



## SILO<sup>2</sup>, THE CUSTOM-MADE MULTI-COLUMN VERTICAL LIFT MODULE

SILO<sup>2</sup> is the multi-column vertical lift system designed for intensive storage of various types of items, including those with a very high specific weight. Its modular design enables it to adapt to any space requirement, saving up to 90% of surface area. Completely re-developed according to the latest technological standards, it is now available in two versions, **ECO** and **FAST**.

The logo for SILO<sup>2</sup> features a stylized red and white 'M' shape to the left of the word 'SILO' in a bold, black, sans-serif font. A small red square with the number '2' is positioned to the upper right of the 'O'.

# A **CUSTOM-MADE** STORAGE SYSTEM, WITH OVER **ONE BILLION POSSIBLE CONFIGURATIONS**, AS STANDARD

SILO<sup>2</sup> is a **vertical storage system with shifting trays**, which operates according to the **“goods-to-person” picking principle**.

The internal handling system operates along **three axes** (vertical Y, horizontal X, and tray handling Z) to transport the tray to the picking/refilling station, where the operator safely performs picking or refilling operations.

Thanks to its modular design, SILO<sup>2</sup> can be configured **with 2 to 7 storage columns**, **reaching heights of up to 49 foot**, and can adapt to any installation environment (low ceilings, underground spaces, multi-level layouts or complex configurations), **even outdoors**.

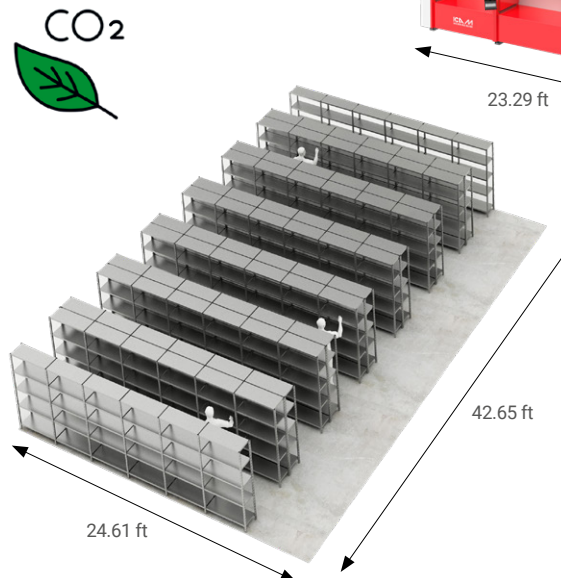
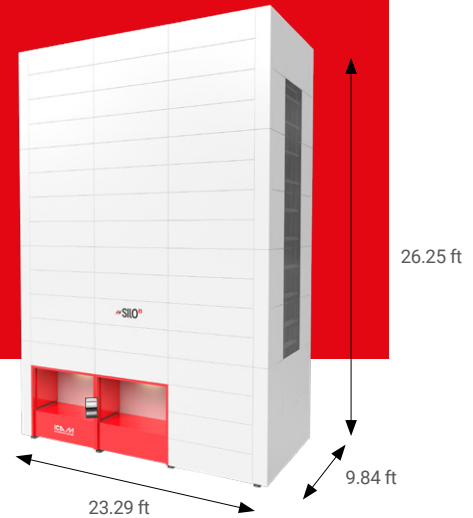


## **NEW LOOK, BETTER PERFORMANCE, REDUCED ENERGY CONSUMPTION**

Completely redesigned according to the latest technological standards, SILO<sup>2</sup> is now more efficient, more reliable, and more eco-friendly.

Available in **ECO** and **FAST** versions, the new SILO<sup>2</sup> has been engineered to meet different business priorities, whether it is maximizing performance or minimizing energy consumption.

With the same tray size and capacity (up to 881.85 lb), the **SILO<sup>2</sup> FAST** delivers more than a 30% increase in hourly performance, while the **SILO<sup>2</sup> ECO** ensures a 20% reduction in overall energy consumption.



**+80%**  
of space  
recovered

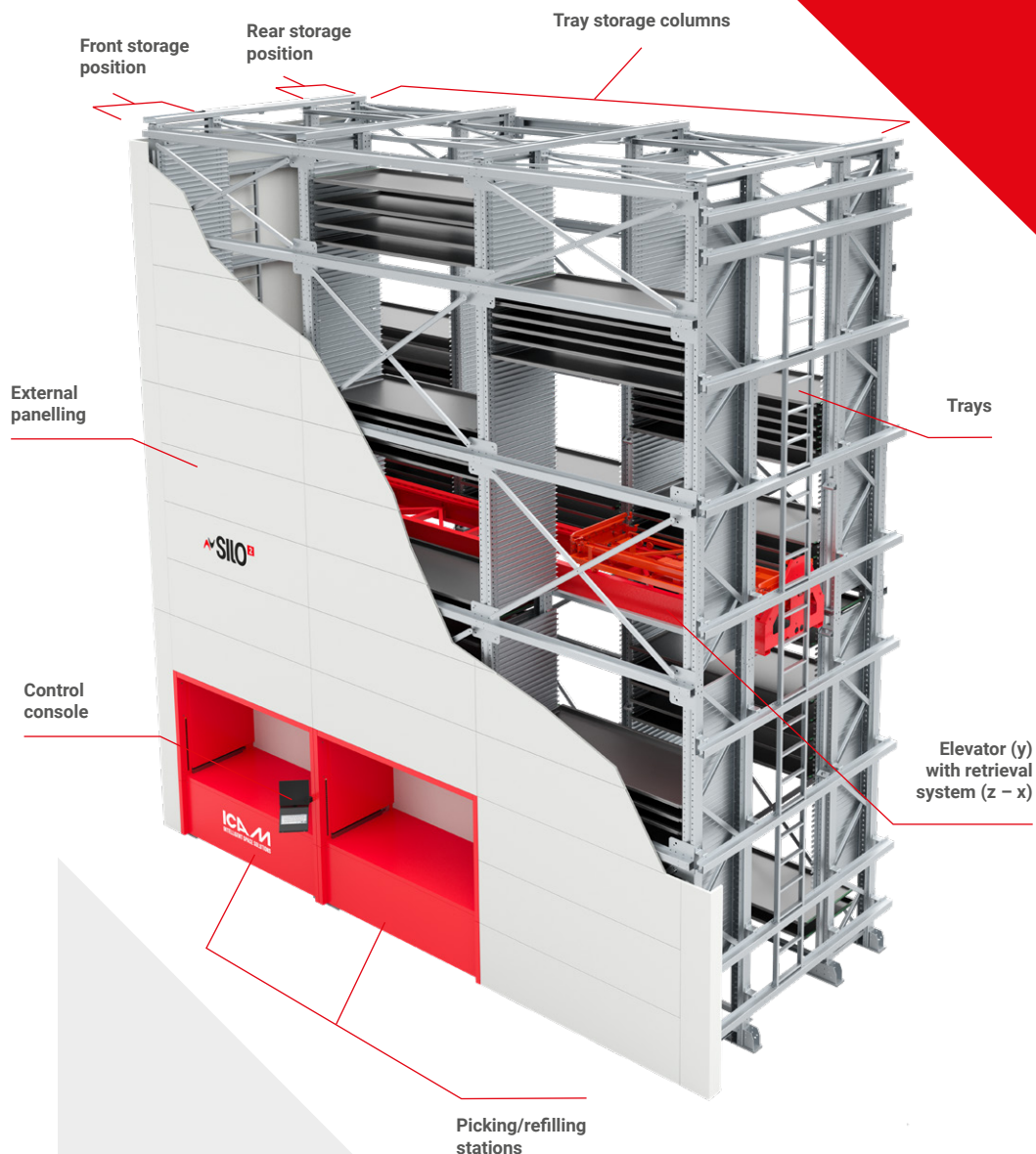
# A MODULAR, FLEXIBLE, RELIABLE STRUCTURE

SILO<sup>2</sup> consists of shifting trays stacked on two opposing storage columns with a central elevator, equipped with an automated retrieval system that picks and releases the trays in the picking/refilling station, then repositions them inside the structure once the operation is completed.

Operation of the SILO<sup>2</sup> storage system can be accomplished using an **incorporated PC**, located adjacent to the picking/refilling station, or via any mobile device on which the **ICAM ICON vertical lift modules management software** has been installed.

**Multi-ray photoelectric light curtains** and an **automatic shutter door** allow the warehouse operator to **work in complete safety** during handling operations at the picking/refilling station.

**Emergency push buttons** on the front of the storage system enable the machine to be stopped immediately at any time.



## ■ TECHNICAL DATA

Tray	
Maximum load	882 lb
Useful width	25,71 in to 80,83 in
Useful depth	24,09 / 27,83 / 31,57 / 35,32 / 39,49 / 43,23 / 46,97 / 50,71* in
Height	1,61 in
Maximum loading height	26,57 in
Incremental positioning pitch	1,97 in (Fixed and Automatic configuration)
Minimum tray spacing	3,94 in

Storage system	
Maximum load capacity per column	154 324 lb
Width	85,31 to 284,13 in
Depth	95,79 to 176,34 in
Height	110,24 to 550,55 in
No. of columns	2 to 7
Module height pitch	3,94 in
Working environment operating temperature	0 to 40°C
Relative humidity**	50 to 85%**

Versions	ECO	FAST
No. of trays per hour	53 to 75	72 to 87
Installed power	11 kW	14kW

\* The 50,71 inches deep tray is only available on machines up to 16,40 ft wide.

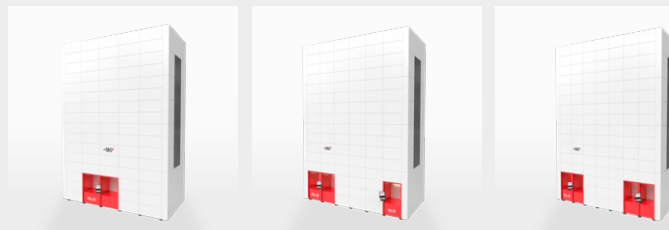
\*\*On request it is possible to equip the storage system with components able to withstand climatic conditions which exceed these limits.

## ■ WIDTH OF THE MACHINE (IN) BASED ON QUANTITY AND DIMENSIONS OF THE COLUMNS

		No. of storage columns					
		2	3	4	5	6	7
Tray width (in)	25.71	85.31	118.78	152.24	185.71	219.17	252.64
	29.65	93.19	130.59	167.99	205.39	242.8	-
	33.58	101.06	142.4	183.74	225.08	266.42	-
	37.52	108.94	154.21	199.49	244.76	-	-
	41.46	116.81	166.02	215.24	264.45	-	-
	45.39	124.69	177.83	230.98	284.13	-	-
	49.33	132.56	189.65	246.73	-	-	-
	53.27	140.43	201.46	262.48	-	-	-
	57.20	148.31	213.27	278.23	-	-	-
	61.14	156.18	225.08	-	-	-	-
	65.47	164.06	236.89	-	-	-	-
	69.02	171.93	248.7	-	-	-	-
	72.95	179.8	260.51	-	-	-	-
	76.89	187.68	272.32	-	-	-	-
80.83	195.55	284.13	-	-	-	-	

HIGH  
PRODUCTIVITY  
AND MINIMUM  
FOOTPRINT

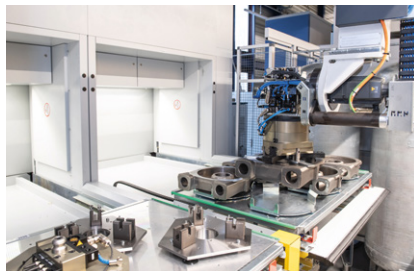
FROM  
**2**  
COLUMNS



TO  
**7**  
COLUMNS

# THE RIGHT TRAY, TO SUIT ANY NEED

The maximum load capacity of 881.85lb, the 120 available tray sizes, and the wide range of internal division accessories (side extensions, removable dividers, containers) enable the **management of various types of items**, including those **with a very high specific weight** (from 0.16 to 1.42 lb/in<sup>2</sup>), a feature that sets SILO<sup>2</sup> apart from single-column storage systems.



Additionally, **the correct allocation logic within the trays** (based on product family, picking frequency, supplier, dimensions, etc.) allows the available space in SILO<sup>2</sup> to be fully utilized, while also reducing material access times.

The possibility of defining at the bidding stage the load capacity of the tray, which ranges from a minimum of 220.46lb to a maximum of 881.85lb depending on the materials to be handled, also ensures that **SILO<sup>2</sup> VLMs are always suited to the customer's actual load requirements**, without unnecessary structural oversizing. In this way, SILO<sup>2</sup> is the ideal solution for the automatic storage of all types of products, from light materials such as plastics, clothing-accessories, pharmaceuticals, electronic components to much heavier ones like steel moulds, nuts and bolts and mechanical components, etc.

Within SILO<sup>2</sup> it is possible to handle trays with **fixed load heights (fixed configuration)** or with **variable height (automatic configuration)**.

**From 0.16 —→ to 1.42 lb/in<sup>2</sup>**

		Specific load-bearing capacity (lb/in <sup>2</sup> ) per tray														
		Tray width (in)														
		25.71	29.65	33.58	37.52	41.46	45.39	49.33	53.27	57.2	61.14	65.08	69.02	72.95	76.89	80.83
Tray depth (in)	24.09	1.42	1.23	1.09	0.98	0.88	0.81	0.74	0.69	0.64	0.60	0.56	0.53	0.50	0.48	0.45
	27.83	1.23	1.07	0.94	0.84	0.76	0.70	0.64	0.59	0.55	0.52	0.49	0.46	0.43	0.41	0.39
	31.57	1.09	0.94	0.83	0.74	0.67	0.62	0.57	0.52	0.49	0.46	0.43	0.41	0.38	0.36	0.35
	35.31	0.97	0.84	0.74	0.67	0.60	0.55	0.51	0.47	0.44	0.41	0.38	0.36	0.34	0.32	0.31
	39.49	0.87	0.75	0.67	0.59	0.54	0.49	0.45	0.42	0.39	0.37	0.34	0.32	0.31	0.29	0.24**
	43.23	0.79	0.69	0.59	0.54	0.49	0.45	0.41	0.38	0.36	0.33	0.31	0.30	0.28	0.27	0.22**
	46.97	0.73	0.63	0.56	0.50	0.45	0.41	0.38	0.35	0.33	0.31	0.29	0.27	0.26	0.24	0.17*
50.71	0.59**	0.51**	0.39*	0.35*	0.31*	0.29*	0.26*	0.24*	0.23*	0.21*	0.20*	0.19*	0.18*	0.17*	0.16*	

0-0,28 lb/in <sup>2</sup>	0,29-0,43 lb/in <sup>2</sup>	0,43-0,56 lb/in <sup>2</sup>	0,57-0,85 lb/in <sup>2</sup>	0,86-1,41 lb/in <sup>2</sup>	1,42 lb/in <sup>2</sup>
---------------------------	------------------------------	------------------------------	------------------------------	------------------------------	-------------------------

\* Specific capacity relating to the tray downgraded capacity equal to 661lb

\*\* Specific capacity relating to the tray downgraded capacity equal to 771.62lb



# UNPRECEDENTED OPERATIONAL CONTINUITY AND FLEXIBILITY

Designed according to ergonomic and safety standards, the picking/refilling stations are available in both **internal** and **telescopic versions** to ensure accurate and safe picking and refilling of any type of item stored in the system.

The **telescopic version**, equipped with an automatic tray extraction system, is ideal for handling **heavy or bulky materials** that require the use of servo-assisted or automated systems (such as overhead cranes, pneumatic manipulators, anthropomorphic robots, etc.), reducing the risk of dangerous operations for staff.

Each SILO<sup>2</sup> can be equipped with **1 to 8 picking/refilling stations**. The possibility of placing them side by side allows the operator to work without delays: while picking or refilling materials in one picking/refilling station, the handling system prepares the next mission in the adjacent picking/refilling station, reducing or eliminating waiting times.

The picking and refilling stations can be positioned on the **same level**, on **different levels** or on **opposite sides**. **Fully-automatic picking and refilling stations** to automate repetitive and less ergonomic tasks can be implemented with the help of collaborative robots.



# PRECISION, EFFICIENCY AND PROFITABILITY, THROUGH INTELLIGENT STOCK MANAGEMENT

New standards of usability, accuracy and productivity are achieved with the available command and inventory control options.

Everything is under control with **ICON**. This **web-based software**, designed and developed entirely by ICAM, enables the management and control of the entire range of ICAM warehouse systems and much more.

Designed in accordance to the latest technological standards, ICON meets the storage and picking needs of the most important commercial and industrial sectors, providing **greater flexibility of interface with the most popular WMS and ERP management software**.

The PC is Microsoft Windows 10 embedded and equipped with a network interface, a software package developed by ICAM, and a database server program (SQL Server).



## DISTINCTIVE FEATURES

- User and authorization management
- Multi-machine management
- Ground-level area management
- ABC classification
- Dynamic multi-factor association
- Color batch-picking



**IRIDE, the innovative interactive control system** makes storage and retrieval faster, more accurate and more intuitive. A fully integrated digital experience within both the storage system and ICON, featuring 4 innovative functions:



### Light Picking Guide

Colored light beams guide each picking or refilling operation.



### Head-up Digital Dashboard

All necessary handling information is displayed directly within the operator's line of sight.



### Adaptive Interior Lighting

Lighting system that signals critical events and alarms.



### Active Control

A control panel in the picking/refilling station enables real-time management without the need to move.



06/2025

4000A Place de Java  
Brossard, QC, J4Y 0C4  
1-844-675-2262  
info@mskcanada.com

# MSK



ICAM pursues a continuous improvement policy. Therefore, we reserve the right to change any technical data and product specification and also correct possible typos without any prior notice. Copyright © 2025 ICAM S.p.A. All rights reserved.