FULLER®

STREAMLINE YOUR LOGISTICS

VENTOMATIC® PALLETISING SOLUTIONS

fuller-technologies.com

A COMPREHENSIVE RANGE OF PALLETIZING SOLUTIONS
FOR INDUSTRIAL AUTOMATION

POLIMAT® SERIES

The POLIMAT® palletiser brings decades of innovation to automated palletizing. Through ongoing research and development, we have engineered a versatile range of solutions capable of handling all types of bagged bulk materials with outstanding precision. These fully automated systems seamlessly integrate into your warehouse operations to streamline logistics and ensuring products are ready for efficient distribution.

KEY BENEFITS

01

Reach the necessary capacity

02

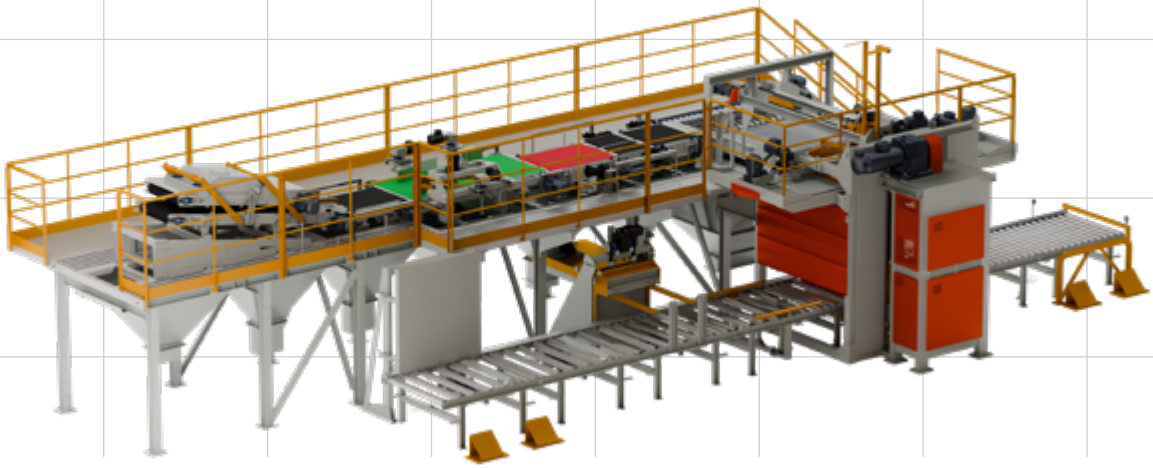
Accommodate and handle a wide range of bagged bulk materials

03

Customize to suit different bag types, materials, and pallets

04

Stable and secure stacking



ENGINEERED FOR EXCELLENCE, BUILT FOR VERSATILITY

POLIMAT® series embodies over 40 years of our unwavering commitment to innovation in palletizing technology.

From the pioneering SPV suction pad palletizers to the advanced solutions available today, we have consistently strived to deliver cutting-edge design and performance. This is a testament to this legacy, offering a modular and adaptable platform to meet the diverse needs of modern industrial automation.

COMPACT DESIGN, OPTIMAL FOR ANY LAYOUT

- Small modules/stations, with a reduced impact on plant space
- L-shape ideal to better manage the spaces of the warehouses

CAREFUL HANDLING OF BAGS FOR OPTIMAL PALLET STACKING

- Perfect control in all phases of bags handling
- Extreme accuracy in palletizing
- Consistence performance over time

FLEXIBILITY AND SPEED FOR DIFFERENT SIZES

- Fast, flexible and precise positioning of all adjustments for bags handling (electrically automated)
- Human Machine Interface (HMI) control panel for easy configuration and recipe selection

WIDE RANGE OF SOLUTIONS TO SUIT THE CUSTOMER'S NEEDS

- Different markets and areas of the world require different solutions
- Wide range of accessories to fulfill every need without issues

QUICK AND EASY MAINTENANCE

- Designed for manixum reliability
- Allows simple access for replacing worn components

Seamless integration meets high-speed performance : POLIMAT EVO series and POLIMAT C series for every end of line

The machines feature high-quality, state-of-the-art electronic components to ensure exceptional reliability and reduce maintenance. Moreover, the Human Machine Interface (HMI) with its touchscreen allows for setting up pallet configuration with ease. These palletizers can increase speed through advanced technology, reaching capacities of up to 4200 bags/hour with the EVO series and up to 5600 bags/hour with the C series.

Unmatched flexibility, optimised results

VENTOMATIC® palletisers offer unmatched flexibility to accommodate a wide range of bag sizes, materials, and pallet configurations. From paper and plastic to woven PP bags, and with options for slip-sheet integration, stretch-hood systems, and pallet-less configurations, the solutions are tailored to provide optimized stack stability and seamless integration into dispatch processes.

SMOOTH HANDLING OF THE BAGS

FOR OPTIMAL PALLET STACKING QUALITY

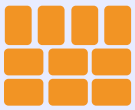
VENTOMATIC Layer formation device

VENTOMATIC Bag rotating device

FLEXIBILITY IN LAYER PATTERN

PALLETIZING CAPACITY

A wide configuration range of bags layer pattern are available covering all conventional bag size and pallet dimension, ensuring always very stable stacks. Maximum palletizing height up to 2100 mm.

BAGS LAYER PATTERN	POLIMAT EVO 15	POLIMAT EVO 20	POLIMAT EVO 25	POLIMAT EVO 40	NEW POLIMAT C 45 S
	1800 bags/h	2000 bags/h	2600 bags/h	3600 bags/h	4800 bags/h
	1720 bags/h	1920 bags/h	2800 bags/h	3600 bags/h	4800 bags/h
	1720 bags/h	1920 bags/h	2800 bags/h	3600 bags/h	4800 bags/h
	1650 bags/h	1840 bags/h	2600 bags/h	3300 bags/h	4600 bags/h
	2000 bags/h	2700 bags/h	3000 bags/h	4200 bags/h	5600 bags/h
	2000 bags/h	2700 bags/h	3000 bags/h	4200 bags/h	5600 bags/h
	2000 bags/h	2700 bags/h	3000 bags/h	4200 bags/h	5600 bags/h
	2000 bags/h	2700 bags/h	3000 bags/h	4200 bags/h	5600 bags/h

Nominal capacity with minimun 1100 mm height of the pallet including support and with standard bag rotation device composed of sideboard and bags-rotating blade.
In case of a bag rotation with clamp device, maximum capacity limited to 2100 bags/h.

HUMAN MACHINE INTERFACES FOR PALLETISERS

Electrical board and operator control panel

The advanced electrical boards and operator control panels provide intuitive and comprehensive machine management. Featuring a user-friendly HMI with a touchscreen interface, operators can easily navigate menus, quickly configure parameters for various bag and pallet dimensions, and access critical machine data. Real-time monitoring, diagnostic tools, and seamless integration capabilities help ensure optimal performance and reduce downtime.

Operator panels

The system features two distinct operator panels: a main control panel and a secondary panel. Both are equipped with pushbuttons featuring status indicators, as well as touchscreen interfaces that serve as intuitive control and navigation devices.

Quick IPC Backup and Recovery

With the newly introduced “restore point” feature, it is now possible to fully replicate the IPC of an operating machine onto a spare IPC in under an hour. This process transfers the complete machine control logic, HMI configuration, recipes, and parameters, ensuring minimal downtime and seamless system recovery.

Control System Highlights

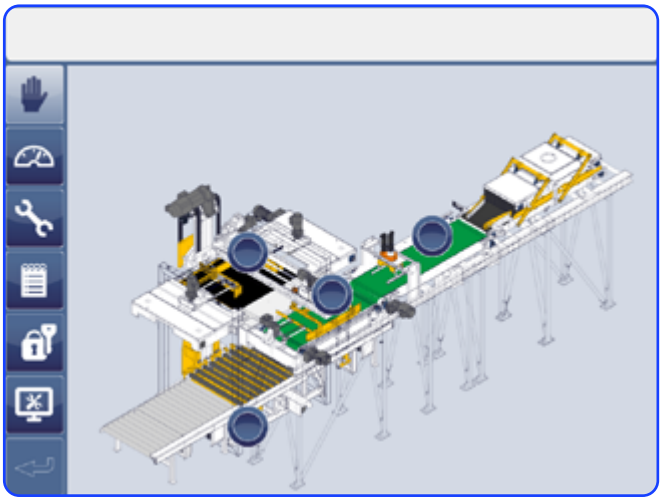
- Main operator control panel (HMI) with 12“ touch screen for an easy menu scrolling
- Secondary operator control panel (HMI) with 8“ touch screen for an easy menu scrolling
- User friendly HMI for a quick setting of the parametres according to the variable bag and pallet dimensions
- Machine alarms, messages display and historical log of alarms
- Diagnostic data and trouble shooting support
- Machine data local back-up
- Easy to be interfaced to a supervision system for data exchange
- Field-bus control network

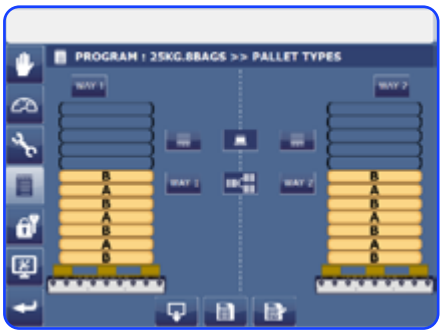
VENTOMATIC® Main panel

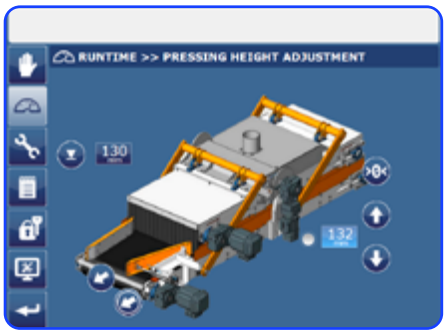
VENTOMATIC Secondary panel

Available operations

- Display and modify machine parameters
- Manage, select, modify and display recipes and all their parameters
- Display alarms and messages for reset or troubleshooting
- View input/output status for easy diagnostics
- Display useful data on the whole machine operation
- Operate the machine in manual control
- Display production statistics
- Display and update the maintenance status
- Display and edit user services







Organization of the interface

The operator interface is clearly structured into three distinct areas:

A Positioned at the top of the panel, this area shows active alarms and warnings.

B Located on the left side of the panel, this section contains the navigation buttons.

C Occupying the central and largest portion of the panel, this area typically displays the machine or group of machines using dynamic icons.

LEVERAGING AI FOR ENHANCED PERFORMANCE

Intelligent systems on board the Palletizers

Our solutions redefine palletizing, moving beyond mere automation to embrace the power of artificial intelligence. These intelligent systems, embedded directly within the machines, proactively enhance performance, drastically reduce downtime, and represent a bold step forward in self-optimizing palletizing technology, setting a new standard for the industry.

Maintenance support directly embedded in operator panel

HMIs now feature a dedicated environment that tracks the usage of critical components, alerting operators when they approach their end-of-life threshold. This system learns from maintenance feedback, continuously refining its wear models for improved accuracy. Available on new POLIMAT® machines sold from 2025 onward, with plans for wider implementation across the product line.

Smart bag handling system

Designed for the new POLIMAT® C 45 S, this advanced system compensates for belt wear and bag size variation, maintaining consistent and precise bag movement. This feature is a major driver of its industry-leading throughput, enabling the palletiser to process over 5,600 bags per hour using a single-layer formation line—unlike competitors, which rely on costly and energy-intensive dual-line setups.

Adaptive pressing force optimisation

The machine table constantly monitors the torque used for pressing and suggests optimal settings for uniform layer compression, enhancing pallet stability and overall output quality.

VENTOMATIC® AI ENHANCEMENTS AND MORE

POLIMAT® ACCESSORIES

For customers seeking to independently optimize their production processes using AI, we offer standard data interfaces providing real-time access to:

- Production statistics
- Weighing data and rejected bag counts for packers and bag treating systems
- Air and electricity consumption

This Plant Integration Interface L1/L2/L3 is available on all the machines, enabling two-way data exchange. Machines can not only provide data but also receive external instructions, allowing for real-time refinement of recipes and operating parameters.

VENTOLINK™ Pro Data Collecting System: Your Gateway to Advanced AI-Powered Palletizing

The new system offers a comprehensive solution for data collection, production analysis, consumption tracking, and automated reporting. It acquires data from VENTOMATIC equipment machines and stores them in an SQL database, simplifying integration with ERP/MES and existing IT infrastructure

POLIMAT® EVO SERIES

This series combines efficiency, versatility, and intuitive controls to handle a wide range of bag sizes and materials, streamlining your end-of-line processes and maximizing production output

With features like intuitive touchscreen controls, rapid setup, and real-time diagnostics,POLIMAT® EVO series empowers you to streamline your end-of-line processes and maximize your production output.

Main features

- Full regulation for multiple bags sizes, various stacks height, use of slip-sheet or stretch-hood units;
- New concept of the lifting table;
- Integrated frame for belts;
- Increased speed using advanced control technology like brushless motors and closed-loops frequency drives
- Full electrical controls, no pneumatic or hydraulic drives;
- Palletizer modules can be pre-assembled and pre-wired with quick-connectors to minimize erection and commissioning time (optional);
- All parts can be moved manually from the HMI during maintenance or troubleshooting.

SMOOTH HANDLING OF THE BAGS

FULL ELECTRICAL CONTROLS

XS VERSION AVAILABLE

ALL POLIMAT® EVO PALLETIZERS ARE ALSO AVAILABLE IN THEIR XS VERSION FOR VERY SMALL BAG SIZE (< 15 KG)

Design features

1 Bags rotation
The rotation takes place in two stages, each of which partially rotates the bags, ensuring less deformation

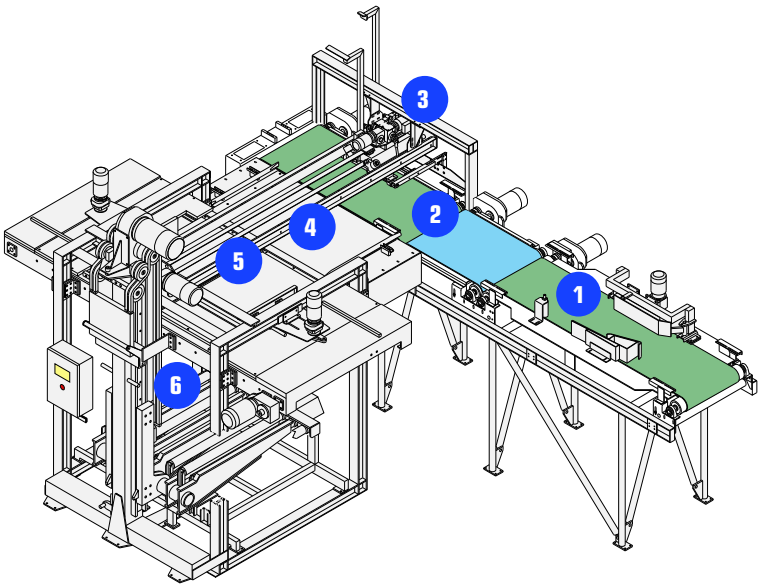
2 Half-layer formation
Positioning of bag for the formation of a half-layer

3 Half-layer shifting
Made by a transferring device with blade

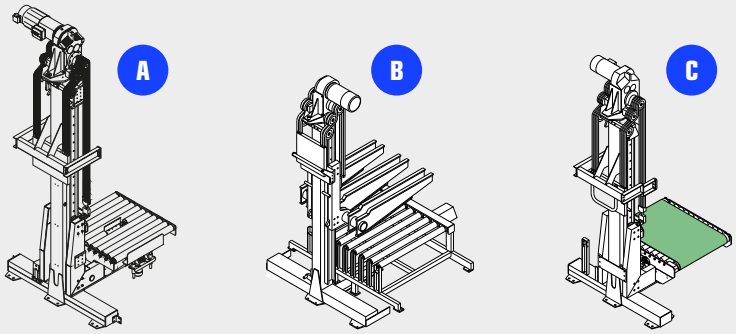
4 Layer formation
Receiving of the half-layers to form the complete layer

5 Opening diaphragm
Compacting and shaping layers and deposit on the underneath pallet (or stack of bags)

6 Pallet (or stack of bags) lifting
Complete formation of a pallet (or stack of bags) by lifting and compressing each layer against the above blades



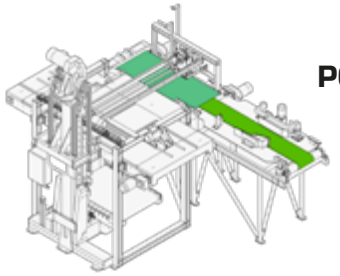
Lifting module options



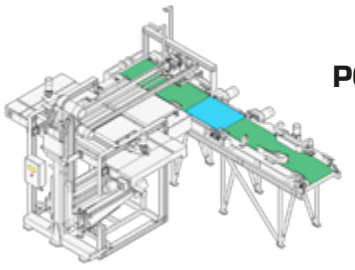
A Lifting module with onboard roller way

B Lifting module with roller way on ground

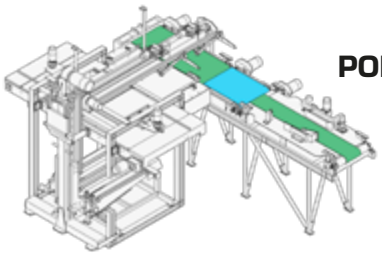
C Lifting module with onboard belt



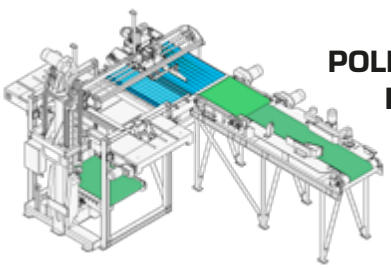
POLIMAT EVO 15 Palletiser
UP TO 2000 BAGS/H



POLIMAT EVO 20 Palletiser
UP TO 2700 BAGS/H



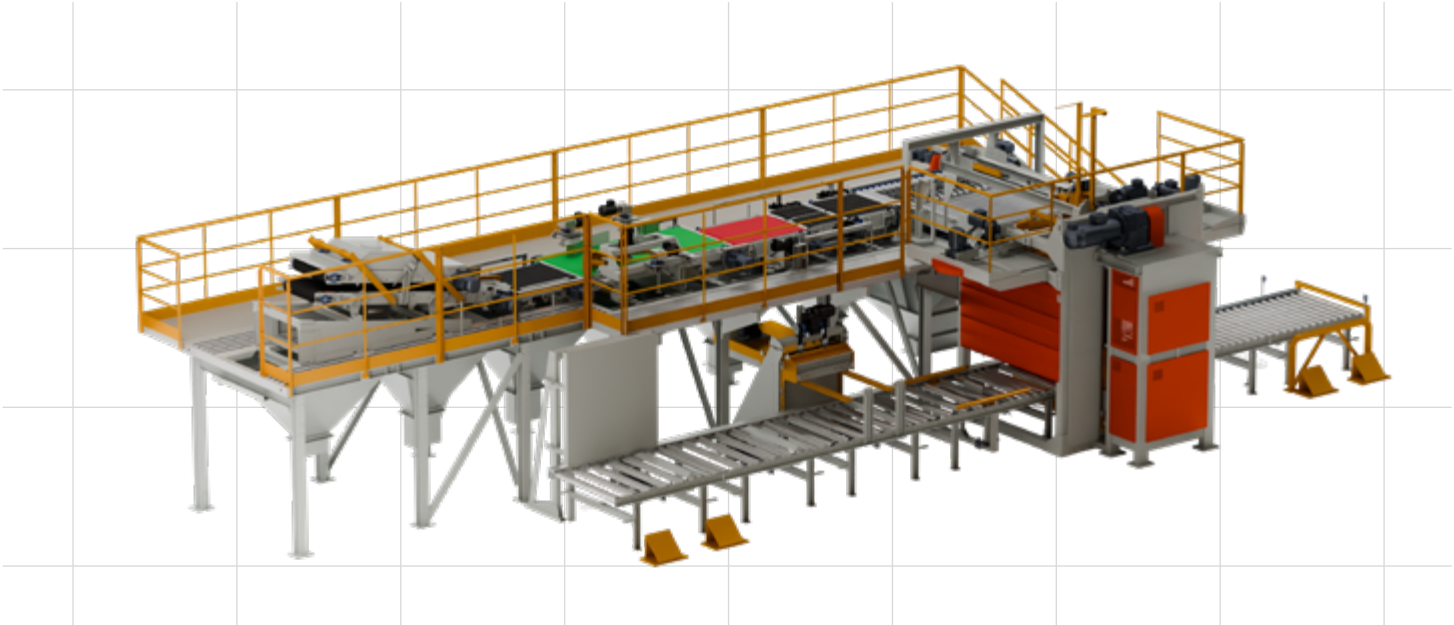
POLIMAT EVO 25 Palletiser
UP TO 2880 BAGS/H



POLIMAT EVO 40 Palletiser
UP TO 4200 BAGS/H

NEW POLIMAT® C 45 S PALLETISER

Maximum Speed, Precision, and Intelligent Control



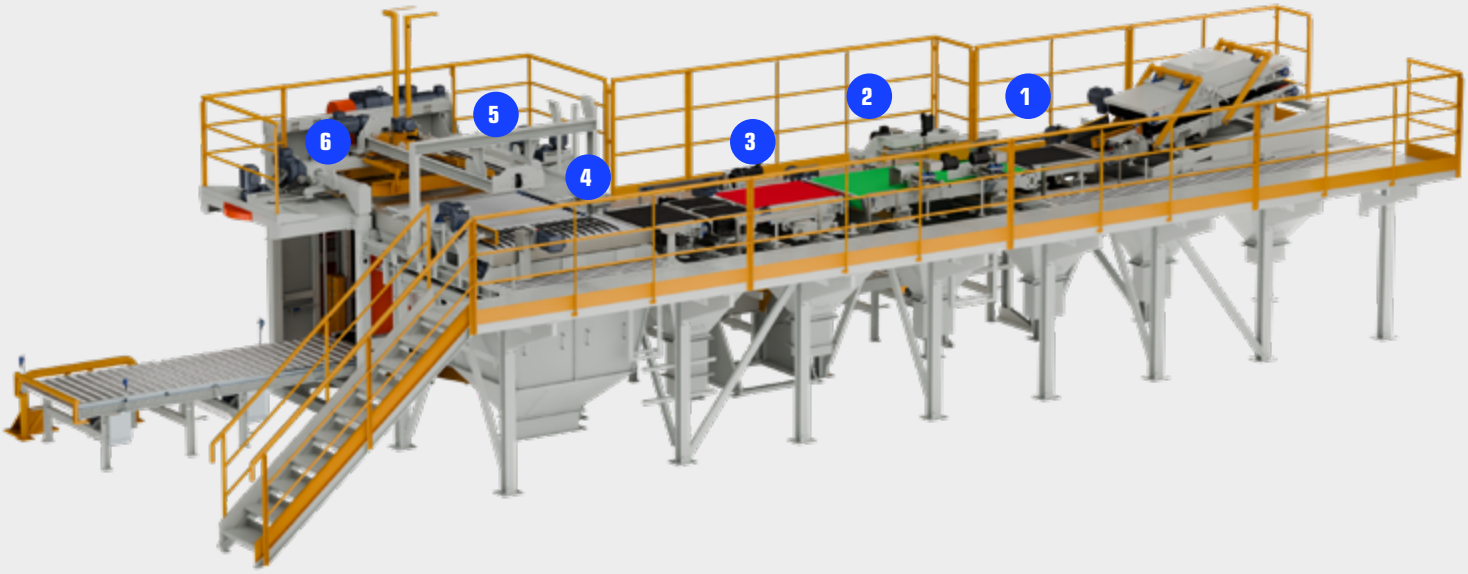
The new POLIMAT® C 45 S Palletiser is engineered to deliver outstanding speed and accuracy through advanced control systems, including brushless motors and closed-loop inverters. Its innovative and user-friendly Human-Machine Interface (HMI) simplifies pallet configuration and parameter settings, making operation intuitive and efficient. The HMI also provides comprehensive support for diagnostics, troubleshooting, and production data analysis, giving you the insights needed to optimize performance and maximize uptime.

UP TO 5600 BAGS/H

ENGINEERED TO OPTIMIZE THE TRANSITION FROM 50 KG TO 25 KG BAGS IN THE PRODUCTION PROCESS50 KG TO 25 KG BAGS IN THE PRODUCTION PROCESS

Main Features

- High quality state of the art electronic components to ensure high reliability
- Modular concept and wide use of standard parts in order to optimize the fabrication process and in order to minimize delivery time
- Full automatic regulation for multiple bags size, various stack height, various full pallet weight etc.
- Palletizer modules can be pre-assembled and pre-wired execution with “fast connection” plugs to minimize erection and commission time (optional)
- Field-bus control network for all sensors installed on the equipment (optional)
- Wide range of auxiliary equipment to fit the layout requirements according to available space and customer dispatch philosophy (wrapping, stretch hood, palletless etc.)



Design Features

1 Launching belt
Necessary for the acceleration of bags to the required speed of the downstream process

2 Bags rotation
The rotation takes place in two stages, each of which partially rotates the bags, ensuring less deformation

3 Bags accumulation and transfer
All together the belts of this group allow the accumulation of an enough number of bags for the half-layer formation

4 Half-layer formation
Positioning of bag for the formation of a half-layer

5 Half-layer shifting
Made by a transferring device with paddles

6 Layer formation
Receiving of the half-layers to form the complete layer

7 Opening diaphragm
Compacting and shaping layers and deposit on the underneath pallet (or stack of bags)

8 Pallet (or stack of bags) lifting
Complete formation of a pallet (or stack of bags) by lifting and compressing each layer against the above blades

END-OF-LINE ACCESSORIES

We offers a complete solution for optimizing end-of-line processes with the POLIMAT® system, which goes beyond palletizing. A range of accessories enhances logistical flow, adding layers of protection to the product, improving automation and increasing efficiency.

KEY BENEFITS

01

Enhanced product protection

02

Optimized handling & logistics

03

Increased automation & efficiency

04

Improved safety

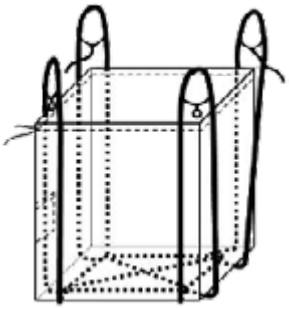
05

Flexible loading options

06

Maximise equipment ROI

SLING BAGS LOADING SOLUTION



The solution offers a robust and efficient method for containing palletized stacks of bags. This system utilizes a large, durable bag equipped with four integrated lifting loops, enabling quick and easy handling of entire pallet loads.

The sling bag provides enhanced protection during storage and transport while also facilitating simplified loading and unloading processes.

KEY BENEFITS

SUPERIOR PROTECTION FROM THE ELEMENTS

Provides a high level of protection against humidity, dust, and other environmental contaminants, preserving product integrity.

REDUCES COSTS WITH PALLET RECYCLING

Provides a high level of protection against humidity, dust, and other environmental contaminants, preserving product integrity.

SIMPLIFIED HANDLING & STORAGE

Facilitates effortless handling and storage due to integrated „4 loops“ system.

EXCEPTIONAL STACK STABILITY & SECURITY

Ensures reliably stable and secure stacks of bags, minimizing the risk of damage or spillage.

1

Application of the sling bag

2

Forklift handling

3

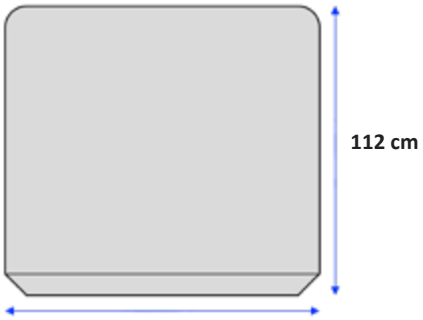
Pallet reuse

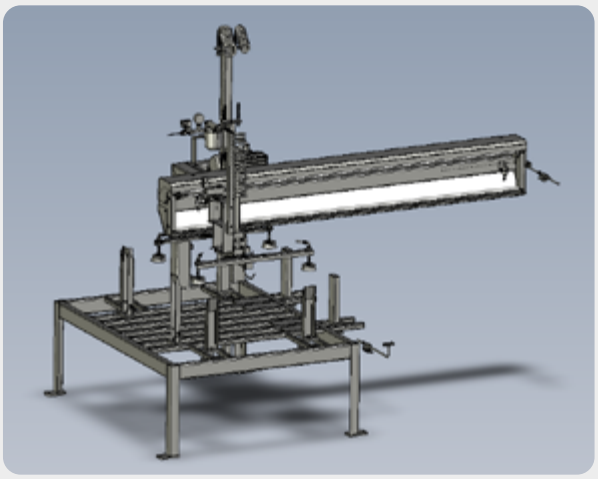
SLIP SHEET SOLUTION

The solution offers a cost-effective and space-saving alternative to traditional pallets. Constructed from durable HDPE or recycled PP, these thin sheets provide a reliable moisture barrier against rising damp. With a weight of approximately 3 kg and dimensions tailored to your specific bag layer, slip sheets streamline storage and transport while reducing material costs and optimizing warehouse space. Features like rounded corners, a smooth surface, and chamfered edges ensure safe and efficient handling of your palletized loads.

Slip sheet specifications

- Different manufacturing materials
- Different sheet dimensions
- Various thickness range
- Final dimensions/manufacturing characteristics shall be defined according to full bag dimensions (layer dimensions) and fork-lift characteristics





1. The slip sheet dispenser retrieves the slip sheet and positions it on the rollers
2. Rollers shift slip sheet into place
3. Stack is lowered onto slip sheet
4. Load is easily moved with a push-pull forklift

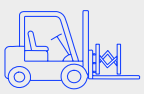
KEY BENEFITS

SUPERIOR PROTECTION FROM RISING DAMP

Provides a high level of protection against humidity, dust, and other environmental contaminants, preserving product integrity.

REDUCES COSTS WITH OPTIMIZED SPACE

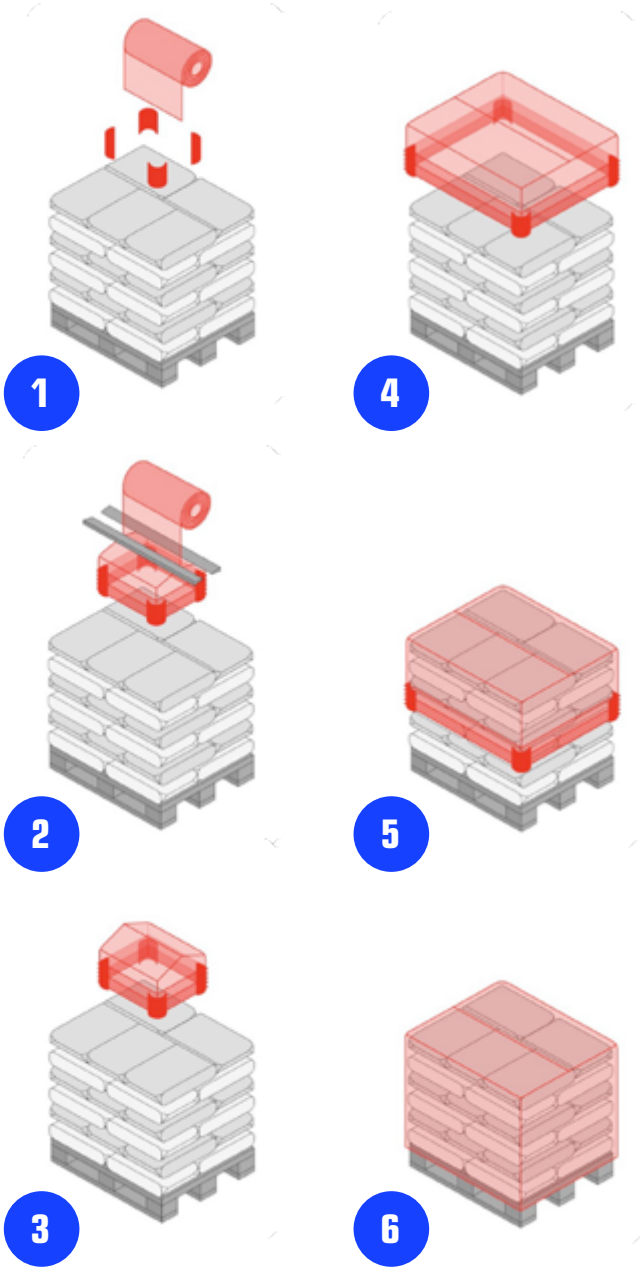
Lowers pallet expenses and maximizes storage capacity by eliminating the need for traditional pallet systems.



A FORKLIFT EQUIPPED WITH A PUSH-PULL SYSTEM IS NECESSARY FOR SLIP SHEET HANDLING.

STRETCH HOOD SYSTEM WITH PLASTIC FILM

It delivers exceptional protection and stability for palletized loads. This advanced system utilizes a seamless plastic film that stretches and tightly conforms to the shape of the pallet, creating a secure and weather-resistant enclosure. Ideal for a wide range of products, the Stretch Hood System offers a reliable and cost-effective solution for safeguarding your goods during storage and transportation.



KEY BENEFITS

COMPLETE ENVIRONMENTAL PROTECTION

Provides a sealed barrier against dampness, dust, and other contaminants, ensuring the integrity of palletized goods.

DURABLE & USER-FRIENDLY

Offers a robust and reliable technology that is easy to operate and requires minimal maintenance.

SIMPLIFIED HANDLING & WAREHOUSING

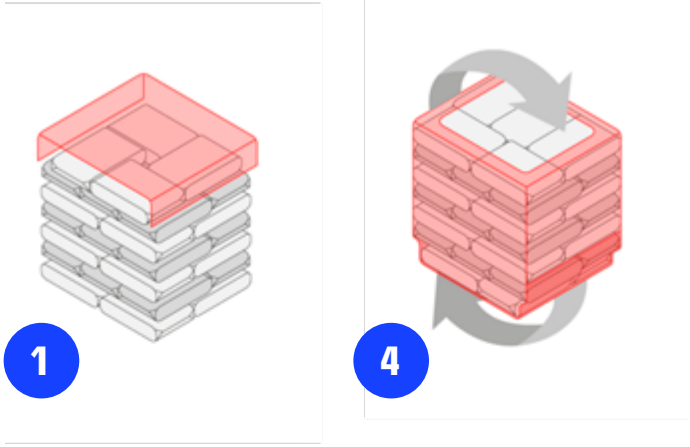
Facilitates easy handling and storage of wrapped pallets, improving warehouse efficiency.

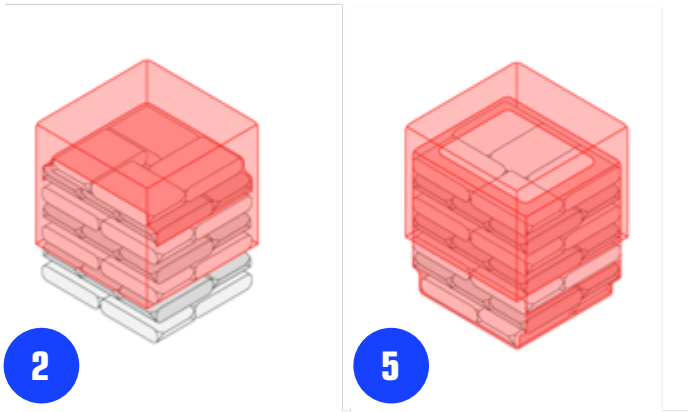
ENHANCED LOAD STABILITY

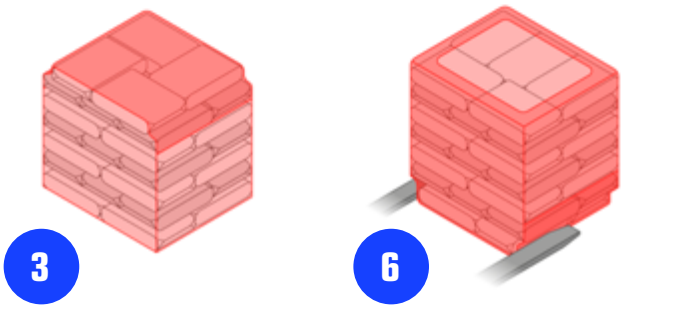
Creates exceptionally stable and secure stacks, particularly for small to medium-sized bags, minimizing the risk of shifting or damage during transport.

PALLET-LESS SYSTEM

This is a revolutionary approach to palletizing, eliminating the need for traditional pallets entirely. This innovative system wraps the entire pallet load, top and bottom, in a durable, waterproof film, creating a completely sealed and protected unit. Ideal for goods requiring maximum protection from the elements or for streamlining sea transport, the Pallet-Less System reduces costs, simplifies handling, and enhances sustainability.







KEY BENEFITS

COMPLETE WATERPROOF PROTECTION

Provides a fully sealed, waterproof enclosure, safeguarding against dampness, dust, and environmental contaminants.

ELIMINATES PALLET COSTS & HANDLING

Removes the need for pallets entirely, reducing material expenses and simplifying logistics.

OPTIMIZED FOR SEA TRANSPORT

Ideal for shipping goods via sea, offering superior protection and stability without the constraints of pallets.

STABLE, SECURE & EFFICIENT

Ensures stable and secure stacks for efficient handling, storage, and transport.

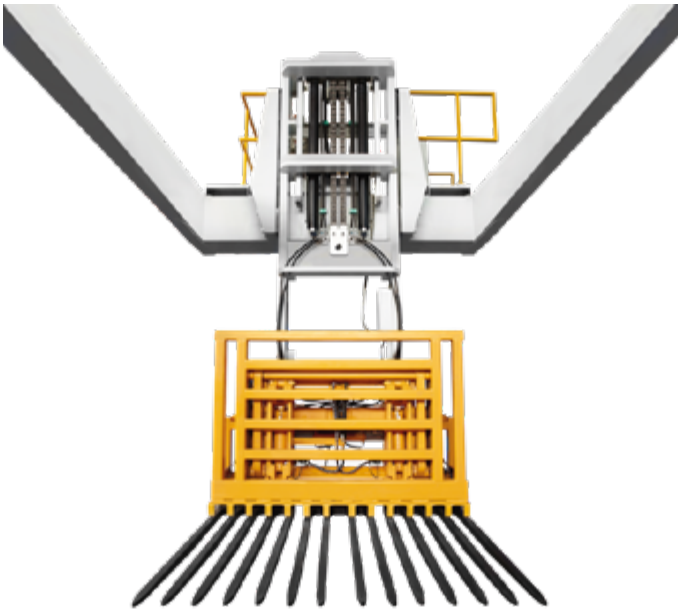
FLYING FORK-LIFT (FFL) AUTOMATIC TRUCK LOADER

The VENTOMATIC® Flying Fork-Lift (FFL) Automatic Truck Loaders represents a new era in automated loading. Designed for both open-top trucks and enclosed containers, the system provides a safe, efficient, and hands-free solution for loading stacks of bags with or without any support (i.e., wooden pallet, slip sheet, etc.).

With its ground-level installation, minimal infrastructure requirements, and seamless integration capabilities, it dramatically streamlines the dispatch process, reducing loading times and optimizing overall logistics.

As the fork modules are interchangeable, the same machine can be used for different load types based on the dispatch requirements:

- Palletized goods (bags, carton boxes, etc.)
- Stacked bags without pallets
- Jumbo bags



KEY BENEFITS

FULL AUTOMATION

Enables completely automatic loading operations, minimizing the need for manual labor and maximizing efficiency.

GROUND-LEVEL INSTALLATION

Requires minimal civil infrastructure and supporting steel structure with all equipment installed at ground level for ease of access and maintenance.

ENHANCED SAFETY

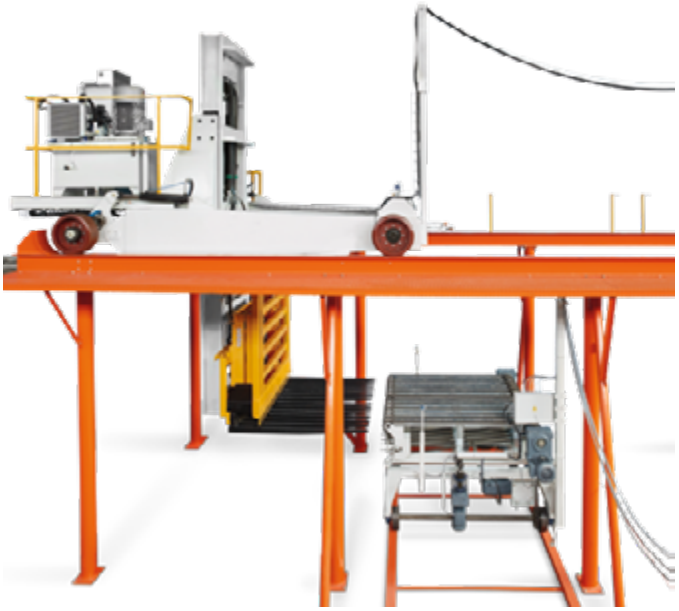
Improves workplace safety by eliminating the need for personnel to be in close proximity to loading vehicles.

SIMPLIFIED INTEGRATION

Integrates easily with existing customer supervision and data collection systems to improve plant workflow.

RAPID DEPLOYMENT

Minimizes downtime with short erection and commissioning times due to pre-wired, pre-assembled, and pre-tested components.



VENTOMATIC® FFL

Automatic loader for open-top trucks, with or without lateral sides

Operative phases:

- The truck enters the loading bay and stops in the loading position.
- The dimensions of the truck are scanned automatically.
- Loading parameters are selected (number of bags/ton in terms of amount of stacks and number of layers per stack).
- Stacks are picked up, transferred, and released.
- The FFL truck loader returns to the stand-by position.
- The loaded truck leaves the loading bay, and the next truck moves into the loading position.

VENTOMATIC® FFL-4C

Automatic loader for containers or closed trucks

Operational phases:

- Truck positions itself in front of the machine.
- The system verifies the correct positioning and absence of possible obstacles inside the container / closed truck.
- The operator starts the loading sequence based on the dispatch requirements from the user-friendly HMI.

A 40-foot container is typically loaded in 20 minutes only.

FULLER®
TECHNOLOGIES

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