

# MOVE TRO SERIES

STORAGE AND HANDLING  
SYSTEMS



# PRODUCTIVITY AND FLEXIBILITY IN SMALL SPACES



The entire **Movetro** range is the point of reference for the design and installation of automatic systems for the storage and handling of glass sheets.

All the **Movetro** solutions are tailor made and designed to enhance company performance, optimising levels of automation, efficiency and safety of the production unit.

## MOVETRO SERIES

- ▣ 100% PRODUCTIVITY INCREASE
- ▣ 100% PERSONALISATION
- ▣ 100% INTEGRATION
- ▣ 50% SPACE SAVED
- ▣ 0 INTERRUPTIONS DURING RESTOCKING
- ▣ 0 RISKS FOR OPERATORS

# A SOLUTION FOR EVERY NEED

STATIC STORAGE AND MANUAL HANDLING OF THE SHEETS

DYNAMIC STORAGE AND AUTOMATIC HANDLING OF THE SHEETS

CLASSIC

EVOLVED

FLEXIBLE  
UP TO 150  
SHEETS/SHIFT

HIGH CAPACITY  
OVER 150  
SHEETS/SHIFT

THE COMBINATION OF MOVETRO + GENIUS CUTTING LINES IS FACTORY 4.0



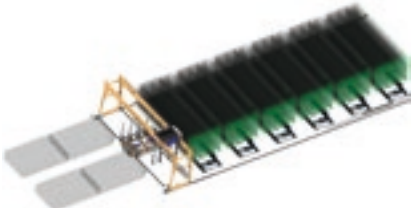
Movetro offers the most complete range of solutions for the storage and handling of glass sheets, transforming production context needs into reality.



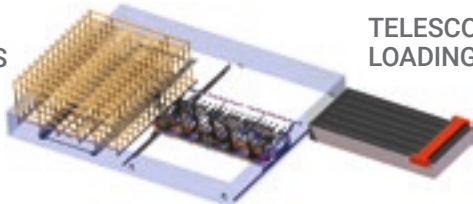
CLASSIFIERS



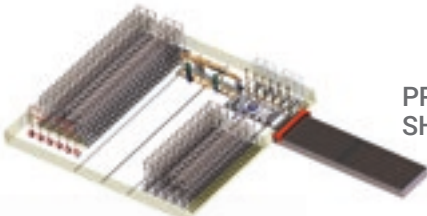
GROUND LOADING DEVICES



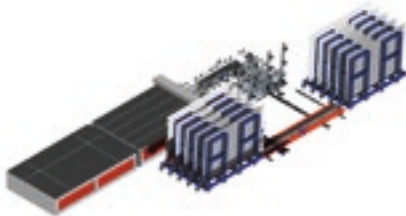
OVERHEAD LOADING DEVICES



TELESCOPIC LOADING DEVICES



PRIME SHUTTLE



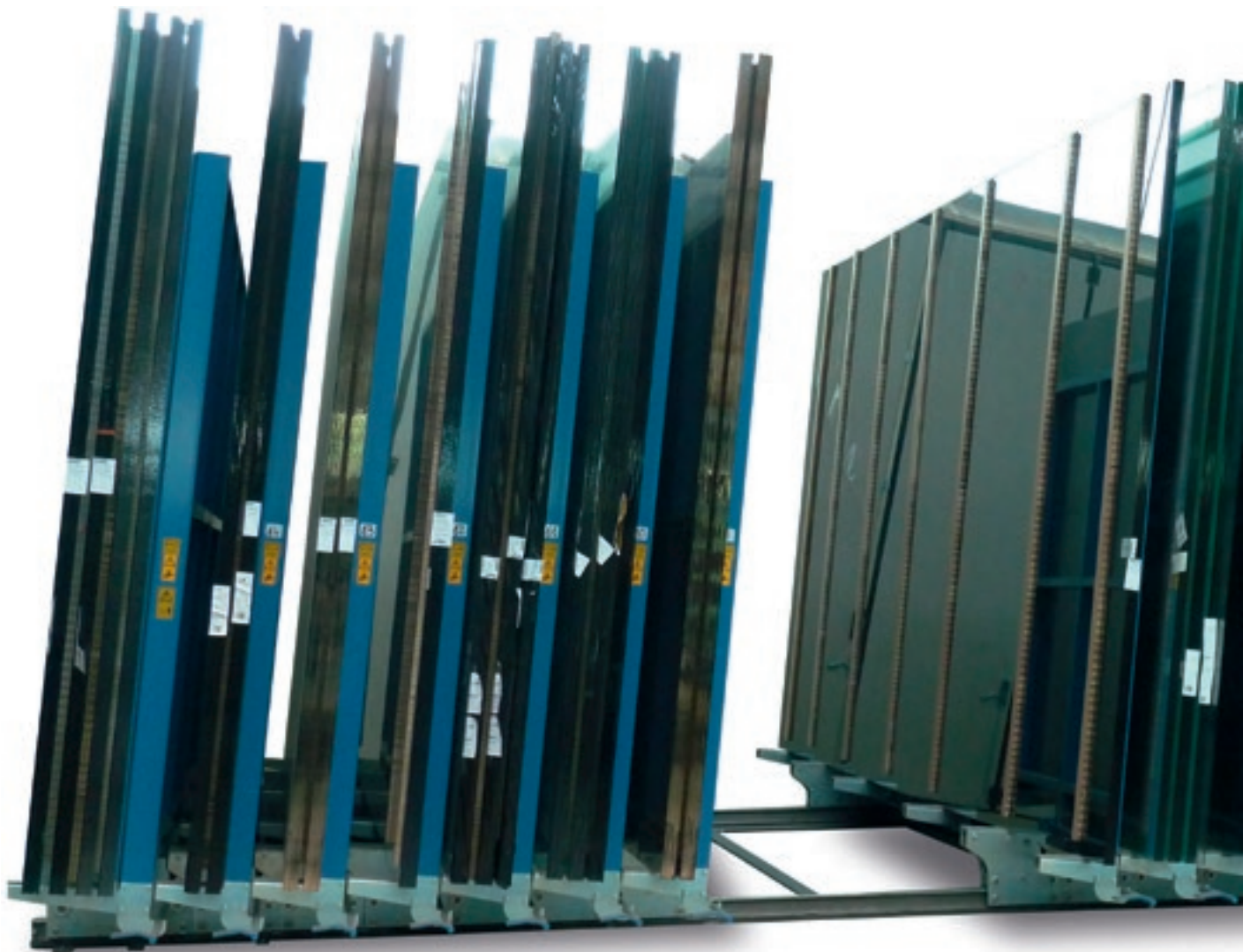
SWIFT SHUTTLE



# QUALITY AND SAFETY AT THE SERVICE OF THE CUSTOMER

STATIC STORAGE

## SEMI-AUTOMATIC CLASSIFIERS



The Movetro SA and Movetro A classifiers are the ideal solution for storing large quantities of glass in small spaces, making it quickly and easily available for machining: handling is carried out electrically, in conditions of complete safety.

Range of semi-automatic magazines that are the perfect solution for those wanting to gain more space on their business premises.

The entire MOVETRO range is the point of reference for the design and installation of semi-automatic and automatic systems for the storage and handling of glass sheets.

- ▾ **UP TO 50% REDUCTION  
IN SHEET STORAGE SPACE**
- ▾ **EASY TO USE**



The system is made up of a series of frames that can be electro- mechanically moved via a remote control, creating a distance between two of them so that the sheets can be loaded or picked up.

The manual frame locking/ release system is based on a simple idea but painstakingly designed to allow the operator to work comfortably, limiting the need for physical effort. The unusual remote control highlights the simple design that guarantees easy use.

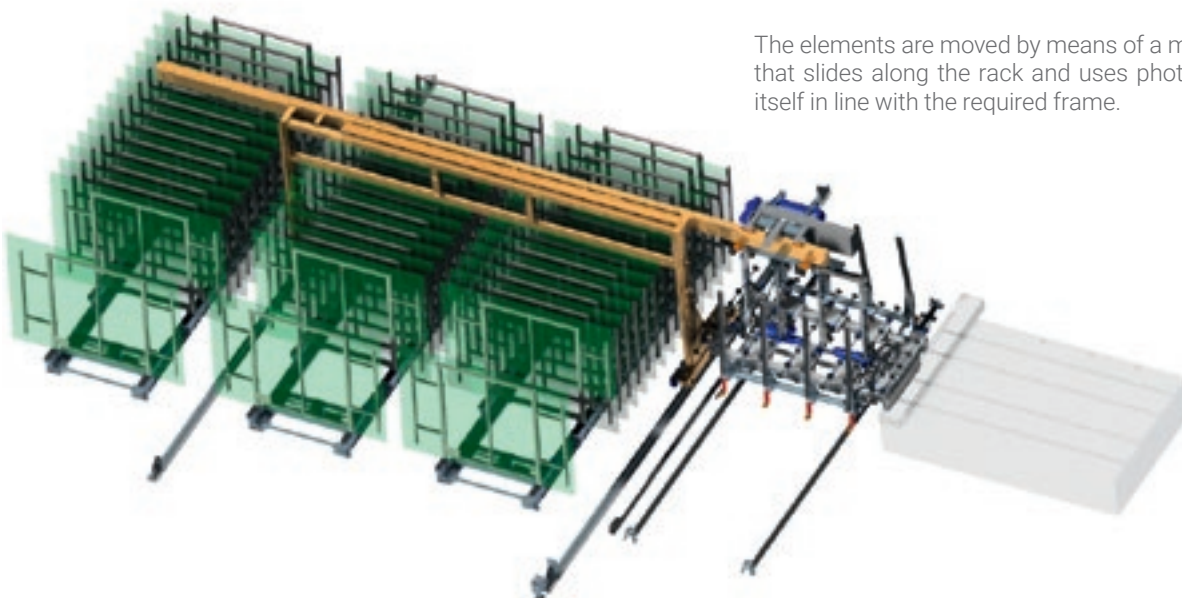




The command console has a modern touchscreen colour display to ensure that all machine commands are user-friendly; the standard interface also offers online customer support. Clear, easily understandable messages (available in various languages) guarantee easy use. Once again, Movetro is a byword for modernity, simplicity and practicality.



The elements are moved by means of a motorised carriage that slides along the rack and uses photocells to position itself in line with the required frame.

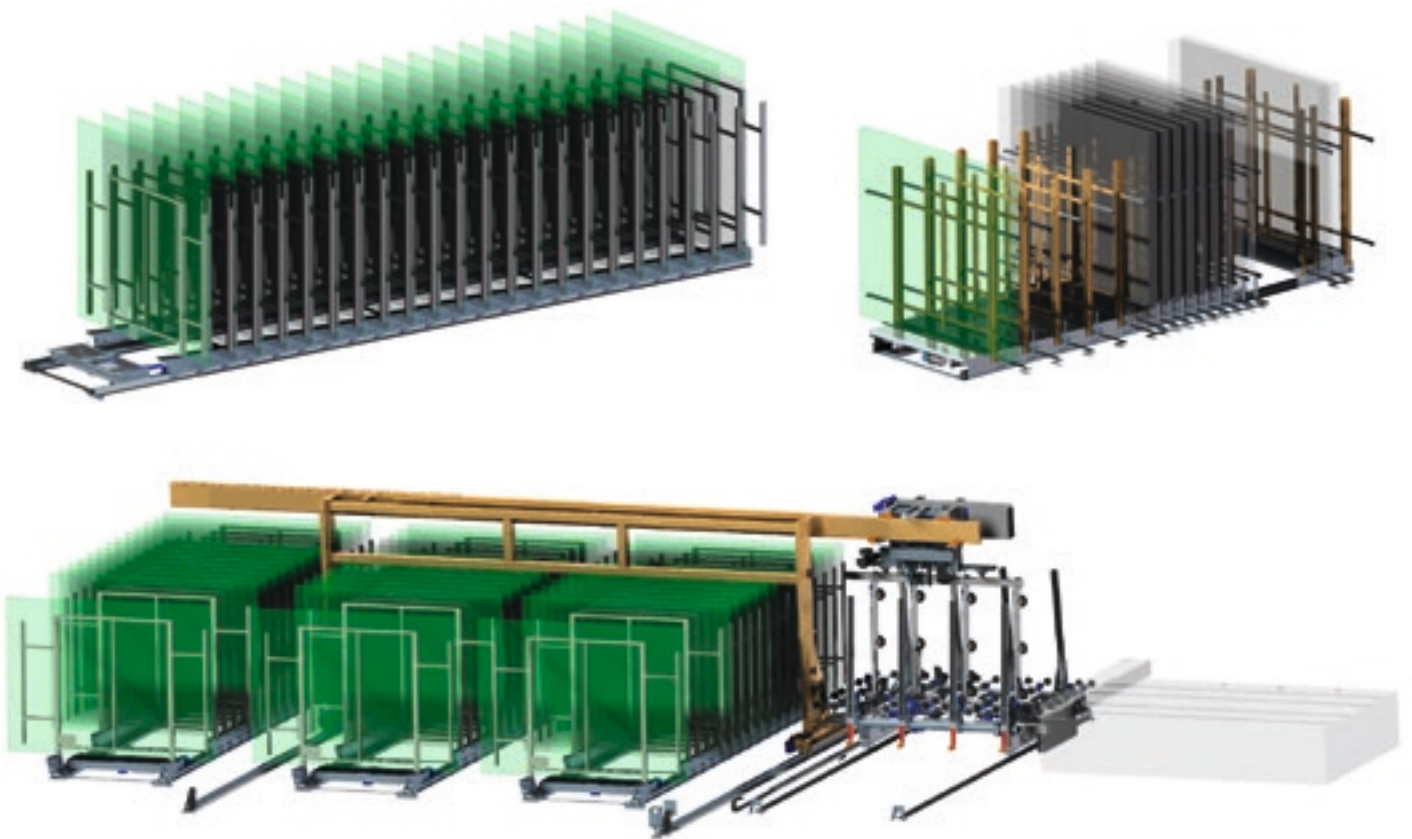


# WIDE RANGE AND OPTIMUM FLEXIBILITY

STATIC STORAGE

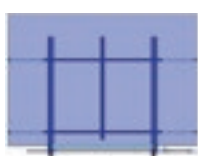
## CLASSIFIERS

Movetro A is the line of automatic classifiers with the highest degree of automation and efficiency on the market. Thanks to their independent drive, Movetro classifiers reduce the number of movements for material access by half, guaranteeing the best cycle times and top efficiency levels over time.



When the magazines are connected to automatic loading systems like the telescopic or overhead loading devices, their opening and closure is automatically synchronised with the loading system so as to optimise access times.

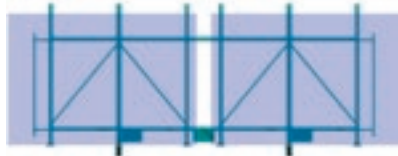
Movetro SA and Movetro A offer a high degree of personalisation (even after installation) in terms of number and layout.



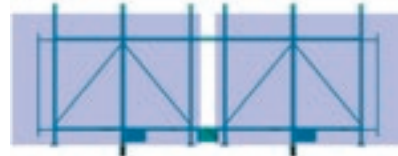
**R - REGULAR**  
Max. sheet size  
3800 x 2750 mm



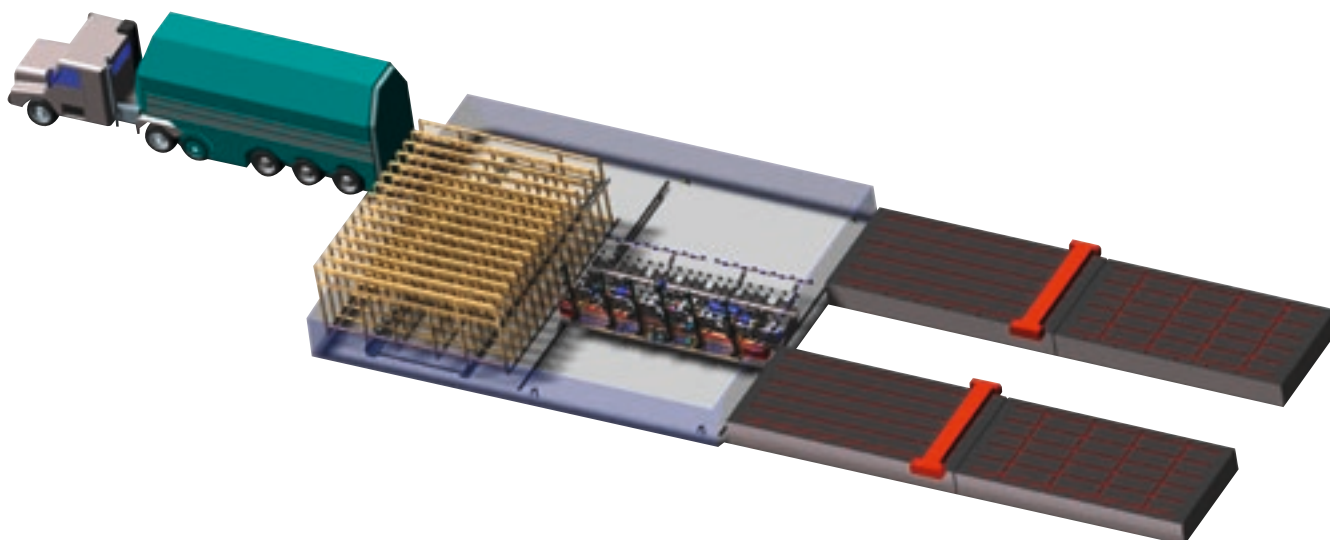
**J - JUMBO**  
Max. sheet size  
6100 x 3355 mm



**XJ - EXTRA JUMBO**  
Max. sheet size 6100 x 3355 mm  
or 2 x 3321 x 250 mm



**XXJ - EXTRA JUMBO**  
Max. sheet size 7200 x 3355 mm  
or 2 x 3660 x 2750 mm



## HARP MAGAZINE



The Harp magazine system allows the precise and selective storage of:

- **Lassingle sheets**
- **Semi-finished products (between one machining operation and another)**
- **Remainders left over from the cutting process**

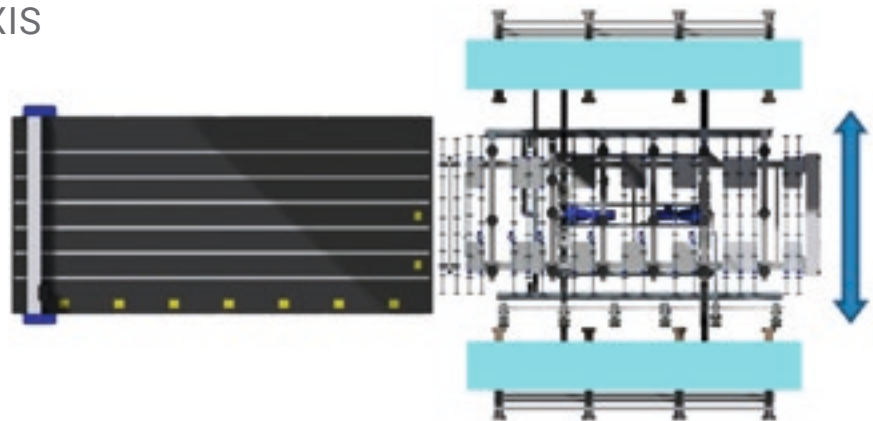
The Harp magazine combines perfectly with Movetro handling systems, in terms of both the accumulation of glass sheets to be cut so as not to stop production during glass loading in the magazine, and the automatic recovery of remainders left over from the optimisation of the cutting process. Harp systems are modular, so several modules - both Jumbo and Regular - can be added to meet differing production needs and on the basis of the space available. The number of positions and the length of the Harp magazine can be changed to suit the space. Each single position can store at least one glass sheet, whose maximum and minimum dimensions may vary according to the type of Harp magazine.

# RELIABLE TECHNOLOGICAL SOLUTIONS AND TOP QUALITY COMPONENTS

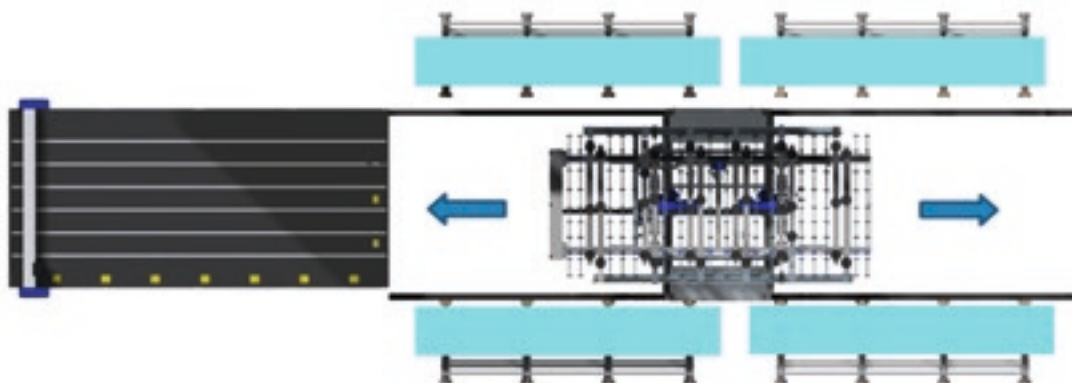
## CLASSIC DYNAMIC STORAGE LOADING DEVICES

The Movetro range includes a varied choice of loading devices that may also be tilters, for receiving the sheet from the bridge crane, or with suction cups for picking the sheet up from the rack, or a combination of the two. Movetro loading devices are “compatible with the tables or machines of any manufacturer”. Special versions are available upon request for sheets up to 18 metres wide.

### CROSS UNIT MOVEMENT ON THE Y AXIS



### LONGITUDINAL MOVEMENT ON THE X AXIS



The loading devices offer automatic activation of the suction cups for units (so sheets of different sizes can be picked up without any manual intervention) and the repositioning of the waste from the cutting line to the initial rack.

### SINGLE-SIDED



CMM-R / CMM-J / CMM-XJ

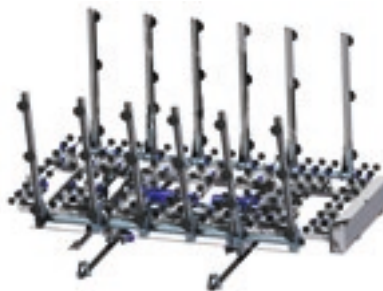


CMML-R / CMML-J / CMML-XJ

### DOUBLE-SIDED



CBM-S / CBM-J / CBM-XJ



CBML-S / CBML-J / CBML-XJ

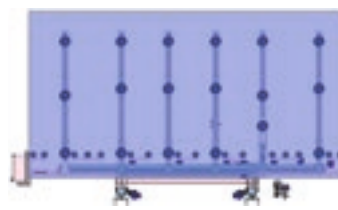
### COMBINED



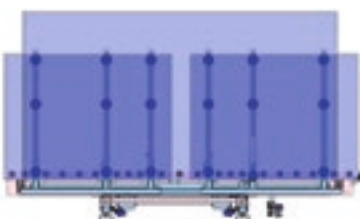
CCM-R / CCM-J



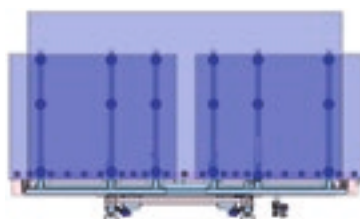
**R - REGULAR**  
3700 x 2650 mm



**J - JUMBO**  
6100 x 3350 mm



**XJ - EXTRA-JUMBO**  
6100 x 3350 mm o 2 x 3210 x 2650 mm



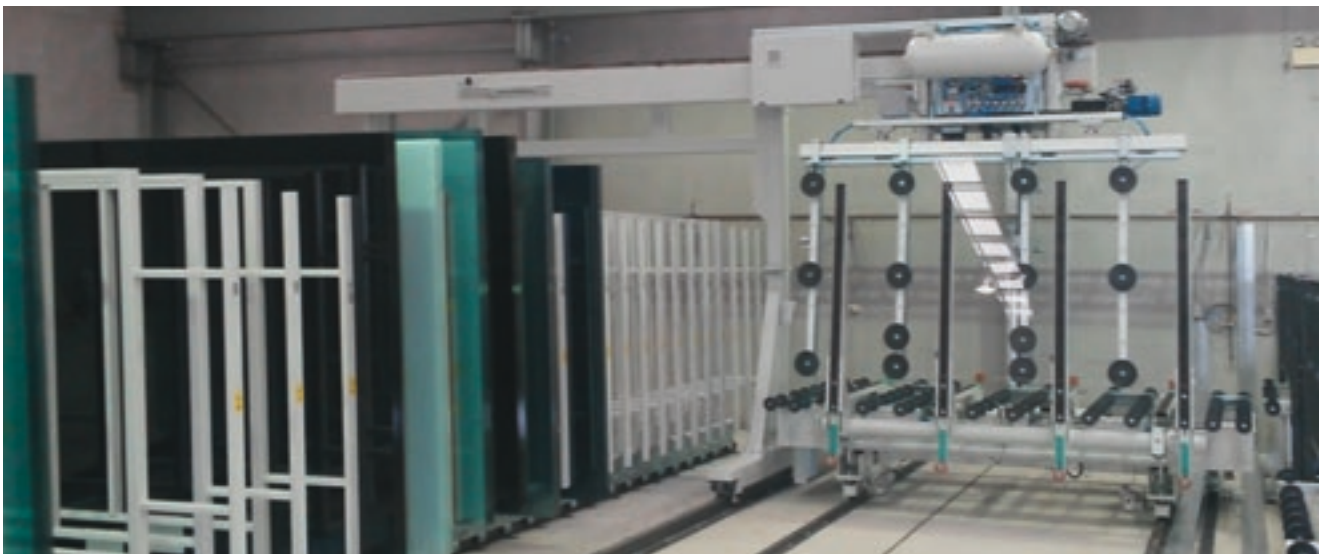
**XXJ - EXTRA-JUMBO**  
7200 x 3350 mm o 2 x 3660 x 2650 mm

# TOTAL FLEXIBILITY IN COMPLETE SAFETY

## ADVANCED DYNAMIC STORAGE FOR FLEXIBLE PRODUCTION OVERHEAD LOADING DEVICES

### OVERHEAD LOADING DEVICES WITH TILTERS

The CAM single-beam and CAB twin-beam overhead loading devices are automatic solutions for the handling and overhead loading of single sheets. They're designed for those looking not only for space savings, safety and automation but also top production flexibility, given that they need to load several cutting lines simultaneously.



The advantages of overhead loading devices:

#### **PRODUCTIVITY**

reduced cycle times, ensuring that the productivity levels requested by any customer can be reached. For the XJ - EXTRA-JUMBO version in particular, productivity and flexibility go hand in hand thanks to the possibility to pick up 2 half-Jumbo sheets at the same time, further optimising the cycle times.

#### **CONTINUOUS CYCLE**

Ground-breaking technical solutions guarantee production during the day, alongside the cutting lines, and the unloading of the lorries during the night.

#### **FLEXIBILITY**

every cycle, a different sheet can be sent to the cutting lines: maximum flexibility with the maximum speed and safety.

#### **SAFETY**

The operator no longer has to handle big sheets: all the operations are carried out automatically, so the operator doesn't need to move away from the shearing table

Good mechanical solutions, such as the tilt change or the rotation of the sheet pick-up unit, make overhead loading devices ideal for handling Low-E glass too.

**Movetro** overhead loading devices can even reposition the waste from the cutting line to the magazine: speed and safety when it comes to waste reduction as well. The partially cut sheet is brought back to the initial pick-up position and made available in the database for future optimisation interventions.

## MODELS AVAILABLE

### SINGLE-BEAM

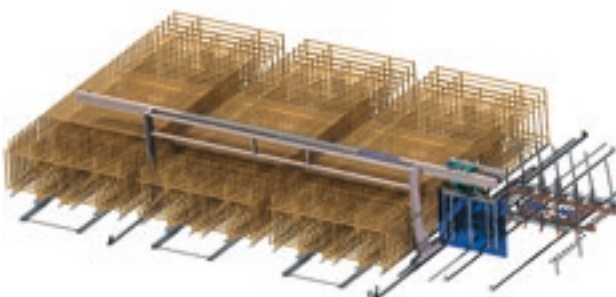
2 VOLUMES



3 VOLUMES



4 VOLUMES

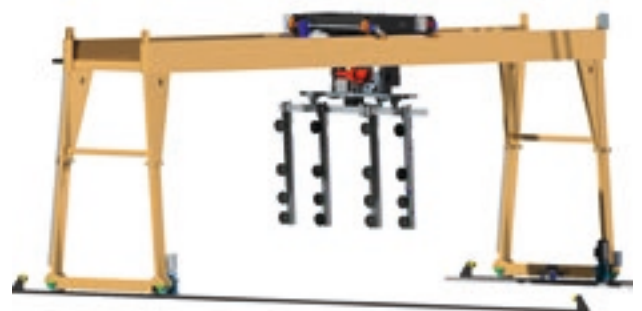


### TWIN-BEAM

OVERHEAD



LEGS ON GROUND



COMBINED



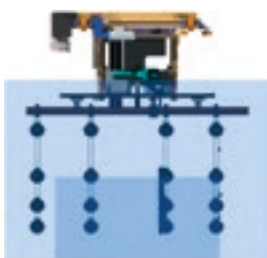
# THE PERFECT COMBINATION OF PRODUCTIVITY AND FLEXIBILITY

FLEXIBLE DYNAMIC STORAGE

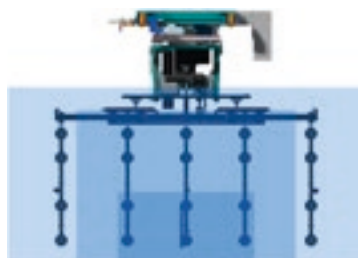
## CAM OVERHEAD LOADING DEVICES

The possibility to load several cutting lines: the perfect combination of productivity and flexibility.

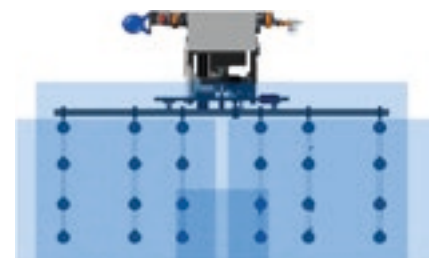
- ✓ FAST AND FLEXIBLE
- ✓ BOOSTED CUTTING CAPACITY
- ✓ ENHANCED SAFETY



**R - REGULAR**  
3710 x 2650 mm



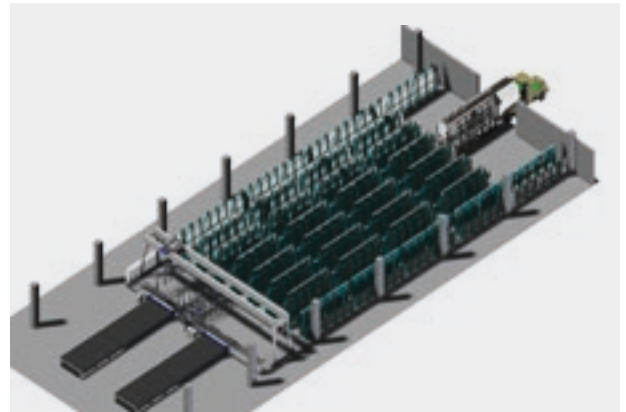
**J - JUMBO**  
6100 x 3350 mm



**XJ - EXTRA-JUMBO**  
7200 x 3350 mm o 2 x 3710 x 2650 mm

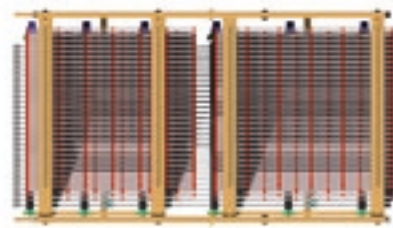
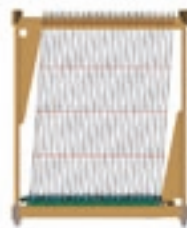
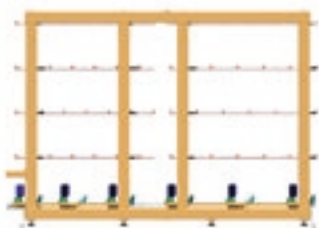
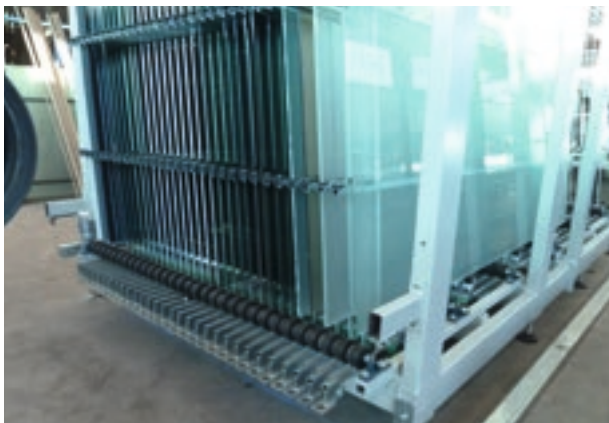


## AUTOMATIC UNLOADING FROM LORRIES



## HRP HARP MAGAZINE FOR AUTOMATIC WASTE MANAGEMENT

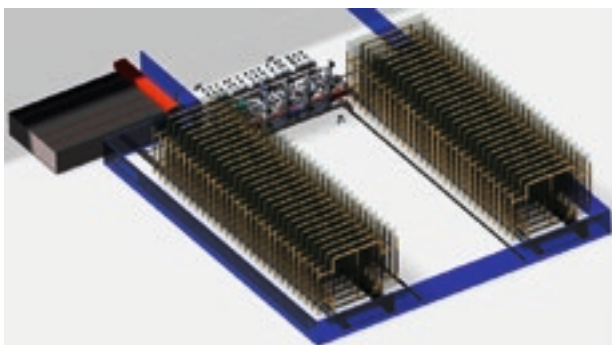
- ✓ DIRECT ACCESS TO THE INDIVIDUAL SHEET
- ✓ SPACE-SAVING
- ✓ REDUCED WASTE



# PRODUCTIVITY AND FLEXIBILITY

## ADVANCED DYNAMIC STORAGE FOR DYNAMIC PRODUCTION TELESCOPIC LOADING DEVICES

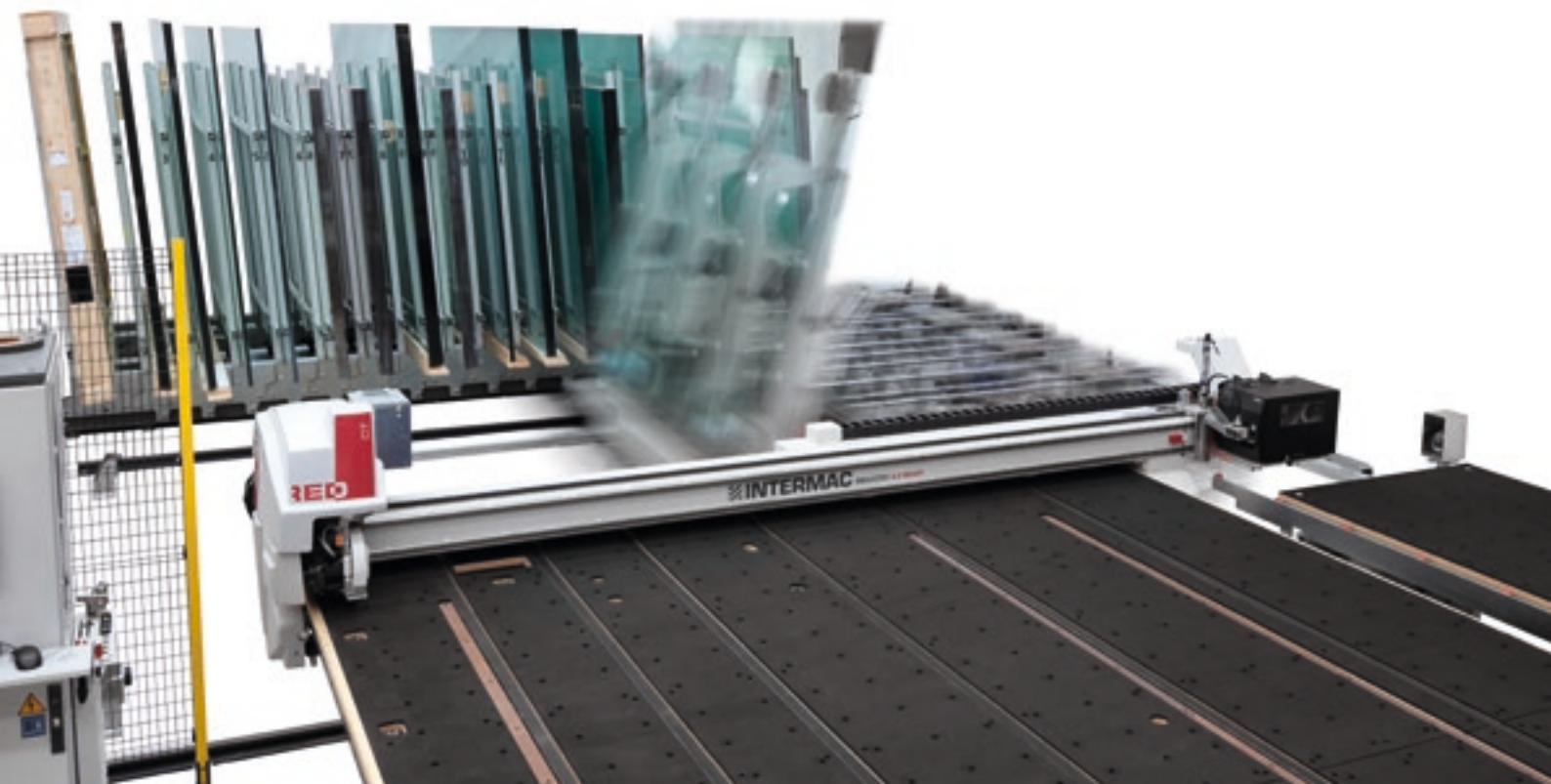
Movetro offers a wide choice of single-direction or twin-direction telescopic loading devices for loading regular, jumbo or extra-jumbo sheets.



50% space savings if installed with **Automatic classifiers.**



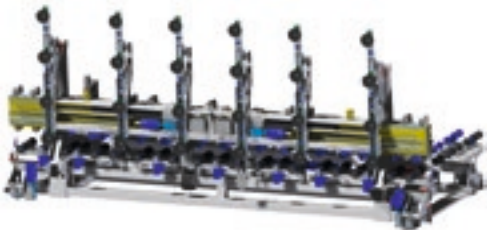
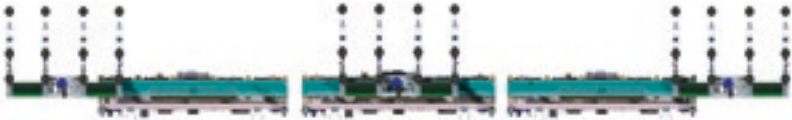
The supervisor software shows the magazine situation in real time and receives the instructions for loading, moving and returning sheets in an entirely automatic manner thanks to its integration with the cutting line optimiser. The same information can be shared with the materials provisioning office.





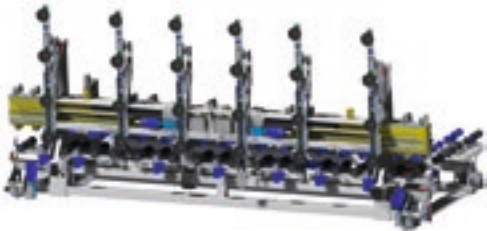
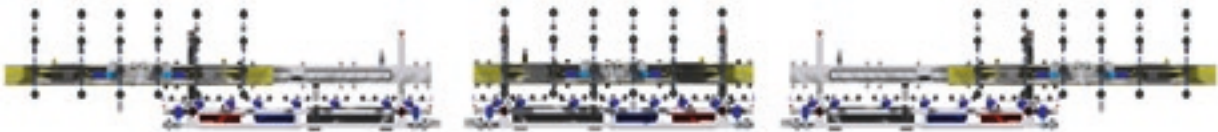
**R - REGULAR**

Maximum sheet size	mm	3660 x 2750
Minimum sheet size	mm	1500 x1500



**J - JUMBO**

Maximum sheet size	mm	6100 x 3355
Minimum sheet size	mm	1500 x1500



**XJ - EXTRA - JUMBO**

Maximum sheet size	mm	6100 x 3355 2 x 3210 x 2750
Minimum sheet size	mm	1500 x1500

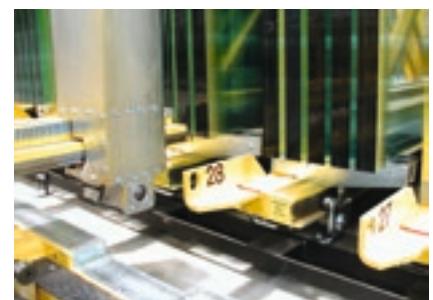
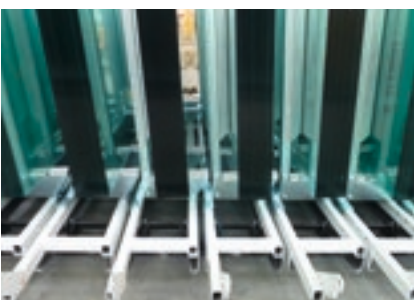
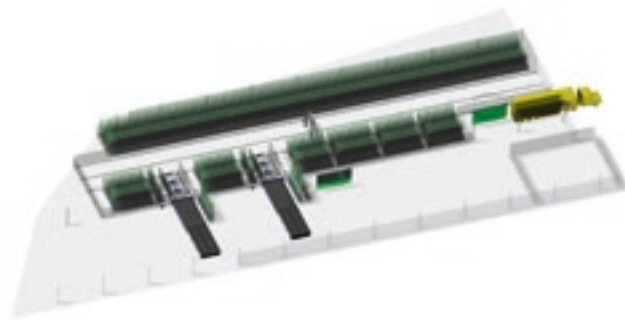


# CONTINUOUS CYCLE MACHINING OPERATIONS WITH NO INTERRUPTIONS

## ADVANCED DYNAMIC STORAGE FOR MASS PRODUCTION SHUTTLES

### MAGAZINE WITH AUTOMATIC PRIME SHUTTLE WITH LOADING DEVICES

PRIME handling systems with shuttles are designed for those who not only need a large sheet magazine but also want to be able to safely work non-stop, without interrupting the cutting operations to load the magazine. Thanks to their modular form, they can be extended and/or modified at any time after installation.



This solution offers advantages in terms of:

**SPACE**

A reduction in the space occupied, thanks to the higher concentration of glass compared with classic storage systems

**PRODUCTIVITY**

The shuttle can automatically move frames with a 15-tonne capacity from the magazine area to the cutting area, and manage several cutting lines simultaneously.

**CONTINUOUS CYCLE**

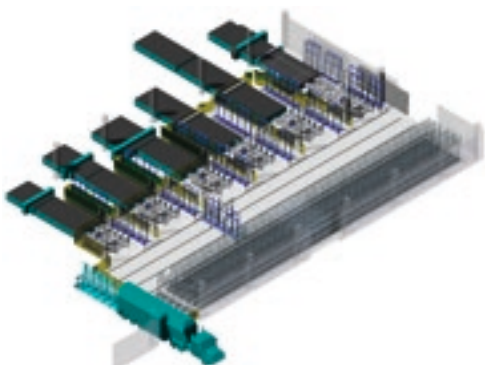
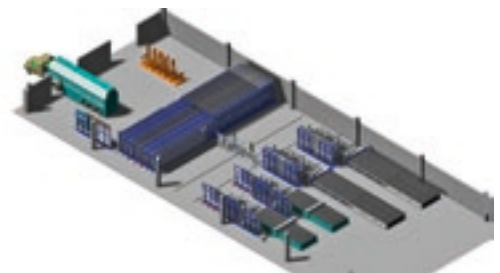
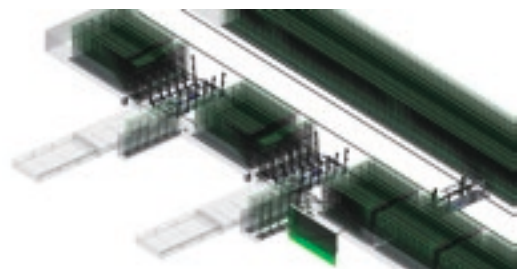
The dedicated loading stations ensure that the new material is entered in the magazine without interrupting the cutting operations.

**FLEXIBILITY**

The shuttle can move between the various bays of the plant, taking full advantage of the space and using it as magazine areas even if the plant is not equipped with a bridge crane

**SAFETY**

the operator only needs to intervene during the loading of the frame in the outdoor station; glass handling is minimal and all the operations are carried out automatically.



**Prime** shuttles can interface and be integrated with any type of cutting line, allowing the sheet magazine to be completely managed directly via the optimiser that controls and manages the cutting operations.

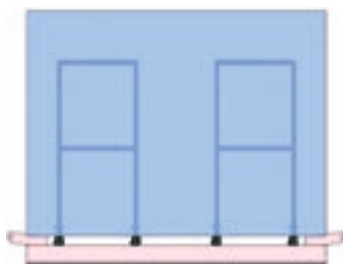
# PRODUCTIVITY ON A CONTINUOUS CYCLE

PRIME shuttle Movetro is the revolutionary automatic magazine that moves the sheet-loaded frame in front of the loading devices in a safe, automatic way.



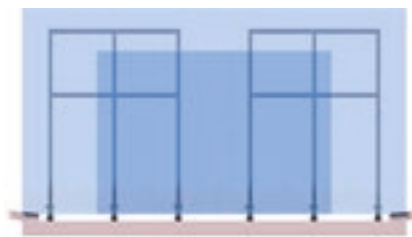
The Movetro **Prime** shuttle magazines come in 4 sizes:

**R - REGULAR**



MAXIMUM SHEET SIZE  
3660 x 2750 mm

**J - JUMBO**



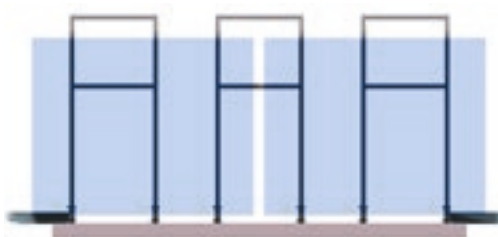
MAXIMUM SHEET SIZE  
6100 x 3355 mm

This solution offers advantages in terms of:

- PRODUCTIVITY ON A CONTINUOUS CYCLE
- FEEDS SEVERAL CUTTING LINES SIMULTANEOUSLY
- ENHANCED SAFETY

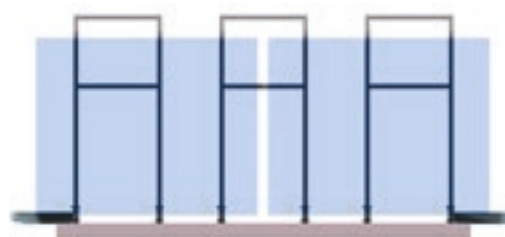


XJ – EXTRA-JUMBO



MAXIMUM SHEET SIZE  
6100 x 3355 mm o 2 x 3210 x 2750 mm

XJ – EXTRA-JUMBO



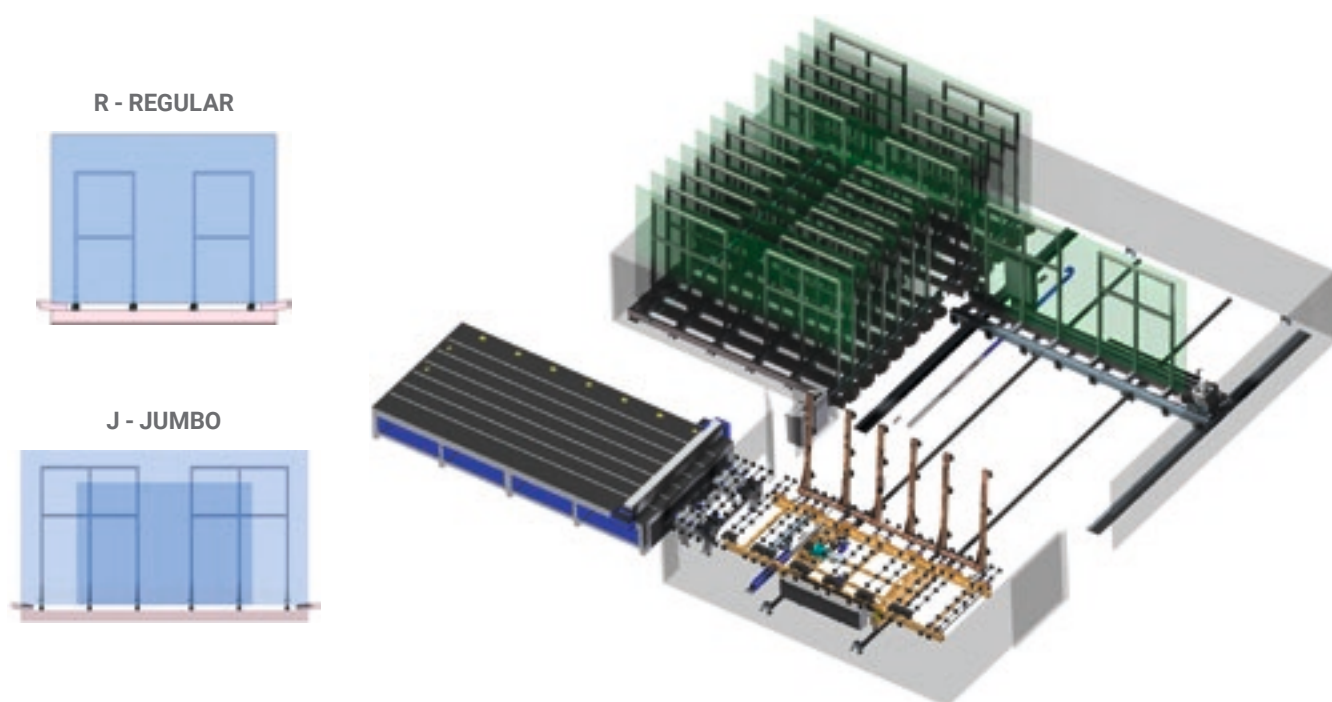
MAXIMUM SHEET SIZE  
7200 x 3355 mm o 2 x 3660 x 2750 mm

# REDUCED SPACE AND MAXIMUM PRODUCTIVITY

## ADVANCED DYNAMIC STORAGE FOR MASS PRODUCTION SHUTTLES

### SWIFT SHUTTLE

The automatic Movetro Swift Shuttle magazine is the most compact solution for the perfect integration of automatic loading with cutting systems, introducing the new “3-piece line” concept.



**Swift Shuttle** is the latest addition to the range of integrated magazine solutions for cutting lines. It's the ideal technology for storing and handling jumbo and regular glass sheets, purposely designed to provide a higher number of cutting references in a very compact space

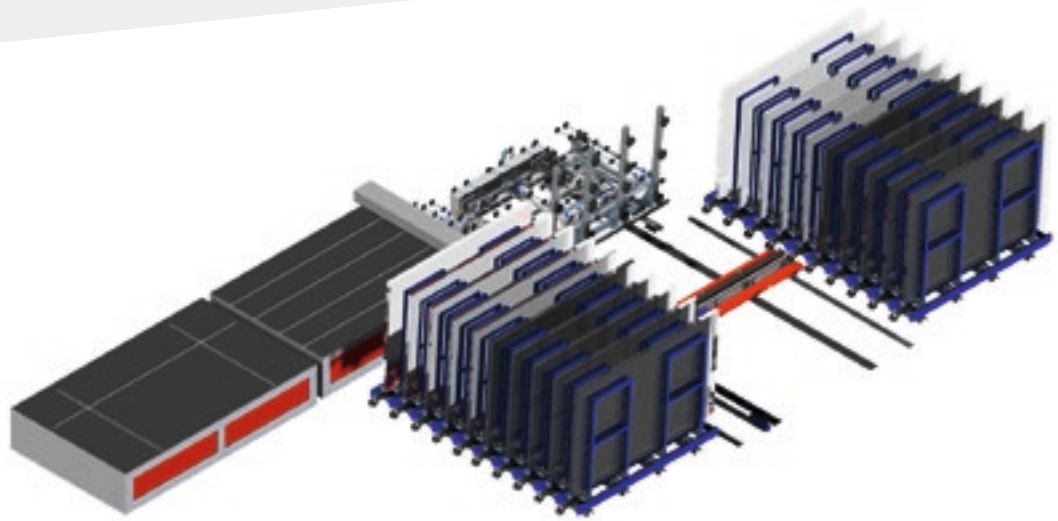
Inserting the SWIFT Shuttle in the production context, the advantages can be seen straight away

- ▾ **FOOTPRINT REDUCTION**
- ▾ **INCREASED PRODUCTIVITY**
- ▾ **GREATER SAFETY**

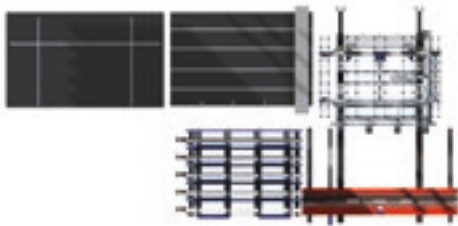
The design and construction modularity of **Movetro** shuttle systems ensures that customers can configure their own magazine to suit their production and logistics needs, always keeping abreast of company evolution as the systems can be expanded at any time after installation.



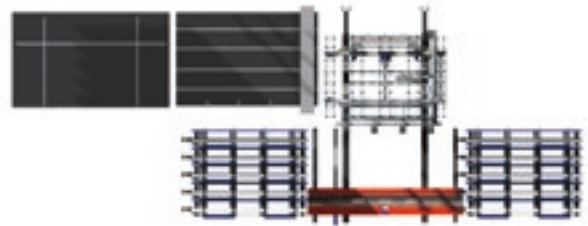
The high degree of configuration and flexibility guarantee excellent personalisation to meet the customer's requirements.



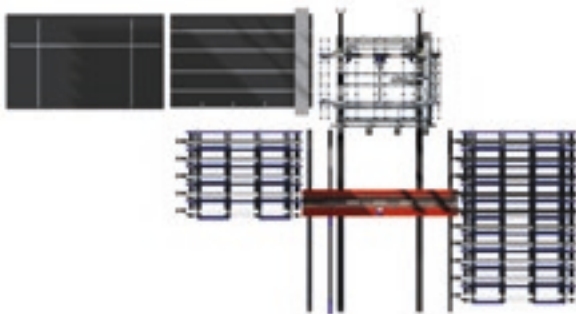
STEP 1



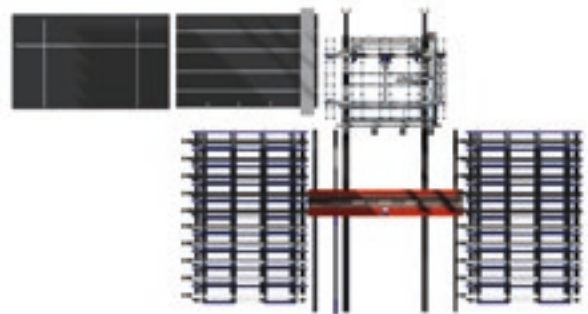
STEP 2



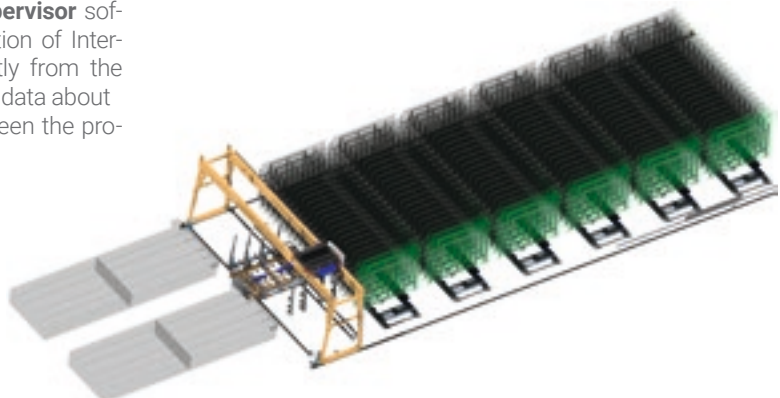
STEP 3



STEP 4



**Swift shuttle** is equipped with the specific **Supervisor** software that guarantees the perfect interconnection of Inter-mac cutting lines, receiving instructions directly from the cutting line control panel and providing real time data about the stock to improve the information flow between the production department and the office.



# COMPLETE INTEGRATION BETWEEN AUTOMATION AND MANAGEMENT OF THE MAGAZINE

The innovative Movetro supervisor software is the result of field experience, aimed at offering a first-class service to all those customers requiring optimum integration between automation and magazine management. Running the magazine in an efficient, correct manner means being able to meet the company's production and commercial needs - in other words, taking two factors into account: maximising the quality of the service for the customer, whilst minimising the costs for the company, thanks to a simple and tailor-made user-friendly graphic interface.

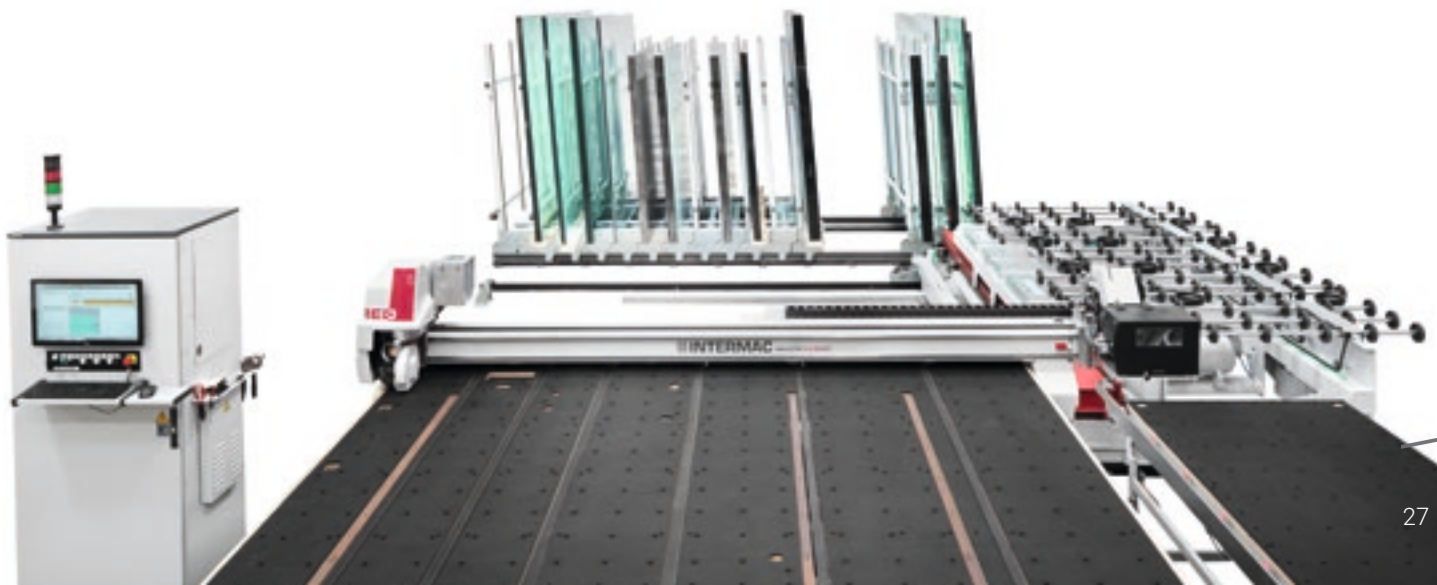
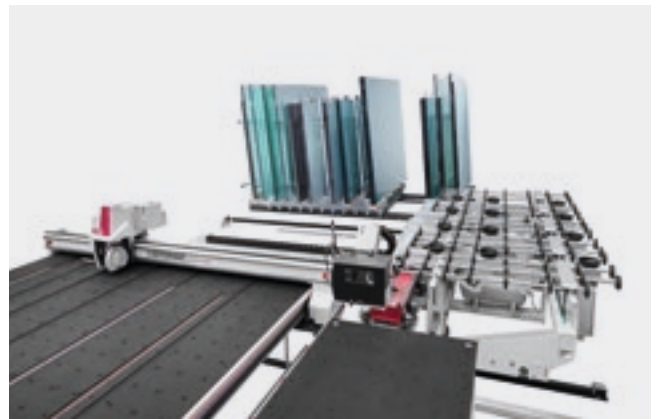
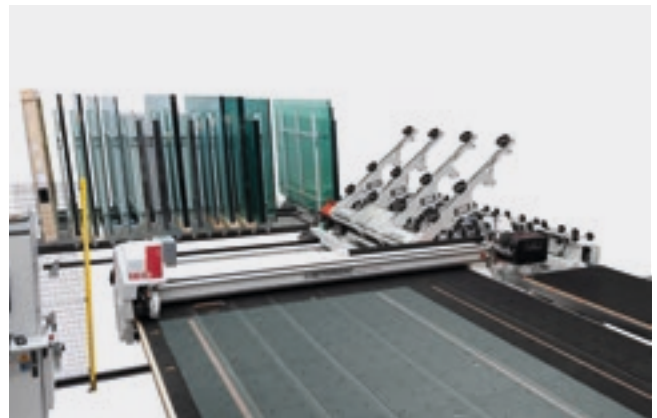
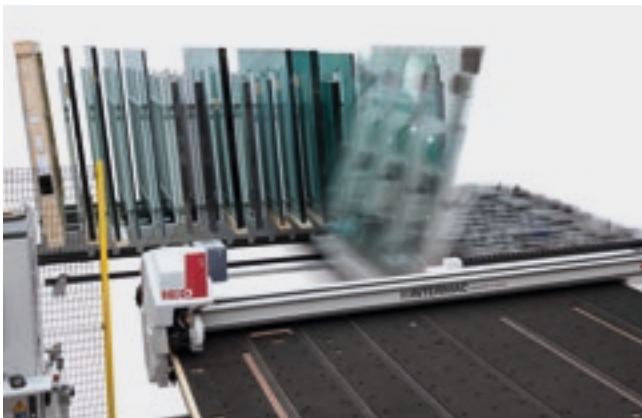


- MAGAZINE SITUATION IN REAL TIME
- SHEET TRACKING
- INFORMATION SHARED WITH CUTTING OPTIMISERS



# COMPLETE INTEGRATION WITH INTERMAC CUTTING LINES

Movetro is a complete range of smart storage and handling systems, fully integrated with the Intermac Genius line of cutting tables.



# CUSTOMER CARE IS WHO WE ARE

**SERVICES** is a new experience for our customers, to offer not just excellent technology but the added value of an increasingly direct connection with the company, the professionals who work there and the experience they embody.



## **ADVANCED DIAGNOSTICS**

Digital channels for remote interaction online 24/7. Always ready to intervene on-site seven days a week.



## **A WORLDWIDE NETWORK**

39 branch offices, over 300 certified agents, retailers in 120 countries, and spare parts warehouses in America, Europe and the Far East.



## **SPARE PARTS AVAILABLE IMMEDIATELY**

Identification, shipping and delivery of spare parts for every need.



## **EVOLVED TRAINING OPPORTUNITIES**

Lots of on-site, online and classroom training modules for personalised growth.



## **VALUABLE SERVICES**

A wide range of services and software packages to help our customers achieve continuous improvements in performance.

## AN EXCELLENT LEVEL OF SERVICE

**+550**

HIGHLY SPECIALISED  
TECHNICIANS AROUND THE  
WORLD, READY TO HELP  
CUSTOMERS WITH EVERY  
NEED

**90%**

OF MACHINE DOWN CASES  
WITH RESPONSE TIME  
UNDER 1 HOUR

**+100**

EXPERTS IN DIRECT  
CONTACT THROUGH  
REMOTE CONNECTIONS  
AND TELESERVICE

**92%**

OF SPARE PARTS ORDERS  
FOR MACHINE DOWNTIME  
PROCESSED WITHIN 24  
HOURS

**+50.000**

ITEMS IN STOCK IN  
THE SPARE PARTS  
WAREHOUSES

**+5.000**

PREVENTIVE  
MAINTENANCE VISITS

**80%**

OF SUPPORT REQUESTS  
SOLVED ONLINE

**96%**

OF SPARE PARTS ORDERS  
DELIVERED IN FULL ON  
TIME

**88%**

OF CASES SOLVED WITH  
THE FIRST ON-SITE VISIT

Founded in Italy,  
international native.

We simplify your  
manufacturing  
to make the process  
of any material



ur  
g process  
potential  
I shine.

We are an international company that manufactures integrated lines and machines to process wood, glass, stone, plastic and composite materials and what will come next.

Thanks to our rooted competence nurtured by an ever-growing worldwide network, we support your business evolution – empowering your imagination.

**Master of materials, since 1969.**

Join the  
Biesse world.

[biesse.com](https://biesse.com)



