

**Delaere**  
WEIGHING & FIBC FILLING SYSTEMS

# FIBC/Octabin filling and handling systems



## Since 1851

Delaere was founded in 1851 as a **manufacturer of static weighing systems**. Over the years we earned a strong reputation due to our know-how, quality and a strong customer focus.

In the 1980's Delaere expanded its activity to **dosing and dynamic weighing** and **started to engineer automatic filling equipment for FIBC's**. After supplying our equipment to some major industrial customers Delaere started to grow internationally as we followed our European customers towards new locations.

Nowadays Delaere **consolidates its leading position in the production of customized weighing and filling applications** to customers in the chemical, petrochemical and food processing industries. Our aim is to deliver a comprehensive range of **high quality solutions** with a **strong focus and specialism towards each industry** in terms of best practice, maximized output and return on investment. Thus becoming top of mind and preferred **supplier for each industry**.



## In-house engineering and made in Belgium

### ENGINEERING

- ☐ Mechanical Engineering
- ☐ Electrical design
- ☐ Software design
- ☐ Project Management

### IN-HOUSE PRODUCTION

- ☐ Steel and stainless steel constructions
- ☐ Painting facilities
- ☐ E-panel building
- ☐ In-house assembly of machines in preparation for FAT

### INSTALLATION AND SERVICE

- ☐ Installation teams
- ☐ Commission engineers
- ☐ Maintenance services
- ☐ Worldwide installation



# Industries and products

Our filling stations can be used by every company that wants to fill its dry bulk products into large packaging like FIBCs, octabins or drums.  
Our main focus is the food processing industries as well as the (petro)chemical industries.

## FOOD INDUSTRIES

- ☐ Starch
- ☐ Milk powder
- ☐ Sugar
- ☐ Etc.



## CHEMICAL AND PETROCHEMICAL INDUSTRIES

- ☐ Carbon black
- ☐ S-PVC
- ☐ PA-6
- ☐ PP
- ☐ HDPE
- ☐ LDPE
- ☐ PET
- ☐ Etc.



## Weighing and dosing systems

Delaere offers **high quality weighing systems** for FIBC and octabin filling & discharging lines.

- ☐ Gross weighing systems
- ☐ Net weighing systems

Integration of **various dosing systems** such as:

- ☐ Screw conveyors
- ☐ Vibratory feeders
- ☐ Different type of dosing valves (vibrating valve, Casque valve, 3-position valve)
- ☐ Rotary valves
- ☐ Etc.

Delaere is a **certified party** to perform commercial calibrations within the EU which implies we can offer **turnkey solutions** up to the first FIBC's & octabins to be commercially sold.

# Stand-alone filling station



## MACHINE EQUIPPED WITH:

- 1 Movable working platform
- 2 Heavy duty loadcells
- 3 Supporting frame for hopper
- 4 Stainless steel hopper including high level switch
- 5 Hopper top de-aeration filter
- 6 Filling frame including manual hooks and inflatable membrane
- 7 Weighing terminal and control cabinet

## MAIN OPTIONS:

- Full stainless steel execution of the installation
- Atex components
- Vibrating table



## MACHINE EQUIPPED WITH:

- 1 Pallet lay down level including a vibrating table
- 2 Heavy duty loadcells
- 3 Weighing terminal and control cabinet
- 4 Hydraulic up and down movement of the filling head
- 5 Ventilator for inflation of the FIBC
- 6 Dosing valve
- 7 Automatic hooks
- 8 Inflatable membrane for fixation filling spout

## MAIN OPTIONS:

- Full stainless steel execution of the installation
- Atex components



# FIBC Unloading station

## MAIN OPTIONS:

- Butterfly wings to increase product flow toward outlet
- Atex components

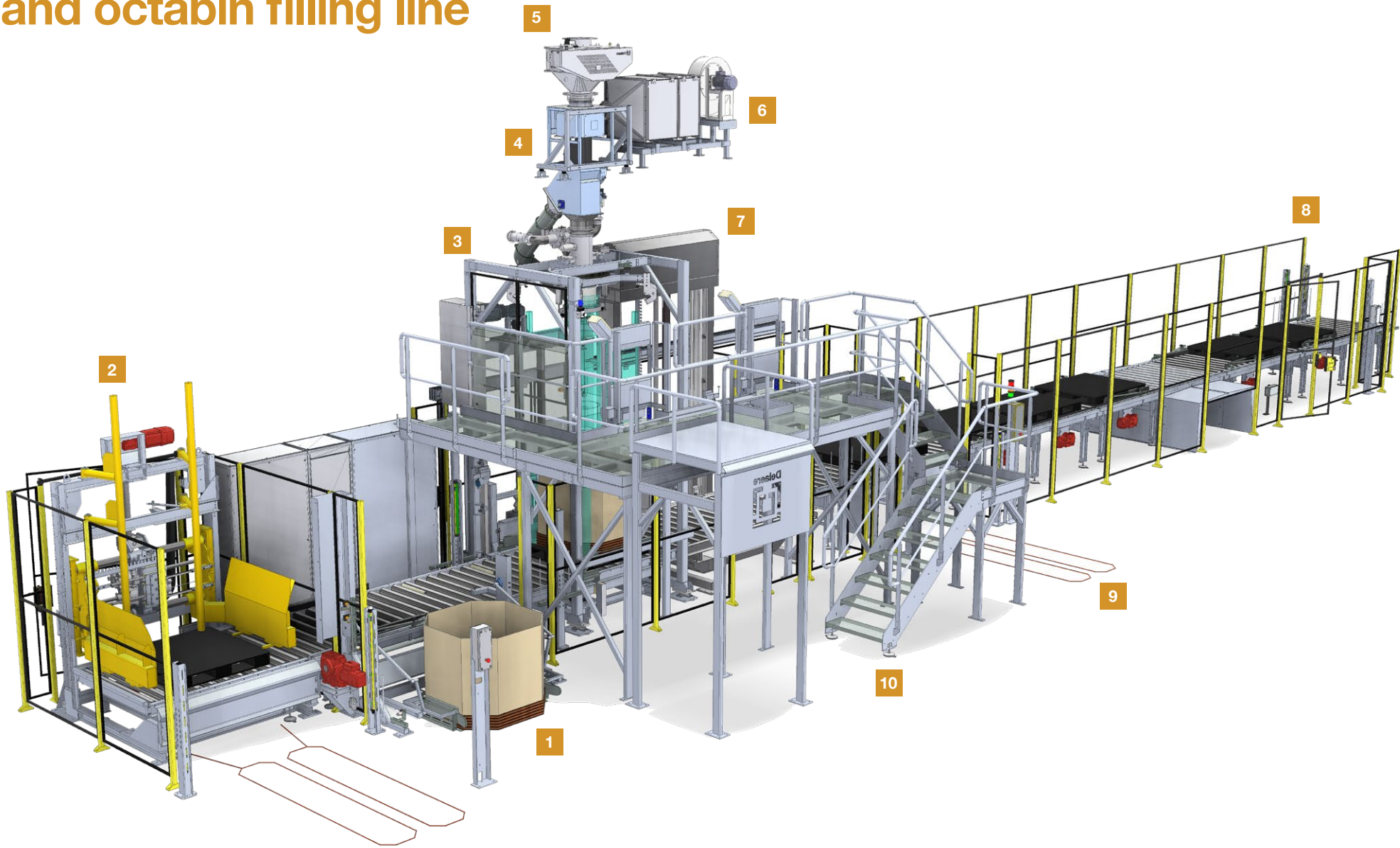
## MACHINE EQUIPPED WITH:

- 1 Screw conveyor toward next process
- 2 Heavy duty loadcells for measurement of the amount of unloaded product
- 3 Reception funnel in stainless steel
- 4 Reception table including vibrating motors
- 5 Electrical hoist with certified lifting cross
- 6 Supporting frame, adaptable in height for different type of FIBCs
- 7 Pneumatic shut off valve



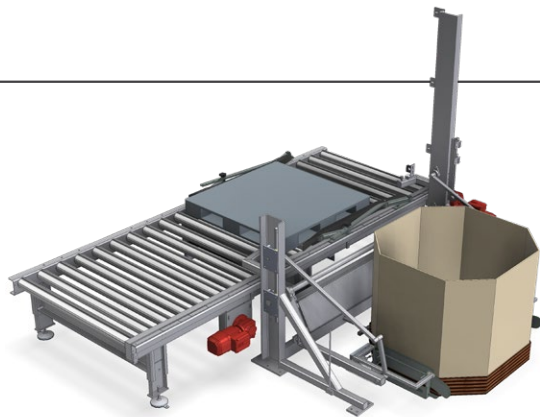


# Semi-automatic FIBC and octabin filling line



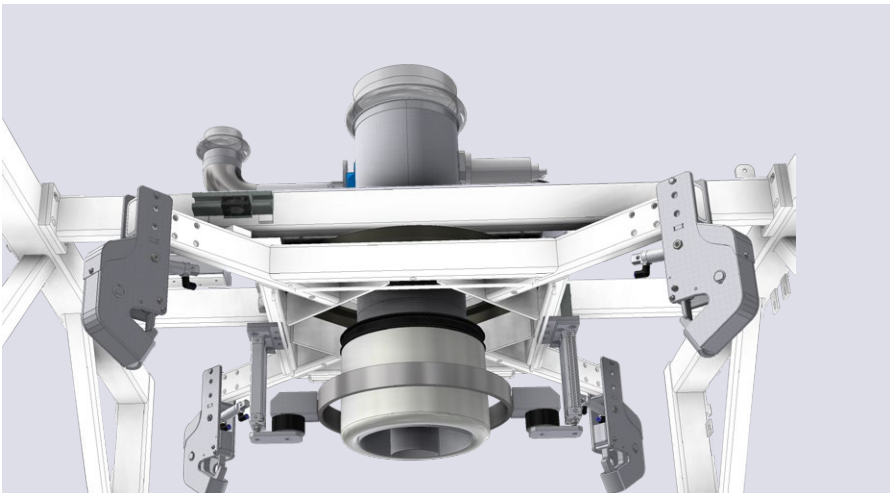
## LINE EQUIPPED WITH:

1 Octabin infeed system



2 Pallet dispenser with light barrier & induction loops

3 Filling station for FIBCs and octabins

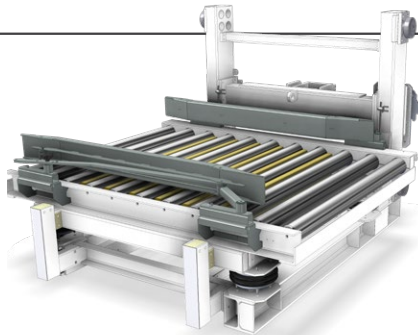


4 Metal detector including product rejection

5 Dosing system

6 FIBC inflating system, equipped with a H13 air filter

7 Hydraulic or electrical lift for filling station and closing position



8 Connection position with downstream process

9 Intermediate infeed/outfeed position with light barrier & induction loops

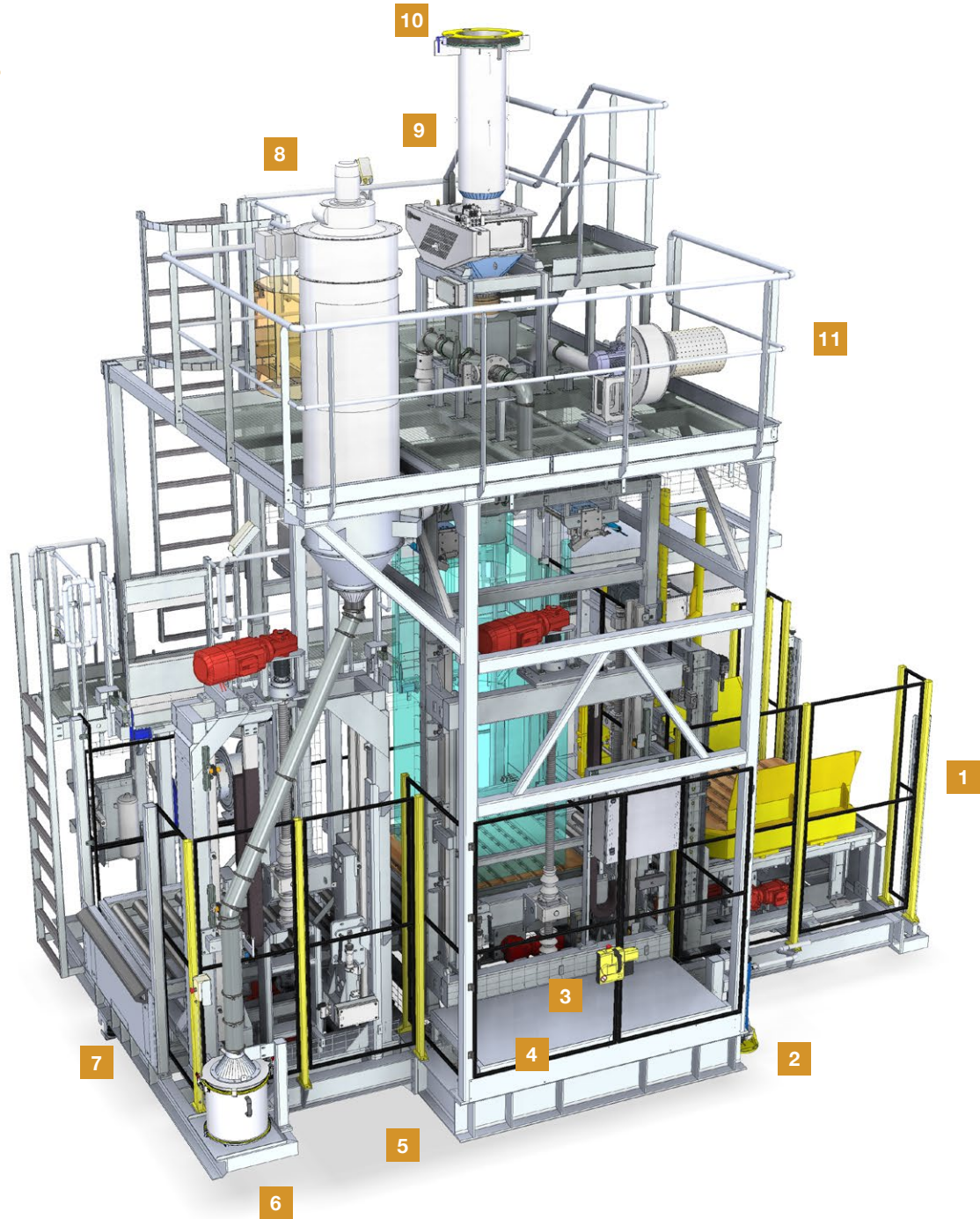
10 Heavy duty working platform for access filling station and closing position

## MAIN OPTIONS:

- Atex components
- Different type of dosing systems (Casque valve, Multi-position butterfly valve, etc.)
- Integration of product feeding system (screw conveyor, vibratory feeder, etc)
- Local dedusting system
- Buffer hopper
- Heat sealing system for PE and Alu liners
- Integration of stretch wrap/hood machine
- Product sampler

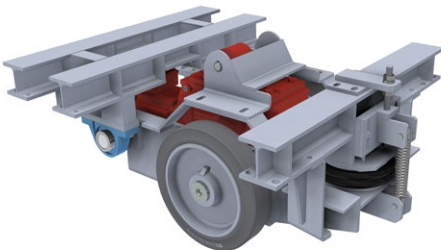


# Mobile filling stations



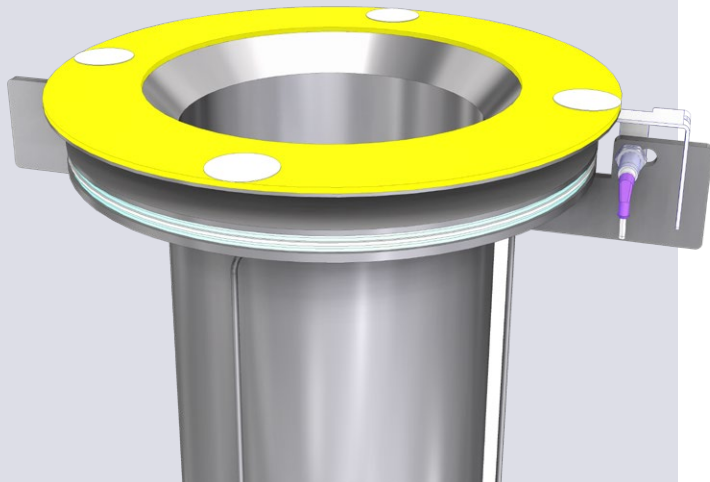
## LINE EQUIPPED WITH:

- 1 Pallet dispenser
- 2 Manual jack for fixation mobile frame
- 3 FIBC & Octabin filling station
- 4 Motor driven mobile frame
- 5 Lift on closing position for easy closing of smaller FIBC's & Octabins
- 6 Reception bin for residual product
- 7 Take-off position
- 8 Separate dedusting system
- 9 Dosing system and metal detector
- 10 Automatic docking system - pneumatically actuated
- 11 Inflating system for FIBC or Octabin liner



## MAIN OPTIONS:

- Battery pack for autonomous moving of the mobile installation
- Atex components
- Mobile frame on air cushions (hover craft type)
- Non-driven mobile frame – Movable by means of towbar
- Mobile machine movable on rail(s)
- Closed mobile machine for outdoor usage



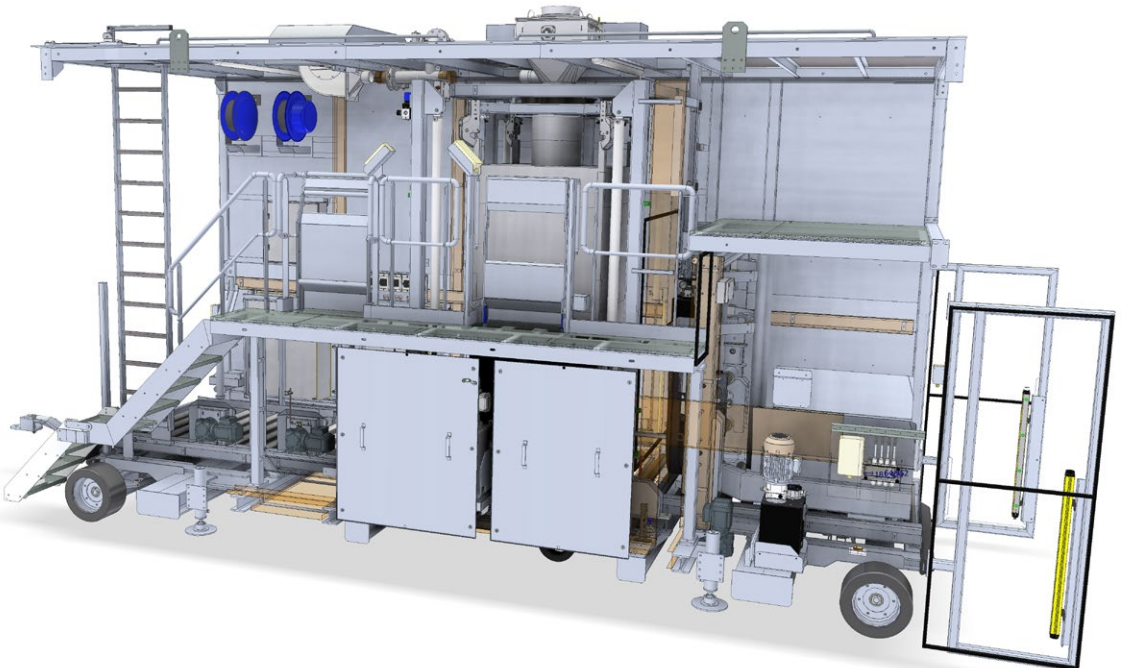


# Closed mobile filling station for outdoor use



## LINE EQUIPPED WITH:

- 1 Tow bar
- 2 Electrical cabinet including climate control
- 3 Hydraulic levelling feet, used in operation
- 4 Automatic docking system
- 5 Foldable guard rails
- 6 High speed roller door



## MAIN FEATURES:

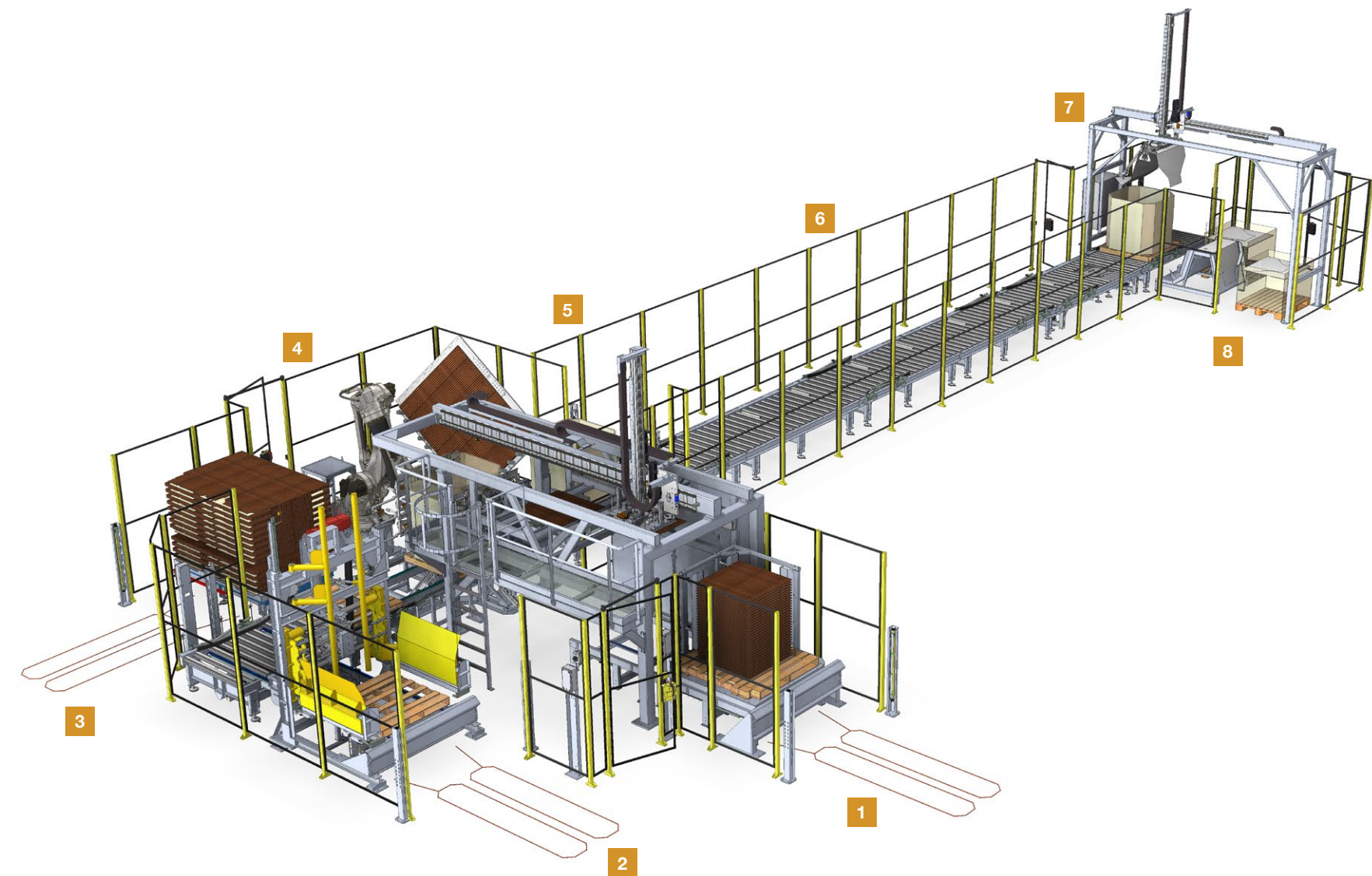
- Compact design guaranteeing limited dimensions
- Complete line equipped with pallet dispenser, empty bigbag lay-down position, filling station, closing position, working platform, etc.
- Designed for outdoor usage
- Often used in harsh environments such as the carbon black industry

## MAIN OPTIONS:

- Heating and ventilation for ergonomic operator conditions
- Manual roller door
- Motor driven movement of the filling station
- Heating of hydraulic equipment
- High efficient dedusting system for optimal operating conditions
- Additional mobile conveyor frames

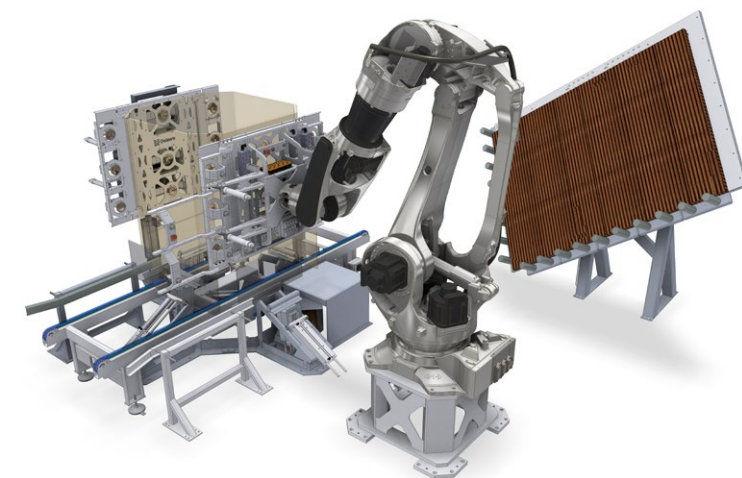


# Octabin and Gaylord erecting line



## LINE EQUIPPED WITH:

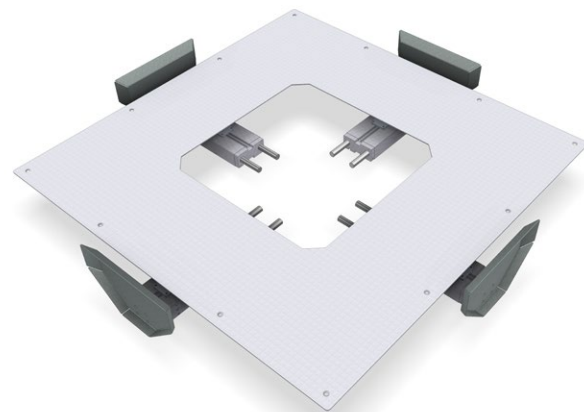
- 1 Bottom sheet infeed position
- 2 Empty pallet infeed position
- 3 Infeed position flat octabins or gaylords
- 4 Octabin or Gaylord unfolding robot



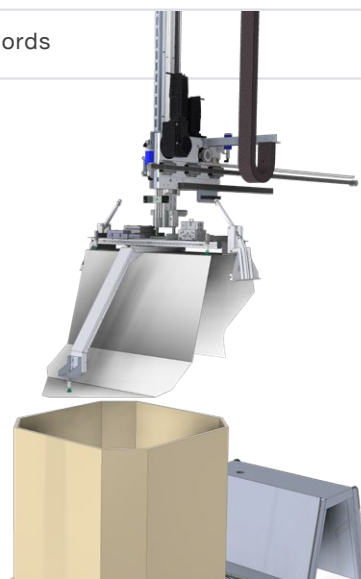
## MAIN OPTIONS:

- Tailor-made system based on octabin or gaylord specs
- Stapler or glue dispenser
- Octabin or Gaylord cover folding system

- 5 Bottom sheet robot with centring system



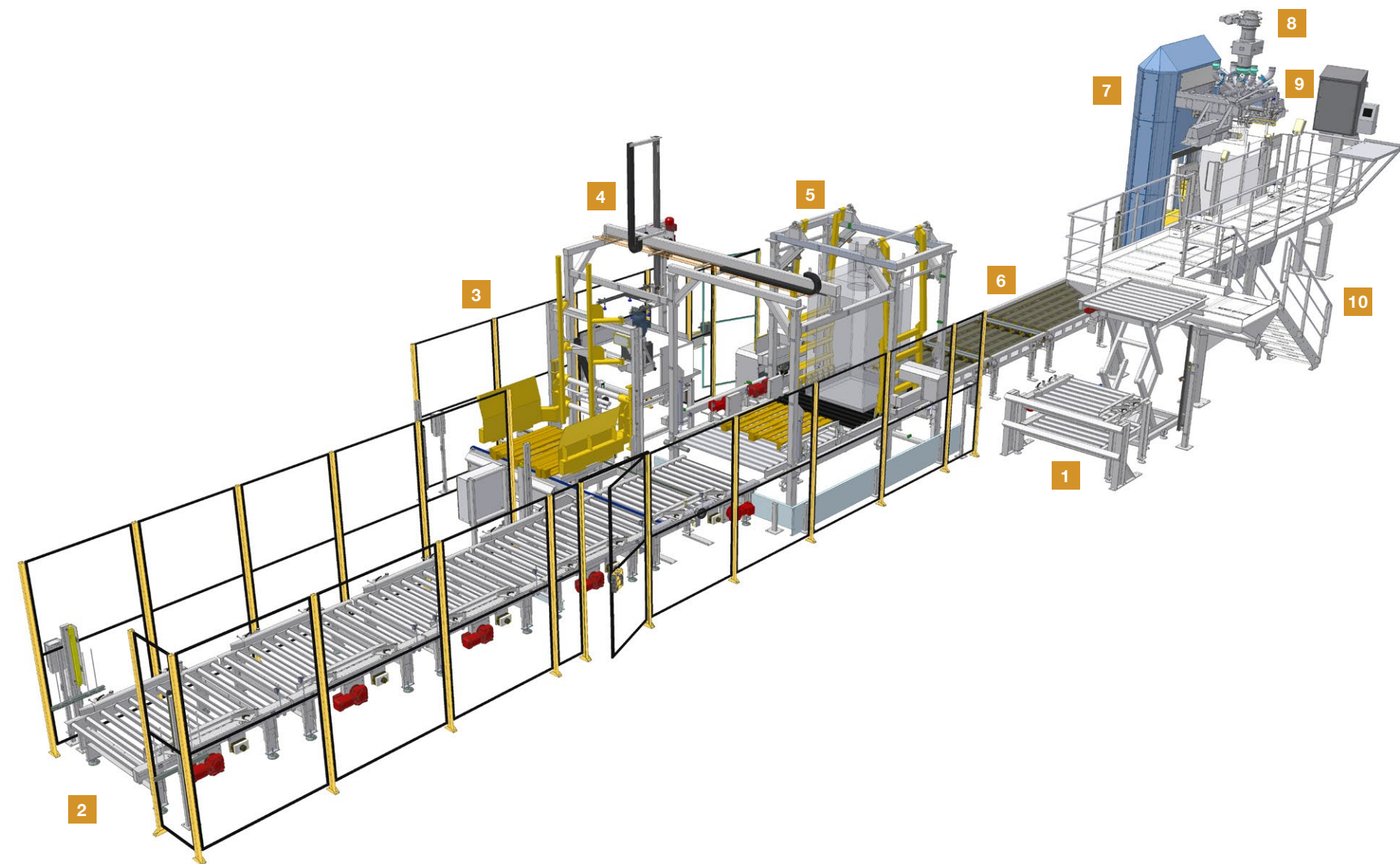
- 6 Buffer conveyors for erected octabins or gaylords
- 7 Liner insert robot



- 8 Liner infeed position

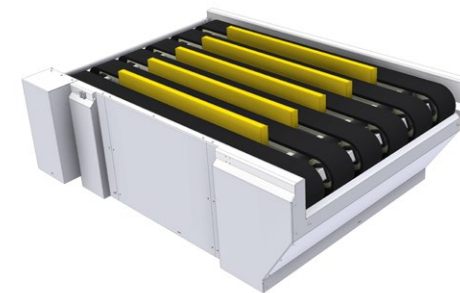


# High care filling line

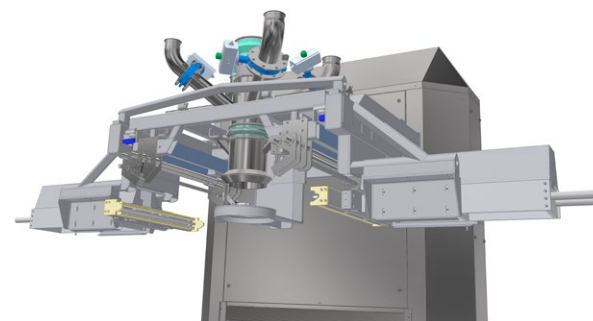


## LINE EQUIPPED WITH:

- 1 Empty FIBC infeed position + empty pallet outfeed
- 2 Outfeed position of filled FIBC's
- 3 Pallet dispenser
- 4 Cardboard sheet dispenser
- 5 Bag on pallet system Gen 1 (pallet is transported toward filled FIBC)
- 6 Modular belt conveyor (including vibrating system on the filling position)



- 7 High care filling station
- 8 Dosing system and metal detector
- 9 Heat sealing system integrated in filling station for PE liner of FIBC



## MAIN OPTIONS:

- Integration of stretch wrap or stretch hood machine
- Bag on pallet system Gen 2 (filled and lifted FIBC is transported towards pallet)
- Stretch wrapping system
- Label printing system
- Electrolytic polishing of filling tube
- Product sampler

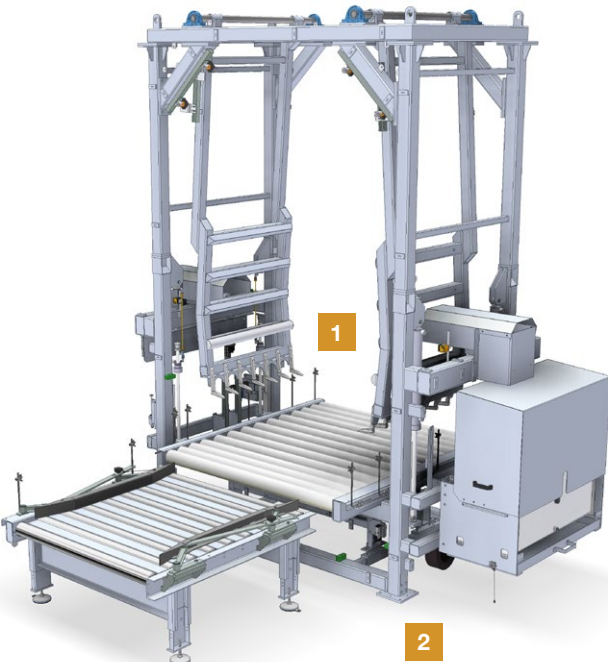
- 10 Hygienic working platform



# FIBC handling and disinfection lines

## BAG ON PALLET SYSTEM GENERATION 1

The pallet moves towards the FIBC



## BAG ON PALLET SYSTEM GENERATION 2




The FIBC moves towards the pallet:  
no contamination



## INSTALLATION EQUIPPED WITH:

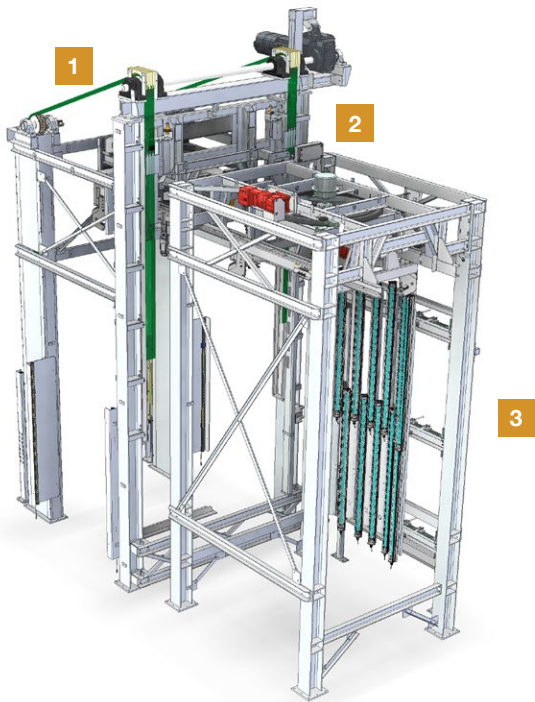
- 1 Rubberized rolls
- 2 Height adjustable roller conveyor for in- and outfeed pallet/FIBC

### MAIN OPTIONS:

-  Pallet centring unit
-  Distance measuring
-  Gripping arms in stainless steel

## FIBC DISINFECTION LINE

- 1 Lifting of FIBC towards transfer position
- 2 Transfer cart towards air lock
- 3 Disinfection station – 12 UV-lights, ensures a reduction of 1log on the bacteria's Escherichia Coli and Cronobacter Sakazakii.



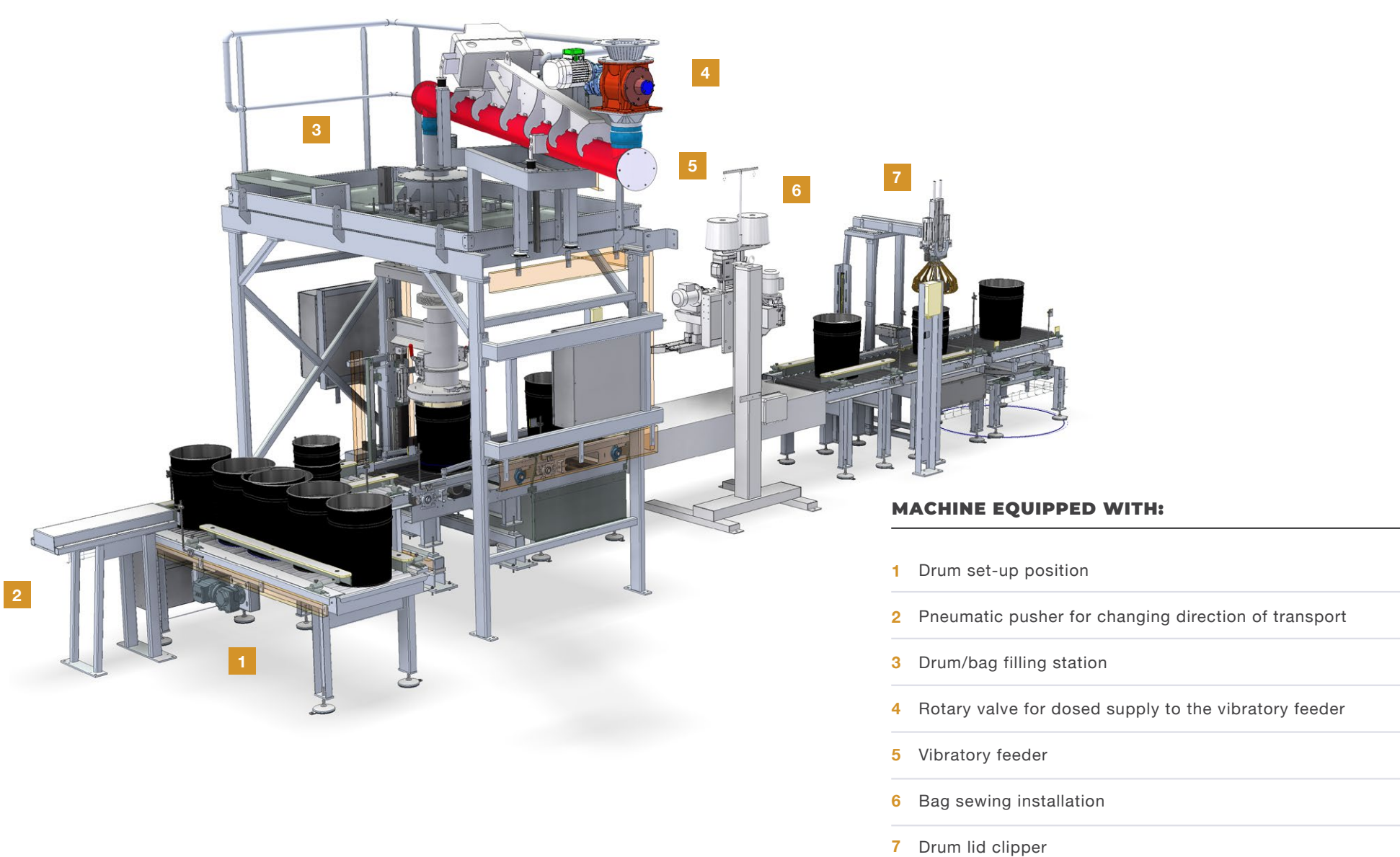
## MODULAR BELT CONVEYOR

For palletless conveying of FIBC's





# Drum filling line

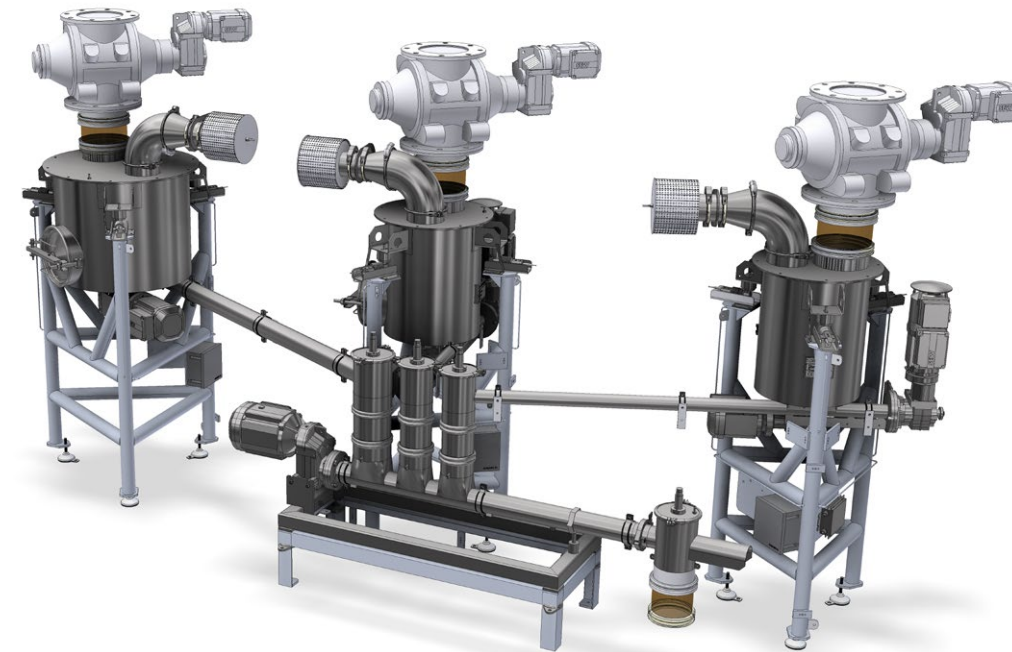
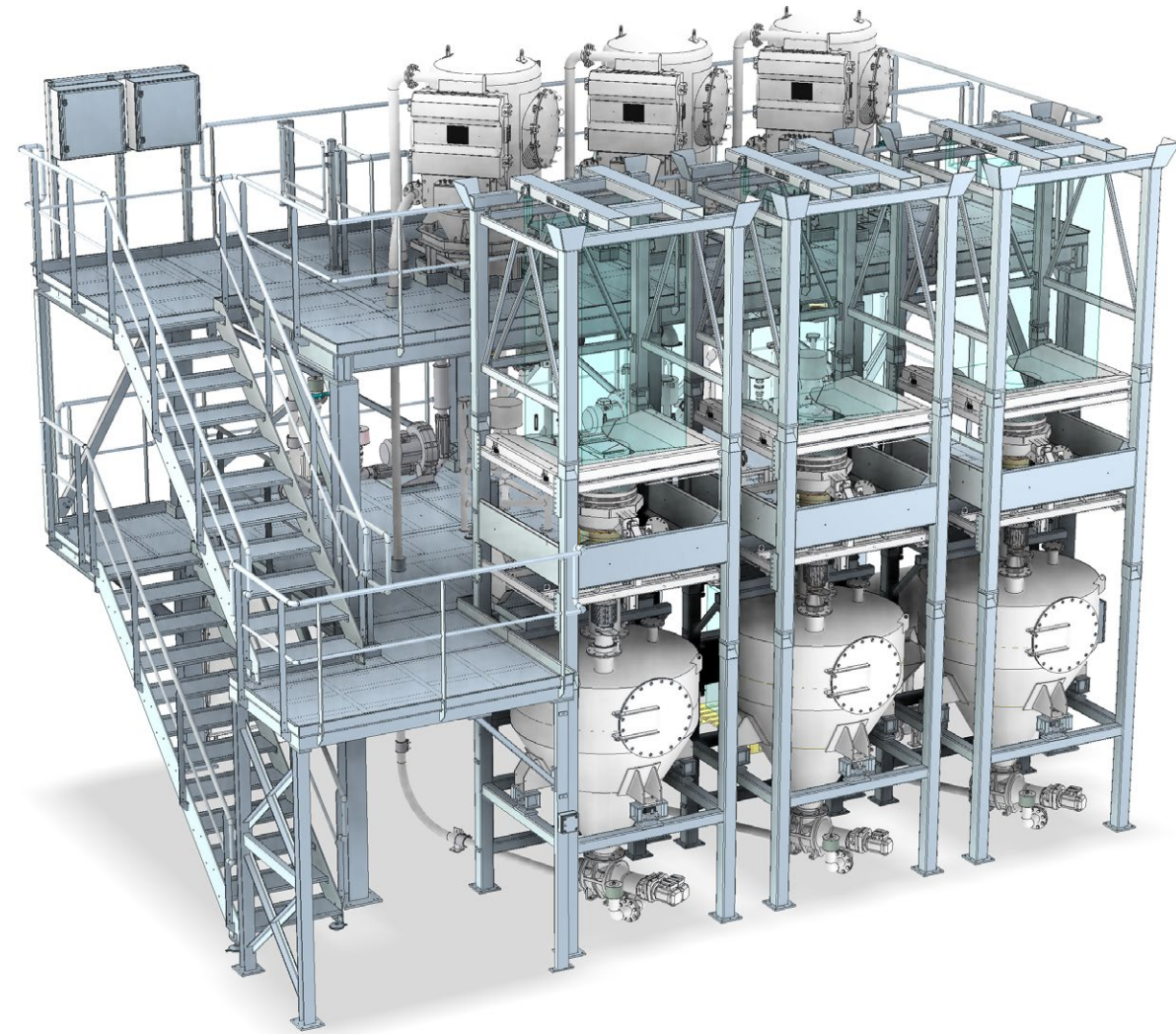


# Sampling systems and carrousel





## Project integration: Mixing and feeding project with pneumatic transport



### MAIN FEATURES:

Main features and product flow sequence of the integrated components:

- ❏ FIBC unloading station
- ❏ Intermediate storage hopper
- ❏ Pneumatic conveying system from ground floor to second floor
- ❏ Storage hopper including filtering system
- ❏ Rotary valve for dosing purposes
- ❏ Loss in weight dosing system
- ❏ Mixing screw and control sieve
- ❏ Bigbag filling station
- ❏ Heavy duty steel structure with three operator levels
- ❏ Overall engineering and automation done by Delaere
- ❏ Selection and procurement of specific equipment done by Delaere

❏ Delaere serves as single source partner with customer for overall project execution



# References



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