

OPTIMA

STACKING MACHINES FOR HYGIENE PRODUCTS

Member of

PACKAGING VALLEY
Germany

EN



Stacking, grouping or storing nonwovens products

The French company Sierem joined Optima in 2004. Sierem is specialised in stacking, grouping or storing nonwovens products, integration and automation of production and packaging processes. At the end of the production process, Sierem machines receive flat, lumpy or pre-packaged products or edible goods and feeds them to downstream packaging processes as required. Automation and buffering accelerate the packaging process.

At identified areas which tend to cause technical problems or delay, Sierem machines are the solution. For some products, counting and stacking functions form the interface between production and packaging processes. A packaging machine will not function without a structured infeed. Due to the international presence and service network of the Optima, Sierem is a reliable and accessible business partner for customers all over the world.

OPTIMA packaging group GmbH

<p>2450 Employees worldwide</p>	<p>> 400 Service-Employees worldwide</p>	<p>> 85% Export</p>	<p>Family-owned Third generation</p>
<p>>100 Patents worldwide</p>	<p>19 national & international Locations</p>	<p>400 Mio. € Turnover (in 2019)</p>	

STACKING MACHINES FOR HYGIENE PRODUCTS

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Stacking
Machines for
Hygiene
Products

Basic Machine

Individual products coming from the converter are separated into a pair of paddles mounted on a horizontally moving chain. The chain carries the products 180° around a chain track to the discharge end of the stacker. Product row is pushed out of the stacker chain in one smooth movement whilst the chain is stopped.



Machine Frame

Strong welded steel frame on adjustable height supporting feet. Protective guards allow easy access to the machine.

1 Interface Conveyor

- Between the converter and the twisting belts to bridge height differences.



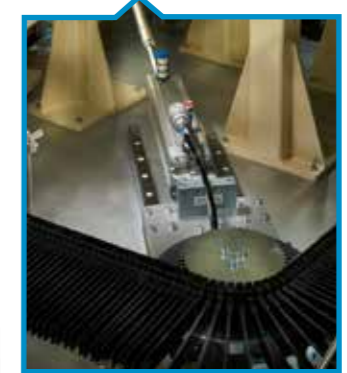
2 Twisting Belts

- Individual products arriving horizontally from the converter or the interface are twisted 90° in travelling direction into vertical position by set of flat belts. Speed synchronisation via encoder or network installed at the main machine.



3 Movable Bearing

- Thanks to the moveable bearing the product row is transferred while the paddles chain has stopped. This system guarantees a maximum efficiency and accuracy to load the packaging equipment.



4 Quality Gate

- For sampling and quality check.

5 Waste Conveyor

(option: with return conveyor to bring products towards the operator side)

Optional Items:

90° turning Module

This module allows turning at 90° products coming from the infeed twisting belt. It allows to have the cartoner in the alignment of the converting machine.



Vertical Infeed IFV 90 (Waterfall)

The products are collected in a flat position by a belt conveyor at the output of the converting machine. The products will be turned 90° by a waterfall system during the transfer to the paddle chain and ejected from the top in between the paddles.



Precompression module

The servo driven precompression guarantees a good stability of the product row during its transfer from the stacker to the bar conveyor of the bagger or into the bucket conveyor of the cartoner.



SIEREM STACKER ST10M and ST6M - for Femcare Products

Stacker is suitable to stack up to 1500 products per minute at the infeed. With the square pusher the ST10M allows to guarantee an output speed up to 120 cycles/min. An easy connection with the converting machines existing on the market makes a fast and easy installation. High tech solutions and accurate manufacturing details make the ST10M and ST6M reliable and efficient. The design guarantees an excellent access to the machine and allows a time reduction for a format change.



ST10M and ST6M - for
Femcare Products

Options:

- **Quality Gate**
This system allows to take easily samples from the infeed belt
- **Waste Conveyor**
Ejected products are transferred on the operator side via a conveyor
- **Metal Detector**
The metal detector allows to detect one by one the products with metal pieces in order to get them rejected through the reject quality gate
- **Manual Bagger Station**
A compression module compresses the product row(s). Then the row is ejected by a pusher in a chute on which the operator places the bag manually. Up to 20 bags/min

Technical Data:

Products	Stacker type	Max. Infeed Speed	Max. Outfeed Speed
Sanitary Napkins, Panty Liners, Light Inco	ST10M	1500 prod/min	120 cycles/min
	ST6M	700 prod/min	70 cycles/min

* Product Input Dimension:

Products	L	W	T
Tri folded wrapped Sanitary Products	80-150 mm	60-120 mm	5-30 mm
Flat Sanitary Products	120-280 mm	70-100 mm	5-20 mm

* Different dimensions possible on request

SIEREM STACKER ST8A for Adult Diapers, Adult Inco and Underpads

Stacker ST8A fully servo driven suitable to stack products like adult diapers up to 500 products per minute at the infeed and 50 cycles/min at the outfeed.

Servo brake rollers are installed at the infeed of the stacker to decrease product infeed speed necessary to avoid product damaging when entering the paddle chain at high speed. The stacker is equipped with top and bottom chain. Chain drive and chain stop are servo driven. The product is guided around the corner in order to correct the position between the paddles. Products are be pushed out of the stacker chain in one smooth movement done by servo drive, whilst the chain is stopped.



Options:

- **Quality Gate**
This system allow to take easily samples from the infeed belt.
- **Metal Detector**
The metal detector allows to detect one by one the products with metal pieces in order to get them rejected through the reject quality gate.
- **Recycling Table**
This module allows to collect products passing by the stacker pusher without being pushed into the packaging equipment. The products are accumulated one against the other on the table and are ready to be collected by an operator.
- **MR Product Rotator**
This module allows to turn 180° one pad out of 2 or 3 or more. The pads have therefore an alternative position into the bag. Maxi speed: 500 ppm
- **Turning Module 180°**
Connected to the stacker, this module allows to turn at 180° each products row before being transferred into the packaging equipment. The folded side of the products is then located on the bag handle side. Maxi speed: 60 cycles/min
- **Waste Conveyor**
Ejected products are transfer red on the operator side via a conveyor.
- **Manual Bagger Station**
A compression module com presses the product row(s). Then the row is ejected by a pusher in a chute on which the operator places the bag manually. Up to 20 bags/min
- **Buffer**
To accumulate the products rows during a momentary stop in the packaging process, without stopping the production line.

Technical Data:

Products	Stacker type	Max. Infeed Speed	Max. Outfeed Speed
Adult diapers, Adult Inco, Underpads	ST8A	500 prod/min	50 cycles/min
	ST5A	350 prod/min	35 cycles/min

*** Product Input Dimension:**

Products	L	W	T
Product Input Dimensions	150-350 mm	150-220 mm	15-45 mm

* Different dimensions possible on request

SIEREM STACKER ST8B for Baby Diapers or Light Inco

Stacker ST8B fully servo driven suitable to stack products like baby diapers up to 1000 products per minute at the infeed and 70 cycles/min at the outfeed.



Options:

■ Quality Gate

This system allow to take easily samples from the infeed belt.

■ Metal Detector

The metal detector allows to detect one by one the products with metal pieces in order to get them rejected through the reject quality gate.

■ MR Product Rotator

This module allows to turn 180° one pad out of 2 or 3 or more. The pads have therefore an alternative position into the bag. Maxi speed: 500 ppm

■ Turning Module 180°

Connected to the stacker, this module allows to turn at 180° each products row before being transferred into the packaging equipment. The folded side of the products is then located on the bag handle side. Maxi speed: 60 cycles/min

■ Waste Conveyor

Ejected products are transfer red on the operator side via a conveyor.

■ Manual Bagger Station

A compression module com presses the product row(s). Then the row is ejected by a pusher in a chute on which the operator places the bag manually. Up to 20 bags/min

■ Buffer

To accumulate the products rows during a momentary stop in the packaging process, without stopping the production line.

Technical Data:

Products	Stacker type	Max. Infeed Speed	Max. Outfeed Speed
Baby Diapers or Light Inco	ST8B	1000 prod/min	70 cycles/min

* Product Input Dimension:

Products	L	W	T
Product Input Dimensions	120-280 mm	100-150 mm	8-30 mm

* Different dimensions possible on request

Multi Output Stackers

These stackers allow to make the same or different counts at the two outputs.

It is also perfectly adapted to the requirements of production environment by allowing the following configurations:

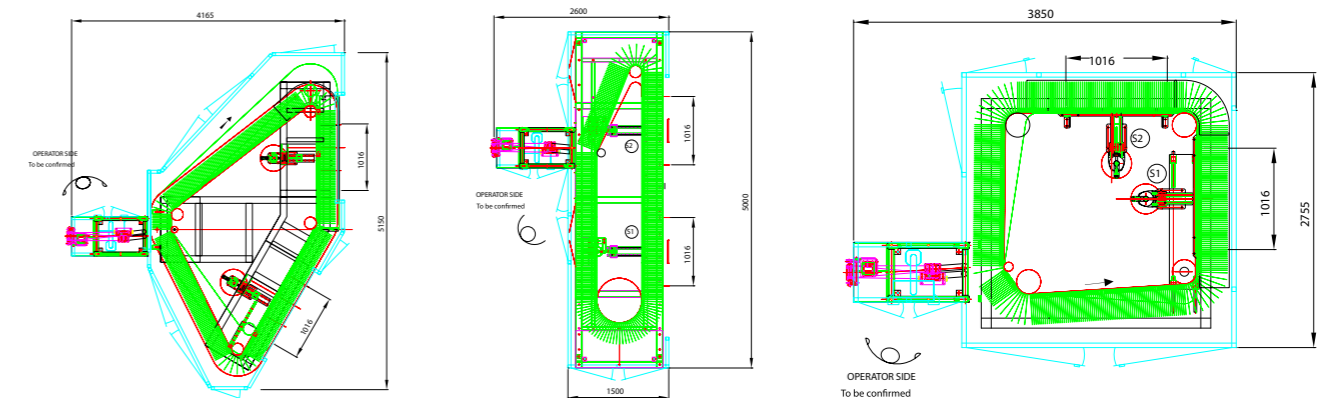
- Running with the multi outputs simultaneously
- With only one output: in these case another output can be automatically or manually activated when the first one has been stopped for any reason (bagger or manual station not ready or failure, size change, ...)

The multi output stackers can be supplied with 2, 3 or 4 outputs. Outputs can be connected to a manual or automated bagger.

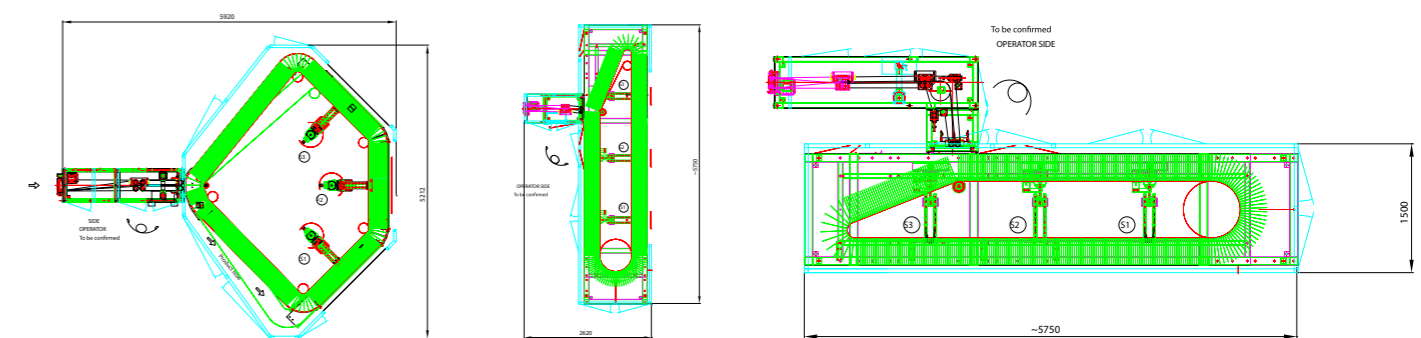
Manual loading stations EM: up to 20 bags/min (single layer) Manual loading station HC: up to 18 bags/min (single layer). Possibility to pack double rows and double layers.



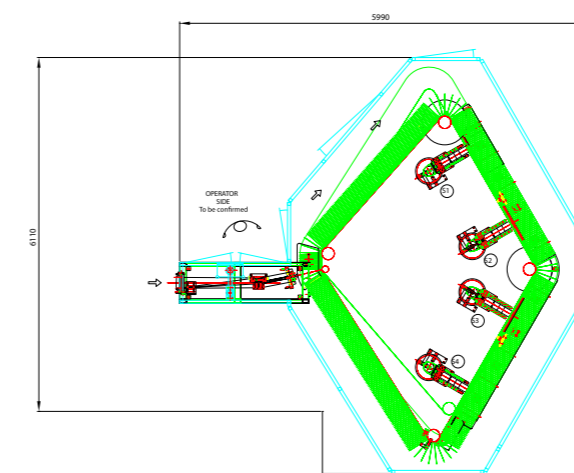
Stacker with 2 OUTPUTS



Stacker with 3 OUTPUTS



Stacker with 4 OUTPUTS



More information:
www.optima-packaging.fr