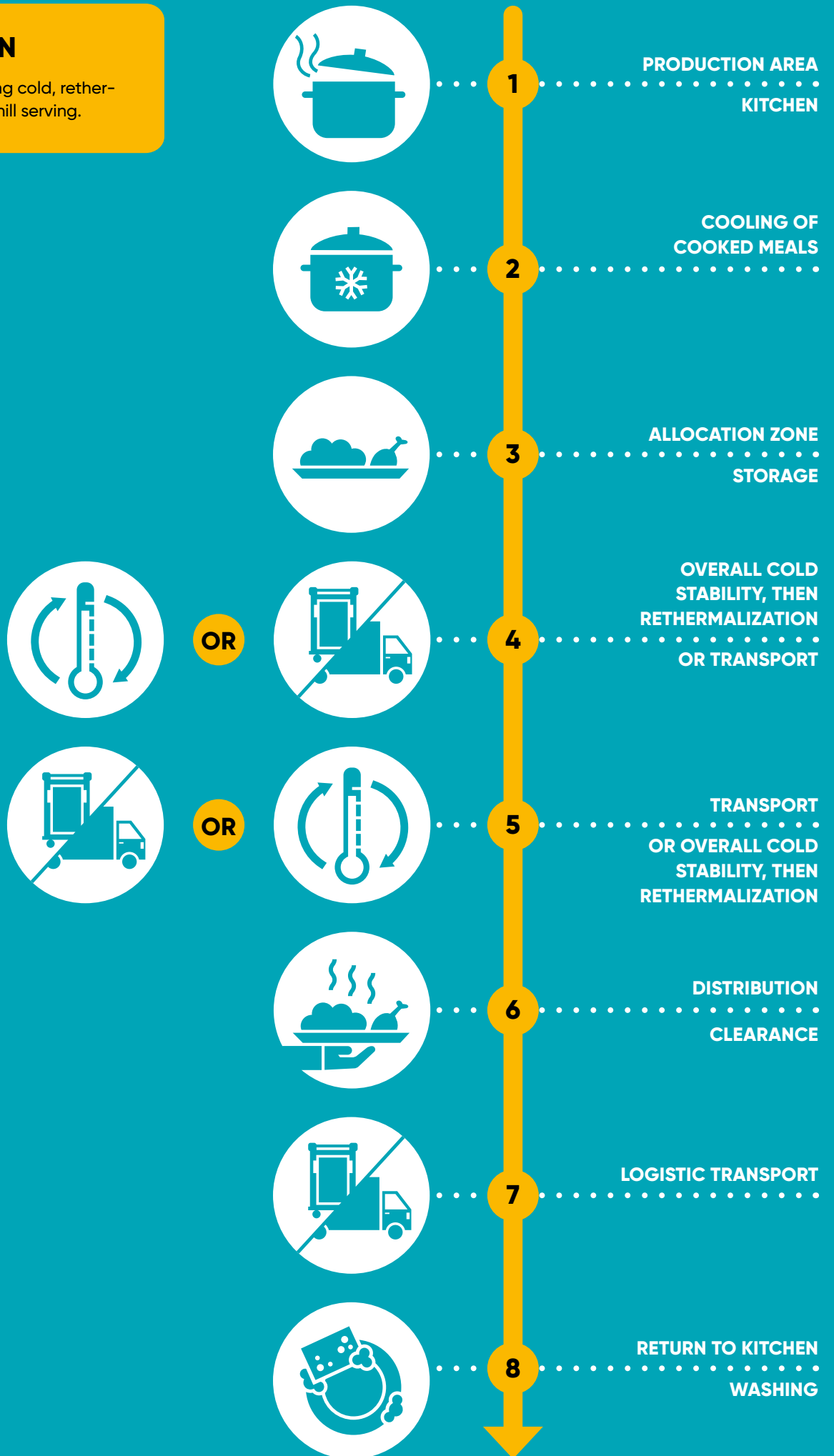
Perfect for guaranteeing the service temperatures of meals prepared on the day of their distribution. Possibility of managing several trolleys with one terminal.





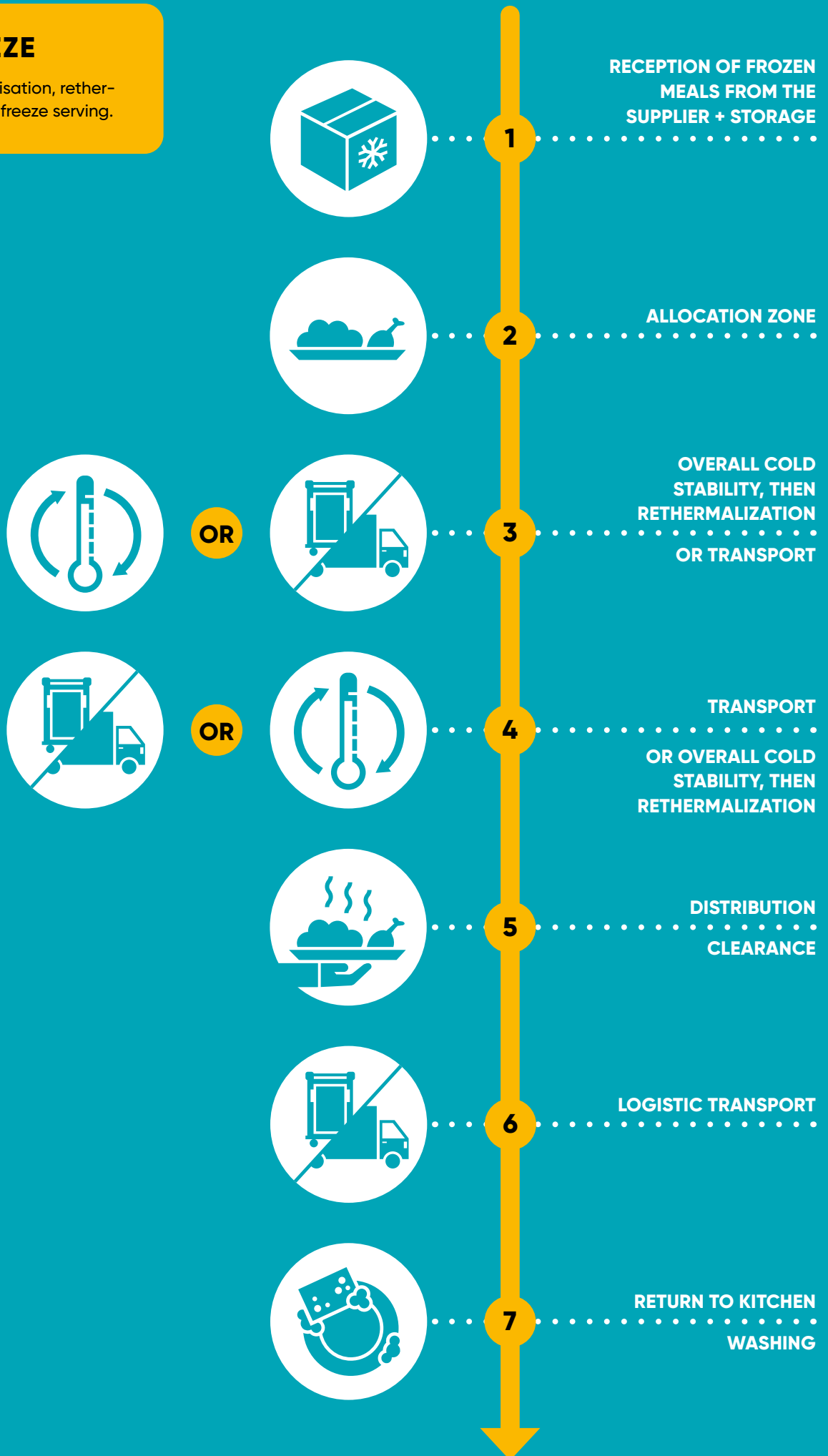
# COLD CHAIN

Perfect for maintaining cold, rethermalizing and cook-chill serving.



# COOK-FREEZE

Perfect for cold stabilisation, rethermalization and cook-freeze serving.



## DOUBLE FLOW® V4.2

### THE DOUBLEFLOW® RANGE



DOUBLE FLOW® MINI



DOUBLE FLOW® JUNIOR



DOUBLE FLOW® SENIOR

### DOUBLEFLOW®/ERGOSERV® V4.2 CONNECTION

#### Particularly compact mobile docking station

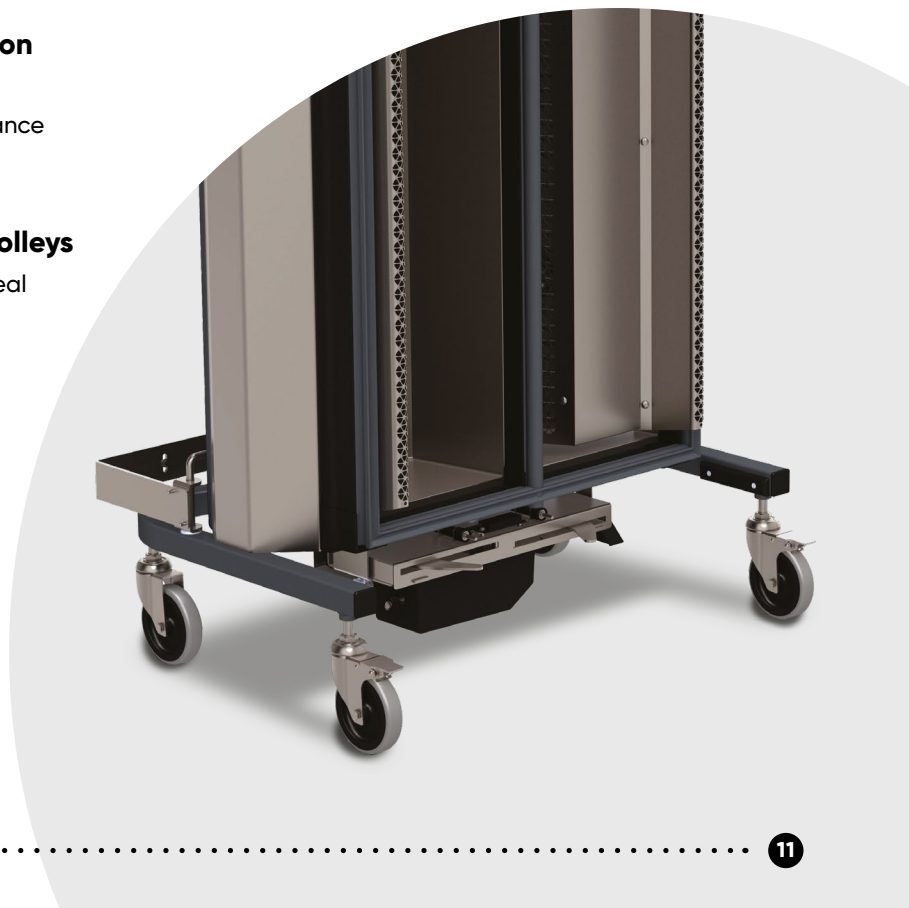
- Simplified installation and mobility
- Space-saving in pantry for access and maintenance
- Saves space thanks to a limited footprint

#### Automatic, effortless connection to tray trolleys

- Auto-centring and positioning with optimal air seal in hot and cold compartments
- Immediate start-up of the programmed cycle

### MOBILITY

Standard 4 wheels with a skate to allow cleaning behind and under the docking station for transport to a technical area or replacement.



## THE SCREEN

### Digital features

- Continuous, simplified use and information on the proper completion of cycles with instantaneous display on the unit
- Integrated traceability
- Diagnostic maintenance, aid functions
- Boost Function

### Control panel – ergonomics

Allowing:

- Piloting of cycles (times, programmes, etc...)
- Real-time visualisation of temperatures and time until service
- Display of proper completion of cycles with three lamp colours
- Access to history of temperatures and incidents

### Features

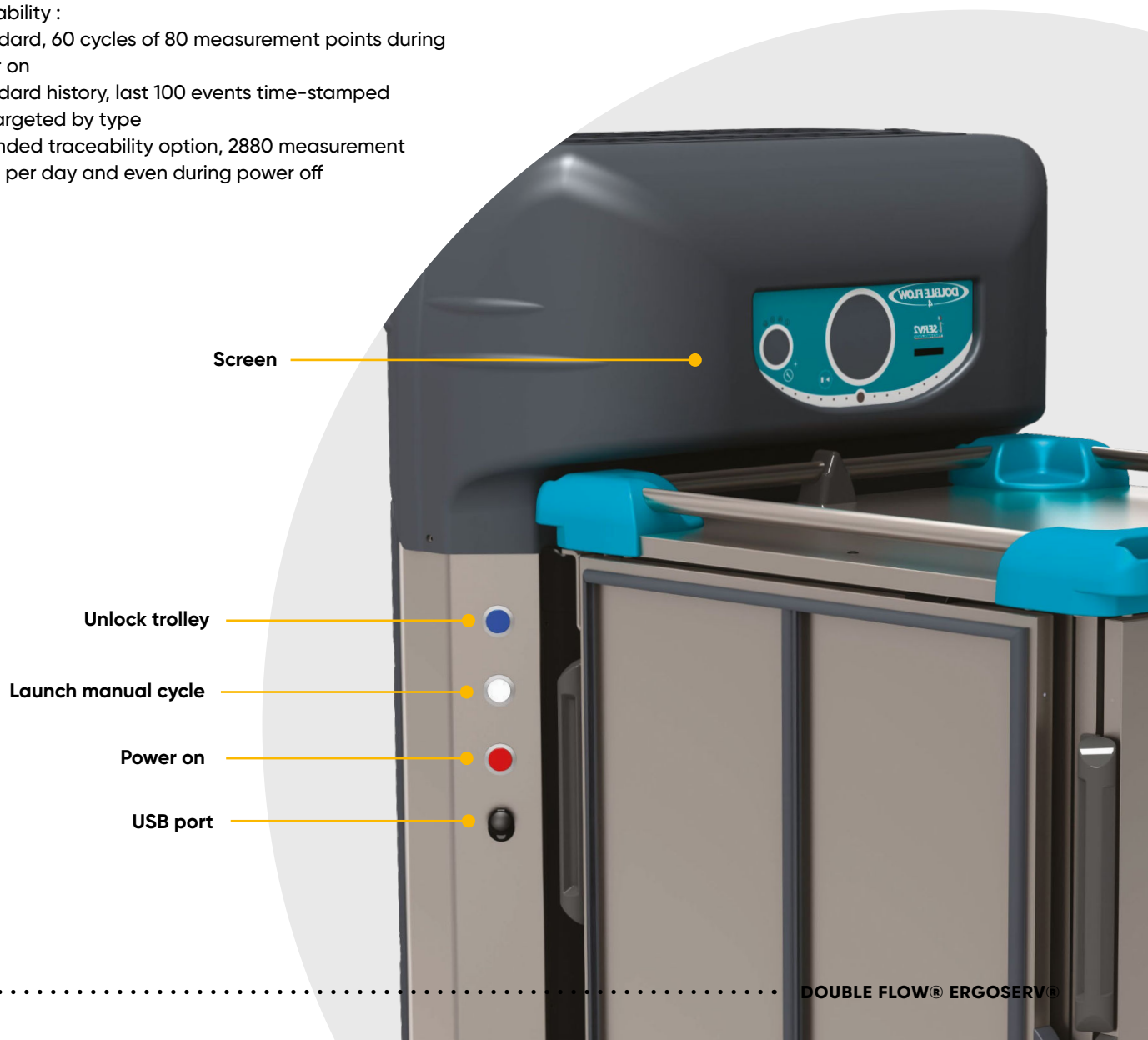
- 3 start-up modes for cycles: Automatic/Manual/Repetitive
- Programming: 5 programmes for 4 services per day
- Traceability :
  - Standard, 60 cycles of 80 measurement points during power on
  - Standard history, last 100 events time-stamped and targeted by type
  - Extended traceability option, 2880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

## COMPLETION OF CYCLE

The rethermalization of products results in an increase in temperature and adjustment to achieve desired output temperatures. SOCAMEL's forced, directed thermoconvection allows target temperatures to be reached and regulated. Maintenance in automatic mode maintains the product's organoleptic qualities at the right temperature, both on the hot side and the cold side.

## SAFETY & MAINTENANCE

IPx4 certified by APAVE, the Double Flow docking station was especially designed to safely manage any water spray. Its structure totally protects electrical components and gives easy access to technical compartments for maintenance.



Screen

Unlock trolley

Launch manual cycle

Power on

USB port

## THE ERGOSERV® RANGE



ERGOSERV® MINI



ERGOSERV® JUNIOR



ERGOSERV® SENIOR

### CHARACTERISTICS

- No on-board technology, no heating or regulation element
- 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 compartment wall with automatic slot covers which can be removed 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
- Wheels allowing rotation in situ: 2 fixes Ø 200 mm wheels and 2 pivoting Ø160 mm wheels with brakes

### USE AND ERGONOMICS

The Ergoserv® tray trolley allows food to be trolley-transported between the kitchen and the different hospital or restaurant units • Particularly compact, light and mobile, for easy, discreet movement on any floor surface.

It is designed for a simple and non-restrictive service, in the direction of movement of the corridors with distribution by 2 operators simultaneously. Solutions for transport and clearing away under optimal conditions.



# THE ERGOSERV® RANGE

We have a wide range of Ergoserv trolleys which meet all market needs, and can therefore accommodate different tray sizes.

## STANDARDS

### Ergoserv Gastronorme

These trolleys are compatible with standard Gastronorme trays, whose dimensions are ideal for accommodating a full meal (starter, main course and dessert), whilst optimising the inside space of the trolleys and on the patients' tray tables.

## LARGE CAPACITY

### Ergoserv Confort and Ergoserv GN+

These Ergoserv trolleys are identical in every way to the Gastronorme format trolley, but are compatible with large capacity Confort and GN+ format trays. These trays offer a greater surface storage area, which can accommodate large containers.

## SMALL CAPACITY

Where you need to optimise tray size whilst reducing their weight, as well as the amount of floor space occupied by trolleys to improve their handling, we suggest two types of tray: the XS and the Optimum.



ERGOSERV® XS 24

ERGOSERV® XS 36

### Ergoserv XS

A smaller sized trolley which can accommodate trays that are both shorter and narrower than the standard, occupying approximately 30% less floor space!

The Ergoserv XS trolley is ideal for optimising space inside lorries, pantries and cold chambers. Compact, manoeuvrable and light, it requires less physical effort from staff. The XS trays, which are also smaller, lighten the load on patients' tray tables. This solution is also environmentally-friendly in terms of its manufacture and use, and economical thanks to its lower construction, operational and logistics costs, as well as offering added social value.

### Ergoserv Optimum

An identical trolley to the Gastronorme, but able to accommodate narrower 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 optimum ease of use, with decoupled allotment, transport and reheating phases. This solution therefore offers greater flexibility, easy handling and optimum allotment and distribution of meals, as well as saving on space.



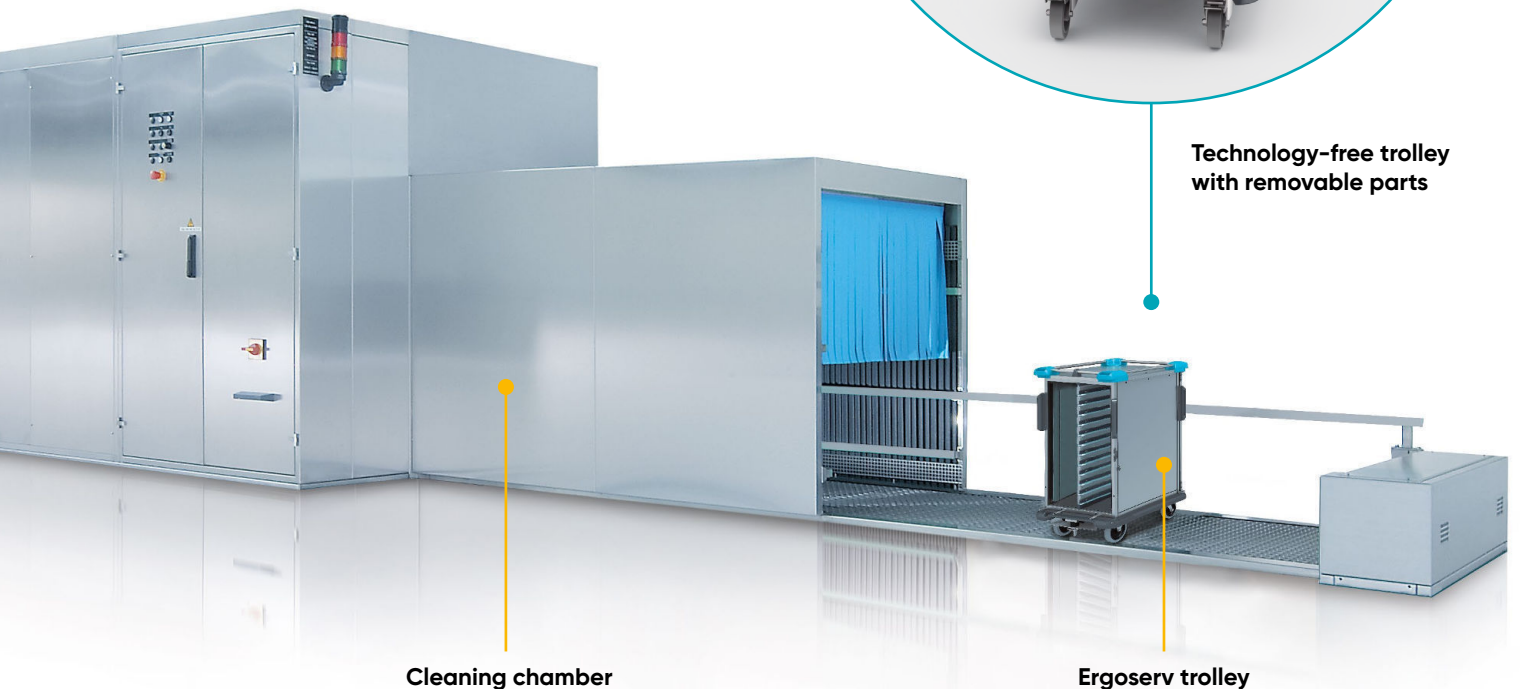
# CLEANING

The tray trolley has no on-board mechanical or electrical technology. Allows customer's chosen washing type: tray trolley chamber, washing tunnel, sprayed water, wipers, steam, etc...

- Designed and developed to be used in a washing chamber, spray cleaning, etc...
- Racks can be removed without tools and pivoting hood for full, immediate access
- Interchangeable seals per segment
- Radial angles
- Smooth walls and bumpers, no asperities
- No water retention zones and inside surfaces do not require manual finishing



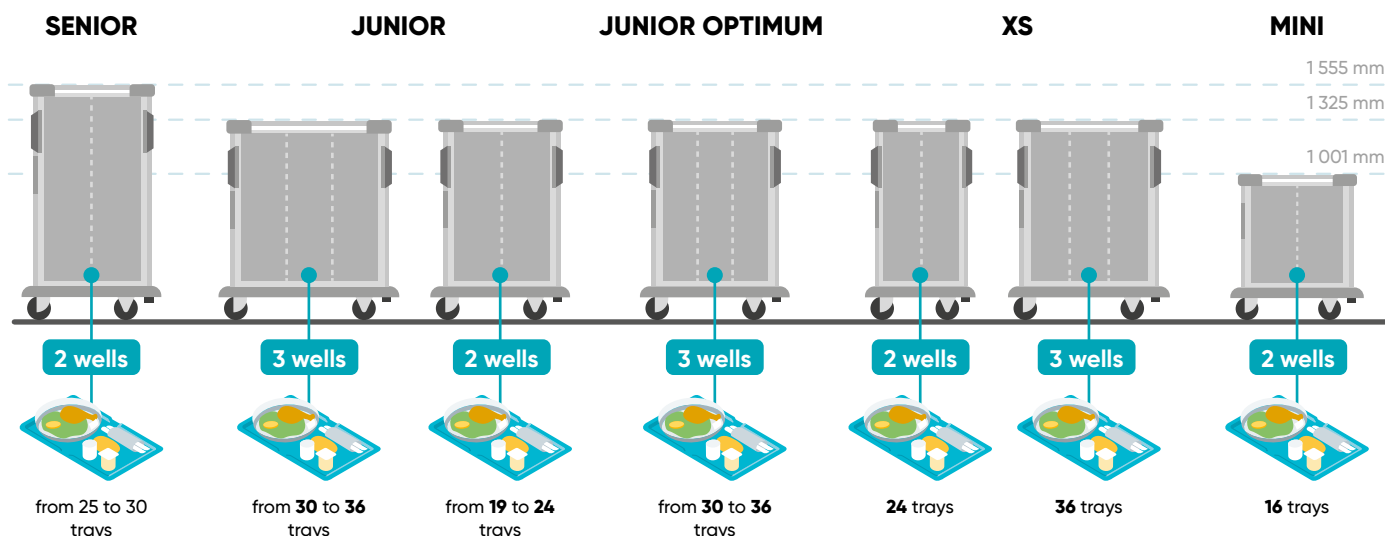
Technology-free trolley with removable parts



Cleaning chamber

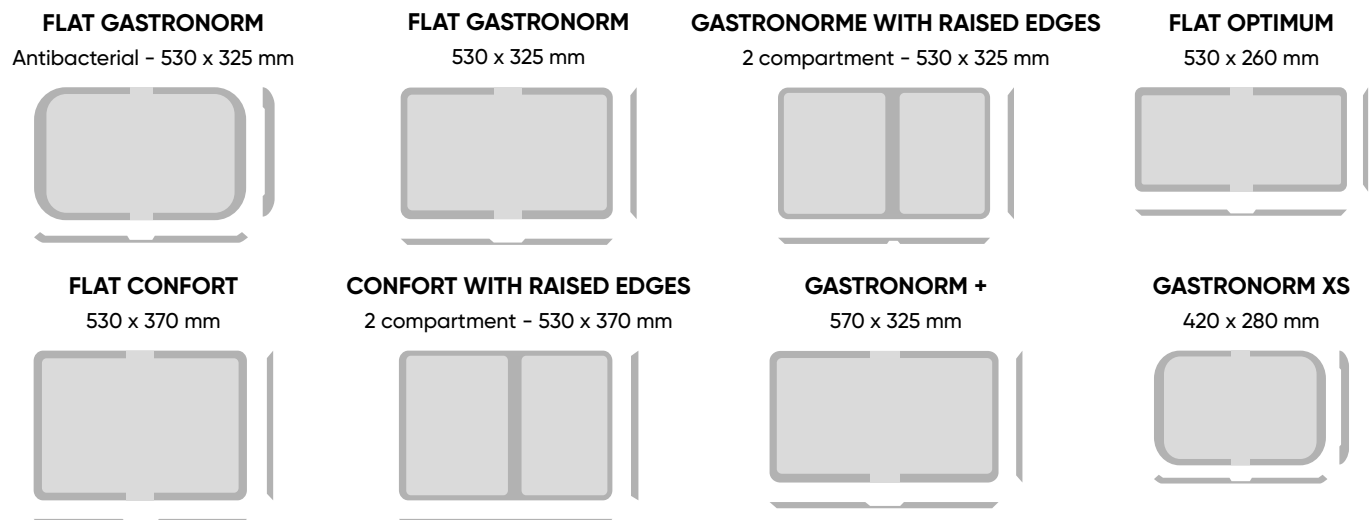
Ergoserv trolley

# MATCHING TRAYS



TROLLEY MODEL ERGOSEV®	PRODUCT CODE	NUMBER OF LEVELS	MAX. NUMBER OF LEVELS	TYPE OF TRAYS	GAP BETWEEN LEVELS	USEFUL PASSAGE BETWEEN TRAYS
<b>XS</b>	0479.04.24	2 x 12	24	GASTRONORME XS	78	74
	0479.04.36	3 x 12	36	GASTRONORME XS	78	74
<b>MINI</b>	0479.00.16	2 x 8	16	GASTRONORME	78	74
	0479.00.20	2 x 10	20	GASTRONORME	90	86
	0479.00.24	2 x 12	24	GASTRONORME	78	74
	0479.01.30	3 x 10	30	GASTRONORME	95	91
<b>JUNIOR</b>	0479.01.36	3 x 12	36	GASTRONORME	78	74
	0479.00.19	9 + 10	19	CONFORT	95	90
	0479.00.23	11 + 12	23	CONFORT	78	74
<b>JUNIOR OPTIMUM</b>	0479.02.30	3 x 10	30	OPTIMUM	95	90
	0479.02.36	3 x 12	36	OPTIMUM	78	74
<b>SENIOR</b>	0479.00.26	2 x 13	26	GASTRONORME	90	86
	0479.00.30	2 x 15	30	GASTRONORME	78	74
	0479.00.25	12 + 13	25	CONFORT	90	86
	0479.00.29	14 + 15	29	CONFORT	78	74

# TRAYS



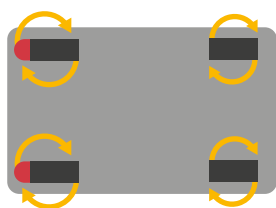


## OPTIONS

### MAIN INTERNAL OPTIONS

- Anti-fall grills
- Grills kept open for washing in chamber

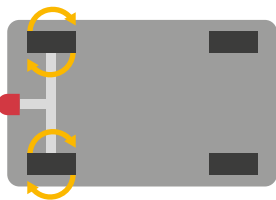
### WHEEL OPTIONS



#### Directional wheels:

4 pivoting 160mm diameter wheels in stainless steel design for washing chamber:

- 2 wheels with directional locking
- 2 wheels with brakes



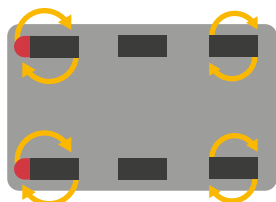
#### 4 zinc plated wheels with centralised braking:

- 2 fixed Ø 200 mm wheels
- 2 pivoting Ø 160 mm wheels with centralised braking



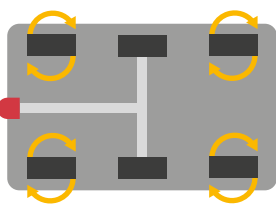
#### 4 stainless steel wheels:

- 2 fixed Ø 200 mm wheels
- 2 pivoting Ø 160 mm wheels with brakes



#### 6 zinc coated wheels:

- 2 pivoting Ø 160 mm wheels
- 2 pivoting Ø 160 mm wheels with brakes
- 2 fixed Ø 200 mm wheels



#### 6 zinc plated wheels or stainless steel wheels with centralised braking:

- 4 pivoting Ø 160 mm wheels
- 2 fixed Ø 200 mm wheels with centralised braking



### MAIN EXTERNAL OPTIONS

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



## LOGISTICS

### Optimising space

All of our solutions take logistical constraints into consideration during their design. We haven't compromised when it comes to choosing quality materials, and offer the most robust terminal-trolley pairing on the market. Our trolleys are therefore resistant to the major logistical constraints they face. We have also considered dimensions and ease of use. The weight and size of our solutions are optimum for offering logistics teams genuine ease of handling and to perfectly fill available space in transport lorries.

### Holding tray temperature during transport using dry ice

If you face significant logistical constraints, we can offer a version of the Double Flow Ergoserv which is adapted for dry ice insertion. It is equipped with openings which fit the CO2 injection pistol, and a compartment to store the dry ice. This will allow you to keep your trays at the right temperature for longer, and thus maintain the cold chain.



CO2 Pistol

Ergoserv Trolley

CO2 Station



# TOWED TRANSPORTS

## Tilting couplers



## Telescopic couplers



## Pivot bars



## 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 on the market. The latter allow appliances to move around the hospital, without any staff effort required. They guarantee great security of supply, reduced workload and durability of equipment. This solution is beneficial for your logistics service in every possible respect.

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 vehicle stock status thanks to a three-lamp system

### Technical supervision

- Management of stock
- Remote Start/stop cycles
- Reporting of alarms and alerts
- Maintenance reminders



## STANDARD USB AND ETHERNET

Two-level traceability access as standard to supervise, react and record incidents and temperature curves.

### Using a USB key

Exports and archives PDF-format traceability reports:

- Core temperature
- Ambient temperature in compartments
- Operational history
- Heating programme

### Via Ethernet

Real-time tracking and continuous monitoring:

- Programming
- Supervision of vehicle stock operational status with aid to analysis
- Control of ambient and core temperatures
- Management of alarms with information by text message
- Remote programming
- Consultation of trolley operation log





## TWO TRACEABILITY LEVELS

### Standard traceability

Our basic level of traceability comes as standard, allowing you to record the ambient temperatures of compartments when a trolley is on, or when a shuttle trolley is connected.

This version includes the following features:

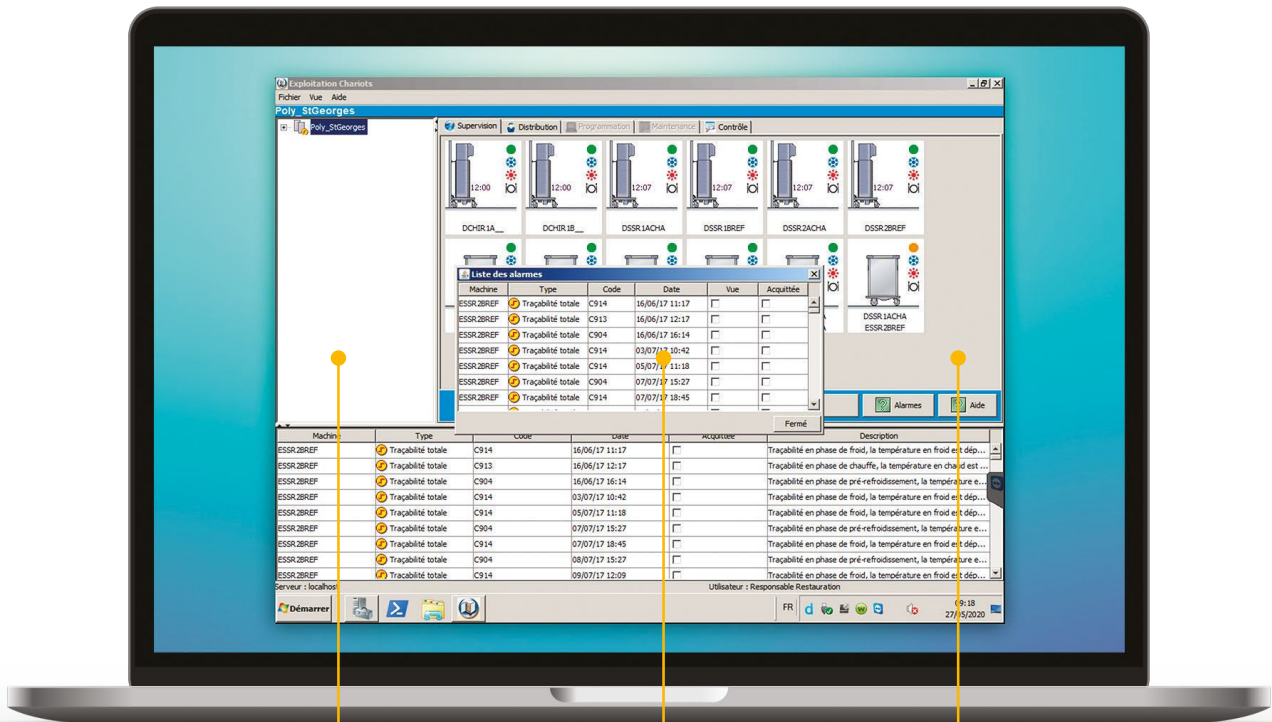
- Software can be installed on the network to provide multi-area management.

### Extended traceability

The extended traceability system, with each Ergoserv® equipped with data recording modules, allows users to control all stages of meal distribution from allocation to transport, from rethermalization right through to service.

### Infrastructure

This is the most comprehensive traceability pack on the market, which can be connected in real time to all Socamel appliances, using the i-Serv Vision software installed on a dedicated PC provided, or on the customer's server. The software offers multiple connection points for data access, and there is no limit to the number of users.



I-SERV® Software

Real-time tracking

machine fleet

# EASY SURVEILLANCE, REACTION AND RECORDING

The trolley circuit pinpoints and reduces numerous risk operations. i-Serv® is compliant with the HACCP approach.



1

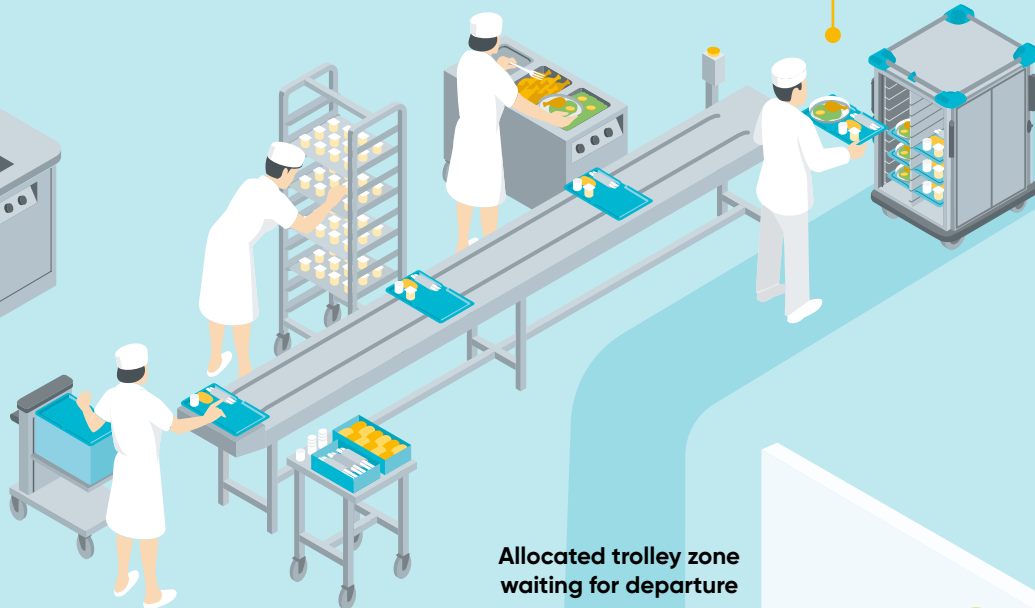
## ALLOCATION

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 allocation zone,  
Ergoserv® loading



Catering production area



Allocated trolley zone  
waiting for departure

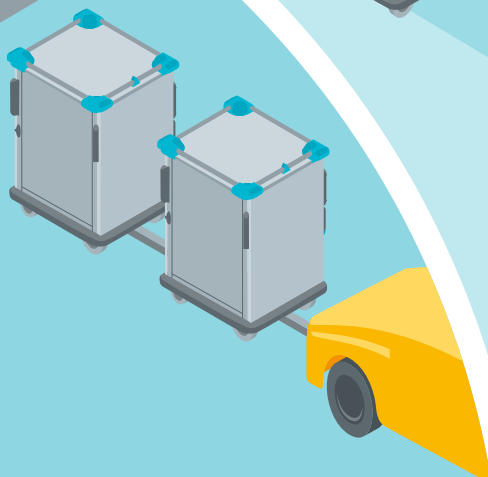


Temperature traceability  
before transport

2

## TRANSPORT

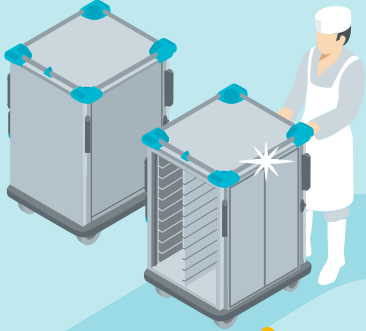
During all logistics operations, i-Serv®'s extended traceability records temperatures. Ergoserv® trolleys can be easily dispatched to care facilities (road transport, towed conveyance, goods lift etc.).



**5 TROLLEY WASHING**

During the operation, extended traceability takes into account rethermalization of the tray trolley (use of hot water).

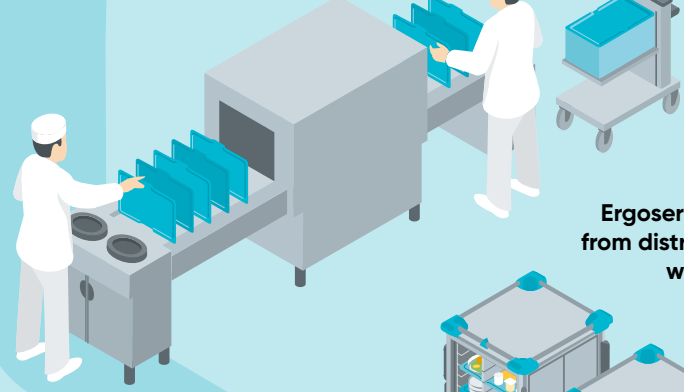
Automatic cleaning of the Ergoserv in cart washer



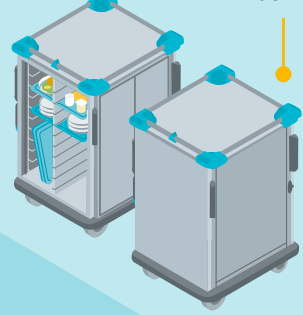
Clean trolleys



Tray washing area, washing up



Ergoserv® returning from distribution before washing



**4 EXTENDED TRACEABILITY AND REAL TIME**

The Catering and Dietetics manager with Remote and in real-time Control with i-Serv® Vision :

- Start and stop cycles
- Programme for entire fleet
- Start and stop cycles
- Surveillance, identification of incidents (permanent, automatic information transfert)



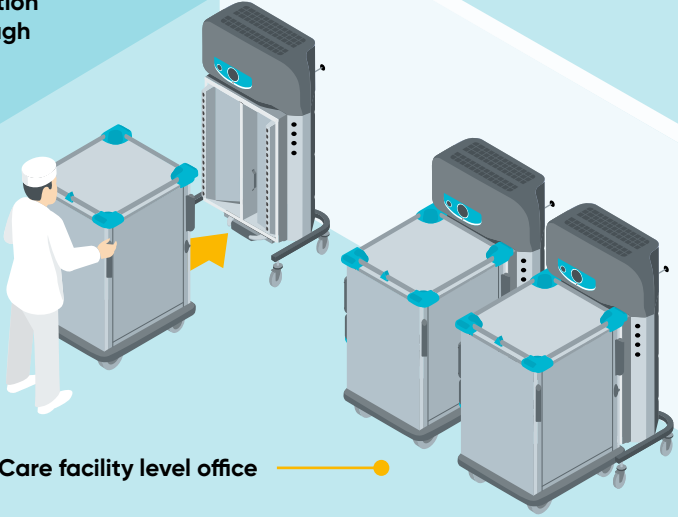
Service in the direction of movement through corridors



Clearing

**3 ERGOSERV® & DOUBLE FLOW® CONNECTION**

As the trolley approaches, the Double Flow® will connect it automatically to restart the programmed cycle (temperature holding or reheating of trays). The Extended Traceability option automatically reinstates the electrical power supply.



Care facility level office

## THE SOCAMEL DIFFERENCE

### FOR THE PATIENT/RESIDENT

- Choice of menus allowing more delicate fried or gratin preparations to vary gastronomic pleasure
- Hotel service on flat trays with upgraded presentation
- No stress for serving staff when handing out or clearing away: attentive, agreeable contact

### FOR SERVICE STAFF

- Effortless connection to automatic docking stations, with immediate, automatic start-up
- Permanent information on the proper completion of cycles
- Particularly easy to handle, quiet, ergonomic trolleys
- Simple and quick service, in the direction of movement through corridors, can be done easily by two people
- Sleek design for satisfying user experience

### FOR CATERING STAFF

- Guaranteed quality technology, the benchmark in large-scale traditional catering standards
- Perfectly preserves organoleptic properties, offering an unrivalled choice of menus
- All types and heights of crockery, with flat bases, on feet, from porcelain to single use
- Versatility of trays for "tailor-made" assembly
- Easy-clean design: All parts accessible and quick to disassemble, without tools. No trolley cleaning restrictions (disinfection centre, chamber, jet, steam etc.) and inside surfaces do not need finishing by hand

### FOR MANAGEMENT

- Return on investment, with high quality material and one docking station for several tray trolleys
- Mobile, robust, well-protected tray trolleys with no on-board heating or regulation technology
- Up to 3 docs and 108 meals per Pantry
- Addition or renewal of stock (event old stock) at controlled cost





## FOR MAINTENANCE STAFF

- Standard maintenance traceability
- Mobil technical docking stations for unparalleled, comfortable, unrestricted access
- All technical components of high quality, manufactured and assembled in France
- Quick access to technical elements, cold unit, technical drawer...

## FOR THE ESTABLISHMENT'S IMAGE

- Silent distribution trolleys boasting simple elegance and a discreet colour scheme.
- Environmentally-responsible approach, as part of the SYNEG\*

\* SYNEG: Syndicat national de l'équipement des grandes cuisines (National union of large kitchen equipment)

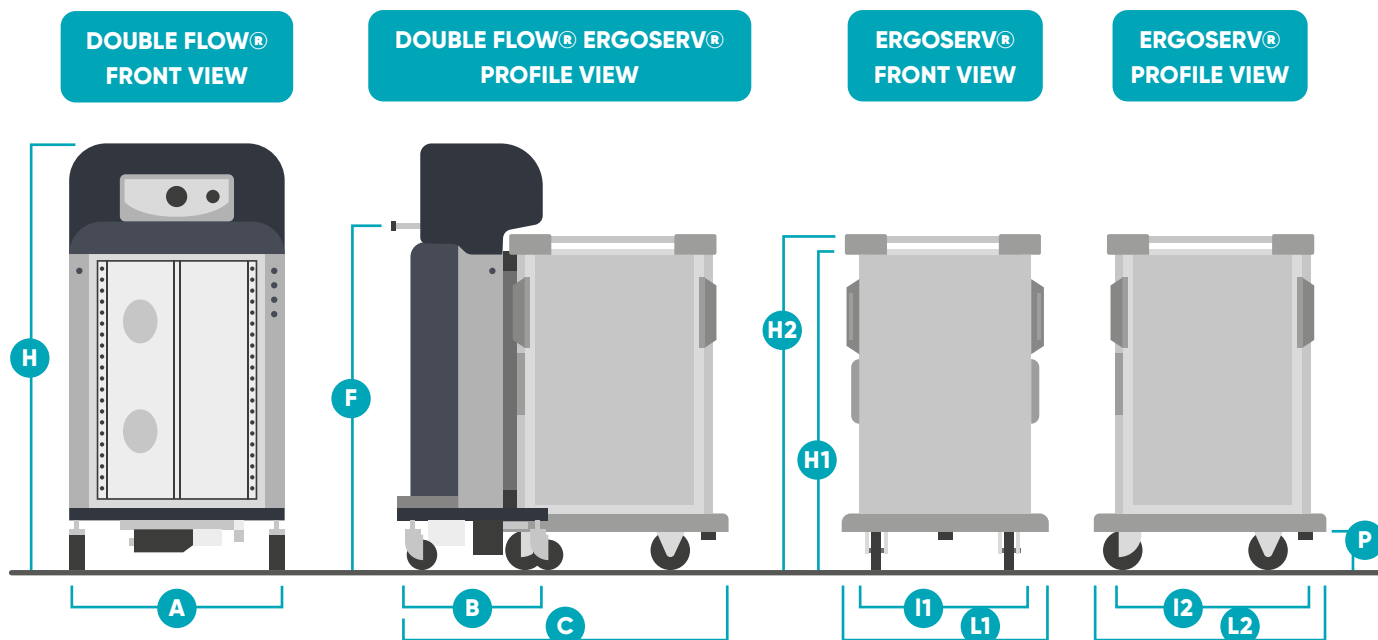


## TROLLEYS TO SUIT YOU

You can personalise trolleys to add a touch of originality, sure to be noticed by everyone.



# DIMENSIONS



## DOUBLE FLOW® DIMENSIONS / in mm

	XS	MINI	JUNIOR	SENIOR
<b>H</b> Height of docking station	1738	1425	1745	1980
<b>A</b> Width of docking station	910	905	905	905
<b>B</b> Depth of docking station	580	580	580	580
<b>C</b> Length of docking station + trolley	1230 / 1580	1360	1360 / 1480 / 1680	1360
<b>F</b> 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
<b>H1</b> Trolley height without rack	1318	1318	1001	1325	1325	1325	1555
<b>H2</b> Trolley height with rack	1373	1373	1056	1380	1380	1380	1610
Height of contact strip	203	203	205	205	205	205	205
<b>P</b> Trolley width	610	610	795	795	795	795	795
<b>L1</b> Trolley length	756	1106	920	920	1231	1036	920
<b>L2</b> Length of docking station + trolley	1232	1581	1360	1360	1675	1480	1360
<b>C</b> Width of racks	500	500	680	680	680	680	680
<b>I1</b> Length of racks	613	961	745	745	865	1060	745
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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