

INDUSTRY
4.0
COMPLIANT



ICAM
INTELLIGENT SPACE SOLUTIONS

WHAT IS SAFEBOX



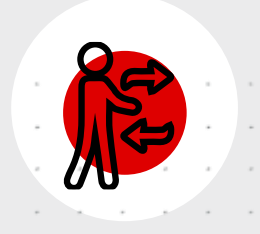
- SELF-SERVICE
- MODULAR
- SMART
- CUSTOMIZABLE
- MOVABLE
- ROBUST
- COMPLIANCE WITH CURRENT LEGISLATION AND INDUSTRY 4.0 PARADIGM



SAFE STORAGE



SELF-SERVICE
DISTRIBUTION
AND RETURN



SELF-SERVICE
REPLENISHMENT



SELF-SERVICE
DELIVERY AND
COLLECTION



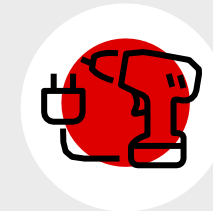
DATA, REPORTS
AND STATISTICS

WHAT IS SAFEBOX MATERIALS HANDLED

SAFEBOX ENABLES THE **SAFE STORAGE, THE AUTOMATED DISTRIBUTION AND THE SMART MANAGEMENT OF A WIDE RANGE OF TOOLS AND MATERIALS, INCLUDING LARGE AND HEAVY ITEMS, IN THE SAME MACHINE**



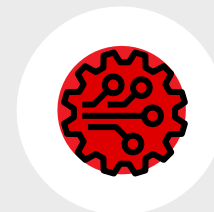
PPE, WORK CLOTHING
AND SHOES



TOOLS AND EQUIPMENT



CONSUMABLES



SPARE PARTS



COMPANY ASSETS



RECYCLING

WHAT IS SAFEBOX: HOW IT WORKS

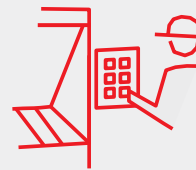
SELF-SERVICE DELIVERY AND PICK-UP, CONTACT-FREE, 24/7

Whether it's an operator that needs to pick-up or return an item, a courier that has to deliver a parcel or a supplier that has to replenish stock, with SafeBox all users can do everything completely independently, 24/7, without the need for dedicated personnel.

Everything can be done intuitively and safely in a very short time, using the operator panel installed on the machine.



1.
USER
IDENTIFICATION
WITH BADGE
OR PASSWORD



2.
SEARCH OR SELECTION
PRE-AUTHORISED
ITEMS



3.
AUTOMATED ITEM
RETRIEVAL AND / OR
RETURN

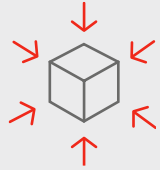


4.
CONFIRMATION
OF OPERATION
AND LOG OUT

BENEFITS OVERVIEW



Availability of materials,
on site, 24/7



High-density storage of
different materials, all
together in just a few
square meters



Selective access only to
authorized personnel



Reduction of up to 50% on
waste and consumption



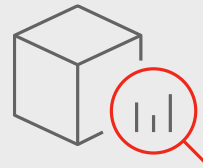
Real-time inventory and
visibility of available stock



Reduction in over-stocking
and out-of-stock
situations



Certification of PPE
withdrawals in accordance
with current Health &
Safety Legislation



Monitoring of the status
of the tools and PPE as
well as management of
expiry dates and
maintenance



Reduction in times and
costs for procurement and
distribution



No more fixed capital thanks to
the management of materials
in “*Consignment Stock*” or
“*Vendor Managed
Inventory*” mode

APPLICATIONS

PHYGITAL STORAGE & DISPENSING POINT

24/7 self-service collection and delivery points for tools and materials.

Indoor or outdoor installation.

- Automated, self-service 24/7 distribution, without the need for on-site personnel
- Space optimization and protection of materials
- Monitoring of material consumption and reduction of waste
- Certification of PPE withdrawals in accordance with current Health & Safety legislation and digital register
- Visibility of available stock and automatic replenishment



APPLICATIONS

PHYGITAL PICK-UP & DELIVERY POINT

Self-service area for the collection or delivery of material.

The installation of SafeBox near the wall with an In-Out Point on the outside makes contactless access possible for couriers and suppliers, as well as for internal staff.

- Maximum protection for operators
- Extension of collection / delivery time
- Optimization of staff time





APPLICATIONS

PROXIMITY STORAGE & DISPENSING

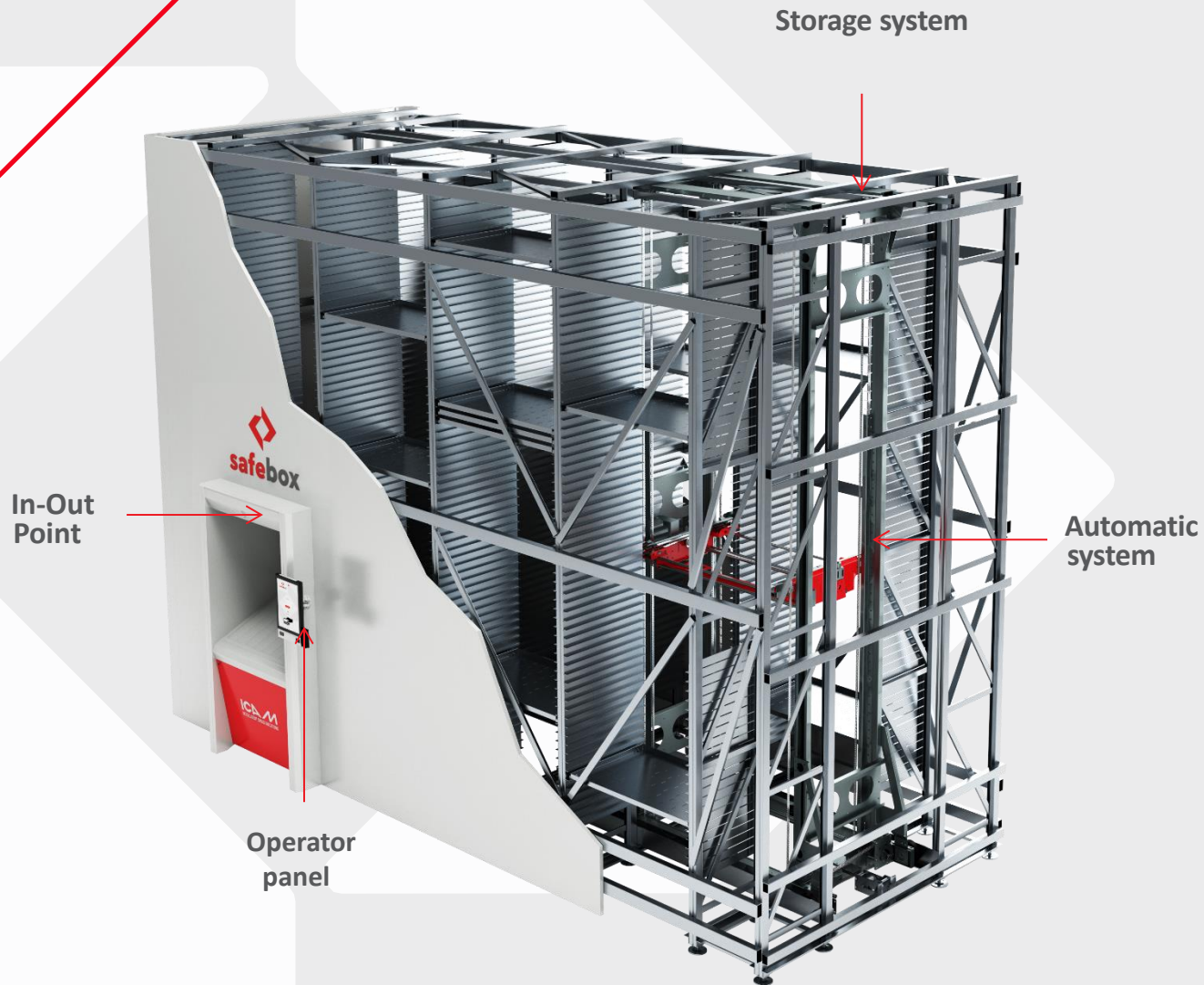
Automated Proximity warehouses and 24/7 self-service collection and delivery points for equipment, tools and materials.

Outdoor installation at your construction site

- Automated, self-service 24/7 distribution, without the need for on-site personnel
- Protection of stored material
- Monitoring of material consumption and reduction of waste
- Certification of PPE withdrawals in accordance with current Health & Safety legislation and digital register
- Visibility of available stock and automatic replenishment

TECHNOLOGY

THE STRUCTURE

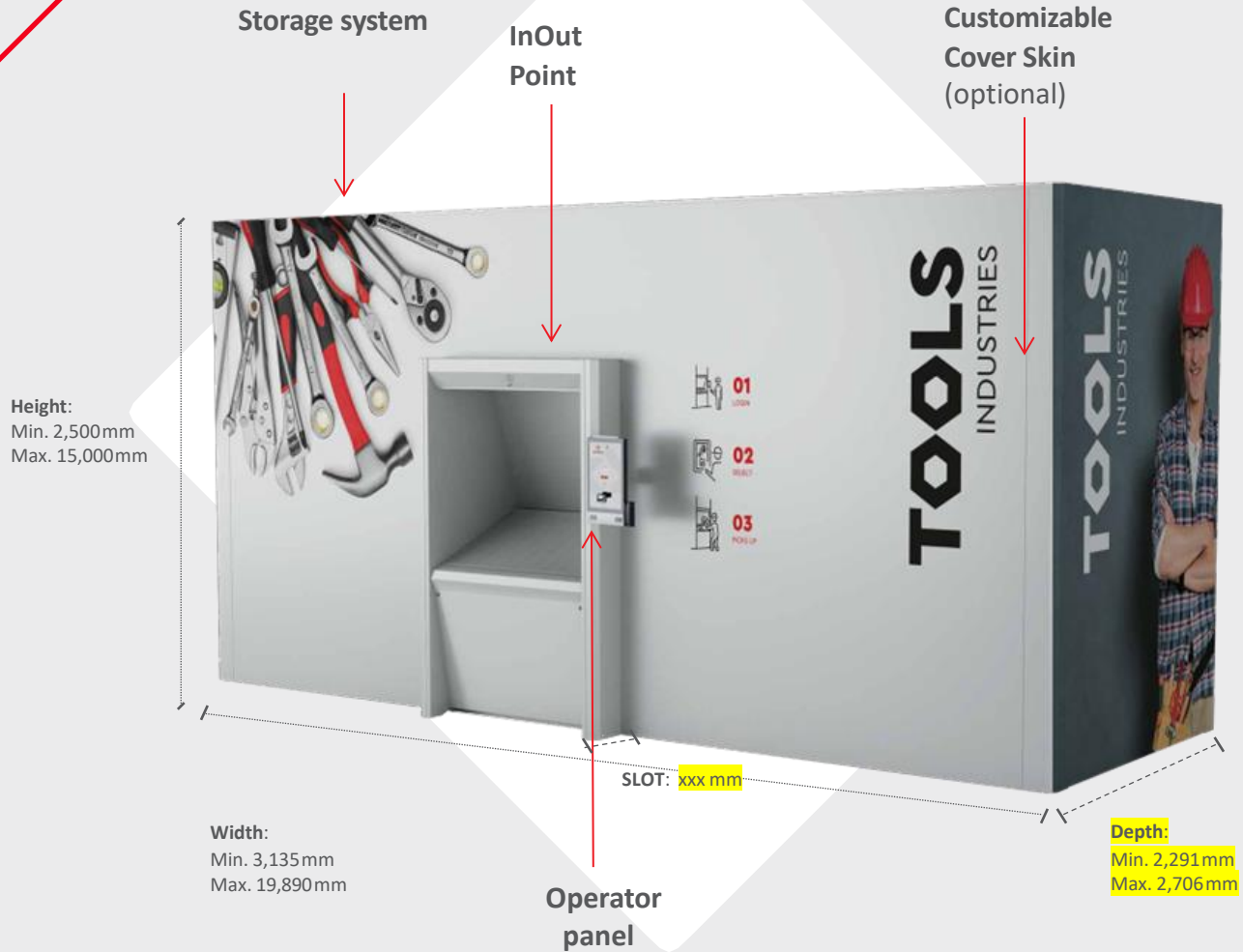


SafeBox is a **completely closed modular structure**, which extends both **vertically** and **horizontally** and is perfect for installation in every type of environment, both, **indoor and outdoor**.

The structure consists of two rows of shelving, which are positioned opposite each other and house the cases that are used to store the materials.

In the middle there is a moving, automatic system that collects individual cases, takes them to the In-Out Point and brings them back into the system.

TECHNOLOGY THE STRUCTURE



- **ROBUST DESIGN**
- **MODULAR**
- **CUSTOMIZABLE COVER SKIN**

THE STRUCTURE: OUTDOOR VERSION



The outdoor version includes some **distinctive features** which are added to the standard ones present in the indoor version.

These elements **installed as standard** on all outdoor machines **guarantee higher protection for operators ensuring greater operating ergonomics, in any context of use.**

- **MOVABLE**
- **VANDAL-RESISTANT**
- **WEATHERPROOF**

- A. 20 ft Container: length 6,058 mm
- B. 40 ft Container: length 12,192 mm
- C. 45 ft Container: length 13,716 mm

TECHNOLOGY THE CASES

Dimensions:

W 780 x D 580 x H 75 mm

**Dimensions:**

W 780 x D 580 x H 225 mm

**Dimensions:**

W 980 x D 580 x H 475 mm



The materials are stored in **galvanized steel cases**, available in a variety of different sizes and load capacities, which can be reconfigured over time, thanks to the use of removable edges and separators.

- VARIABLE DIMENSIONS AND LOAD CAPACITIES
- FLEXIBLE COMPARTMENT CONFIGURATION
- STORAGE OF DIFFERENT TYPES OF MATERIALS
- INTEGRATED CHARGING SYSTEM ON REQUEST

TECHNOLOGY

THE IN-OUT POINT



Access to the case in which items are stored or retrieved, is achieved via the In-Out Point. Equipped with a **SLOT device (Smart Locking Tool)**, this allows **selective access to an individual compartment of case**.

The system consists of **doors and shutters that open automatically, in a synchronized manner**, to allow the operator access only to the authorized compartment when the warning light activates.

- **SELECTIVE ACCESS**
- **MAXIMUM OPERATIONAL ERGONOMICS**
- **DESIGN-FOR-ALL**



TECHNOLOGY

THE IN-OUT POINT: SLOT



A.



B.



C.

The number of doors varies according to the width of the case.

The **minimum width** of a door is **100 mm**.

- A. SLOT with 8 doors of width 100 mm
- B. SLOT with 4 doors of width 200 mm
- C. SLOT with 2 doors width 400 mm

TECHNOLOGY

THE IN-OUT POINT: SLOT



The **smallest compartment** is 80*80*75 mm (W*D*H), the **largest** is equivalent to the size of the entire case.

- A. Compartment: W 80 x D 80 x H 75 mm
- B. Compartment : W 280 x D 180 x H 475 mm
- C. Entire case: W 780 x D 580 x H 475 mm

TECHNOLOGY

THE ACCESS OPENING FOR MASSIVE PICKING AND REFILLING



It is possible to integrate **one or more access points** that provide full access to the entire case to speed up replenishment or picking operations.

It is possible to integrate a **two-axis laser pointer** into the access opening, which, through the intersection of a red holographic line and a green spot, identifies the compartment from which to retrieve or deposit one or more items, making the operations faster and more accurate.

TECHNOLOGY

THE MANAGEMENT SOFTWARE: ICON^{PRO}

MAIN FEATURES



WEB-BASED

No installation on PC, access via browser.



USER-FRIENDLY

Simple and intuitive graphic interface that is quick and easy to use, even for less experienced users.



VERSATILE

Multilingual, multi-system, multi-user, multi-device.



SMART

It optimizes the organization of materials, allow authorizations to be set, tracks all handling operations and sends warning and alerts.



EXPANDIBLE

It allows the stand-alone or network management. It offers the flexibility to integrate with the most common WMS and ERP management software through a standard interface with the company's host system, which ensures the exchange of information through frontier tables on a Microsoft SQL Server database, simple text files in a shared folder / structure and web service



FAST

Rapid response times and real-time information on the status of the storage system.



RELIABLE

Robust structure and quick, easy configuration.

TECHNOLOGY

THE MANAGEMENT SOFTWARE: ICON^{PRO}

THE TOUCHPOINTS



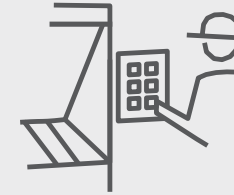
ADMINISTRATOR PORTAL

- Machine configuration and management
- Creation, import and management of personal data (employees, tasks, items, functions, etc.)
- Creation and management of associations between items and users
- Creation and management of authorizations
- Reports and statistics



CONSULTATION PORTAL

- Sending extraordinary requests
- Search and selection of items to reserve



OPERATOR PANEL

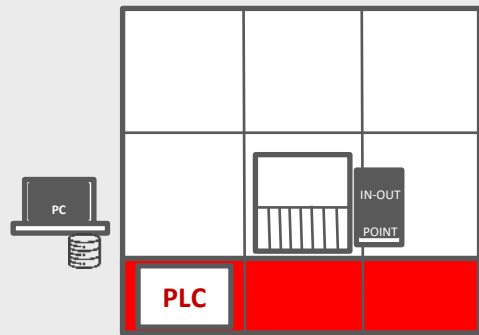
- Search and selection of items to store, retrieve or re-stock
- Sending extraordinary requests

TECHNOLOGY

THE MANAGEMENT SOFTWARE: ICON^{PRO}

ARCHITECTURE OF A SINGLE MACHINE

One access opening with SLOT



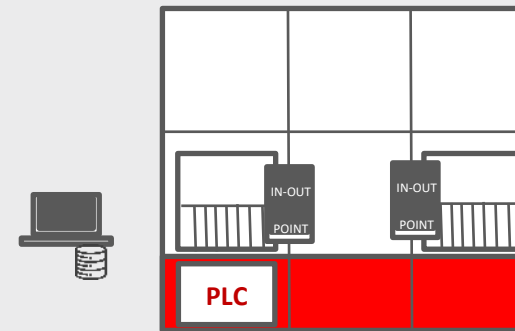
Hardware:

- 1 PLC
- 1 PC Master installed inside the machine, not accessible to the users
- 1 In – Out point for each picking/refilling station with SLOT

The software is on the PC Master.

An ad hoc application is installed on the In – Out Point

*2 access openings that are not located nearby with SLOT**



Hardware:

- 1 PLC
- 1 PC Master installed inside the machine, not accessible to the users
- 1 In – Out point for each picking/refilling station with SLOT

The software is on the PC Master.

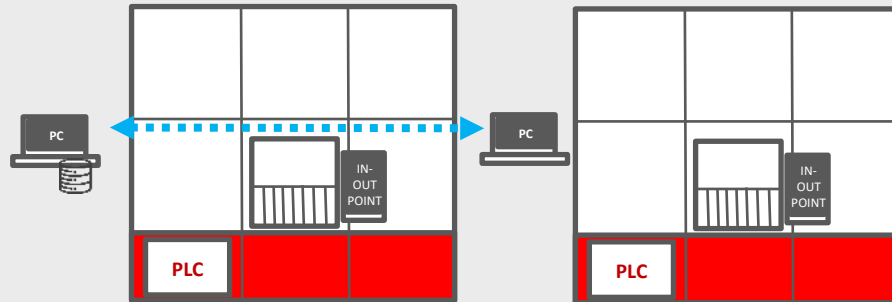
An ad hoc application is installed on the In – Out Point

* It's not possible to install two side-by-side picking/refilling stations equipped with SLOT

It is possible to centralize the database on a company server for backup purposes to minimize risks of information loss.

It is also possible to centralize the IIS on a corporate server to further improve performance.

Same room, same functions



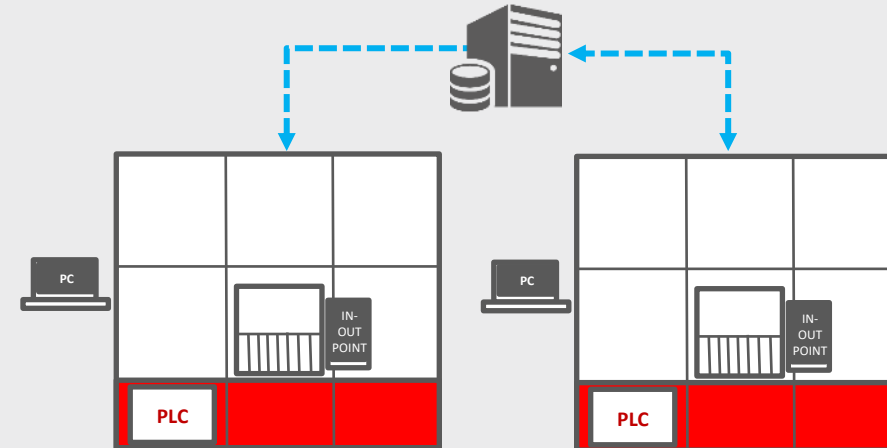
Hardware:

- 2 PLC
- 2 PC Master with the DB installed as web server for ICON, not accessible to the users
- 1 In – Out point for each picking/refilling station with SLOT

PRO: A server is not required

CONS: the second SafeBox cannot be used, if the first SafeBox is off

Same room, but different functions or different rooms



Hardware:

- 2 PLC
- 2 PC
- 1 External Server with ICON installed and / or located the DB positioned inside the machine, not accessible to the users
- 1 In – Out point for each picking/refilling station with SLOT

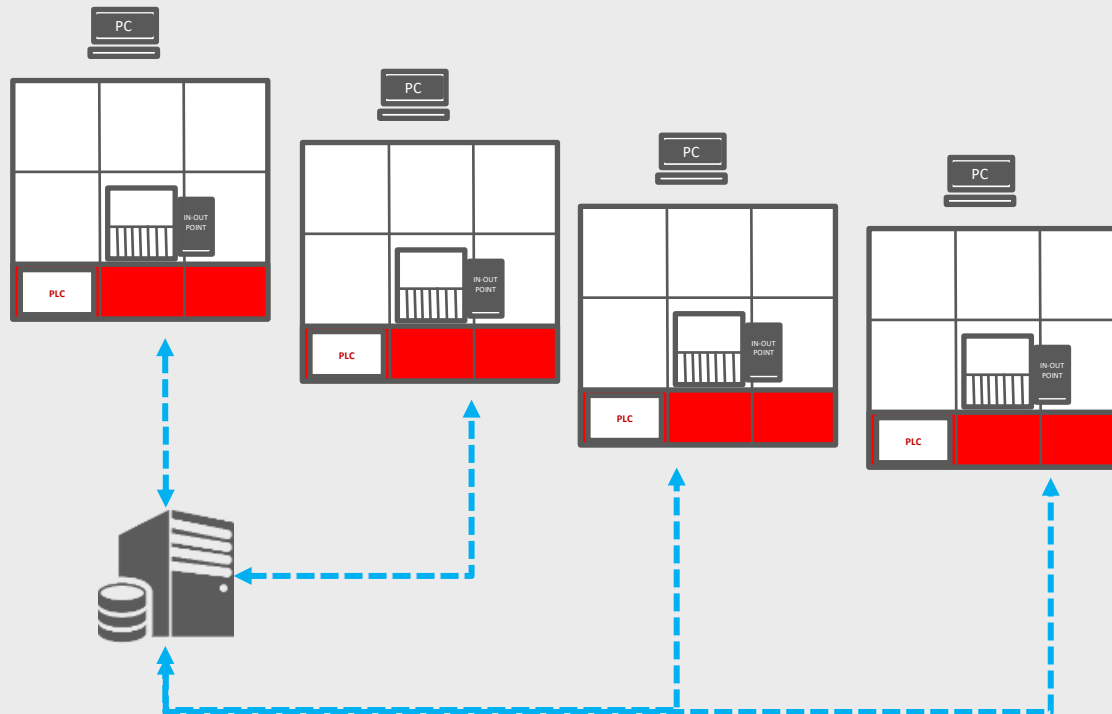
PRO: It is possible to use every SafeBox, even if one of them is off. The management of SafeBox installed in different rooms can be centralized.

CONS: the customer must add the cost of server buying and maintaining

TECHNOLOGY

THE MANAGEMENT SOFTWARE: ICON^{PRO}

ARCHITECTURE OF A POD OF MACHINES



Hardware

- 4 PLC
- 4 PC installed inside the machine, not accessible to the users
- 1 eventual external server with the DB installed as web server for ICON
- 1 In – Out point for each picking/refilling station with SLOT

The software is on the PC Master.

An ad hoc application is installed on the In – Out Point

PRO: It is possible to manage a pods of machines up to 8 Safebox

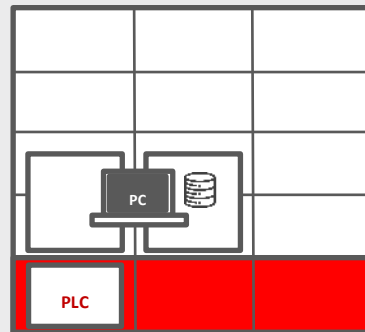
CONS: the customer must add the cost of server buying and maintaining from the 4^o machine

TECHNOLOGY

THE MANAGEMENT SOFTWARE: ICON ^{PRO}

ARCHITECTURE OF A SINGLE MACHINE EQUIPPED WITH TRADITIONAL ACCESS OPENING FOR MASSIVE REFILLING

Side-by-side access openings

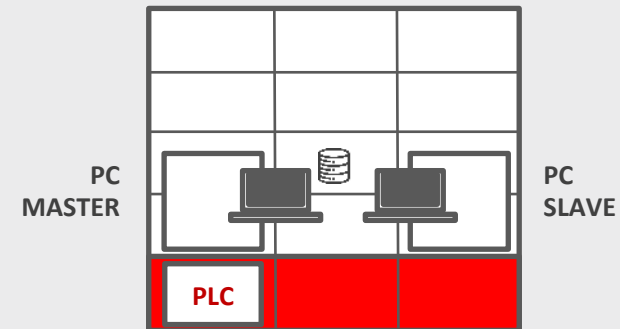


Hardware

- 1 PLC
- 1 PC Master

The software is on the PC Master.

Access openings not located nearby



Hardware

- 1 PLC
- 1 PC Master
- 1 / n-1 PC/Dispositivi Slave

The software is on the PC Master.

A web browser is enough for the **PC SLAVE**.

It is possible to centralize the database on a company server for backup purposes to minimize risks of information loss.
It is also possible to centralize the IIS on a corporate server to further improve performance.

HORIZONTAL

Indoor and Outdoor

**DIMENSIONS**

		<i>Min. (mm)</i>	<i>Max. (mm)</i>
MACHINE	Width	3,995	19,880
	Height	2,500	4,500
	Depth	2,291	
		2,526 (Slot overhang)	
CASES (USEFUL)	Width	780	1,180
	Height	75	475
	Depth	580	

**ITEMS DIMENSIONS**

Min.: W 70 * D 70* H 75 mm

Max.: W 1,170 * D 570 * H 475 mm

**LOAD CAPACITY OF CASES**

Max.: 100 Kg

**AVERAGE TIME FOR PICK-UP & UPLOAD OPERATION**

Symple cycle: 21 s

**USEFUL STORAGE CAPACITY:**Min.: 2.7 m³ / Max.: 57.8 m³

VERTICAL

Indoor and Outdoor



* It requires a platform with a height to be determined based on the load height, operator's height, and tray depth.

**DIMENSIONS**

		<i>Min. (mm)</i>	<i>Max. (mm)</i>
MACHINE	Width	3,135	6,835
	Height	2,800	15,000
	Depth	2,421	3,120
		2,706 (Slot overhang)	3,493 (Slot overhang)
CASES (USEFUL)	Width	980	1,180
	Height	75	475*
	Depth	580	680

**ITEMS DIMENSIONS**

Min.: L 70 * P 70* H 75 mm

Max.: L 1,270 * P 670 * H 475 mm

**LOAD CAPACITY OF CASES**

Min.: 100 Kg Max.: 400 Kg

**AVERAGE TIME FOR PICK-UP & UPLOAD OPERATION**

Simple cycle: 27 s

**USEFUL STORAGE CAPACITY:**Min.: 3.2 m³ Max.: 53.5 m³

TECHNICAL DATA & AVAILABLE MODELS

TECHNICAL DATA

Width of the machine (mm) based on quantity and dimensions of the storage columns

SAFEBOX HORIZONTAL SYSTEM

Case width (mm)

No. of columns	Case width (mm)		
	800	1,000	1,200
3	3,995	4,595	5,195
4	4,930	5,730	6,530
5	5,865	6,865	7,865
6	6,800	8,000	9,200
7	7,735	9,135	10,535
8	8,670	10,270	11,870
9	9,605	11,405	13,205
10	10,540	12,540	14,540
11	11,475	13,675	15,875
12	12,410	14,810	17,210
13	13,345	15,945	18,545
14	14,280	17,080	19,880
15	15,215	18,215	-
16	16,150	19,350	-
17	17,085	-	-
18	18,020	-	-
19	18,955	-	-
20	19,890	-	-

SAFEBOX VERTICAL SYSTEM

Case width (mm)

No. of columns	Case width (mm)	
	1,053	1,353
2	3,135	3,735
3	4,385	5,285
4	5,635	6,835
5	6,885	-
6	-	-
7	-	-

POP-UP

INDOOR E OUTDOOR



- **MOVABLE**
- **VANDAL-RESISTANT**
- **WEATHERPROOF**



DIMENSIONS		20'	40'	45'
CONTAINER	Width (mm)	6,058	12,192	13,716
	Height (mm)	3,100		
	Depth (mm)	2,550		
CASES (USEFUL)	Width (mm)	980		
	Height (mm)	75 - 475		
	Depth (mm)	580		

**ITEMS DIMENSIONS**

Min.: L 70 * P 70* H 75 mm

Max.: L 970 * P 570 * H 475 mm

**LOAD CAPACITY OF CASES**

Max.: 100 Kg

**AVERAGE TIME FOR PICK-UP & UPLOAD OPERATION**

Ciclo semplice: 21 s



USEFUL STORAGE CAPACITY Min.: 7,6 m³ /
Max.: 24,6 m³



ICAM is a global provider of intelligent automation solutions for the storage, delivery and sales of goods and materials, designed for the needs of Industrial, Healthcare, Office, Retail and City Logistics sectors.

Founded in 1957, today our mission is help people and companies to keep their materials safe and well-organized, making them available anytime, by connecting manufacturers, suppliers, logistics operators and end customers in an efficient, secure and sustainable way,.

Present in 50 countries with over 5,000 installations, ICAM satisfied the logistics needs of thousands of companies and public institutions.



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