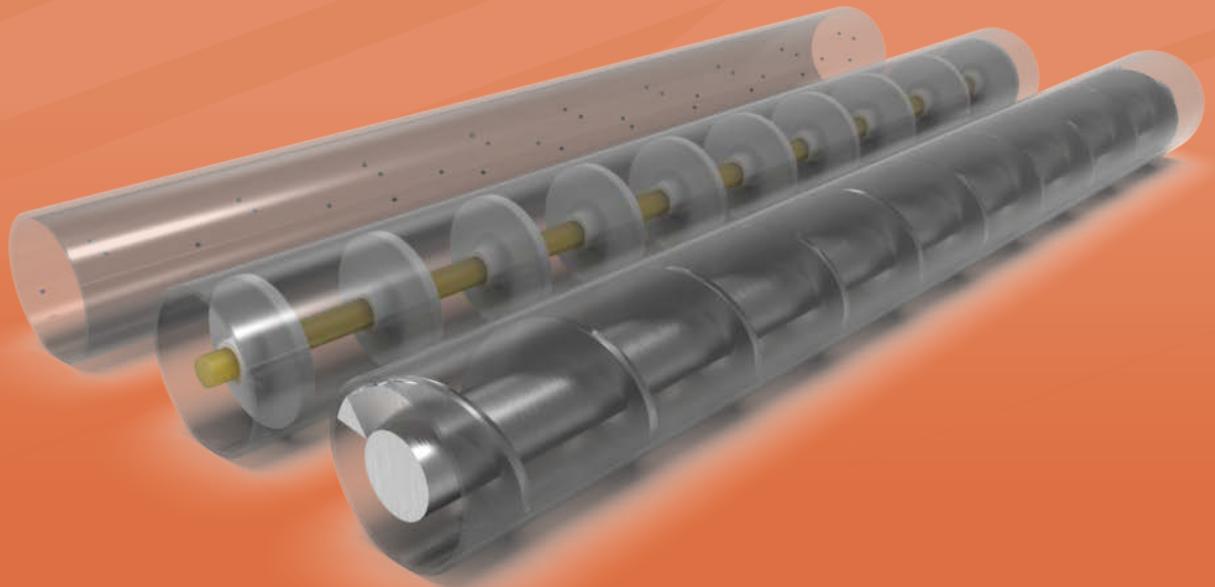




Automation of conveying processes in the bakery, confectionery or pasta industries means increasing productivity and improving the quality of the final product.



Conveying systems

TD, TP and TS Series

The benefits of our solutions



CONSTANT UPDATING

Over 30 years of experience encourage us to continue evolving. We are committed to highly qualified human capital and continuous training.



PIONEERING SYSTEMS

We are passionate about technology. Applying a 4.0 factory vision in an IOT and BIG Data environment to achieve the most intelligent and competitive systems.



COST REDUCTION

We strive to make your life easier. Optimizing production processes to same expenses and increase competitiveness. Always working in a personalised manner. Each case is a world in itself.

Our values



PROXIMITY AND EMPATHY

Understanding the clients' needs and concerns enables us to develop the best project for their needs.



PASSION AND ENGAGEMENT

We enjoy the challenges posed by each project and are committed to offer the best solution.



CREATIVITY AND INNOVATION

We imagine, create and develop the most innovative solutions because this is our passion.

Exporting all over the world



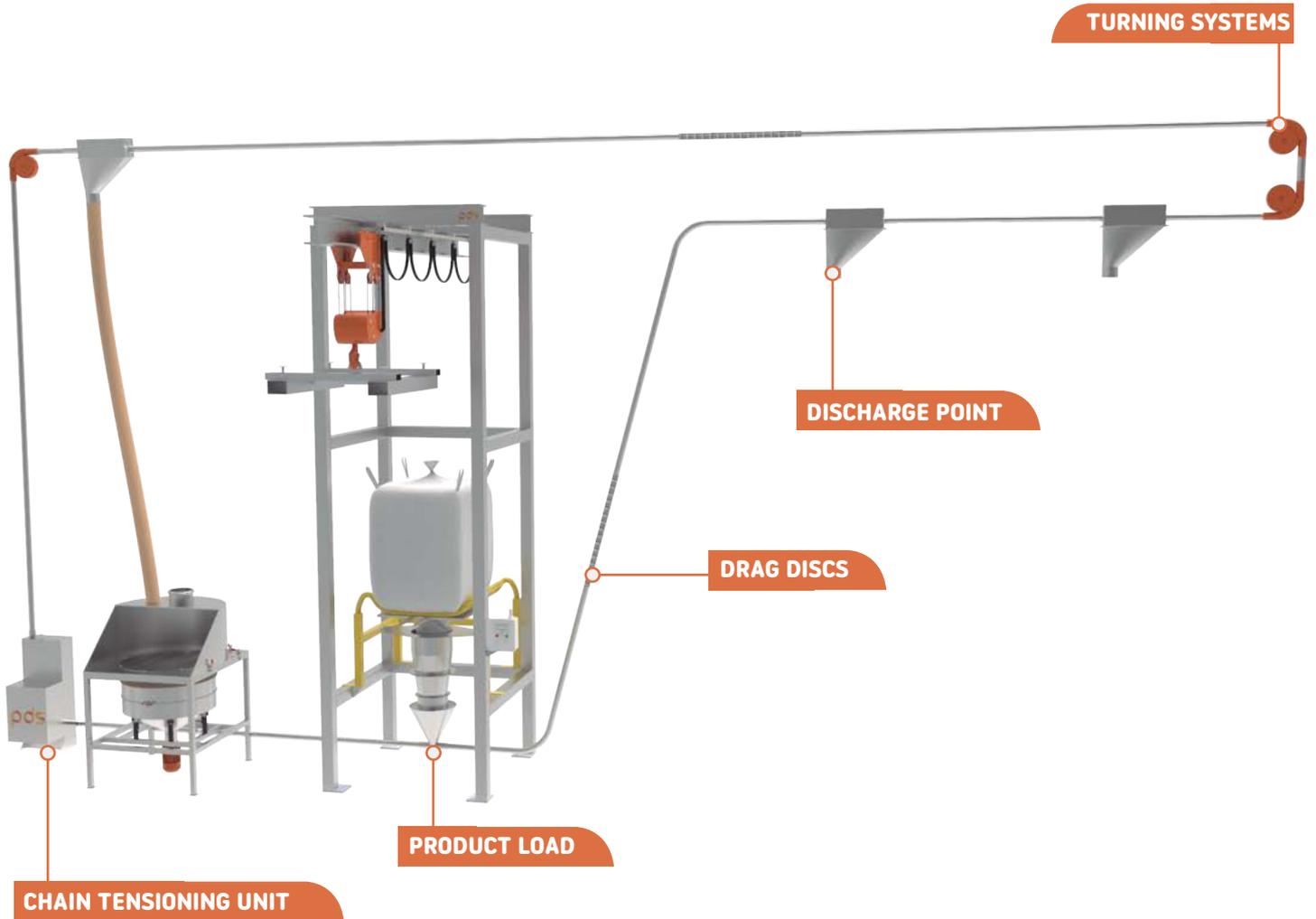
TD-Drag Chain Conveyors



Operation

Drag chain conveyors (also known as a drag conveyors and disc conveyors) of POWDER DOSING SYSTEMS is a closed conveyor system, composed of tubes, which hold inside circular discs linked by a chain or a cable. The discs convey the product using an automatic chain or cable tensioner and a gear unit. The system can load from more than one silo, hopper or bulk bag and unload in several points on the route. Thanks to its design and the different elements in the installation, it is easy and quick to install.

POWDER DS has designed an automatic system of the TD series that feeds flour mills and hoppers, using the drag conveyor technology. This equipment results in great savings in manual operation time, optimises filling amounts, enables increased productivity and reduces maintenance of the installations.



POWDER DS customises the installation to meet the customer's needs.



Details



Chain tensioning unit



Discharge point



Turning systems

Discs technology

Cable system

The cable is made of noble, rigid fibres that do not allow bending and work well under tension. The discs are made of polymers treated to withstand the abrasion of the materials. The cable conveying system is particularly used for conveying dry products, so as not to condition and compromise the performance of the cable.

Chain system

The chain is treated to increase the hardness of the steel. The discs are made of treated polymers to increase abrasion resistance. The chain conveyor system is used to convey any type of product, regardless of its weight or level of abrasion.

Features

Typical products that the disc conveyor can move:

- Pasta and rice
- Confectionery (cereals, sugars, cocoa base)
- flours and yeasts (grain, cereals, starch, couscous)
- Herbal extracts
- Animal feeds
- Milk derivatives (milk powder, cream powder, fats)
- Dried products (dried fruit, dried vegetables)

The flexible design of the drag conveyor system allows horizontal and inclined paths to be laid out with a small footprint in the plant. The product is discharged at different points along the path by means of a shut-off system. In addition, this system can be connected to flour mills or a hopper with a screw conveyor for precise dosing of the product.

Model	Installed elec. power	Tube diameter	Flow
48 TD	1,1 kW	48 mm	1,5 m ³ /h
60 TD	2,2 kW	60 mm	2,8 m ³ /h
76 TD	3 kW	76 mm	5,5 m ³ /h
114 TD	4 kW	114 mm	10 m ³ /h
168 TD	5 kW	168 mm	35 m ³ /h

Materials	
Tubes in contact with the product	AISI 316
Circular discs	Food-grade polymer
Chain	AISI 316
Cable	Food-grade noble fibres
Discharge points	AISI 316
Other materials	Aluminium, AISI 304

Optional other materials

Dragging options

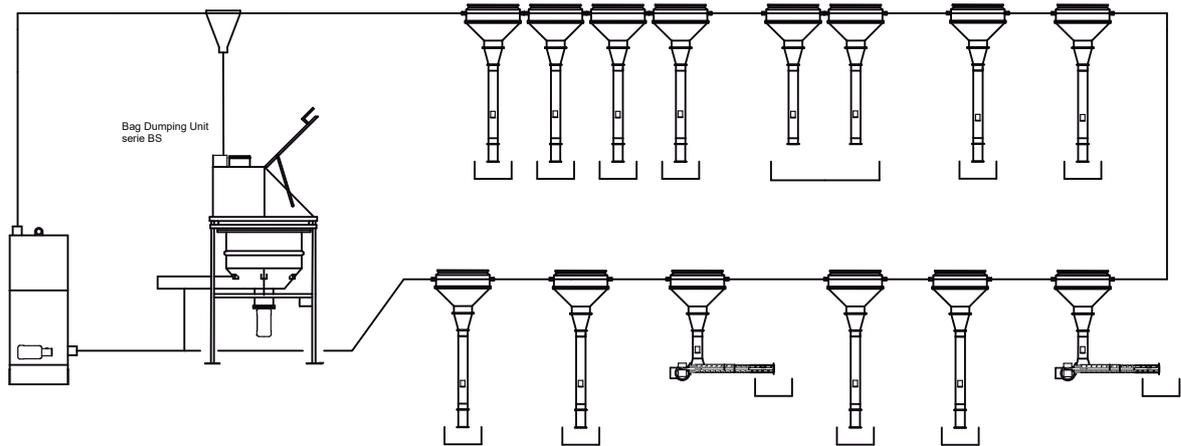


Chain system

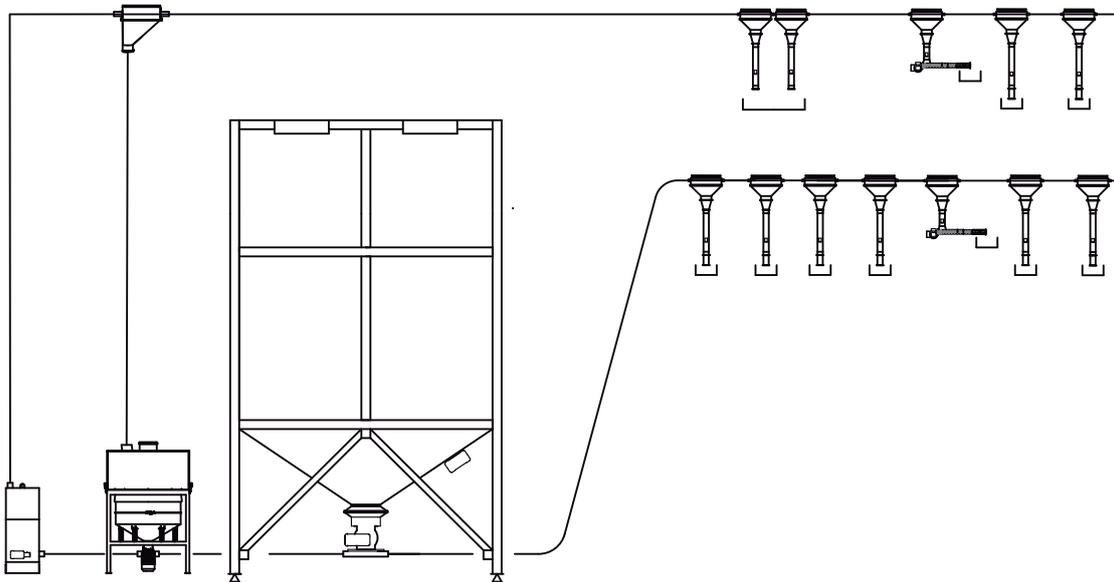


Cable system

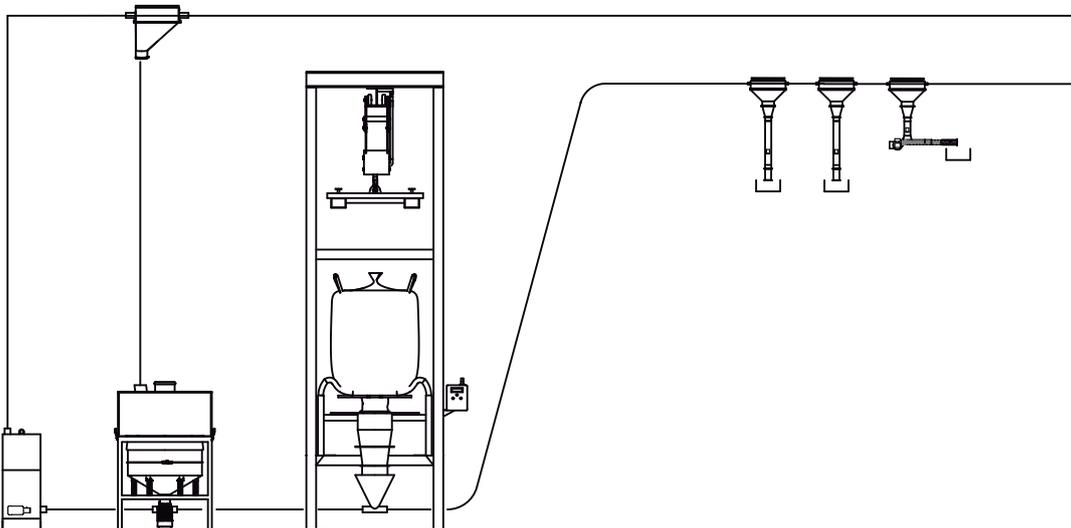
Drag conveying from a Bag Dumping Unit



Drag conveying from a Trevira fabric Silo



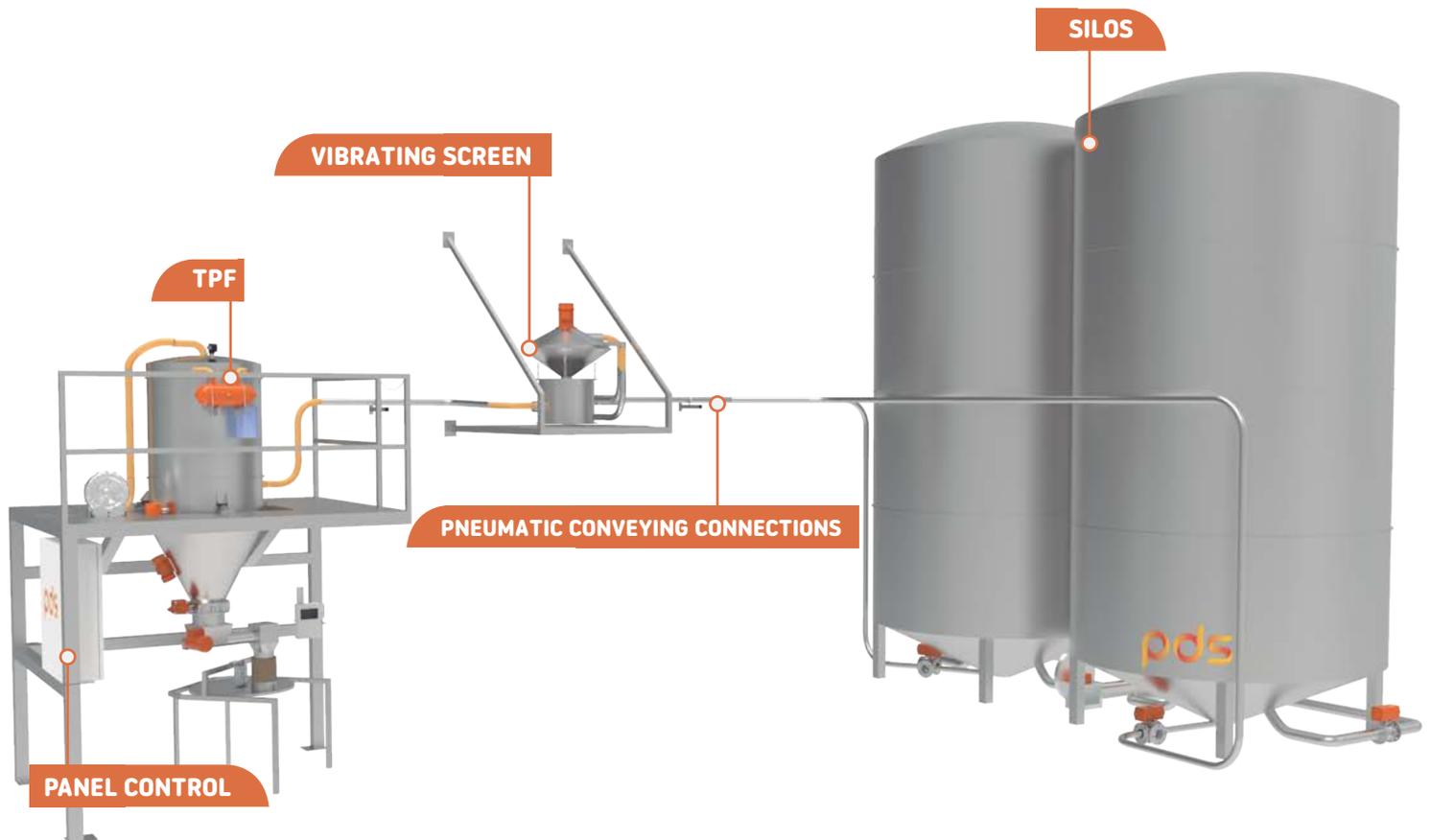
Drag conveying from a Bulk Bag Discharger



Operation

POWDER DS has two systems of pneumatic conveyors, according to the needs of the installation: conveyors by suction or by pressure. Conveying by suction in the TPF series has a pump that creates a vacuum in the tubing at the end of the installation and enables the transport of different ingredients to a single final hopper to be dosed according to the recipe or formula recorded in the control and management system.

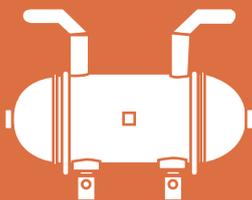
POWDER DOSING SYSTEMS pressure conveying system consists of a pressure pump, at the beginning of the route, and enables the components to be conveyed to different destinations.



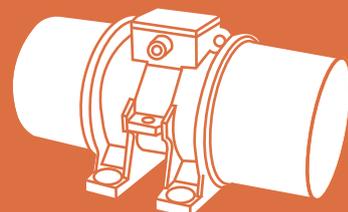
POWDER DS customises the installation to meet the customer's needs.



Details



Cleaning system



Electric vibrator

Technology options

Dilute phase

Dilute phase pneumatic conveying (also known as low pressure) is based on conveying a low quantity of kg of product per kg of air suctioned from different points. It is conveyed at high speed. In order to be able to convey in dilute phase, a negative pressure is applied at the point of destination to be able to convey the product.

Dense phase

It is applied for products with a tendency to clog in their path. The system moves at low speed, so wear of abrasive products is minimal. The consumption of compressed air and energy is also minimal. It is conveyed by a pressure pump.

Features

Typical products that the pneumatic conveyor can move:

- Pasta and rice
- Confectionery (cereals, sugars, cocoa base)
- Flours and yeasts (grain, cereals, starch, couscous)
- Herbal extracts
- Animal feeds
- Milk derivatives (milk powder, cream powder, fats)
- Dried products (dried fruit, dried vegetables)

Designed, manufactured and finished to industrial and food standards.

The flexible design of the pneumatic conveying system allows horizontal or vertical paths to be laid out taking up very little space in the plant.

The TP pneumatic system is designed to convey product from a storage point to a TPF discharge point.

A linear screener can be integrated to avoid imperfections. The product is conveyed by a suction pump.

Phases	Convey capacity	Conveyor speed	Distance to convey	Working pressure	Ratio Product/air
Diluite	1-50Tn/h	12-36m/s	≤ 200m	≤ 500mBar	3-15kg/kg
Dense	1-100Tn/h	3-15m/s	≤ 100m	≤ 200mBar	15-30kg/kg

Materials	
Tubes in contact with the product	AISI 316
Other materials	Airpu, AISI 304
finish of the assembly	Mirror Polish

Optional other materials

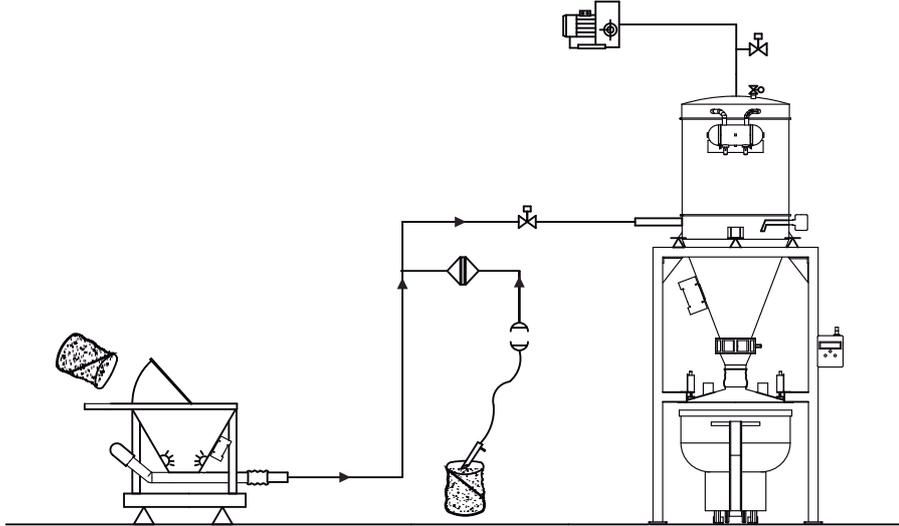


Discharge point with a cover

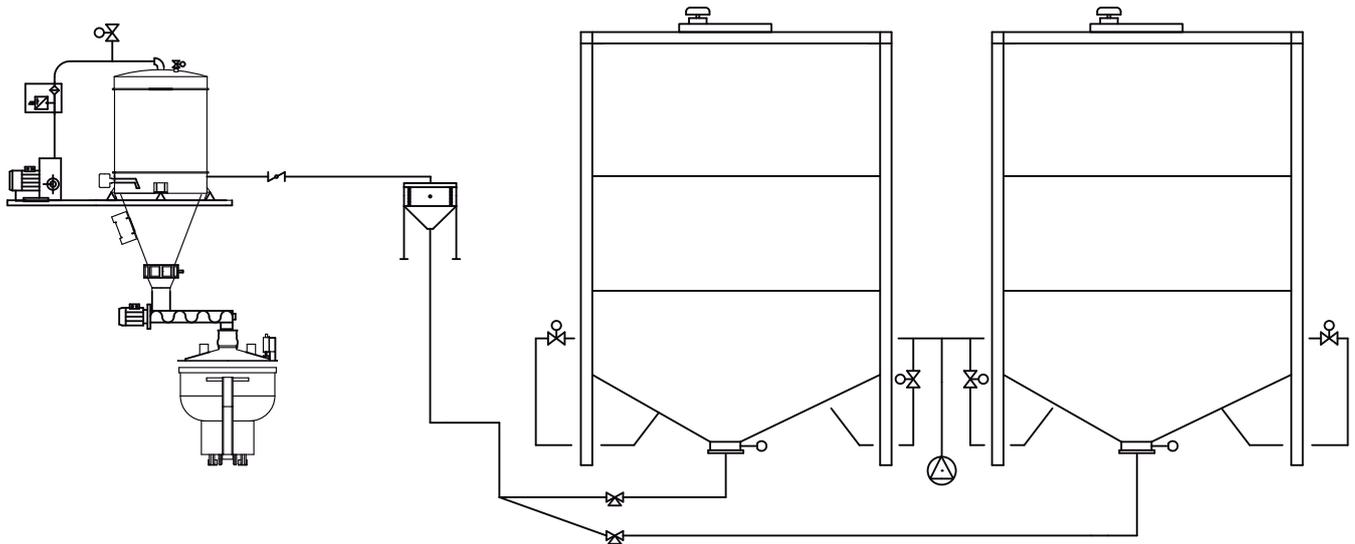


Cleaning system

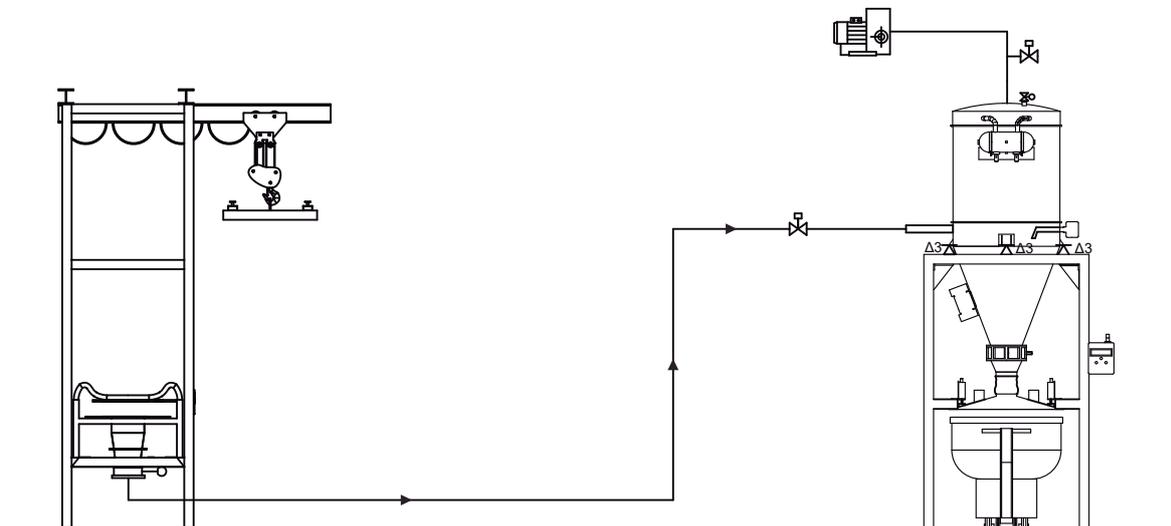
Pneumatic conveying from a Bag Dumping Unit



Pneumatic conveying from Silos



Pneumatic conveying from a Bulk Bag Discharger



Advantages

1. Personalisation

The equipment's production process allows us to personalise the model according to the client's needs. There is also the option to supply a manual pneumatic loading system with a non-vibratory sieve.

3. Improvements in quality

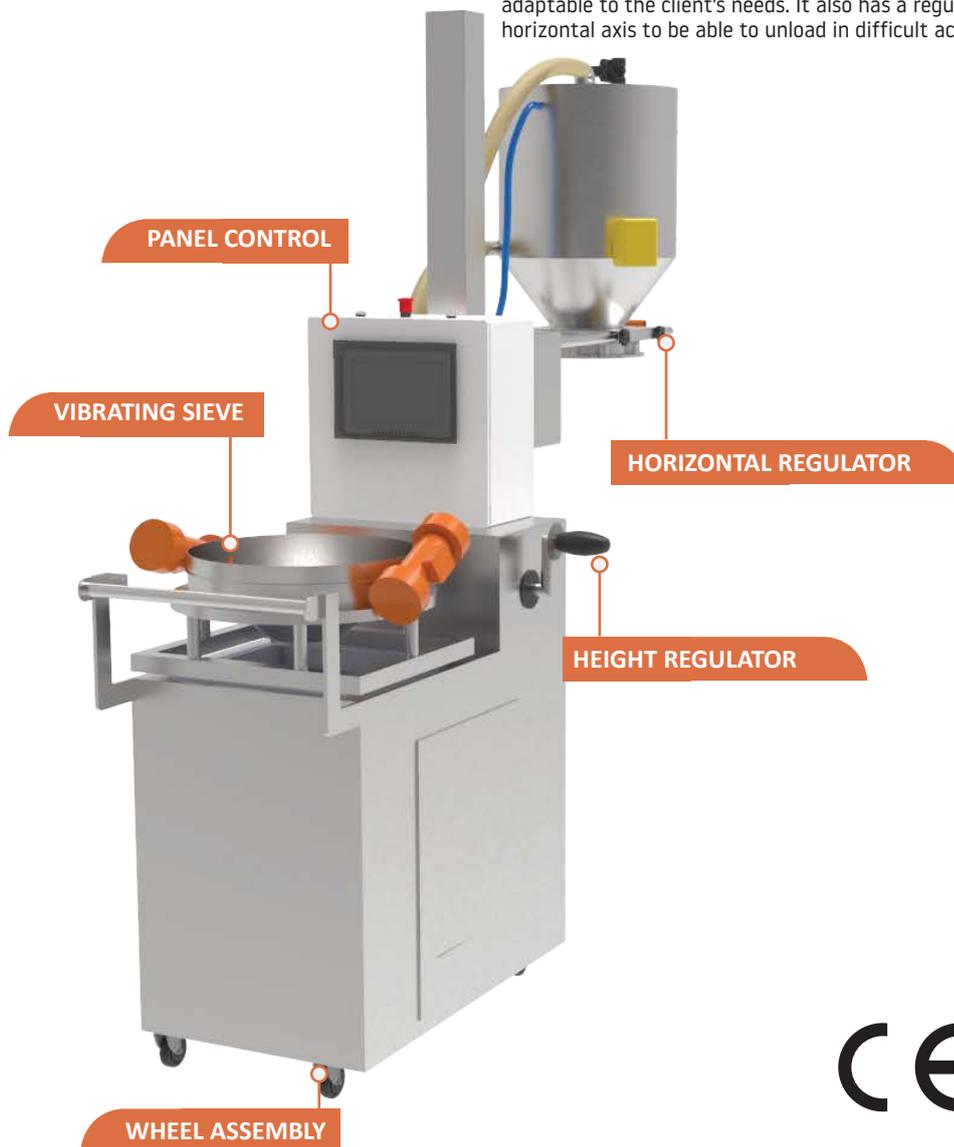
The high precision of the POWDER DS TPM dosing system enables final product quality to be improved and optimises raw material consumption costs.

2. Flexibility

The TPM Mobile Pneumatic Conveyor is a mobile equipment, facilitating the relocation of the equipment to be used in different production lines. Its compact design facilitates space-optimised storage and its modular assembly allows rapid disassembly for cleaning and maintenance.

4. Height regulator

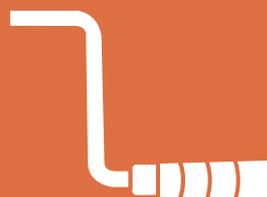
The equipment is able to unload at different heights through a handle system. The operator is able to adjust and control its position. The standard maximum height is 2 metres but it is adaptable to the client's needs. It also has a regulator on the horizontal axis to be able to unload in difficult access points.



Details



Horizontal regulator



Height regulator



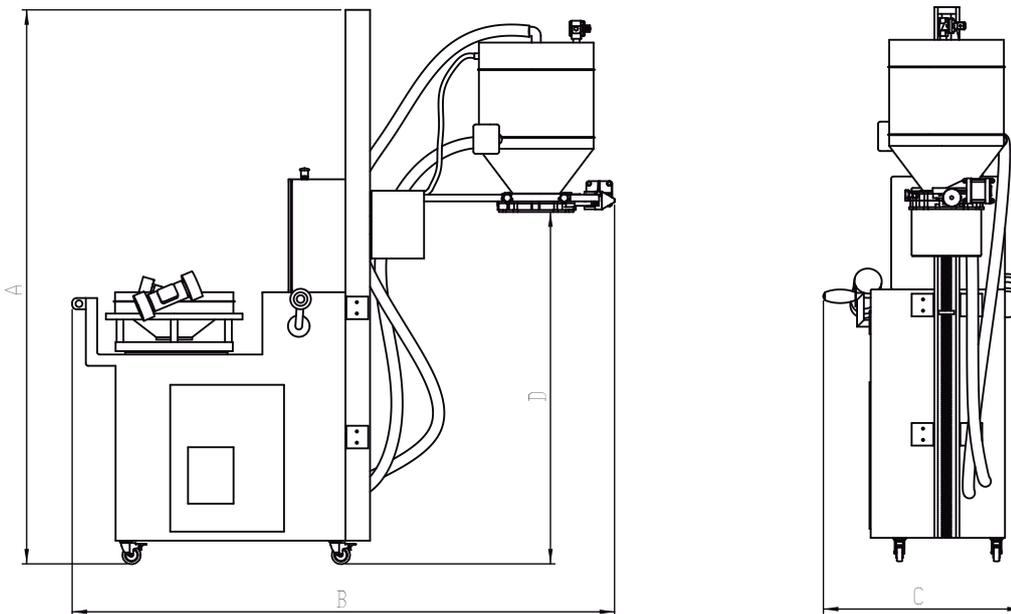
Vibrating sieve

Operation

POWDER DS offers you the solution to fill hoppers and flour mills in the production lines, using a mobile pneumatic conveyor of the TPM series, which allows to sieve and load product at any location in the plant, helping a better storage when it is in disuse, facilitating the work of the operator and optimising spaces.

The height and position of the unloading point is adjustable using the vertical and horizontal regulator of the equipment. The operator empties the product into the sieving unit and by means of a pump, the already sieved product is conveyed to the discharge hopper to be stored until the operator presses the button located in the panel control, which activates the valve to discharge the product.

Technical Specifications



TPM-2T Mobile pneumatic conveyor with a loading hopper standard

Model	A	B	C	D	Hopper capacities	Installed elec. power
TPM-2T	2450	2380	870	Adjustable	50L y 12L	4 kW

Dimensions in mm

Accessories



Manual pneumatic loading



Sieve without a vibrator

Products

Standard products that the equipment can dose:

- Sugar
- Fructose
- Flour
- Milk powder
- Additives
- Seeds
- Bulk products

Features

Ergonomic and versatile equipment for fast loading of solid products.

The standard equipment consists of two hoppers of 50L and 12L, a vibrating sieve, a vacuum pump and a cleaning system.

The design facilitates easy dismantling and cleaning.

2" tubes

CLAMP connections

Pneumatic conveying by suction.

Operation is intuitive and easy to use.

It can operate in manual or automatic mode.

The product is dosed until the set weight is reached

Materials	
Parts in contact with the product	AISI 316
Other materiales	Aluminium, AISI 314
Gaskets	FDA
Internal finish (standard)	Mirror Polish
External finish (standard)	Matte Polish

Optional other materials



Advantages

1. Personalisation

The equipment's production process allows us to personalise the model according to the client's needs. There is also the option to modify the hopper's capacity and the height of the unloading point.

3. Improvements in quality

The vibrating sieve enables a final product quality to be improved and optimises raw material consumption costs.

2. Flexibility

The TS Screw Conveyor is a mobile equipment, facilitating the relocation of the equipment to be used in different production lines. Its compact design facilitates space-optimised storage and its modular assembly allows rapid disassembly for cleaning and maintenance.

4. Ideal for multiple uses

The equipment is ideal for conveying different products: viscous, solidifying, fluidising, non-flowing abrasives,... no need to use multiple units.



Details



Viscous screw conveyor



Sack-rest

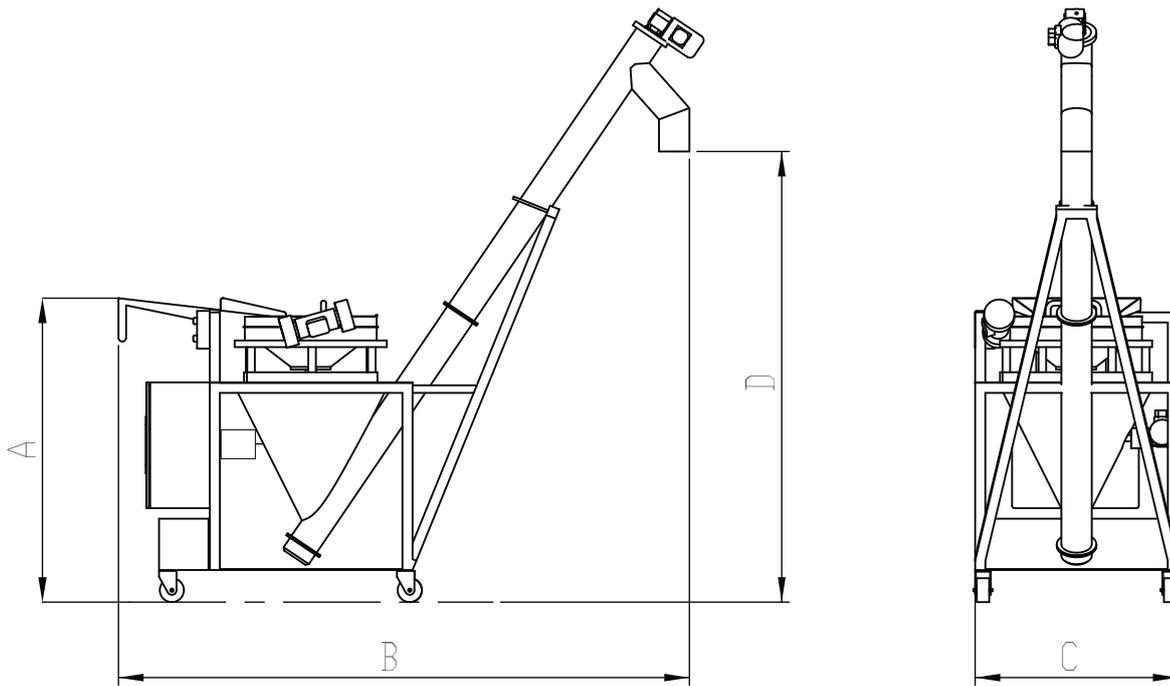
Operation

Screw conveyors (also known as screw transport or spiral conveyors), are the most adequate conveyor systems for short distances and are normally used to handle solid products, in powder or granulated form.

The system consists of a geared motor, a screw inside a conduit, which by rotating and its helical shape, moves the ingredients to the unloading system.

POWDER DS also offers a mobile solution with this type of conveyor, to fill hoppers and flour mills located high up, thanks to the screw elevator of the TS series, which in addition to facilitating the loading operation, enables the product to be sifted before dosing.

Technical Specifications



TS Screw conveyor standard

Model	A	B	C	D	Hopper capacity	Installed elec. power
TS standard	1100	2200	800	1800	100L	0,67 kW

Dimensiones en mm

Products

Standard products that the equipment can dose:

- Sugar
- Fructose
- Flour
- Milk powder
- Additives
- Bulk products

Features

Ergonomic and versatile equipment for fast conveying of solid products.
 The standard equipment consists of a 100L hopper, vibrating sieve and screw conveyor.
 Its design makes it easy to dismantle and clean.
 CLAMP connections
 It has a start-stop control panel.

Materials	
Parts in contact with the product	AISI 316
Other materiales	Aluminium, AISI 314
Gaskets	FDA
Internal finish (standard)	Mirror Polish
External finish (standard)	Matte Polish

Optional other materials





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