SOLUTIONS for
Big Bag & Octabin

- EMPTYING
- COMPACTING
- MASSAGING
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

PALAMATIC PROCESS reserves the right to make changes in the design of the facilities listed in this commercial documentation.

**RANGE OF BIG BAG DISCHARGE STATIONS**

**EASYFLOW®**

**STANDARD**
- Hoist loading
- Forklift loading
- Low structure

**DUST CONTROL MODEL**
- Docking system
- Glove box

**HIGH FLOW RATE**
- Customized Big Bag Discharge Station

**BIG BAG DISCHARGE STATION OPTIONS**

**EASYFLOW® & DUOPAL®**

**BIG BAG DISCHARGE STATION EASYFLOW® FLEX**

**BIG BAG & SACK DISCHARGE STATION DUOPAL®**

**RANGE OF OCTABIN UNLOADERS**
- Discharge system by gravity
- Suction pipe
- Tilting system
- Tipping system
- Turning system

**AUTOMATION & ELECTRICITY**

**BIG BAG MASSAGE SYSTEM**

**BIG BAG COMPACTOR**

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Big Bag Discharge Station

**Hoist loading**

*BBD standard model loading by hoist*

- **Narrow width of big bag:** 1.250 & 1.500 mm
- **Rate:** 10 to 30 big bags/hr.
- **Weight capacity:** 2 tons/big bag

**Objectives**

- Flexibility for big bags handling and containment

---

**EasyFlow® Standard**

**TECHNICAL SPECIFICATIONS**

- **Flow rate:** 10 to 30 big bags/hr.
- **Weight capacity:** 2 tons

**Structure framework manufacturing:** mild steel, 304L stainless steel, 316L stainless steel

**Manufacturing of parts in contact with the product:** steel, 304L stainless steel, 316L stainless steel

**Installed power:** 0.1 kW vibration, 1.50 kW @ 0.75 kW hoist

**Required flow rate for dust extraction:** 800 m³/hr

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

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**Advantages**

- **Pulsed vibration:** if the material achieves a steady flood feed state at its outlet, an electromechanical (or pneumatic) vibrator mounted to the hopper provides additional flow inducement

---

**Options**

- **AVAILABLE**
- **CUSTOM MADE**

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**See all our options on pages 24-28**

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**Download videos & layouts from our website**
This big bag discharge 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.

### Bag hanger with 5 points: to set the big bags inner liner. A central 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.

### 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.

### Pulsed vibration: if the material requires further inducement to achieve a steady flood feed state at its outlet, an electromechanical or pneumatic vibrator mounted to the hopper provides additional flow inducement.

### Frame adjustment of the station: height adjustment by a manual system of rods. Thus, big bags with any dimensions are admissible on the station.

### Rubber seal: to optimize the containment during the emptying phase (optional).

### Flow rate: 10 to 30 big bags/hr.

### Weight capacity: 2 tons

### Structural framework manufacturing: mild steel, 304L stainless steel, 316L stainless steel

### Manufacturing of parts in contact with the material: steel, 304L stainless steel, 316L stainless steel

### Installed power: 0.1 kW

### Required flow rate for dust extraction: 800 m³/hr. *(may vary according to the treated product)*

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

---

**Available**

**Test Center**

**Equipment**

**EasyFlow® Standard**

### Technical Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>Max. Big Bag Height</th>
<th>Max. Big Bag Width</th>
<th>D1</th>
<th>D2</th>
<th>A</th>
<th>Weight</th>
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<tr>
<td>VBB125C</td>
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</tbody>
</table>

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**See all our options on pages 24-28**

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www.spectralprocess.com/powder-solutions/big-bag-discharging-system

Download videos & layouts from our website.
This big bag emptying station enables to unload big bags ergonomically. The big bag can be loaded on the discharge station by using a forklift, an overhead crane... The bulk bag is attached to a bag hanger for raising and positioning the bag into the bag unloader support frame and secured big bag handling operations.

Equipment integrated on standard versions (excluding options):

1. Big bag implementation is ensured by your own handling systems (forklift, overhead crane, jib crane...) and by using the big bag handling cross
2. Bag hanger with 5 points allows to set the big bag inner liner. A central hook can be implemented to handle big bag with single handle
3. Main tray ensures the holding of the big bag during the emptying process and secures 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 ensures 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 ensures powder feeding without foreign body (mesh size 50 x 50 mm)

Flow rate: 10 to 30 big bags/hr.
Weight capacity: 2 tons
Structural framework manufacturing: mild steel, 304L stainless steel, 316L stainless steel
Manufacturing of parts in contact with the material: steel, 304L stainless steel, 316L stainless steel
Installed power: 0.1 kW
Required flow rate for dust extraction: 800 m³/hr.

Objectives:
- Ergonomics & saving

Specifications:

- Flow rate: 10 to 30 big bags/hr.
- Weight capacity: 2 tons
- Structural framework manufacturing: mild steel, 304L stainless steel, 316L stainless steel
- Manufacturing of parts in contact with the material: steel, 304L stainless steel, 316L stainless steel
- Installed power: 0.1 kW
- Required flow rate for dust extraction: 800 m³/hr.

For more information, see all our options on pages 24-28.
Big Bag Discharge Station

Docking system

BBD dust control model with docking system

Rate: 10 to 20 big bags/hr.
Weight capacity: 2 tons/big bag
Objectives: total dust control & flexibility of handling big bags

This FIBC unloader ensures the total containment during the big bag discharging step and maintains the big bag spout tension to permit easy flow while providing an ergonomic working station for the operator. Three versions are available: electric hoist, forklift loading or low structure.

BBD dust control model with docking system

Rate:

Weight capacity:

Objectives:

Total dust control & flexibility of handling big bags

EasyFlow® Dust control

TECHNICAL SPECIFICATIONS

Flow rate: 10 to 20 big bags/hr.
Weight capacity: 2 tons
Structural framework manufacturing: mild steel, 304L stainless steel, 316L stainless steel
Manufacturing of parts in contact with the product: steel, 304L stainless steel, 316L stainless steel
Required rate for dust extraction: 150 m³/hr.*
*May vary according to the material
Ergonomical access to the big bag: 1.600 - 1.200 mm

OPERATING SEQUENCE

IMPLEMENATION

1. Height adjustment of the connecting tube
2. Positioning the big bag spout into the double envelope tube
3. Set the big bag spout
4. Open the big bag unloading spout
5. 100% containment of the material flow

Advantages

2 possible configurations for connecting the big bag spout:
1. The inflatable seal is fitted on the double envelope tube with a re-orientation 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

Possible loading methods:

EasyFlow® Dust Control Model

Options

Extractor fan
Control valve

See all our options on pages 24-28

Available

Equipment

TEST CENTER

Download videos & layouts from our website

www.exact-docking-system.com
### Electric Hoist Loading

![Diagram of Electric Hoist Loading]

### Forklift Loading

![Diagram of Forklift Loading]

### Low Structure

![Diagram of Low Structure]

### Dust Control Model

<table>
<thead>
<tr>
<th>Model</th>
<th>Max. big bag height in mm.</th>
<th>Max. big bag width in mm.</th>
<th>D1</th>
<th>D2</th>
<th>A</th>
<th>B</th>
<th>Weight in kg</th>
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<th>Max. big bag width in mm.</th>
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<th>D2</th>
<th>A</th>
<th>B</th>
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</tr>
</tbody>
</table>

### Docking System

Download videos & layouts from our website:
www.palamaticprocess.com
Big Bag Discharge Station

Objectives:
- Total containment & safety for operators
- Containment and operator protection: the glove box with a dust-proof door provides a secure and ergonomic access to the big bag spout. This respect of the sight height allows the operator to manipulate the big bag without being in contact with potential toxic materials.
- Flow control (optional): the pneumatic valve enables the operator to stop very flowing materials or to control the flow. This pneumatic valve strangles the big bag spout.
- Connection to the dedusting unit (optional): the dedusting ring is mounted on the receiver plate and minimizes dust emission. It is composed of 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:
- 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, crash severely agglomerated lump into smaller chunks (2, 4 or 6 actuators depending on the type of powder).
- Ergonomic height for access to the big bag - 1550 mm.

Possible loading methods:
- Electric hoist
- Forklift
- Low structure

Options

Big bag compactor
Lump breaker

See all our options on pages 24-28
Big Bag Discharge Station

Dust control model

Flow rate: 20 to 40 big bags/h.
Weight capacity: 2 tons/big bag
Objectives: automatic cutting, containment and safety

This FIBC discharger enables the automatic unloading of big bags without operator’s intervention. The phases of cutting, handling and evacuating of the big bags are autonomous. The only task ensured by the operator is the fixation of big bag on the bag hanger.

EasyFlow® High flow rate

TECHNICAL SPECIFICATIONS

Rate: 20 to 40 big bags/hr.
Manufacturing: mild steel, SS304L, SS316L
Finishes: RAL 9006, microblasted, electropolishing
Installed power: 3 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/hr.
*May vary according to the treated material.*

Maximum big bag dimensions
Length x Width x Height: 1,200 x 1,200 x 2,400 mm

Custom made models are also available.

OPERATING SEQUENCE

1. Big bag connection and setting up by the operator
2. Big bag shifting inside the discharge station (autopilot hoist)
3. Automatic cutting and discharging of the big bag (automatic version)
4. FIBC massaging (depending on option) and product crushing
5. Automatic big bag release
6. Empty big bag compaction
7. Automatic control of the big bag accumulation that must be emptied and automatic pallet stacker

Advantages

- Improvement of bulk material flow: pneumatic cylinders to optimize the bulk material flow
- Automatic big bag compactor: it permits to collect and compress all types of bags (paper, PE, woven plastic...) in an effective way and thus to remove the majority of dust.
- Integrated big bag compactor: it permits to collect and compress all types of bags (paper, PE, woven plastic...) in an effective way and thus to remove the majority of dust.
- Automatic cutting of the bags: diamond «U» shaped spike 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 foreign bodies.
- Automatic big bag cutting system
- Automatic loading: the steering of the hoist is controlled via the button box and weighing hook.
- Connection to dedusting unit
- Massaging cylinders
- Electric hoist (autopilot)
**Big Bag Discharge station**

**Dust control model**

**Rate:** 20 to 40 big bags/hr.

**Weight capacity:** 2 tons/big bag

**Objectives:** automatic cutting, containment and safety

---

**Options**

- **Pouyès ring:** optimizes containment by creating a suction flow at 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 the capture of the dust such as 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 are formed during the process of production or transportation of friable materials in powder or in grain. We offer 3 standard models of granulators (GR35, GR50, GR70) and 3 standard models of lump breakers (EC15, EC50, EC70). We also design customized solutions to suit all your requirements.

See all our options on pages 24-28.
Big Bag Discharge Station

Mild steel, 304L stainless steel and 316L stainless steel structural framework manufacturing

UNLOADING, ENSURING THE FLOW AND CONTAIN

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

Customized model

POSSIBLE FEATURES

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

AVAILABLE CUSTOM MADE


Download videos & layouts from our website

EasyFlow® Customized Model
**BAG HANGER**

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

**DUST-PROOF TELESCOPIC TUBE**

To ensure a dust proof connection between the big bag and the discharge 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 for the operator.

**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> SHAPE SPIKE TO BURST THE BIG BAG**

A blade assembly pierces the center of unspouted bags to allow the material discharge without any direct action from the operator. It is especially used when using big bag with a spout in V-shaped spike.
Once the big bag is placed on the unloading station, the operator takes the big bag down thanks to a hoist and puts it down on the main tray. The force applied by the weight of the material on the blades allows a direct cut of the bottom of the big bag. In case of very difficult materials, PALAMATIC PROCESS can also offer motorized rotating systems.

**<V> SHAPE 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.
The V shaped knife model consists of a robust frame and discharge dish with a knife to pierce the base of the bag. Our knife discharger can empty single trip bulk bags, which have no bottom spout, without waste or spillage, even those containing poor flowing products.

**PNEUMATIC OR HYDRAULIC MASSAGE**

The bulk material flow is optimized thanks to a pneumatic massage system. Each ram is actuated by a hydraulic or pneumatic cylinder that provides the force to effectively crush severely agglomerated lumps into smaller chunks that pass through the discharge spout of the bag (1, 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 automation and/or operator of the material amount extracted.
Downweighing of the big bag station for precise feeding of downstream process. The complete system operates on four load cells.
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.
The device permits to break the lumps formed during the process of production or transport of friable materials in powder or grain. We offer 3 standard models of lump breakers (EC15, EC50, EC70) and 3 standard models of granulators (GD15, GD50, GP70). We also design customized solutions to suit all your requirements.

**BIG BAG COMPACTOR**

The PALAMATIC PROCESS 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 fines by specific tray.
The electric hoist allows the handling of big bags by all operators (autonomy of the workstation).

Lifting capacity: 2 tons

Provide dust containment performance during the material unloading. As the bulk bag is lowered into the hopper it passes through and seals with a rubber membrane that seals with the sides of the bulk bag. When the bag is fully seated in the hopper the membrane creates a sealed enclosure within the hopper. The dust containment is optimized.

The pulsed vibration facilitates the extraction of poor flowing material.

Glove box for untying bags containing hazardous material, preventing operator from exposure to material. 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.

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

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

To ensure the product changeover without cross contamination, washing nozzles are located in the big bag dump station. A removable lifting ring and a centering system enable the operation with any type of crane.

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

The massage cage prepares the big bag before the discharging phase. 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 hooks with latch spring simplify the implementation of the handle of the big bag.

Unit loading capacity: 500 kg
Service pressure: 6 bar
Force developed: 50 tN
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 zone. The tight connection to the double envelope telescopic tube is the perfect combination to work in a healthy and dust-free atmosphere.

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 bag completes the device.

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
- Implantation: anti-shock + fly-off device
- Inlet: 4-20 mA
- Possible communication: proﬁbus + RS 232 + Ethernet

Discover our big bag discharge station in video on our YouTube channel:
www.youtube.com/user/Palamaticprocess
Big Bag Discharge Station

Multi-products big bag vacuum discharge

PARTIAL EMPTYING, MULTI-PRODUCT AND INTEGRATED WEIGHING

The big bag discharge station EasyFlow® Flex was designed by PALAMATIC PROCESS for accurate emptying through a suction system a required amount of product (via a weighing device). The possibility to discharge a semi-started big bag is the main objective of this machine. With the EasyFlow® Flex system, a single station is sufficient to ensure a multi-products discharge. It is a combination of a VFlow® pneumatic vacuum system and a big bag discharge station. This station allows automatic emptying without operator’s intervention. Big bags are positioned using a simple pallet truck or forklift.

OPERATING MODE

1. The big bag is placed on the station with a truck. The operator connects the spout of the big bag
2. The telescopic suction pipe is connected to the vacuum conveyor and dips into the big bag
3. A big bag massaging device, connected to a ventilation system, allows the recentering of the material to ensure a complete emptying of the big bag
4. The big bag lifting device allows to achieve two objectives: 1) To ensure the weighing without interference ; 2) To optimize the product flow
5. Reclosing of the empty or semi-empty big bag

SKETCH

TECHNICAL SPECIFICATIONS

Capacity: 50 kg to 2 t/h.
Main structure manufacturing: mild steel, SS304L, SS316L
Manufacturing of parts in contact with the product: mild steel, SS304L, SS316L
Dosing accuracy: 50 g, may vary according to the material treated

Advantages

- Tight connection of the big bag: no dust, no foreign bodies and limits the ATEX zoning
- Fan for big bag shaping to help the suction of material at the bottom of the big bag
- Weight cells for management of material vacuum
- Connection to the vacuum conveying system VFlow®: 50 kg to 2 t/h.

www.palamaticprocess.com/big-bag-discharging-system/easy-flow-flex
Download videos & layouts from our website
**DOSING MATERIALS FOR EXTRUSION FEEDING**

**Customer:** Manufacturing company of electric high-tech batteries  
**Product:** Powders and granules (polymers)

**Installation details:**
The pneumatic conveying system sucks up the powder from a 200 l. drum or a big bag through an automated suction pipe. The maximum throughput of the installation is 100 kg/h.

The station consists of a supporting system adjustable in width to facilitate the setting up of the big bag. The big bag is supported on the station by means of quick hooks. The big bag filling spout is connected to an inflatable seal to ensure tightness of the assembly. A flexible cuff allows a tight compensation of the ascent/descent of the pipe. The cuff is fixed by clamp, easily removable for cleaning. The fork support system is motorized, allowing the constant tension of the big bag throughout its drain.

The aim is to bring the powder towards the center of the big bag, where the suction pipe plunges. The big bag never rests on the ground during the discharge phase. The suction pipe is also mounted on a motorized translation post. The descent of the pipe can be driven continuously (single application) or controlled by the level sensor fixed at the end of the pipe for detecting the «lack of product.»

The adjustment of the conveying by means of the suction pipe is provided by the air intake valve and by the addition of compressed air directly into the tube. The adjustment of the dilution is an essential parameter for the efficiency of the conveying process.

The big bag inflating fan ensures a constant shaping of the big bag to facilitate its complete draining (no creases). The fan system is preferred to air by inflation because of its speed and a much lower energy balance.

Massage cylinders complete the installation to ensure a constant supply of the suction pipe. The product is regularly brought towards the center of the big bag under the action of massage plates.

The entire big bag emptying station EasyFlow® Flex is equipped with a screened enclosure securing the installation and preventing access (guard locking) to the station during operation.

**Screened Area**
Operator protection zone  
It does not permit the operator to access to the work area during a big bag emptying phase. The operator can make a request via the control unit and thus allow the opening of the door, preventing any movement of the big bag emptying station.

**Big Bag Massage System**
Helps the material to flow towards the center of the big bag  
Pneumatic cylinders avoid caking of the powder.

**Hygienic System**
The guarantee of a «clean» product  
To prevent cross contamination and allow discharge of multiple products on the same station, the suction pipe and the connection head are removable. Several sets are supplied.

**Mobile Station**
Moving of the whole station

**Management of the Height of the Big Bag**
Motorized support system  
The big bag is tightened progressively during the draining to recenter the material towards the middle of the big bag, thus limiting material residue inside the big bag.
Duopal®: Big Bag & Sack Discharge Station

UNLOADING OF SACKS AND BIG BAGS ON THE SAME DISCHARGING POINT

PALAMATIC PROCESS designed standard bulk bag unloaders to meet the needs of industries loading their process with big bags and sacks (25/50 kg) on the same discharging point.

This FIBC discharge station allows the ergonomical deconditioning big bags and sacks using an electric hoist, a forklift or a bridge crane and is available in «low structure» version.

Main tray for the big bag

Support frame

Bag hanger

Control box

Massage system pneumatic cylinders

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

Support frame with adjustable height and centering device: it allows the positioning of the big bag 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 bag and for big bag with single 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 facilitate the handling for the operator.

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

Possible ways of loading:

- Electric hoist
- Forklift
- Low structure

See all our options on pages 24-28.


Download videos & layouts from our website.
### Models

<table>
<thead>
<tr>
<th>Models</th>
<th>Max. big bag height in mm</th>
<th>Max. big bag width in mm</th>
<th>D1</th>
<th>D2</th>
<th>A</th>
<th>B</th>
<th>Weight in kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP125P</td>
<td>2,200</td>
<td>1,150</td>
<td>1,250</td>
<td>1,250</td>
<td>1,650</td>
<td>1,500</td>
<td>1,150</td>
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<tr>
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<td>2,200</td>
<td>1,400</td>
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<td>1,500</td>
<td>1,850</td>
<td>1,850</td>
<td>1,150</td>
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<tr>
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<td>2,200</td>
<td>1,150</td>
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<td>1,650</td>
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<td>750</td>
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<td>1,500</td>
<td>1,500</td>
<td>1,850</td>
<td>1,850</td>
<td>1,110</td>
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<tr>
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<td>2,200</td>
<td>1,150</td>
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<td>1,600</td>
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<td>1,500</td>
<td>1,850</td>
<td>1,850</td>
<td>930</td>
</tr>
</tbody>
</table>

**Electric Hoist Loading**

- Weight: 1,350 kg
- Dimensions:
  - Height: 2,200 mm
  - Width: 1,150 mm
  - Depth: 1,250 mm

**Forklift Loading**

- Weight: 1,350 kg
- Dimensions:
  - Height: 2,200 mm
  - Width: 1,150 mm
  - Depth: 1,250 mm

**Low Structure**

- Weight: 670 kg
- Dimensions:
  - Height: 2,200 mm
  - Width: 1,150 mm
  - Depth: 1,280 mm

Download layouts from [www.palamaticprocess.com](http://www.palamaticprocess.com)
Octabin Unloader

Discharge system by gravity
For octabins with lower trapdoor

**TECHNICAL SPECIFICATIONS**
- Flow rate: 10 to 20 octabins/hr
- Manufacturing: mild steel, 304L stainless steel, 316L stainless steel
- Finishes: RAL 9006, microblasted, electropolishing
- Installed power: 0.1 kW (according to options)
- Operation pressure: 6 bar
- Required dust collecting flow rate: 300 m³/hr
- "may vary according to the treated material
- Ergonomic access height for unlacing (height of sight): 1,550 mm

---

By suction pipe
For all types of octabins

**TECHNICAL SPECIFICATIONS**
- Flow rate: 10 to 15 octabins/hr
- Manufacturing: mild steel, 304L stainless steel, 316L stainless steel
- Finishes: RAL 9006, microblasted, electropolishing
- Installed power: 6 kW
- Operation pressure: 6 bar
- Required dust collecting flow rate: 1,000 m³/hr
- This system is meant to be coupled with our VFlow® range of vacuum pumps; you can find more information in our Pneumatic Conveying documentation.

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Available Custom Made
Download videos & layouts from our website
Octabin Unloader

Octabin Unloader

Octabin tilting system

For octbins with lateral emptying flap

- **TECHNICAL SPECIFICATIONS**
  - **Flow rate**: 10 to 20 octbins/hr.
  - **Manufacturing**: mild steel, 304L stainless steel, 316L stainless steel
  - **Finishes**: RAL 9006: microblasted, electropolishing
  - **Installed power**: 0.1 kW (according to options)
  - **Operation pressure**: 6 bar
  - **Required dust collecting flow rate**: 300 m³/hr.
  - May vary according to the treated material
  - **Ergonomic access height for unlacing** (height of sight): 1,550 mm.

Octabin dumping system

For all types of octbins

- **TECHNICAL SPECIFICATIONS**
  - **Flow rate**: 30 to 50 octbins/hr.
  - **Manufacturing**: mild steel, 304L stainless steel, 316L stainless steel
  - **Finishes**: RAL 9006: microblasted, electropolishing
  - **Installed power**: 1.5 kW
  - **Operation pressure**: 6 bar

**Mobile framework**

**Fixed framework**

**Hydraulic cylinder**

**Unloading chute**

**Pallet clamping system**

**Mobile framework**

**Holding brackets**

**Transmission rods**

**Hydraulic cylinder**

**Hydraulic group**

**Ergonomic access height for unlacing** (height of sight): 1,550 mm.
This unload 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 loading points. Hopper and pallet clamping systems, holding brackets and gearwheel with highly resistant bearing permit to invert octabins safely.

**Operating sequence**

1. Manual positioning of the empty hopper on wheels
2. Clamping, lifting and inverting of the hopper
3. Octabin positioning on its pallet through a pallet truck or forklift
4. Pallet clamping by 4 jaws and holding of the octabin with 2 holding side brackets
5. Docking the hopper which fits over the octabin, then turning of the whole system
6. Release of the octabin overturned on the hopper (the pallet stays on the top)
7. Extraction of the hopper carrying the octabin, manually or with a forklift
8. Manual positioning of the empty hopper on wheels
9. Clamping, lifting and inverting of the hopper
10. Lowering and releasing of the empty pallet
11. Removing of the empty pallet and positioning of a new octabin

**Technical specifications**

- **Flow rate**: 20 to 30 octabins/hr.
- **Manufacturing**: mild steel, 304L stainless steel, 316L stainless steel
- **Finishes**: RAL 9006, microblasted, electropolishing
- **Installed power**: 1.5 kW
- **Average power consumption**: 0.8 kW
- **Air consumption**: 5.2 Nm³/hr.
- **Operation pressure**: 6 bar
- **Inlet TOR**: 3
- **Outlet TOR**: 7
- **Maximum dimension of octabins**
  - Length x Width x Height: 1.200 x 1.200 x 1.800 mm
- **Custom-made models are also available**
EXAMPLES OF INSTALLATIONS

Material containment.

Chemicals - Resins
Food - Sugar
Control of a urea skid
Automated storage and transport, control cabinets, etc.
Pharmaceutical materials
Control cabinet
Wiring
Industrial plant

500 + 500 installations
of big bag discharge stations in FRANCE and ABROAD

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

AUTOMATION & ELECTRICITY

PAL’TOUCH® TECHNOLOGY

As a designer of specific equipment, PALAMATIC PROCESS associates to its production units some automations ergonomically and visually programmed. The production monitoring is as important for us as the result. This is why our automation and software engineers integrate fool-proofing of raw material inputs, batch 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.

Equipment and programs treated: Schneider, Siemens, Rockwell, Omron, Phillips, Intouch, PC Vue, VijeoDesigner, ...

www.palamaticprocess.com/powder-machine/
AUTOMATION and CONTROL
PLC
PAL’TOUCH
Download videos & layouts from our website
Objectives: to prepare and break agglomerated lump before the discharge.

The massage system prepares the big bag before the discharge process. Once the big bag is inside the cage, it is massaged by several pairs of cylinders (until 8 pairs/16 cylinders depending on options). Pneumatic or hydraulic cylinders help to break the agglomerated material into the big bag and facilitate its emptying process through the spout. 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.

** Massage System**

- **Profiled push-buttons and control of dynamic strokes** to avoid tearing the fabrics of the big bag.
- **Handling cross for loading** with forklift or elevator.
- **Adjustable height by rod**
- **Overview of the unit for massage of the 4 sides**
- **Safety area to protect cylinders**
- **Cylinders articulation for a better action**

**Advantages**

- Action in the heart of the big bag with distribution of effort on to each sidewall of the big bag.

**Options**

- Lifting table, door automation, hydraulic massage.

**TECHNICAL SPECIFICATIONS**

- **Manufacturing:** mild steel, 304L stainless steel, 316L stainless steel.
- **Finishes:** RAL 9006, microblasted, electropolishing
- **Compressed air consumption:** 1.2 Nm³/hr.
- **Service pressure:** 6 bar
- **Input TOR:** 16
- **Output TOR:** 6
- **Cylinders control by a laser sensor** to avoid big bag packaging damage.

**Operating Sequence**

1. The big bag is placed on the handling cross.
2. The bag hanger is lifted up by a forklift or a hoist.
3. The big bag is positioned into the cage.
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 removal with forklift or hoist.

**Maximum dimensions of big bags**

- **Length x Width x Height:** 1.300 x 1.300 x 2.000 mm
- **Action in the heart of the big bag** with distribution of effort to each sidewall of the big bag.

**Available options**

- Hydraulic massage system.
- Lifting table, door automation.
- Pneumatic or hydraulic cylinders.

**Site of the unit**

- www.palaedmaticsolutions.com/bag-discharging-system

Download videos & layouts from our website.
Big Bag compactor

Objectives: dust control & management of empty big bags

Compression rate: 4 to 10 big bags/m²

*Depending on the type of big bags.

**SIMPLE AND EASY SOLUTION TO REDUCE WASTE VOLUME AND FOR DUST-FREE-HANDLING**

With an efficient and 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 to recover residual fines by specific tray. A polyethylene sheath positioned at the end of the compacting tube allows to collect empty big bags while minimizing their volume.

Advantages

- 100% hermetic containment sheath, clean working environment and possibility to recover residual fines by specific tray
- Applied bearing

**TECHNICAL SPECIFICATIONS**

The compacting screw “pushes” the empty bags inside the dust-proof sheath. With an efficient and compact design, the compactor is suitable for all types of bags (paper, polyethylene, plastic, woven plastic, hessian bags...)

**Characteristics**

- Mild steel, 304L stainless steel, 316L stainless steel
- Motor 2.2 kW (direct coupling)

**Compression rate:** Depending on the type of big bags

**2 VERSIONS**

INDEPENDANT COMPACTOR

INTEGRATED COMPACTOR

Options

- Dedusting ring
- Automatic doors
- Access hatch

Dust extraction DN100

Space for compressed sacks 2000

AVAILABLE CUSTOM MADE

Big Bag Compactor

www.palematicsprocess.com/powder-machine/super-sack-compactor

Download videos & layouts from our website
Our expertise:

- **FILLING SOLUTIONS FOR BIG BAG AND OCTABIN**
  To fill

- **EMPTYING SOLUTIONS FOR BIG BAG AND OCTABIN**
  To empty, compact and massage

- **SACK, DRUM AND CARDBOARD FILLING SOLUTIONS**
  To fill, package, handle

- **SACK AND DRUM EMPTYING SOLUTIONS**
  To empty, compact, handle, discharge

- **SOLUTIONS FOR PNEUMATIC CONVEYING**
  Vacuum, pressure

- **SOLUTIONS FOR MECHANICAL CONVEYING**
  To transfer with screw, belt conveyor, bucket elevator, aeromechanical or vibratory conveyor, truck loading spout

- **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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The know-how of our teams, the energy of a group