

# DSPRO

S Y S T E M

**TWO SOULS, ONE MISSION**



**rational**  
PRODUCTION



DS PRO

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DS PRO

# DSPRO

## SYSTEM

### **Two souls, one mission.**

DSPRO SYSTEM is intended for usability and reliability, designed to perfectly integrate its two souls: an avant-garde and functional station and a solid, simple and light shuttle trolley.

DSPRO SYSTEM is the natural evolution of the Rational Production dissociated technology system that uses the ALUFRAME construction to redefine once again this product category standards.

DSPRO SYSTEM is the convection dissociated technology system made of the DSPRO station and the PROSERV shuttle. Designed to simplify meal distribution on trays, it allows food to be transported in a compact, lightweight, ergonomic and economical shuttle. Connecting the two elements creates the DSPRO SYSTEM, the ideal solution for heating cycles in

Cook&Serve, Cook&Chill and Cook&Freeze modes. The DSPRO station is the high performance and hi-tech active system element, installed in a fixed position to run heating cycles. The PROSERV shuttle, without on-board technology, is the moving element intended to transport and distribute food.



Hooking sequence between DSPRO station and PROSERV shuttle.



## System pluses

### FUNCTIONAL

DSPRO SYSTEM is the result of the continuous improvement process that has led to a product with excellent performance in terms of food temperature uniformity and regeneration time. The powerful air flow provides "gentle" regeneration at moderate temperatures, keeping the meal's organoleptic properties, aspect and flavour intact.

### COMPLETE

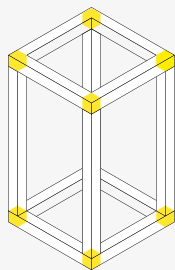
The four different shuttle sizes, three associated station versions and complete range of optional accessories make DSPRO SYSTEM the ideal market alternative for any distribution need, from small to large organisations.

### SUSTAINABLE

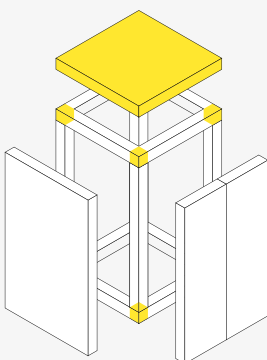
The ability to fully replace each of its components, the easy maintenance, durability and total recyclability are the results of the attention Rational Production pays to the environment, materialised in the ALUFRAME technology.



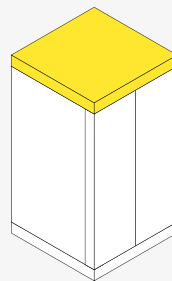
**ALUFRAME** The use of aluframe technology, changed by the aeronautic world, has allowed the cage frame to be developed with screw joints, without welding and characterised by high sturdiness and light weight. ALUFRAME permits easy component replacement. Furthermore, the athermal profile inserts around the entire perimeter improves trolley insulation.



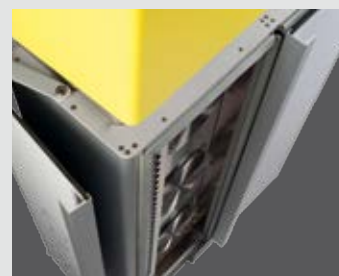
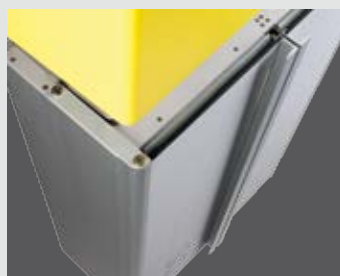
High structural resistance perimeter frame.



Simple and fast assembly.



High sturdiness.



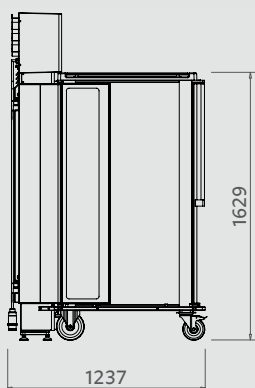
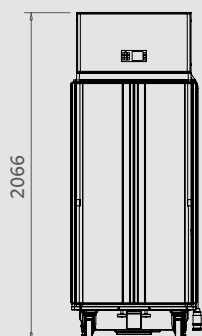


## DSPRO L + PROSERV L

A system that combines a large capacity with a small footprint. Taller than any other PROSERV trolley, makes it possible to move smoothly without giving up its load capacity.



| MEAL CAPACITY       |
|---------------------|
| from 26 to 30 trays |
| GN, EXT or EN       |

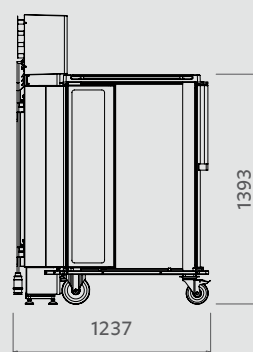
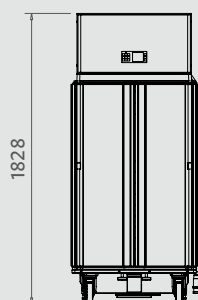


## DSPRO S + PROSERV S

The S size system is an excellent compromise between height and load capacity. Small dimensions guarantee great manageability and simplicity of use.



| MEAL CAPACITY       |
|---------------------|
| from 20 to 24 trays |
| GN, EXT or EN       |



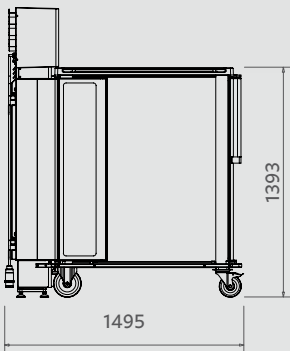
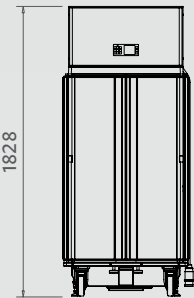
# The system

## DSPRO S + PROSERV 3T

The system combines the reduced height of the DSPRO S with the large load capacity of the PROSERV 3T. PROSERV 3T is the only trolley in the range that lets you load three rows of trays. This characteristic, combined with the lowered height, makes it particularly suitable for serving large quantities of meals without sacrificing the use ergonomics.



| MEAL CAPACITY |
|---------------|
| 36 trays      |
| GN or EXT     |

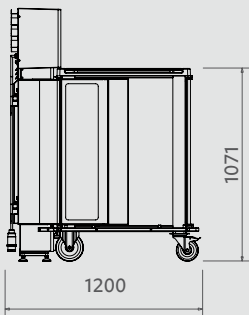
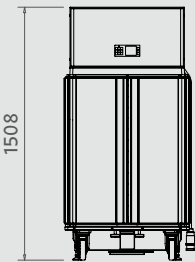


## DSPRO XS + PROSERV XS

An extremely compact solution that meets moving needs with agility and manageability, maintaining all the functions that make the DSPRO SYSTEM unique.



| MEAL CAPACITY       |
|---------------------|
| from 14 to 16 trays |
| GN, EXT or EN       |



The DSPRO station is the active part of the system, designed to accommodate all the technology required for food regeneration in the smallest space possible. Designed for any type of installation, the DSPRO station can be secured to the wall, mounted on a fixed frame or on a frame with wheels. Elegant and innovative, DSPRO stands out for its elegant design and attention to detail; the doors (optional) used to close the front compartment when not used, perfectly match the station streamlined design and amaze due to the graceful electromechanical closing system and space-saving opening mechanism.

Air flows for hot and cold cycles are activated upon connection between the shuttle and the station, whose two front compartments are fully made of stainless steel (CNS), while the frame is made of anodised aluminium. Special gaskets guarantee the air sealing between the two compartments and the shuttle. A clear, simple, modern and intuitive interface meets any cycle or planning control need. Access to different and password-protected menus guarantees high levels of safety.



**COMPACT** The rationalised technical spaces and innovative solutions used, make DSPRO the most compact convection station on the market. DSPRO's small size facilitates work space optimisation.

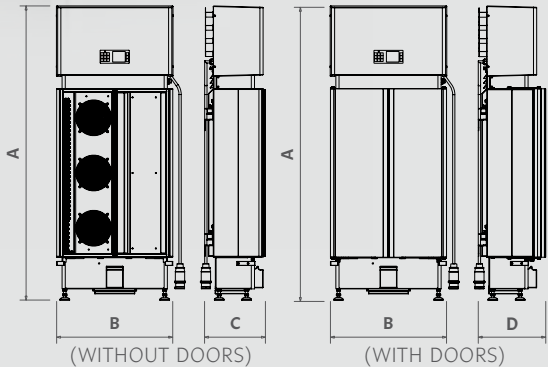


**PERFECT HARMONY** The new hooking system allows to connect PROSERV shuttle with DSPRO station smoothly and without effort for the operator.

To guarantee the internal temperatures are correctly maintained, the shuttle stays hooked to the station in case of blackout. It is easy to unhook it without using tools, if necessary.

**MULTIPOWER** The multipower option assures an energy cost reduction thanks to its intelligent power modulation during the various regeneration and/or maintenance phases.

|          |   | MODEL |      |      |
|----------|---|-------|------|------|
|          |   | L     | S    | XS   |
| MEASURES | A | 2066  | 1828 | 1508 |
|          | B | 737   |      |      |
|          | C | 388   |      |      |
|          | D | 431   |      |      |





# PROSERV

## The shuttle

The PROSERV shuttle is the passive element of the system that, once connected to the DSPRO station, maintains and regenerates the food packaged and loaded inside it. Equipped with an efficient built-in insulation system with athermal profiles positioned around the chamber perimeter, PROSERV guarantees correct temperature maintaining during the transport and handling phases.

Tray insertion is facilitated by the special gaskets on the wall that guarantee perfect separation between the hot and cold zones. The upper cover, equipped with a built-in barrier, offers an ample support surface able to transport up to 20 kg loads. The hygienic design, characterised by smoothed angles and flush AISI304 stainless steel surfaces, facilitates cleaning operations.



**AGILE** The compact dimensions and the extremely light weight, due to ALUFRAME technology, make the shuttle simple and easy to use.

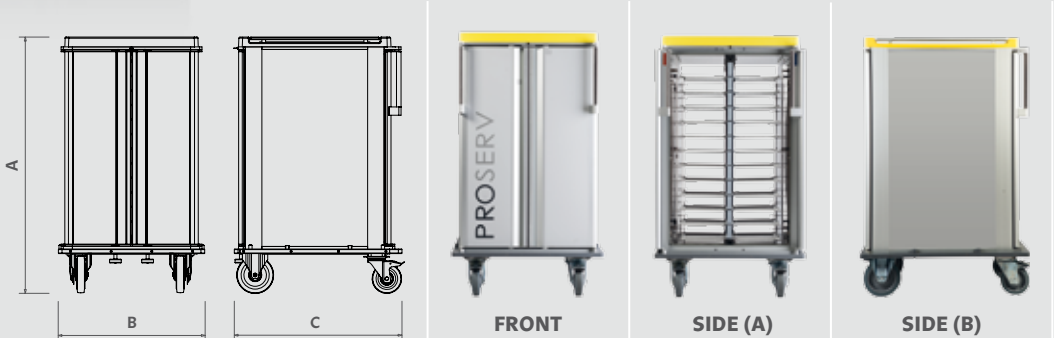


**FUNCTIONAL** The folding shelf (optional) integrated into the trolley structure, combined with a bag holder and a removable container support, increases shuttle practicality and versatility.

**ERGONOMIC** The pushing handles are placed in sheltered position to avoid impacts and possible injuries in any conditions of use. The perimetral bumper is designed to protect the doors when opened, so as to allow for easy PROSERV use in tight spaces as well.



|               |    | MODEL |      |      |      |
|---------------|----|-------|------|------|------|
|               |    | L     | S    | XS   | 3T   |
| MEASURES      | A  | 1629  | 1393 | 1071 | 1393 |
|               | B  | 798   |      |      |      |
|               | C  | 914   |      | 877  | 1172 |
| MEAL CAPACITY | 20 | 16    | 14   | 36   |      |
|               | 26 | 20    | 16   |      |      |
|               | 30 | 24    |      |      |      |



# DSPRO OPTIONAL

COMMON OPTIONALS



## COLOURS



## EXTERNAL CENTERING SYSTEM (ECS)



## COMMUNICATOR TT SETTINGS



## COMMUNICATOR USB SETTINGS

It is used to download temperatures and alarms, as well as reprogram parameters, using a USB key and its dedicated software.

*\* Software Communicator USB is required*



## COMMUNICATOR PLUS SETTINGS

It provides complete system management in real-time from a remote location with data analysis and storage on a PC, using the dedicated software.

*\* Software Communicator PLUS is required*



## MULTIPOWER

Multipower option allows a power cut when the temperature set is reached during the cycle with the aim to optimise system power peak management.



COOK & SERVE



COOK & CHILL / COOK & FREEZE



## C/S - C/C - C/F USE

DSPRO is available with different set-ups:

C/S (COOK & SERVE): to keep the food at the desired temperature in both shuttle hot and cold compartments.

C/C (COOK & CHILL), C/F (COOK & FREEZE): to keep cold temperature in both shuttle compartments and to regenerate food in the hot compartment at the desired time, with manual or automatic cycle start.

Four heat cycles are available for both set-ups that are completely customisable to best manage all needs.



## DOORS

DSPRO may be equipped with doors that make hot and cold compartments inaccessible, to avoid risks to the user and damages to the device. Door block without key is activated from the control panel by a configurable password.



## WHEELS

The station may be mounted on a frame equipped with wheels to permit movement in case of maintenance or cleaning.

# PROSERV OPTIONAL

DSPRO and PROSERV are available in yellow and blue colours.

The ECS (External Centering System) option centres the shuttle with the station using the bumper sides as reference points for alignment.

*\* ECS settings on DSPRO and PROSERV is required.*

It fully monitors internal shuttle temperature during the entire distribution process, from the kitchen to the consumer.

*\* Software Communicator TT is required*



## **FOLDAWAY SHELF**

PROSERV may be equipped with folding shelf to rest trays during distribution or clearing.



## **BAG HOLDER**

PROSERV folding shelf may be equipped with bag holder / container support on one or both sides.



## **WHEEL OPTIONS**

PROSERV has a full range of wheels: galvanized steel or stainless steel from 160mm or 200mm in diameter. Centralised brake (on both castor wheels). Fixed wheels with rotation block (to make fixed wheels revolving, allowing lateral movement).



## **LOCK**

Trolley doors may be locked to avoid opening by unauthorised personnel.



## **TOWING HOOK**

It can move up to 4 connected trolleys, using proper towing devices.



## **TRAY SEPARATION GRID**

It prevents the trolley load from moving from one tray to another during transport.



## **255° DOOR OPENING (WASHING TUNNEL)**

This option blocks the doors in an intermediate opening position to wash both sides. Conceived for washing tunnel or box.

# DSPRO ACCESSORIES



## STANDARD TRAY

Complete, hot and cold personalized menu distribution.

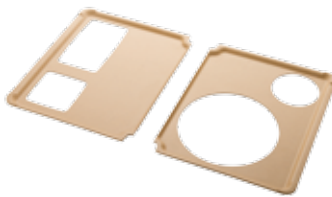
| FORMAT | DIMENSIONS   | COLOUR                      |
|--------|--------------|-----------------------------|
| GN     | 530x325 mm   | coffee milk / yellow / grey |
| EN     | 530x370 mm   |                             |
| EXT    | 565x332.5 mm |                             |



## 1/2 TRAY

Reduced menu distribution. Breakfast distribution in combination with breakfast container shelf.

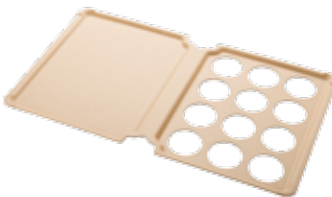
| FORMAT  | DIMENSIONS   | COLOUR                      |
|---------|--------------|-----------------------------|
| 1/2 GN  | 263x326 mm   | coffee milk / yellow / grey |
| 1/2 EN  | 262x370 mm   |                             |
| 1/2 EXT | 280x332.5 mm |                             |



## PARKINSON TRAY KIT

In combination with standard tray to keep porcelain still.

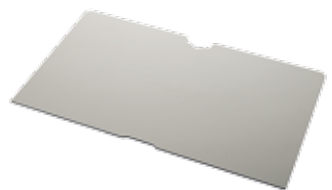
| FORMAT      | DIMENSIONS   | COLOUR                      |
|-------------|--------------|-----------------------------|
| 2 X 1/2 GN  | 263x326 mm   | coffee milk / yellow / grey |
| 2 X 1/2 EN  | 262x370 mm   |                             |
| 2 X 1/2 EXT | 280x332.5 mm |                             |



## TRAY FOR BAKING PANS

Bulk food menu distribution.

| FORMAT | DIMENSIONS   | COLOUR                      |
|--------|--------------|-----------------------------|
| GN     | 530x325 mm   | coffee milk / yellow / grey |
| EN     | 530x370 mm   |                             |
| EXT    | 565x332.5 mm |                             |



## SHELF FOR BREAKFAST CONTAINERS

Container support for breakfast distribution.

| FORMAT | DIMENSIONS   | COLOUR                      |
|--------|--------------|-----------------------------|
| GN     | 530x325 mm   | coffee milk / yellow / grey |
| EN     | 530x370 mm   |                             |
| EXT    | 565x332.5 mm |                             |



## EXTERNAL PROBE

It measures the temperature inside the food and saves the collected data.

*\* Communicator settings are required*



### ROUND FLAT PLATE / LID

| DIMENSIONS        | MATERIAL              | COLOUR                 |
|-------------------|-----------------------|------------------------|
| plate Ø215 mm     | porcelain             | white                  |
| lid Ø216 H53.5 mm | PP synthetic material | orange / yellow / grey |



### ROUND FLAT PLATE WITH RIDDLES / LID

| DIMENSIONS        | MATERIAL              | COLOUR                 |
|-------------------|-----------------------|------------------------|
| plate Ø215 mm     | porcelain             | white                  |
| lid Ø216 H53.5 mm | PP synthetic material | orange / yellow / grey |



### 2-COMPARTMENT ROUND FLAT PLATE / LID

| DIMENSIONS        | MATERIAL              | COLOUR                 |
|-------------------|-----------------------|------------------------|
| plate Ø215 mm     | porcelain             | white                  |
| lid Ø216 H53.5 mm | PP synthetic material | orange / yellow / grey |



### RECTANGULAR DISH / LID

| DIMENSIONS         | MATERIAL              | COLOUR                 |
|--------------------|-----------------------|------------------------|
| dish 177x111x35 mm | porcelain             | white                  |
| lid 177x111x28 mm  | PP synthetic material | orange / yellow / grey |



### SQUARE DISH / LID

| DIMENSIONS         | MATERIAL              | COLOUR                 |
|--------------------|-----------------------|------------------------|
| dish 120x120x42 mm | porcelain             | white                  |
| lid 115x115x37 mm  | PP synthetic material | orange / yellow / grey |



### ROUND DISH / LID

| DIMENSIONS              | MATERIAL              | COLOUR                 |
|-------------------------|-----------------------|------------------------|
| dish Ø135x69 mm / 0.5lt | porcelain             | white                  |
| lid Ø122 H18 mm         | PP synthetic material | orange / yellow / grey |



### WARD IDENTIFICATION

Optional useful to assign the destination and/or to attach documents to the trolley.



# TECHNICAL DATA

## DSPRO

| DESCRIPTION                          | UNIT OF MEASURE | VALUE          |              |              |
|--------------------------------------|-----------------|----------------|--------------|--------------|
|                                      |                 | XS             | S            | L            |
| Dimensions (without doors)           | mm              | 737x388x1508   | 737x388x1828 | 737x388x2066 |
| Dimensions (with doors)              | mm              | 737x431x1508   | 737x431x1828 | 737x431x2066 |
| DSPRO + PROSERV dimensions           | mm              | 1200           | 1237         | 1237         |
| DSPRO + PROSERV 3T dimensions        |                 | 1495           |              |              |
| Protection grade                     |                 | IPX4           |              |              |
| Cold compartment minimum temperature | °C              | -3             |              |              |
| Hot compartment maximum temperature  | °C              | 130            |              |              |
| Compatible PROSERV shuttle size      |                 | XS             | S / 3T       | L            |
| Weight                               | kg              | ~125           | ~135         | ~145         |
| Work environment temperature         | °C              | from 5 to 38°C |              |              |
| Coolant gas                          |                 | R 404a         |              |              |

## POWER AND ELECTRICAL STANDARDS

| POWER (KW) | 400V 16A 3F+N+T | 230V 16A 1F+N+T | 230V 20A 1F+N+T | 230V 32A 1F+N+T | 230V 16A 3F+T | 230V 32A 3F+T | USE       |
|------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|-----------|
| 9,8        | x               |                 |                 |                 |               | x             | C/F - C/C |
| 6,5        | x               |                 |                 | x               |               | x             | C/S-C/C   |
| 4,4        |                 |                 | x               | x               |               |               | C/S       |
| 3,7        |                 | x               |                 | x               | x             |               | C/S       |

## PRODUCT DESCRIPTION

|             |  |
|-------------|--|
| APPLICATION | Station for hot and cold food regeneration/maintenance on personalised trays, to be used in combination with a PROSERV shuttle.  |
| EXTERIOR    | Control panel: made of thermoformed ABS, extremely resistant to impacts.<br>Body: aluminium coated with very thick anodic oxidation resistant to impacts and easy to clean.<br>Shuttle hooking system: motorised, with shuttle dragging toward the station without effort for the operator.<br>Wall mount (standard): wall mount by stainless steel (CNS) clamps and anti vibration elements.<br>Assembly on wheels (optional): optional assembly on a frame equipped with wheels to permit occasional movement. |
| INTERIOR    | Chambers and ventilation carter: stainless steel with large bending rays and flush surfaces joints to facilitate cleaning.<br>Technical compartment: lined in soundproof material to reduce noise emission to a minimum. Internal component disposition designed to facilitate maintenance operations.   |
| DOORS       | They are made of impact resistant HPL with ergonomic stainless handles coated with anodic oxidation.<br>They make the live station parts inaccessible when the shuttle is not connected, in order to avoid risks for the consumer and damages to the device.<br>They are equipped with a gas spring system that facilitates the rotation and the electronic closure protected by a password.   |
| MATERIALS   | AISI304 stainless steel, aluminium, synthetic material.  |

| PROSERV                    |                 |  |              |               |               |
|----------------------------|-----------------|--|--------------|---------------|---------------|
| DESCRIPTION                | UNIT OF MEASURE | VALUE  |              |               |               |
|                            |                 | XS   | S            | 3T            | L             |
| Dimensions (standard)      | mm              | 798x877x1071   | 798x914x1393 | 798x1172x1393 | 798x914x1629  |
| DSPRO + PROSERV dimensions | mm              | 1200   | 1237         | 1495          | 1237          |
| Wheels (standard)          |                 | SWIVEL 2 x Ø160 mm / FIXED 2 x Ø200 mm (galvanized steel)                  |              |               |               |
| Cleaning                   |                 | The shuttle is washable in a washing tunnel at max 65°C water temperature. |              |               |               |
| Tray Type                  |                 | GN / EN / EXT  |              | GN / EXT      | GN / EN / EXT |
| Weight                     | kg              | ~107   | ~130         | ~160          | ~150          |

| MEAL CAPACITY |                |                |                |             |                |             |             |
|---------------|----------------|----------------|----------------|-------------|----------------|-------------|-------------|
| MODEL         | 14 TRAYS       | 16 TRAYS       | 20 TRAYS       | 24 TRAYS    | 26 TRAYS       | 30 TRAYS    | 36 TRAYS    |
| EXTRA SMALL   | width 91.15 mm | width 79 mm    |                |             |                |             |             |
| SMALL         |                | width 118.5 mm | width 91.15 mm | width 79 mm |                |             |             |
| LARGE         |                |                | width 118.5 mm |             | width 91.15 mm | width 79 mm |             |
| THREE TRAY    |                |                |                |             |                |             | width 79 mm |

| PRODUCT DESCRIPTION |   |
|---------------------|---|
| APPLICATION         | Neutral trolley for hot and cold meal distribution on personalized trays, to be used in combination with a DSPRO station.   |
| EXTERIOR            | <p>Top cover: thermoformed ABS and aluminium, with integrated barrier.</p> <p>Body: aluminium coated with very thick anodic oxidation and panels in HPL resistant to impacts and easy to clean.</p> <p>Pushing handles: ergonomic and located in a position protected from impacts for safe and easy handling.</p> <p>Doors:       standard set-up with 4 doors with 270° opening.<br/>                     optional set-up with 4 doors with 255° and 270° opening for washing in box.</p> <p>Perimeter bumpers made of high-density polyethylene.</p> |
| INTERIOR            | <p>Chamber: stainless steel with large bending rays and flush surfaces joints to facilitate cleaning.</p> <p>Ventilation carter and trays supports: stainless steel easy to remove and washable.</p> <p>Partition wall: steel and synthetic material, completely washable in washing tunnel as well, with gaskets that can be replaced directly by the operator without using tools or removing the wall.</p>   |
| DOORS               | <p>They are composed of an aluminium backdrop, a HPL external panel, a central panel of insulating material and one external in stainless steel (CNS).</p> <p>Silicon gaskets easy to be removed.</p> <p>Made up of an aluminium frame, external aluminium panel, a central insulation panel and internal stainless steel panel.</p> <p>Optional locking.</p>   |
| MATERIALS           | AISI304 stainless steel, aluminium, synthetic material.   |



**RATIONAL PRODUCTION srl**

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