



SOLUTIONS for

Big Bag & Octabin

EMPTYING

COMPACTING

MASSAGING



The smartest designer for powder handling solutions

CONTENT



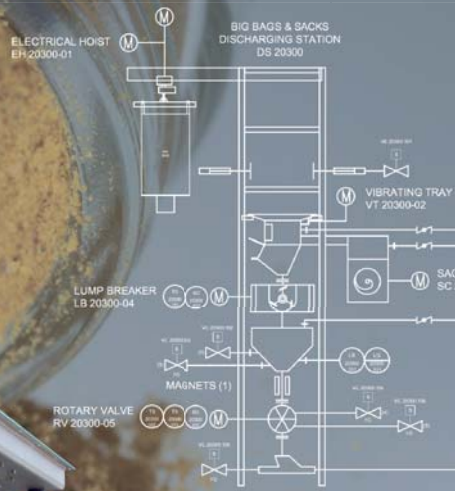
Means that the equipment is available for testing at Palamatic Process



Means that the equipment can be installed in ATEX zone



Means that Design and options can be customised



RANGE OF BIG BAG DISCHARGING SYSTEMS 02

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Big Bag Discharging Station Range



PALAMATIC PROCESS HAS DEVELOPED A RANGE OF DISCHARGING BIG BAGS STATIONS TO MEET INDUSTRIALS NEEDS IN ALL TYPES OF SECTORS ACTIVITIES

GOALS & ADVANTAGES OF PALAMATIC PROCESS RANGE

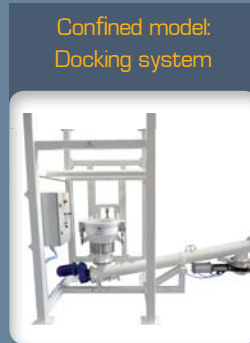
- Secured handling
- Suitable for all types of big bags
- Reduction of dust emissions (possibility with total confinement)
- Extraction of very poor flowing products
- Discharging rate
- Adaptability to different industrial sectors: petfood, food, chemicals, fine chemicals...



Standard model

- Loading big bags with: overhead crane, forklift, electric hoist, stacker

Page 4



Confined model:
Docking system

- Big bag confined connection
- Hood system for hygiene

Page 10



Confined model:
Gloves box

- Containment of the unlacing box
- Handling of toxic chemical products
- Ergonomics & comfort for the operator

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High Flow Rate

- Automation of the discharging cycle
 - Automatic big bags cutting
 - Compactor of empty big bags

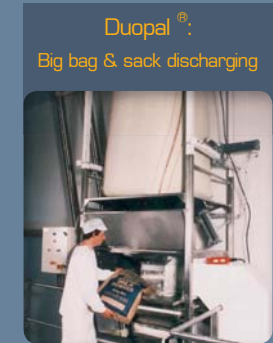
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Customized model

- Customized solutions offers by our engineering offices according to your constraints

Page 22



Duopal®:
Big bag & sack discharging

- Big bag and sacks unloading on the same discharging point
 - Ergonomics workstation

Page 30

Basic specifications of big bag discharging stations and applicable options

CAPTION: X Included in the model Available as option Not applicable

	Standard Hoist	Standard Forklift	Standard Low structure	Confined Telescopic tube	Confined Gloves box	High Rate	Duopal® Hoist	Duopal® Forklift	Duopal® Low structure
Discharging rate (the highest rate may vary according to the volume of big bags and the available rate)	10 - 30	10 - 30	10 - 30	10 - 20	10 - 20	20 - 40	10 - 30	10 - 30	10 - 30
Compensation cross									
Hermetic telescopic connection tube				X					
Dedusting ring						X			
«U» or «V» shaped spike to burst the big bag						X			
Reservation for a pneumatic massage	X	X	X	X	X	X	X	X	X
Pneumatic massage system						X			
Control valve									
Commercial dosing and weighing									
Lump breaker									
Big bags compactor						X			
Electric / pneumatic / manual hoist	X					X	X		
Rubber seal						X			
Vibrating plate									
Glove box					X				
Suction chamber									
CIP									
Station casing						X			
Automatic big bag release						X			
Big bag under vacuum				X					
Big bag with one handle									

Flow rates are given for information only and can vary depending on the treated product.

Big Bag Discharging Station

Standard model



Loading by hoist

BBD standard model loading by hoist
Narrow width of big bags:
 1,250 & 1,500 mm
Rate: 10 - 30 big bag/h.
Weight capacity: 2 tonnes/big bag
Goals: flexibility for big bags handling & containment

This station allows an ergonomics big bags discharging using an electric hoist. This enables a self-loading of big bags with different sizes on the station.

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 30 big bag/h.
Weight capacity: 2 tonnes
Material of construction: steel, inox 304L, inox 316L
Material construction touching the product: steel, inox 304L, inox 316L
Installed power: 0.1 kW vibration, 1.50 kW et 0.75 kW hoist
Required flow rate for dust extraction: 800 m³/h.*
 *can vary according to the treated product
Ergonomic height to access to big bag: 1,500 mm



Standard model

Equipment

TEST CENTER

Available



- Trackway for hoist
- Electric hoist: lifting capacity 2 tonnes
- Handling cross
- Supporting structure
- Sealing skirt: optimise containment by capping the bottom of the big bag (optional)
- Main tray: insures the big bag maintain during the emptying phase
- Unlacing cabinet with dust-proof door



▶ **Anti-overflow tube:** insures the flow product containment during the discharging cuff opening step and offers to the operator more ergonomics and safety



▶ **Protection screen:** to limit the risk that foreign bodies contaminate powder. Mesh size: 50 x 50 mm*
 *possibility to reduce on request

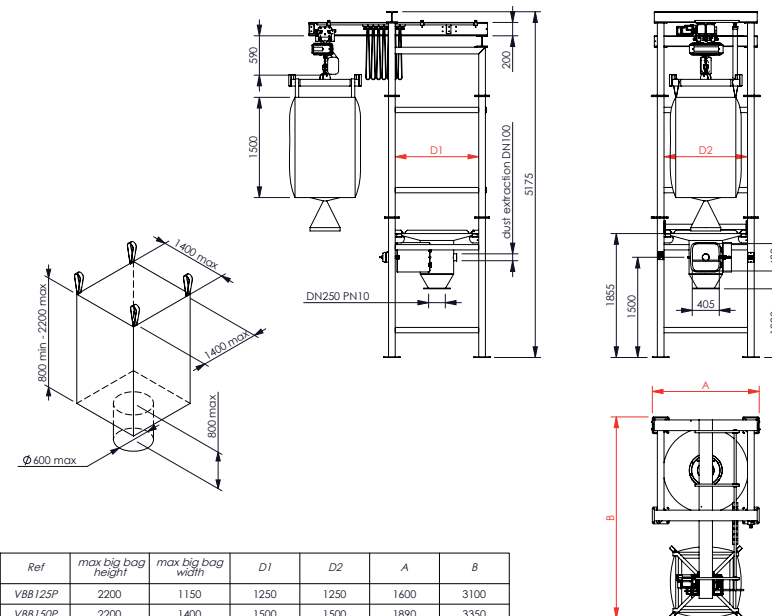


▶ **Big bag vibrating plate:** facilitates the powder extraction. The main tray is installed on silent block.



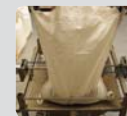
▶ **Security baffle:** to ensure a correct attachment of big bags straps for a safety handling

Advantages



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1250	1250	1600	3100
VBB150P	2200	1400	1500	1500	1890	3350

Options



Message system: disposal aid



Loads for the dosing

See all our options on page 24

Big Bag Discharging Station

Standard model



Loading by Forklift

BBD standard model loading by forklift
Narrow width of big bags:
1,250 & 1,500 mm
Rate: 10 - 30 big bag/h.
Weight capacity: 2 tonnes/big bag
Goals: ergonomics & containment

This big bag emptying station enables to unload ergonomically big bags by using forklift and a specific handling cross. The height of the structure is adjustable thanks to a system of ducts and rods to fit different sizes of big bags.

Equipment

TEST CENTER

Available



Handling cross 5 points: to set the big bags inner liner. A centrak hook can be implemented in order to handle a big bag with one handle

Handling sheaths to allow gripping by forklift

Adjustable height of the structure to fit different heights of big bag

Main tray: to maintain big bag during emptying process and to secure handling operations

Unlacing cabinet with dust-proof door: to offer a safe and ergonomic access to the spout of the big bag

Protection screen: to ensure powder feeding without foreign body (mesh size 50 x 50 mm)

Control panel

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 30 big bag/h.

Weight capacity: 2 tonnes

Material construction: steel, inox 304L, inox 316L

Material construction touching the product: steel, inox 304L, inox 316L

Installed power: 0.1 kW

Required flow rate for dust extraction: 800 m³/h.*

*can vary according to the treated product

Ergonomic height to access to big bag: 1,500 mm



Standard model



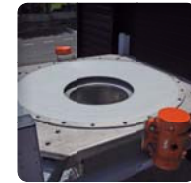
▶ **Anti-overflow tube:** to ensure the containment of product flow during the big bag cuff opening phase and to offer more ergonomics and safety to the operator



▶ **Big bag vibrating plate:** to facilitate the powder extraction. The main tray is installed on silent block

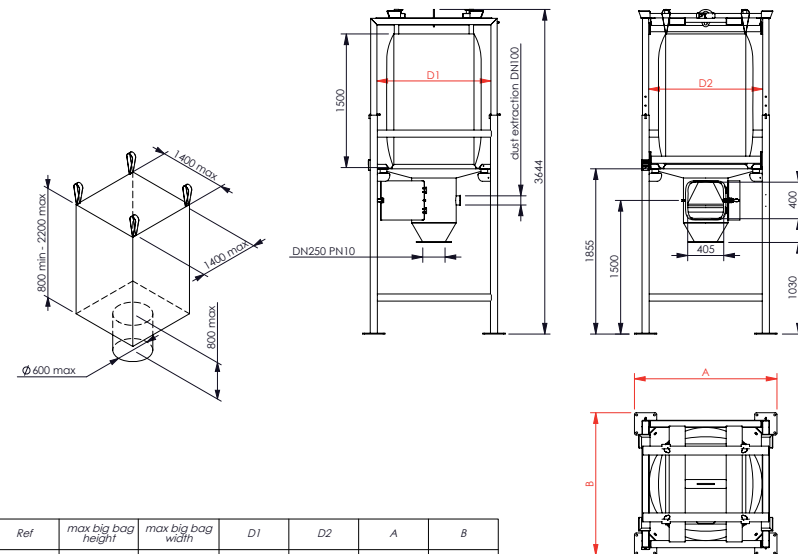


▶ **Height adjustment of the station:** height adjustment by a manual system of rods. Thus, all the big bag dimensions are admissible on the station



▶ **Rubber seal:** to optimize the containment during the emptying phase (optional)

Advantages



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1280	1280	1600	1600
VBB150P	2200	1400	1500	1500	1850	1850

Options



Control valve



Dedusting ring (Pouyès)

See all our options on page 24

Big Bag Discharging Station

Standard model



Low structure

BBD standard model with low structure
Narrow width of big bags:
1,250 & 1,500 mm
Rate: 10 - 30 big bag/h.
Weight capacity: 2 tonnes/big bag
Goals: ergonomics & economy

This big bag emptying station enables to unload ergonomically big bags. The big bag can be loaded on the discharging station by using a forklift, an overhead crane... A handling cross for big bag is provided by Palamatic Process to ensure a secured big bag handling operations.

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 30 big bag/h.
Weight capacity: 2 tonnes
Material construction: steel, inox 304L, inox 316L
Material construction touching the product: steel, inox 304L, inox 316L
Installed power: 0.1 kW
Required flow rate for dust extraction: 800 m³/h.*
 *can vary according to the treated product
Ergonomic height to access to big bag: 1,500 mm



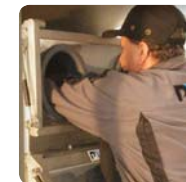
Standard model

Equipment integrated on standard versions (excluding options):

- 1. Big bags implementation** is ensured by your own handling machines (forklift, overhead crane, gibbet...) and by using the big bag handling cross
- 2. Handling cross 5 points** allows to set the big bag inner liner. A central hook can be implemented to handle big bag with one handle
- 3. Main tray** ensures the big bag maintain during the emptying process and securises handling operations
- 4. Sealing skirt:** to optimize emptying operation, a rubber seal is placed on the main tray for capping the bottom of the big bag
- 5. Vibrating motor** ensure the main tray vibration to help the powder extraction
- 6. Unlacing cabinet with dust-proof door** offers a secure and ergonomic access to the big bag spout
- 7. Anti-overflow tube** canalizes product flow into the unlacing box and facilitates the handling of the operator
- 8. Protection screen** ensure powder feeding without foreign body (mesh size 50 x 50 mm)



Control valve: this flow regulation system works through two pneumatic cylinders. The operator can stop or regulate the flow of the powder



Ergonomics: recommendations should be taken into count during the system design in order to improve operator comfort. The movement at ground level, head, arms... has to be limited



Flow product: Motor: 0.1 Kw
 The vibrating plate facilitates poor flowing products extraction with poor

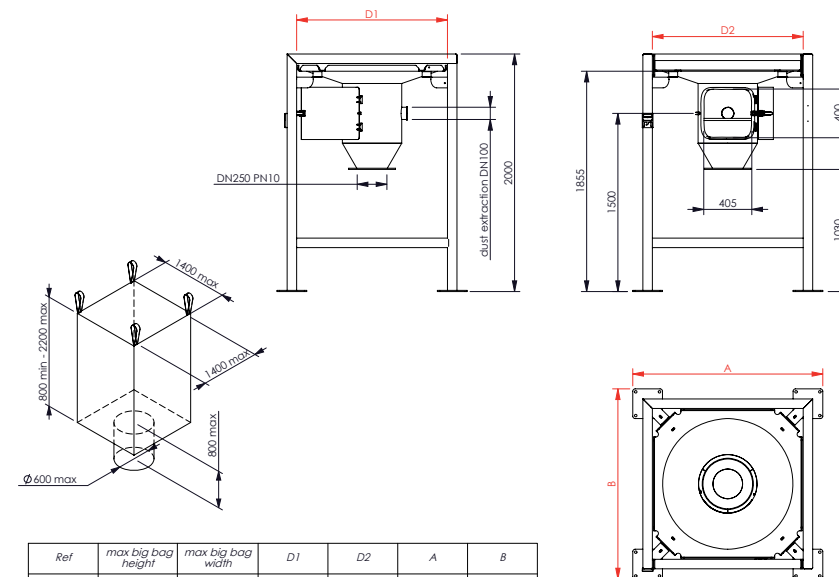


Containment: the rubber seal optimizes containment by capping the bottom of the big bag and enables to channel the air flow from dust collector

Advantages



Equipment
TEST CENTER
 Available



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB 125P	2200	1150	1280	1280	1600	1600
VBB 150P	2200	1400	1500	1500	1850	1850

Options



Commercial dosing and weighing



Message system: to improve flow product

See all our options on page 24

Big Bag Discharging Station Confined



Docking system

BBD confined model with docking system

Rate: 10 - 20 big bag/h.

Weight capacity: 2 tonnes/big bag

Goals: total containment & flexibility of handling big bags

This bulk bag emptying station ensures the total containment during the big bag discharging step and maintains the big bag spout tension to permit fluid flow while providing an ergonomic work for the operator. Three versions are available: loading big bag with an electric hoist, a forklift or a low structure.

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 20 big bag/h.

Weight capacity: 2 tonnes

Structure construction: acier, inox 304L, inox 316L

Material construction touching the product: acier, inox 304L, inox 316L

Required flow rate for dust extraction: 150 m³/h.*
*can vary according to the treated product

Hauteur ergonomique d'accès au big bag : 1 600 - 1200 mm

OPERATING METHOD

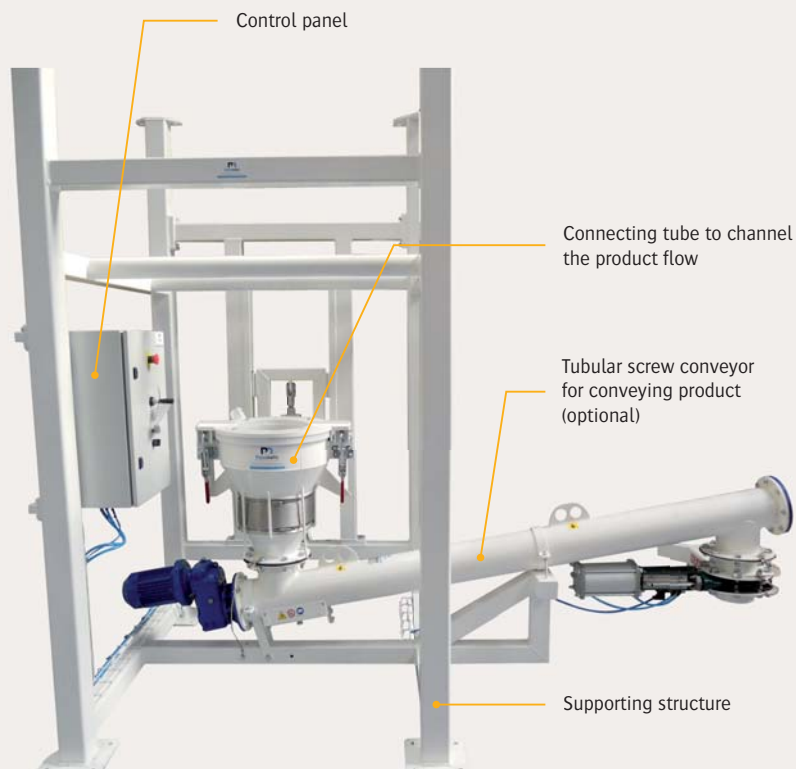
IMPLEMENTATION

1. Setting up the connecting tube
2. Big bag spout positioning into the docking system
3. Crimping the big bag spout
4. Opening the big bag unloading spout
5. Confined flow product to 100%

Equipment

TEST CENTER

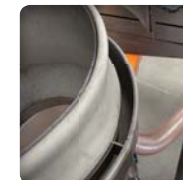
Available



➤ **Complete containment with tensioning and docking cylinder:** it allows a dust proof connection of the big bag and insures its tension on the spout. The pneumatic cylinder enables the operator to adjust the connection height to fit different big bag sizes



➤ **Double envelope tube:** it ensures volumes balancing and thus avoids any pressure increase and/or flow problem



➤ **2 possible configurations for connecting the big bag spout:**
1. The inflatable seal is fitted on the double envelope tube with a reorientation ring
2. The "pinch" ring is activated manually or by pneumatic cylinders



➤ **Putting big bag under vacuum (optional) :** at the end of emptying process, the operator can put the big bag under vacuum using dust collector to avoid dust emanation into production facilities

Advantages



Possible loading methods:



Electric hoist



Forklift



Low structure

Options



Hood system

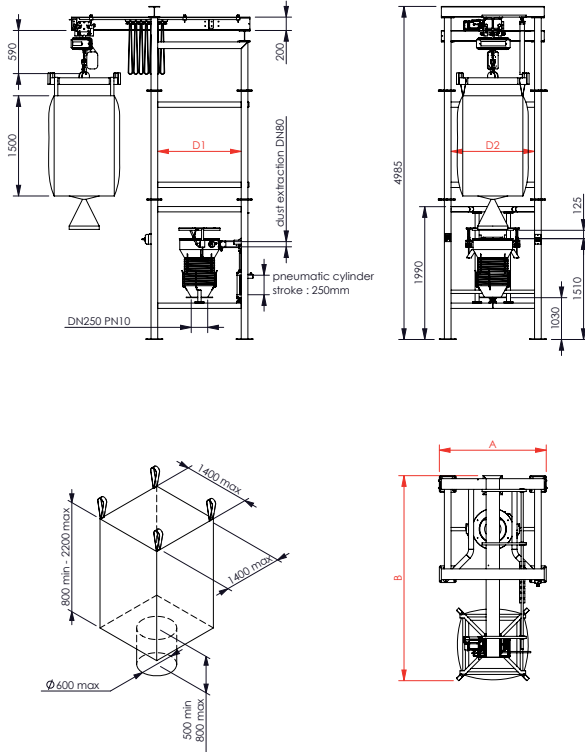
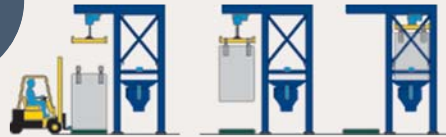
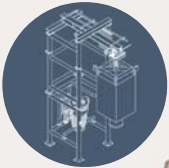


Control valve

See all our options on page 24

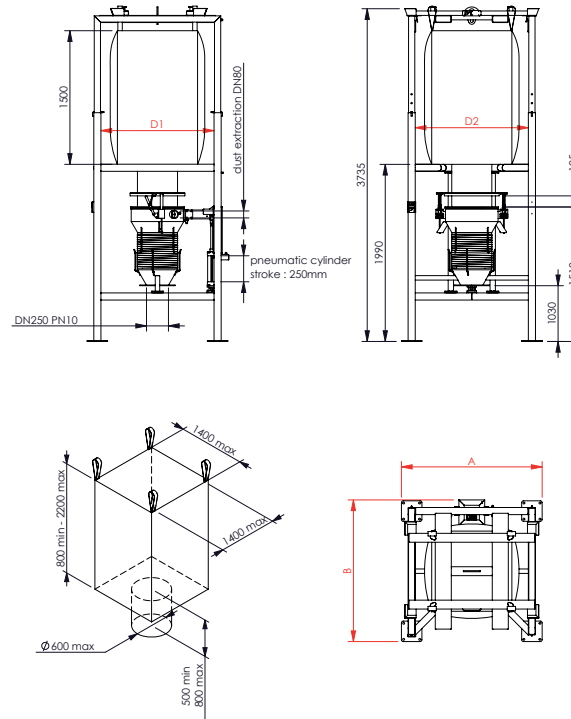
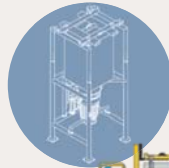
Big Bag Discharging Station Confined model Docking system

Loading by Electric Hoist



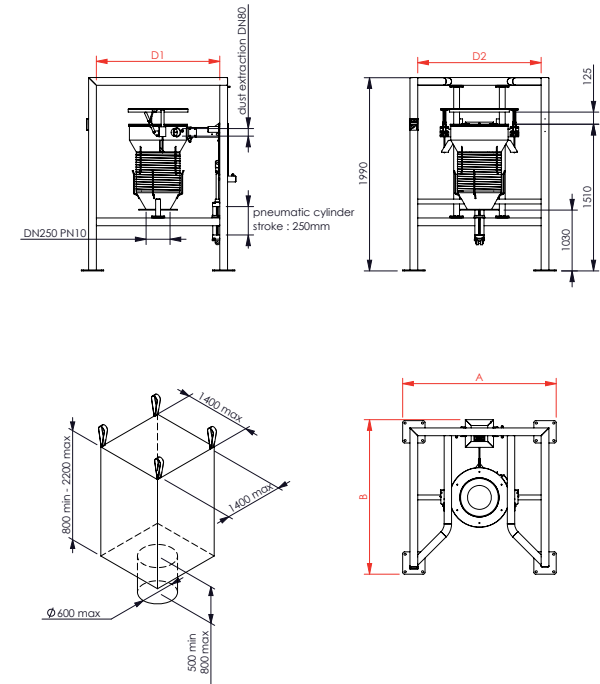
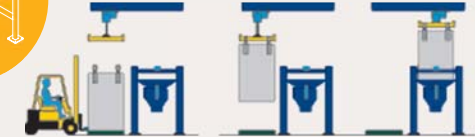
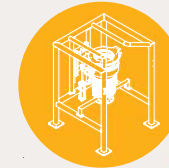
Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1250	1250	1600	3100
VBB150P	2200	1400	1500	1500	1890	3350

Loading by Forklift



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1250	1250	1580	1590
VBB150P	2200	1400	1500	1500	1830	1840

Low Structure



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1250	1250	1580	1590
VBB150P	2200	1400	1500	1500	1830	1840

Big Bag Discharging Station

Confined model



Glove box

BBD confined model with glove box

Rate: 10 - 20 big bag/h.

Weight capacity: 2 tonnes/big bag

Goals: total containment & safety for operators

Big bag discharging station model integrates a glove box which prevents the operator any contact with the unloaded product, while maintaining a good visibility. Three versions are available: big bags loading by hoist, forklift and low structure.

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 20 big bag/h.

Material construction: painted steel, inox 304L, inox 316L

Finishes: RAL 9006, microblasted, electropolishing

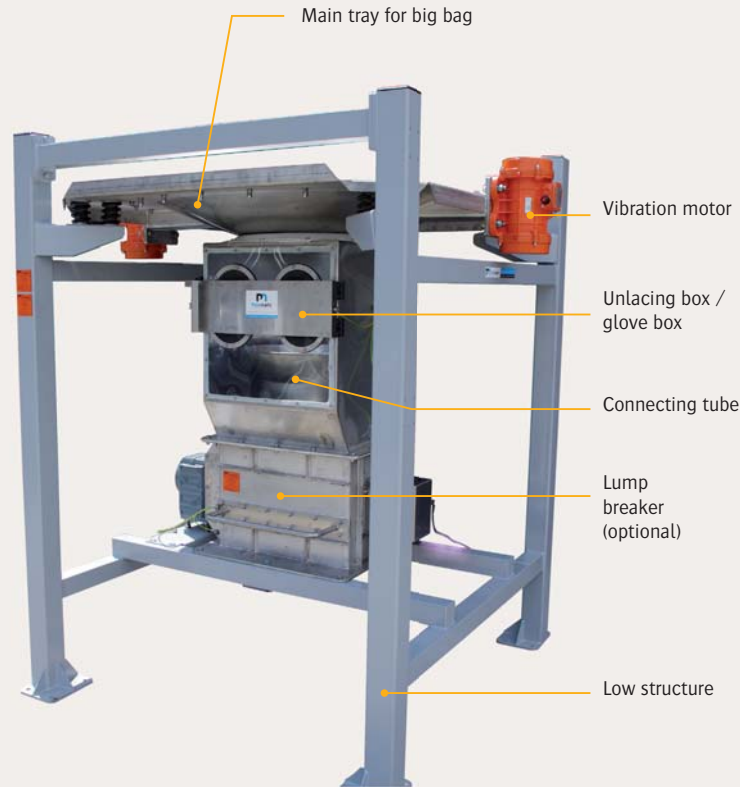
Installed power: 0.1 kW (according to the option)

Operation pressure: 6 bars

Dust collecting flow rate required: 300 m³/h.*

*can vary according to the treated product

Ergonomic height for access to the big bag: 1,550 mm



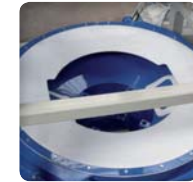
▶ **Containment and operator protection:** the glove box with sealed door provides a secure and ergonomic access to the big bag spout thanks to the respect of the sight height allowing to the operator to manipulate big bag without touching potential toxic products



▶ **Flow control (optional):** the Palamatic Process control valve enables the operator to stop very flowing products or to control the flow. This pneumatic valve strangles the big bag spout. It is actuated by pneumatic cylinders.



▶ **Improvement of bulk material flow (optional):** the bulk material flow is optimized thanks to a pneumatic massage system. Pneumatic cylinders are implanted on the lower part of the structure and break the domes and eliminate caking (2, 4 or 6 actuators depending on the type of powder).



▶ **Connection to the dedusting unit (optional):** the dedusting ring is mounted on the receiver plate and minimizes dust emissions. It is composed by a split tube and a pipe for connection to the dedusting unit. It is manually operated to adjust or close off the suction flow.

Advantages



Possible loading methods:



Electric hoist



Forklift



Low structure

Options



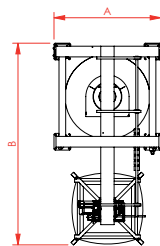
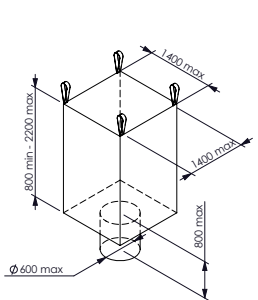
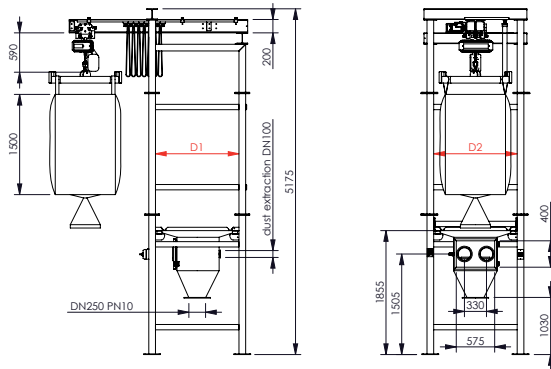
Big bag compactor



Lump breaker

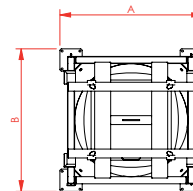
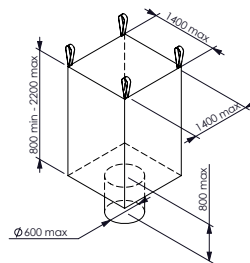
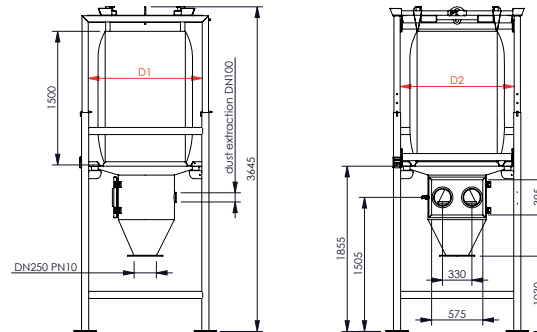
See all our options on page 24

Loading by hoist



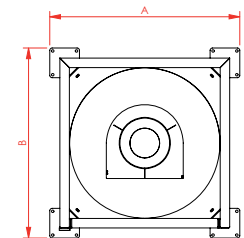
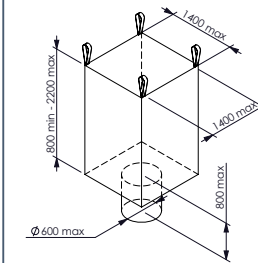
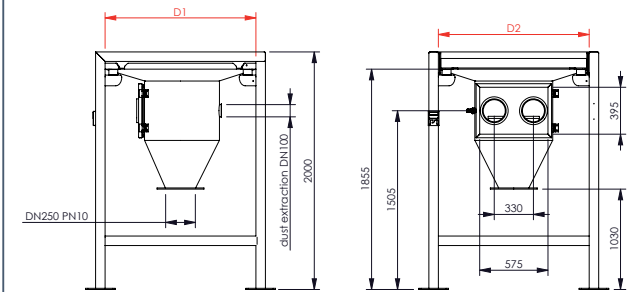
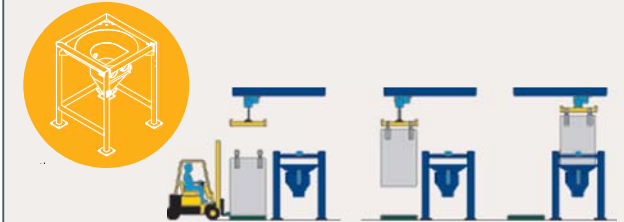
Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1250	1250	1600	3100
VBB150P	2200	1400	1500	1500	1890	3350

Loading by forklift



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1280	1280	1600	1600
VBB150P	2200	1400	1500	1500	1850	1850

Low structure



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1280	1280	1600	1600
VBB150P	2200	1400	1500	1500	1850	1850

Big Bag Discharging Station

High flow rate



Confined model

Flow rate: 20 - 40 big bag/h.
Weight capacity: 2 tonnes/big bag
Goals: automatic cutting, containment, safety

This big bag discharging model enables the automatic unloading of big bags without operator intervention. The phases of cutting, handling and evacuating big bags are autonomous. The only task ensured by the operator is the fixation of the big bag on the handling cross.

TECHNICAL SPECIFICATIONS

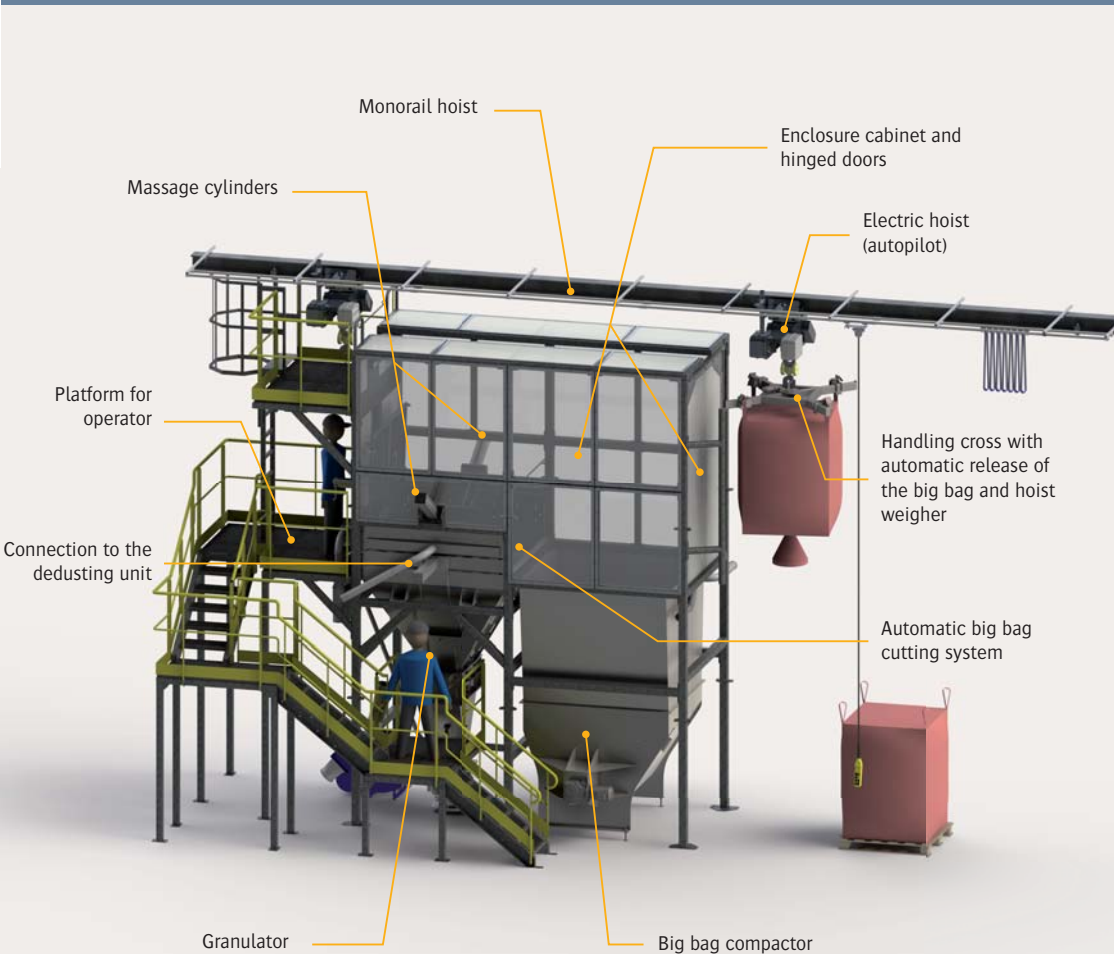
Rate: 20 - 40 big bag/h.
Material construction: painted steel, inox 304L, inox 316L
Finishes: RAL 9006, microblasted, electropolishing
Installed power: 5 kW (according to the option)
Operation pressure: 6 bars
Inlet: 4-20 mA
TOR inlet : 6
TOR outlet: 4
Dust collecting flow rate required: 3,000 m³/h.*
 *can vary according to the threatened product
Maximum big bag dimension
Lenght x Width x Height: 1,200 x 1,200 x 2,400 mm
 / other models are available on made-custom

OPERATING METHOD

OF THE MODEL

1. Big bag fixation and setting up by the operator
2. Big bag displacement inside the discharging station (hoist automatic pilot)
3. Automatic big bag cutting and discharging (automatic solution)
4. FIBC massage (according to the option) and product crushing
5. Automatic big bag release
6. Empty big bag compacting
7. Automatic control of the big bags accumulation that must be emptied and pallets automatic palletizing

High flow rate



Automatic cutting: the spike shaped a «U» and cutting discs. According to the type of big bag to be unloaded, the cutting system is designed to facilitate the opening and to avoid the generation of foreign bodies.



Integrated big bag compactor: it permits to collect and press all types of bags (paper, PE, woven plastic...) in an effective way and thus to remove the majority of dust.



Improvement of bulk material flow: pneumatic cylinders piloted to optimize the bulk material flow.



Automatic loading: the operation of the hoist is controlled via the button box and weighing hook.

Advantages



Big Bag Discharging station

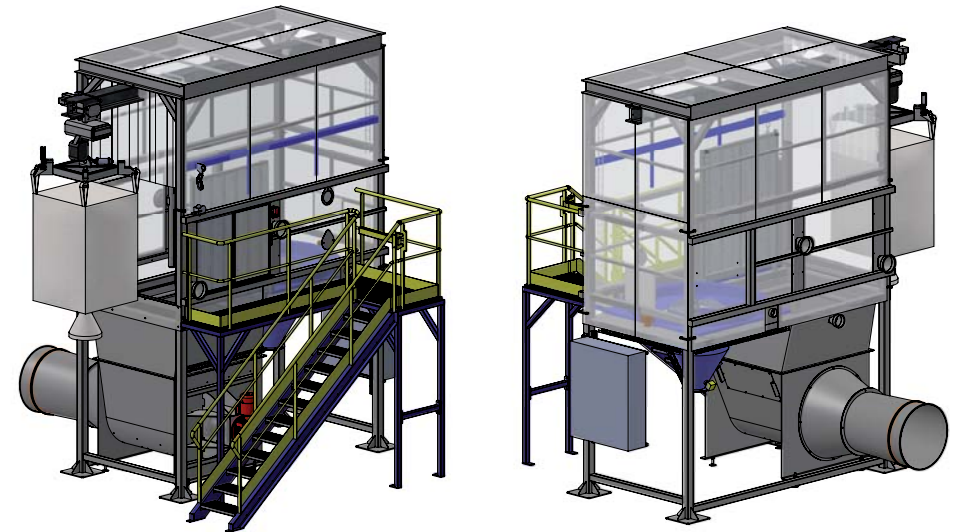
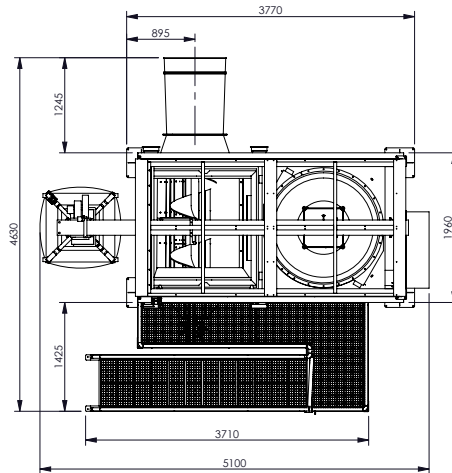
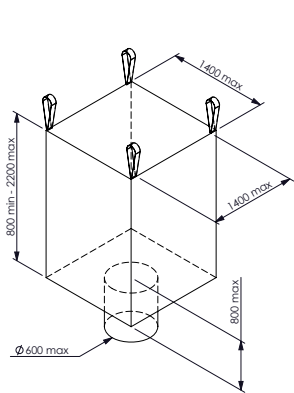
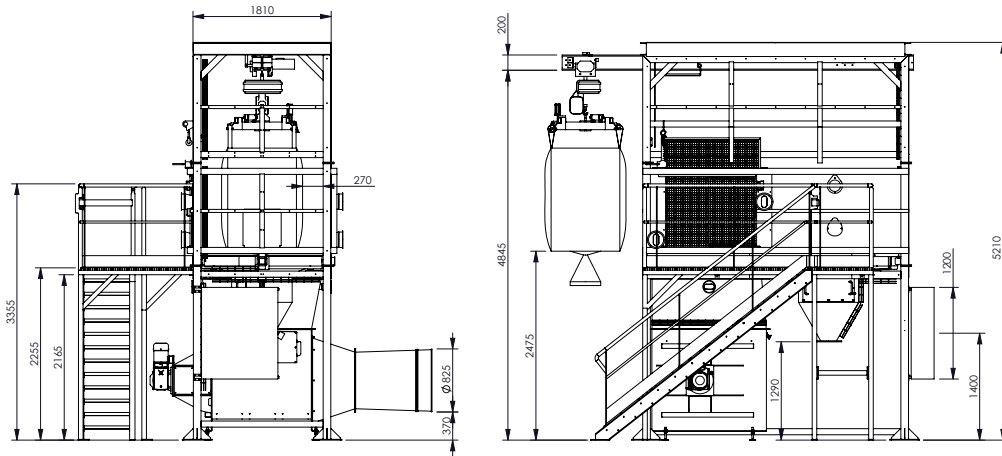
High flow rate



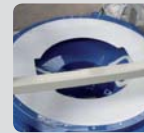
Confined model

Rate: 20 - 40 big bag/h.
Weight capacity: 2 tonnes/big bag
Goals: automatic cutting, containment, safety

High flow rate



Options



Pouyès ring: to optimize containment by creating a suction flow in the periphery of the big bag (Pouyès ring). Positioned at the top and in the periphery of the tray, the dedusting ring ensures the capture of dust emitted during the big bag discharging phase. This option is particularly suitable for very volatile products (low density) or for installations requiring a high level of containment. The two suction nozzles allow to capture the dust like a cyclone. Suction flow required: 1.800 m³/h.



Granulator: our granulators are the ideal solution for the crushing of materials that tend to form lumps. The device permits to break the lumps that develop the process of production or transportation of friable materials in powder or grain. We offer 3 standard models of granulators (GR35, GR50, GR70) and 3 standard models of lump breakers (EC35, EC50, EC70). We also design customized solutions to suit all your requirements.

Big Bag Discharging Station

Customized model



Material construction:
painted steel, inox 304L and
inox 316L

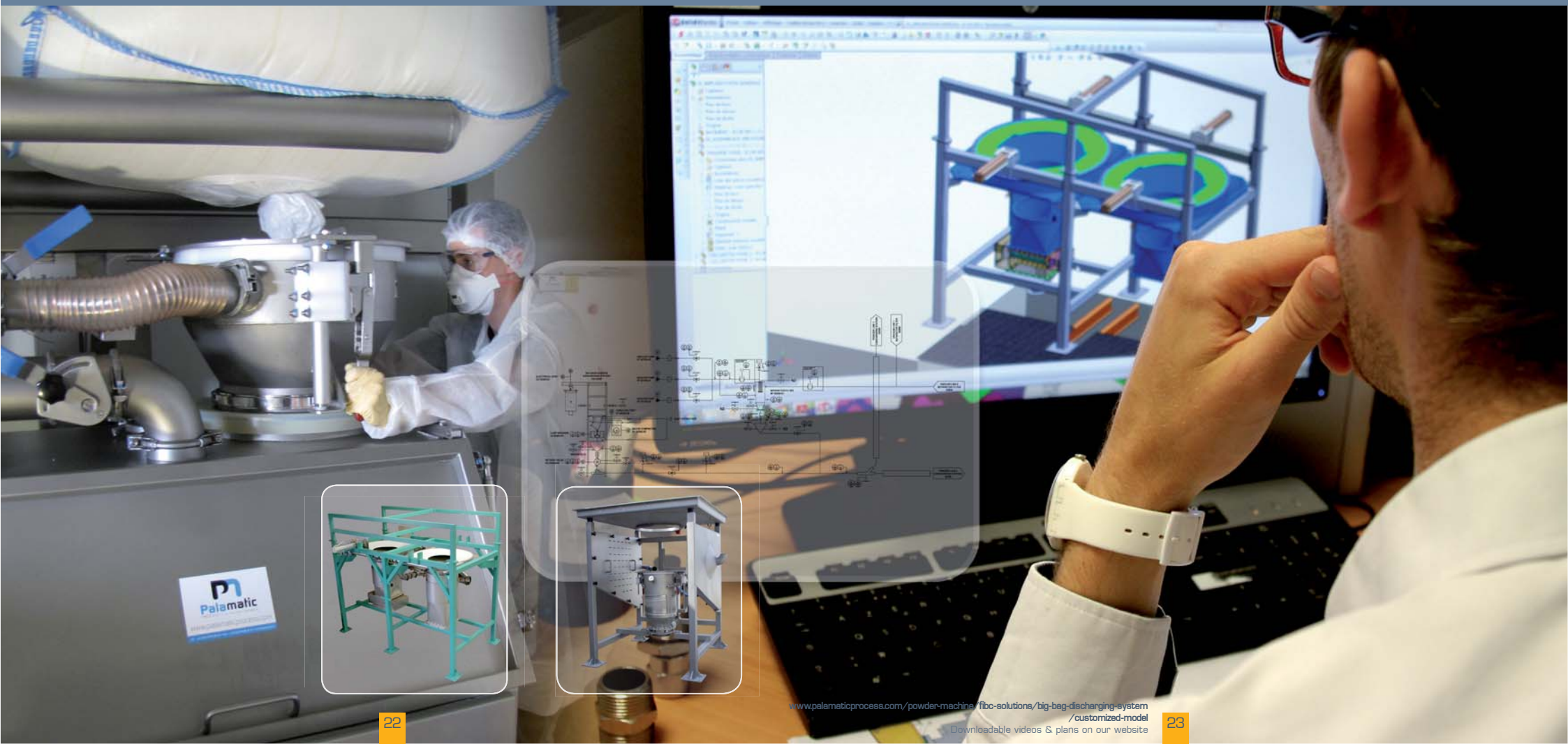
UNLOAD, INSURE BULK FLOW AND CONTAIN

The Palamatic Process design office is able to offer very specific solutions adapted to your restrictions on use and on implementation. We define with you the customized solution after visiting your site and according to your detailed specifications.

POSSIBLE FEATURES

- Automatic big bags cutting (specific solutions for big bag with or without spout)
- Containment solutios adapted to your powders
- Extraction of very difficult products (vibration, massage...)
- Implantation height very reduced
- Ergonomic post
- Empty big bags and sacks compacting system
- Nitrogen (N₂): discharging in a controlled atmosphere with continuous flow or by vacuum breaker

Customized model





▶ HANDLING CROSS

Keep the tension of the sides of the big bag throughout emptying.
This autonomous system ensures an optimum flow of product without operator intervention.
Tension stroke: 250 mm



▶ DUST PROOF TELESCOPIC TUBE

To ensure a dust proof connection between the big bag and the discharging station.
The pneumatic cylinder enables the operator to adjust the connection height to fit different types of big bags. The dust proof connection is made with a sealing ring. The double envelope telescopic tube ensures balancing of volumes.
It allows a containment at the opening of the spout of the big bag and thus offers more ergonomics and safety to the operators.



▶ DEDUSTING RING

To optimize containment by creating a suction flow in the periphery of the big bag (Pouyès ring).
Positioned at the top and in the periphery of the tray, the dedusting ring ensures the capture of dust emitted during the big bag discharging phase. This option is particularly suitable for very volatile products (low density) or for installations requiring a high level of containment. The two suction nozzles allow to capture the dust like a cyclone. Suction flow required: 1 800 m³/h.*



▶ «U» SHAPED SPIKE TO BURST THE BIG BAG

This spike allows the opening of the big bag without any direct action from the operator.
It is especially used when using big bags with spout «U» shaped spike.
Once the big bag is placed on the unloading station, the operator takes the big bag down thanks to a hoist and put it down on the main tray. The force applied by the weight of the product on the blades allows a direct cut of the bottom of the big bag.
In the case of very difficult products, Palamatic Process can also offer motorized rotating systems.



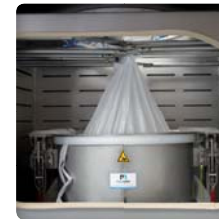
▶ «V» SHAPED SPIKE TO BURST THE BIG BAG

Dedicated to «full bleed» big bags, this «V» shaped spike enables to burst the bottom of the big bag.



▶ PNEUMATIC OR HYDRAULIC MASSAGE

The bulk material flow is optimized thanks to a pneumatic massage system.
Pneumatic actuators implanted on the lower part of the structure break the domes and eliminate caking (2, 4 or 6 actuators depending on the type of powder).
Stroke: 400 mm
Upper cylinders with adjustable height
Automatic and sequenced control cycle
Air consumption: 300 L/h.
Operating pressure: 6 bars



▶ CONTROL VALVE

This valve is actuated by 2 pneumatic cylinders and allows the operator to stop or to regulate the flow of the powders.
It also allows to change the product being handled.
Number of cylinders: 2
Stroke: 300 mm
Integrated guide unit
Automatic and sequenced control cycle



▶ COMMERCIAL DOSING AND WEIGHING

To inform the automaton and/or operator of the amount of powder extracted.
Dépésage de la station big bags pour alimentation précise du process en aval. Le système complet de vidange big bag est implanté sur 4 pesons.
Unit capacity: 1 ton
Precision: ±150 grams
Inlet: 4-20 mA
Communication: profibus, ethernet, weighing history, traceability.



▶ LUMP BREAKER

Our lump breakers are the ideal solution for the crushing of materials that tend to form lumps.
Our lump breakers are the ideal solution for the crushing of materials that tend to form lumps.
The device permits to break the lumps that develop during the process of production or transport of friable materials in powder or grain. We offer 3 standard models of lump breakers (EC35, EC50, EC70) and 3 standard models of granulators (GR35, GR50, GR70). We also design customized solutions to suit all your requirements.



▶ BIG BAG COMPACTOR

The Palamatic big bag compactor reduces the volume of waste and keep a healthy atmosphere without dust.
Effective, with a compact design, the compactor is suitable for all types of bags (paper, PE, woven plastic ...), eliminating the majority of dust through the installation of a connection to the dedusting network, with the possibility of recovery of residual fine by specific tray.



▶ MANUAL/ELECTRIC/PNEUMATIC HOIST

The electric hoist allows the handling of big bags by all operators (job autonomy).

The pneumatic design allows implementations in ATEX zones.
Lifting capacity: 2 tons



▶ RUBBER SEAL

Optimization of containment during unloading of products.

The rubber seal optimizes containment by capping the bottom of the big bag and enables to channel the air flow of the dust collector.



▶ BIG BAG VIBRATING PLATE:

The big bag vibrating plate facilitates the extraction of the pour flowing products.

Motor: 0,1 Kw



▶ GLOVE BOX

The glove box optimizes containment and allows the handling of toxic products.

The gloves are installed on the door of the unlacing box and fitted on round PVC gloves. Spring clips ensure containment and closure. A neon implanted outside through a plexiglass facilitates the operations of opening the big bag.

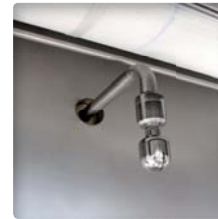
The glove box allows the user to manipulate the big bag without being in contact with different products that may be toxic. Indeed, the glove box will allow the user to undo the knot of the big bag to allow its discharge.



▶ VACUUM CABINET

The hood helps to increase the level of hygiene during the phase of disconnection of the big bag. We propose a hood system that operates on three sides of the station.

Suction rate: 1 500 m³/h.
Can be dismantled for internal cleaning.



▶ CIP

Nozzles / rotary cleaning heads for cleaning in place (CIP)

To ensure the change of products without cross contamination, washing nozzles are located in the big bag dump station.

Pressure of washing nozzles: 3 bars

Technology: 360° rotation

Centralized connection and connection to the network via clamp system



▶ CROSS FOR BRIDGE CRANE

This specific cross loads the big bag on the dump stations using a crane without immobilization.

A removable lifting ring and a centering system enable the operation with any type of crane.



▶ STATION CASING

This solution provides total containment of the station during emptying phase.

A door and/or sas provides sealing of the enclosure. This set must be connected to the dedusting network for setting global vacuum.



▶ CAGE FOR BIG BAG PREPARATION

The massage cage prepares the big bags before discharging phase.

Once in the cage, the big bag is massaged by several pairs of cylinders (up to 8 pairs / 16 cylinders depending on options). The pneumatic or hydraulic cylinders are used to break caking in the big bag for easy emptying. Several massage programs are available depending on the loading to ensure treatment of the entire volume of the big bag. The screened chamber allows safe operation of the system.



▶ AUTOMATIC RELEASE OF THE BIG BAG

Automatic hooks with latch spring simplify the implementation of the handle of the big bag.

Unit loading capacity: 500 kg

Service pressure: 6 bars

Force developed : 50 daN



VACUUMING THE BIG BAG

At the end of the discharge, the operator can, through the dust collector, vacuum the big bag and thus avoid the emission of dust in the production area.
The tight connection to the double envelope telescopic tube is the perfect combination to work in a healthy and dust-free atmosphere.



BIG BAG WITH SINGLE HANDLE

Emptying all types of big bags.
The discharge of big bags with one handle is possible thanks to the fifth point on the handling cross. A spike to burst "full bleed" big bags completes the device.



WEIGHING - DOSING

To control the amount of powder introduced into the process, the emptying station is scheduled to be installed on load cell.

Number of load cells: 4
Weighing accuracy: < 1 kg
Establishment: anti-shock + fly-off device
Inlet: 4-20 mA
Possible communication: profibus + RS 232 + Ethernet



Glue preparation



Nutrition - Peanuts



Paint



Cosmetic products



Chemical products



Pharmaceutical products



Activated carbon



Oils preparation



Discover our big bag emptying station on video on our YouTube channel:
www.youtube.com/user/Palamaticprocess

Duopal®: Big Bag & Sack Discharging

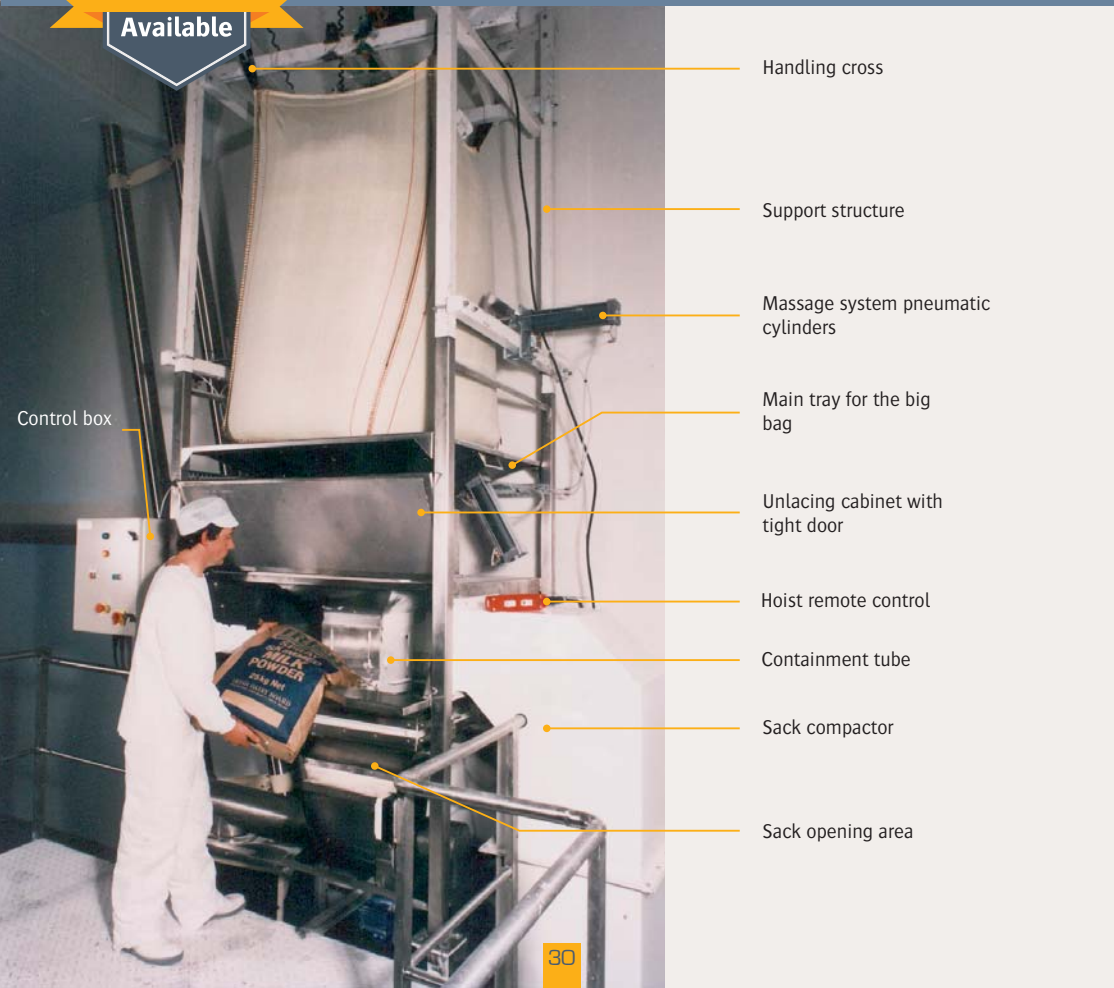
UNLOADING OF SACKS AND BIG BAGS ON THE SAME DISCHARGING POINT

Palamatic Process developed standard bulk bag unloading units to meet the needs of industries loading their process with big bags and sacks (25/50 kg) on the same discharging point.

This fibc emptying station allows deconditioning big bags and sacks ergonomically using an electric hoist, a forklift or a bridge crane and is available in «low structure» version.

EQUIPMENTS INTEGRATED ON STANDARD VERSIONS (EXCLUDING OPTIONS):

- **Self-supporting structure with adjustable height and centering device:** it allows the positioning of big bags on the discharging system. The height of the station is adjustable to fit to various heights of big bag with a centering device to secure the loading process
- **5 points handling cross:** to set the inner liner of the big bags and big bag with 1 handle
- **Main tray:** to maintain the big bag and sack when emptying and secures handling operations
- **Rubber seal:** to optimize containment by capping the bottom of the big bag
- **Vibrating motor:** to ensure the vibration of the main tray to help the extraction of the powder
- **Unlacing cabinet with dust-proof door:** to provide a secure and ergonomic access to the spout of the big bag
- **Anti-overflow tube:** to channel the flow of product into the unlacing box and facilitates the handling for the operator
- **Protection screen:** to ensure the feeding of powder without foreign body (mesh size 50 x 50 mm)



- Handling cross
- Support structure
- Massage system pneumatic cylinders
- Main tray for the big bag
- Unlacing cabinet with tight door
- Hoist remote control
- Containment tube
- Sack compactor
- Sack opening area



▶ **Connecting tube**
(depending on version): This tube offers a contained connection between the big bag and discharging station. The pneumatic cylinder allows the operator to adjust the height of connection to adapt to different types of big bags



▶ **Dust proof tube:** It allows containment at the opening of the spout of the big bag and thus offers more ergonomics and safety to the operators when opening sacks



▶ **Tray for massage:** The bulk material flow is optimized thanks to a pneumatic massage system. Pneumatic actuators implanted on the lower part of the structure break the domes and eliminate caking (2, 4 or 6 actuators depending on the type of powder).



▶ **Cardboard boxes deconditioning:** The opening of the dump station allows the deconditioning of different types of containers, bags, boxes... From an ergonomic point of view, the tablet allows to put down the cardboard and empty it effortlessly

Advantages



Possible ways of loading:



Electric hoist

Forklift

Low structure

Options

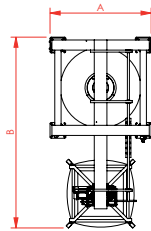
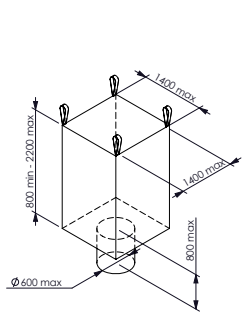
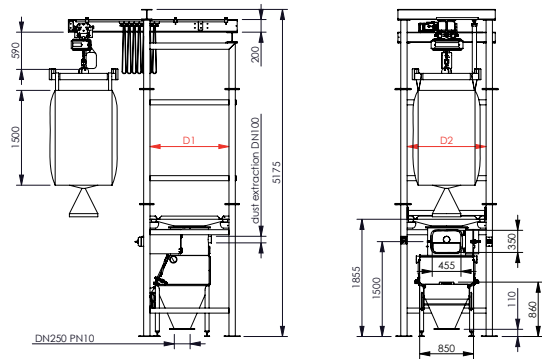


Commercial weighing and dosing



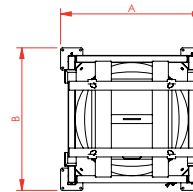
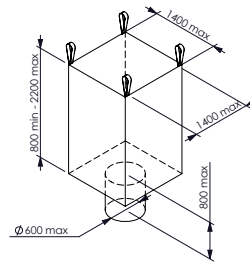
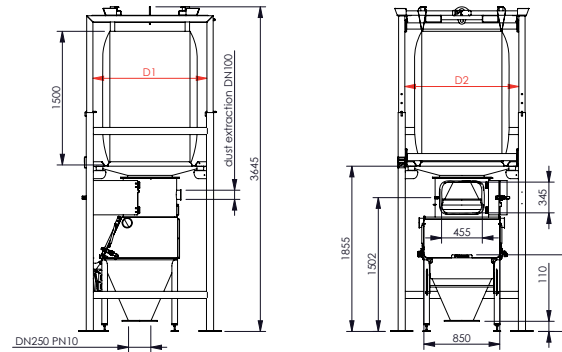
Slide bars

Electric Hoist Loading



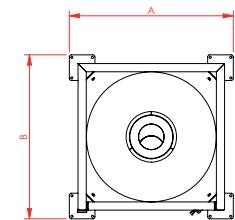
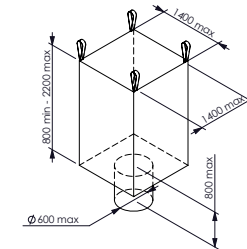
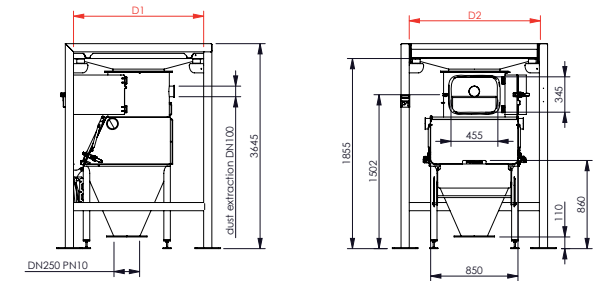
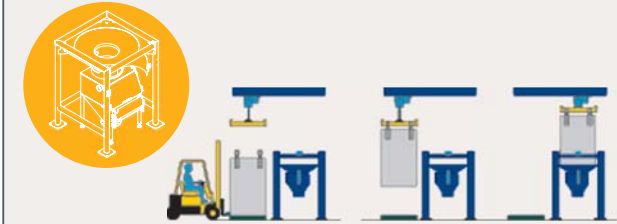
Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1250	1250	1600	3100
VBB150P	2200	1400	1500	1500	1890	3350

Forklift Loading



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1280	1280	1600	1600
VBB150P	2200	1400	1500	1500	1850	1850

Low Structure Loading



Ref	max big bag height	max big bag width	D1	D2	A	B
VBB125P	2200	1150	1280	1280	1600	1600
VBB150P	2200	1400	1500	1500	1850	1850

Octabin Unloading

Gravity

For octabins with inferior emptying flap

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 20 octabins/h.

Material construction: painted steel, inox 304L, inox 316L

Finishes: RAL 9006, microblasted, electropolishing

Installed power: 0.1 kW (according to options)

Operation pressure: 6 bars

Required dust collecting flow rate: 300 m³/h.*

*can vary according to the treated product

Ergonomic access height for unlacing (height of the sight): 1,550 mm



By suction pipe

For all types of octabins

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 15 octabins/h.

Material construction: painted steel, inox 304L, inox 316L

Finishes: RAL 9006, microblasted, electropolishing

This system is destined to be coupled with our range of powder pumps from VFlow[®], that you can find more information in our booklet Pneumatic Conveying system.



Octabin Unloading

Octabin tilting system

Goal: for octabins with lateral emptying flap

TECHNICAL SPECIFICATIONS

Flow rate: 10 - 20 octabins/h.

Material construction: painted steel, inox 304L, inox 316L

Finishes: RAL 9006, microblasted, electropolishing

Installed power: 0.1 kW (according to options)

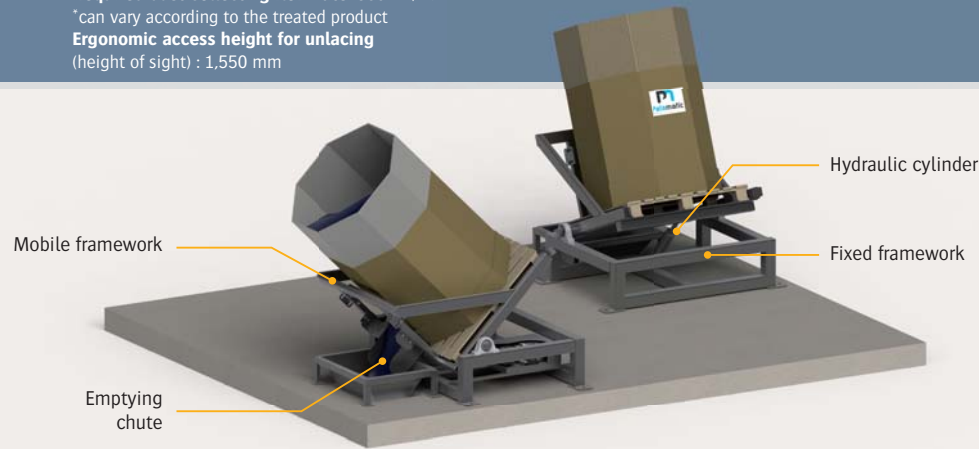
Operation pressure: 6 bars

Required dust collecting flow rate: 300 m³/h.*

*can vary according to the treated product

Ergonomic access height for unlacing

(height of sight) : 1.550 mm



Octabin dumper system

Goal: for all types of octabins

TECHNICAL SPECIFICATIONS

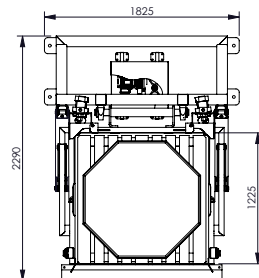
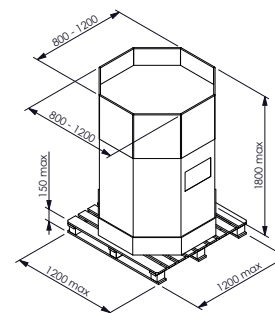
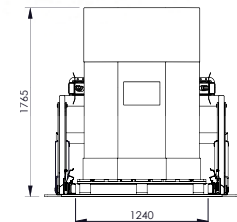
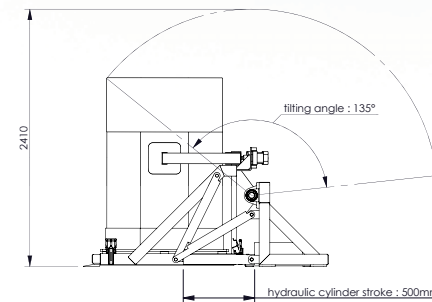
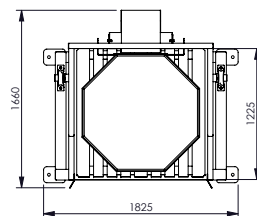
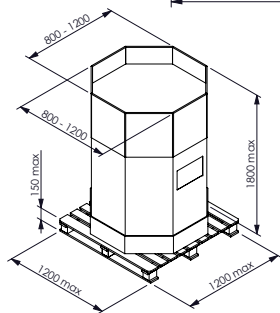
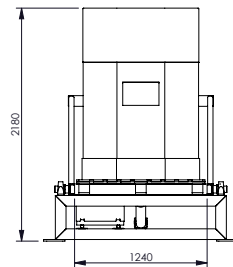
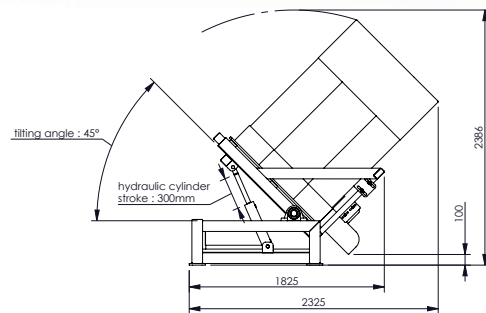
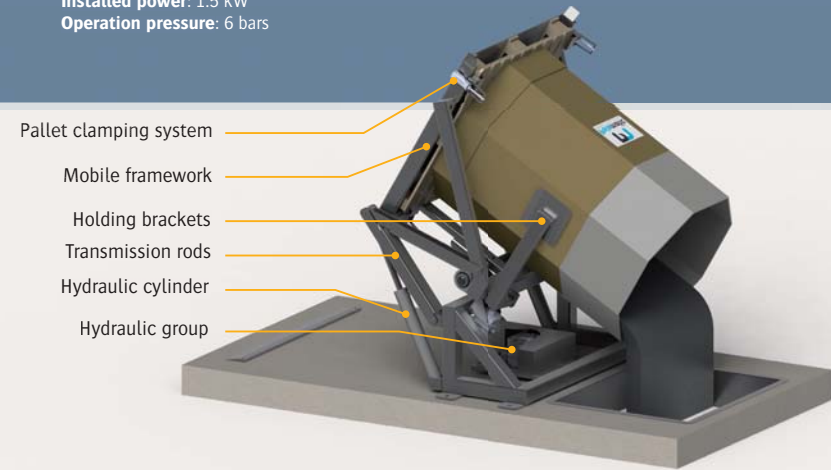
Flow rate: 30 - 50 octabins/h.

Material construction: painted steel, inox 304L, inox 316L

Finishes: RAL 9006, microblasted, electropolishing

Installed power: 1.5 kW

Operation pressure: 6 bars



Octabin Unloading



Octabin inverting system

THE SOLUTION FOR EMPTYING YOUR OCTABINS FROM ANY FEEDING POINT

This emptying station permits to transfer temporarily the content of your octabins into a receiving hopper. These hoppers with wheels can be manipulated by a user or by a forklift to be emptied onto your various feeding points. Clamping hopper and palet systems, octabin holding arms and crown gear with high strength bearing enable to invert octabins safely.

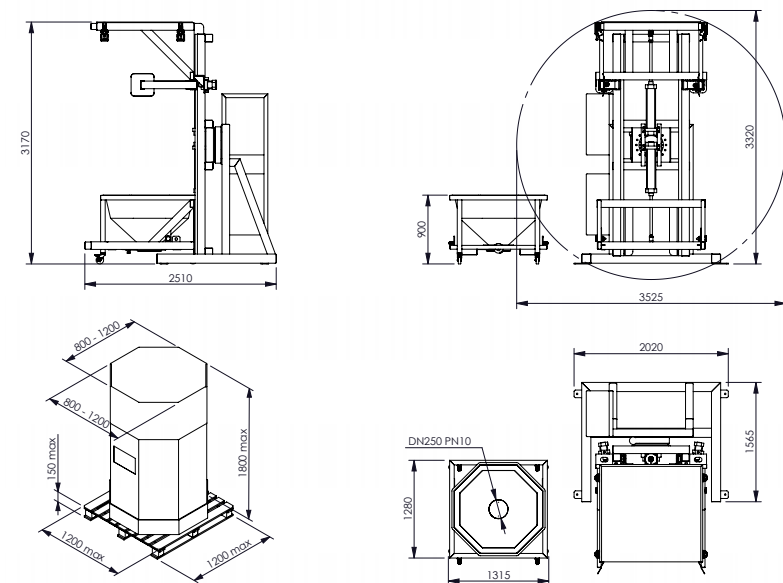
TECHNICAL SPECIFICATIONS

Flow rate: 20 - 30 octabins/h.
Material construction: painted steel, inox 304L, inox 316L
Finishes: RAL 9006, microblasted, electropolishing
Installed power: 1.5 kW
Average power consumption: 0.8 kW
Air consumption: 5.2 Nm³/h.
Operation pressure: 6 bars
Inlet TOR: 3
Outlet TOR: 7
Maximum dimension of octabins
Length x Width x Height: 1,200 x 1,200 x 1,800 mm / others dimensions on custom-made

OPERATING METHOD

AVERAGE DURATION OF A COMPLETE CYCLE: 4 MIN.

1. Manual setting up of the empty hopper with wheels
2. Hopper clamping, lifting and inverting system
3. Octabin positioning on its pallet through a pallet truck or forklift
4. Pallet clamping by 4 jaws and octabin maintain by 2 side holding brackets
5. Docking the hopper which fits over the octabin, then turning the whole
6. Octabin liberation returned on the hopper (the pallet stays in the air)
7. Hopper extraction carrying the octabin, by a user or forklift l'octabin
8. Manual setting up of new empty hopper with wheels
9. Empty hopper clamping, lifting and inverting
10. Lowering and releasing the empty pallet
11. Removing the empty pallet, then positioning a new octabin



ACHIEVEMENT EXAMPLES

Conditionned products



Chemicals - Resins



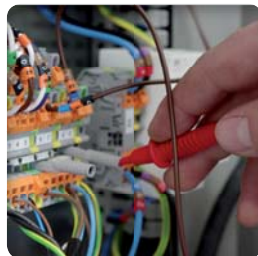
Food - Sugar



Control of a urea skid



Control cabinet



Wiring



Pharmaceutical products



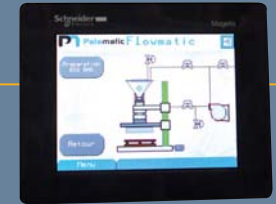
Industrial plaster



Discover your emptying big bag stations video on our YouTube channel: www.youtube.com/user/Palamaticprocess

500
+ **500** installations
of emptying big bag stations in
FRANCE and **ABROAD**

AUTOMATION & ELECTRICITY



PAL'TOUCH® TECHNOLOGY

As designer of specific equipment, Palamatic Process associates to its production units some automats ergonomically and visually programmed. The production following is as important as the result. This is why our automatician and informatic engineers integrate fool-proofing in raw material inputs, lot traceability, operator identification and dosing reliability. The production line steering screens provides ergonomics and comfort with continuous dialogue during the project execution phase between your production team and our design office.

Equipments and programs treated: Schneider, Siemens, Rockwell, Omron, Philips, Intouch, Pc Vue, VijeoDesigner, ...



Big Bag massage cage

Goals: to prepare and break product solidification before deconditioning

The massage cage prepares big bags before the emptying process. Once the big bag is inside the cage, it is massaged by several pair of cylinders (until 8 pairs/16 cylinders depending on options). Pneumatic or hydraulic cylinders aid to break the product solidification into the big bag and facilitate its emptying process. Several massage programs are available according to the loading in order to ensure the treatment of the entire big bag volume. The protection screen enables a safety functioning of the installation.

TECHNICAL SPECIFICATIONS

Construction material: painted/galvanized steel, inox 304L, inox 316L

Finishes: RAL 9006, microbillé, électropolissage

Compressed air consumption: 1.2 Nm³/h.

Service pressure: 6 bars

Input TOR: 16

Output TOR: 6

Gestion des courses de vérin par capteur laser pour assurer le non déchirement de la toile du big bag

Maximum dimensions of big bags

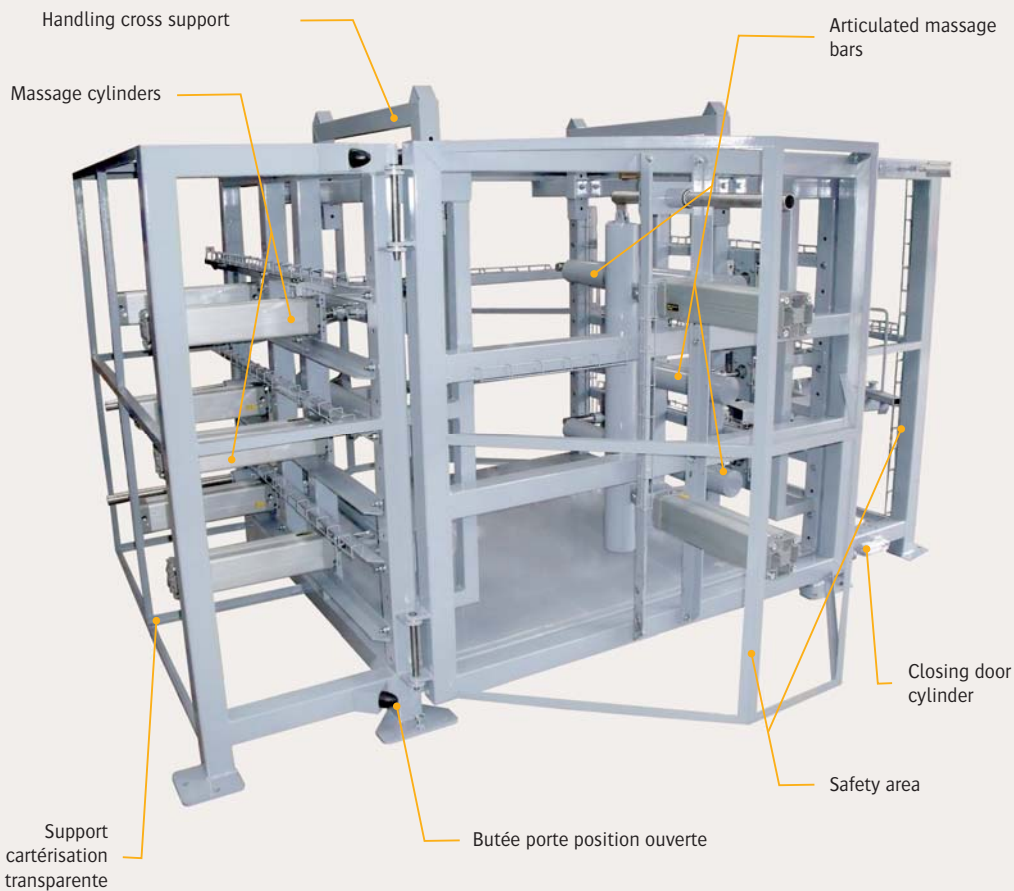
Length x Width x Height: 1,300 x 1,300 x 2,000 mm

Action inside the big bag with a force distribution on each big bag sides

OPERATING METHOD

AVERAGE TIME FOR A COMPLETE CYCLE: 5 MIN

1. Big bag fixation to the handling cross
2. Cross handling with forklift or hoist
3. Big bag installation into the cage and door closing
4. Massage cycle starting by elevating the big bag (with hoist or elevator table)
5. End of the cycle and door opening
6. Big bag evacuation big bag with forklift or hoist



Streamlined push-buttons and control of dynamics raises to avoid break big bag linen



Cross for loading liftfork or elevator

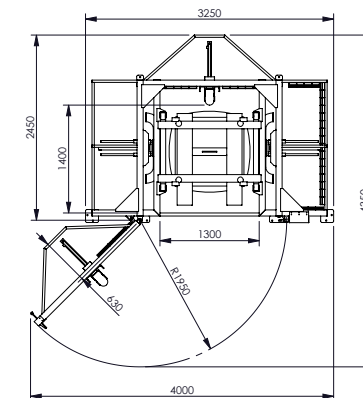
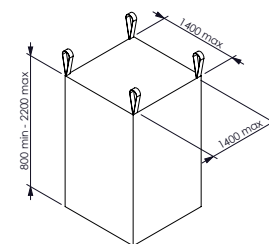
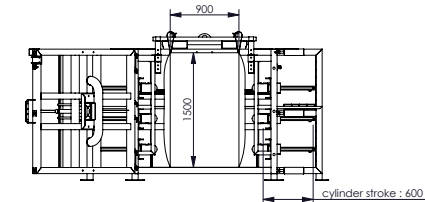
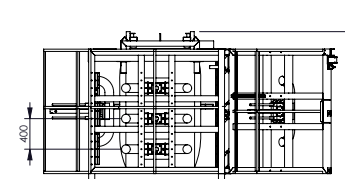


Adjustable height by rod



Overview of big bag massage with 4 sides

Advantages



Safety area to protect cylinders



Cylinders articulation for a better action

Options

Loading by hoist or liftfork, elevator table, door automation, hydraulic massage.

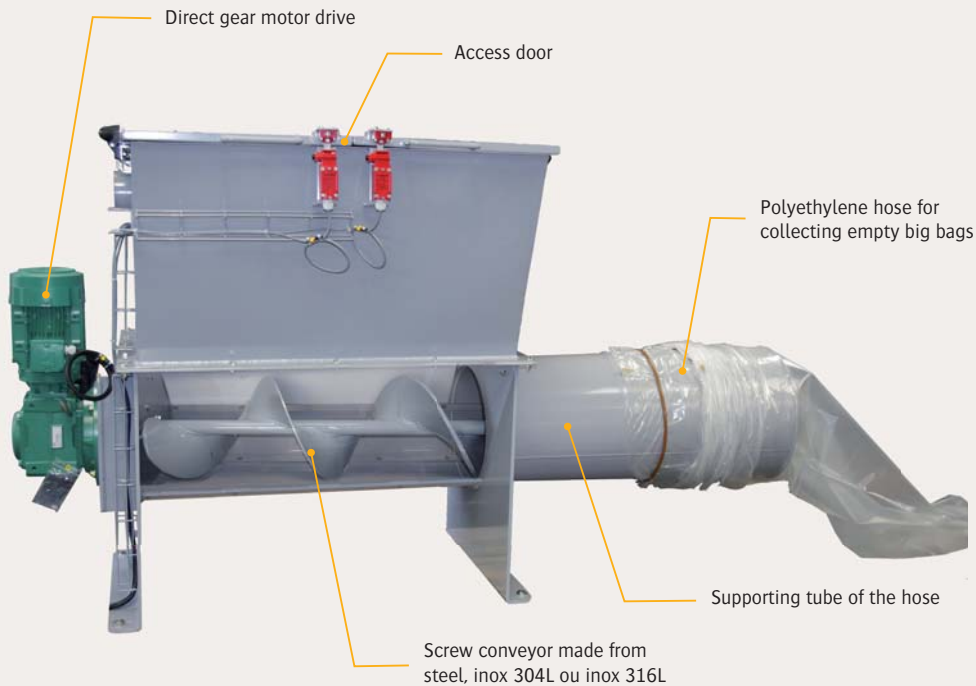
See all our options on page 24

Empty Big Bag compactor

Goals: containment
& empty big bag control

TO REDUCE WASTE VOLUME AND KEEP A HEALTHY ATMOSPHERE WITHOUT DUST

With effective and compact design, the compactors enable to collect and press all types of bags (paper, PE, woven plastic...) and thus to remove the majority of dust through the installation of a connection to the dedusting network with the possibility of recovery of residual fine by specific tray. A polyethylene cover positioned at the end of the compacting tube allows to collect empty big bags while minimizing their volume.



▶ Compacting spire



▶ Handling castors for mobility equipment (optional)

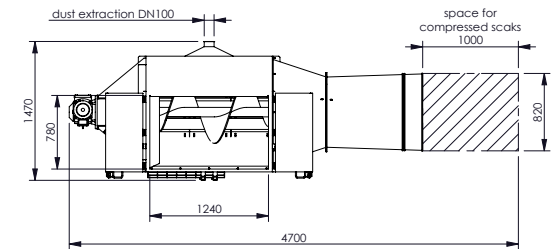
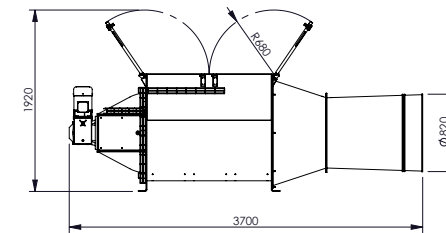
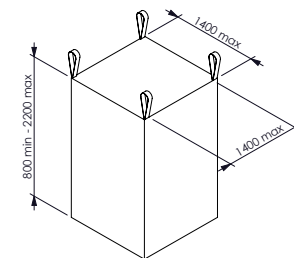
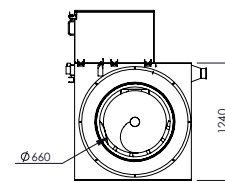


▶ Containment sack 100 % hermetic, clean working environment, possibility to recover fines residual by specific tray



▶ Ergonomic access door for the operator

Advantages



Our expertise:

FILLING SOLUTIONS FOR BIG BAG AND OCTABIN

To fill

EMPTYING SOLUTIONS FOR BIG BAG AND OCTABIN

To empty, compact and massage

SACK SOLUTIONS

To empty, compact, handle, fill

CARDBOARD AND DRUM SOLUTIONS

To fill, condition, empty

PNEUMATIC TRANSFER EQUIPMENT

Vacuum, pressure

MECHANICAL TRANSFER EQUIPMENT

To transfer with screw, belt conveyor, bucket elevator, aeromecanic or vibratory conveyor

CRUMBLING AND GRINDING EQUIPMENT

To granulate, crumble, grind, pound, micronise, disagglomerate

SIFTING EQUIPMENT

To sift, segregate, sieve, protect

CONTAINERS AND STORAGE SOLUTIONS

To fill, charge, empty, contain

DOSING EQUIPMENT

To control, regulate, empty, extract

MIXING EQUIPMENT

To homogenise, incorporate, fluidify, stir, mix

FLOW AND CONNECTION

To vibrate, fluidise, unclog, drain, facilitate extraction, control the descent, prevent stacks and vaults, connect

INDUSTRIAL DUST COLLECTING EQUIPMENT

To filter, clean, confine, secure



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SAS au capital de 331 822 euros • R.C.S. Rennes B 384 894 093 • APE 4669B • N° T.V.A. : FR 14 384 894 093