

CONVEYING



FILLING + EMPTYING



DOSING + MIXING



SYSTEMS + COMPONENTS



EMDE FIBC Filling Stations



Systematic Filling



FIBC Filling Stations are always designed to suit the characteristics of the product and local conditions. They are assembled from modules which are adapted to meet these specific requirements. The stations feature various options to ensure ergonomic handling, depending on the desired filling capacity.

Ergonomic Handling

The product is compressed with the equipment provided, and the FIBCs kept in shape to provide the necessary stability. The vibration table and/or vibrating grill is separate from the base frame and the weighing system, and consequently does not transmit vibrations. This makes it possible to compress the product during filling and minimise cone formation. FIBCs with a liner are inflated with the ventilator of the inflation device in only a few seconds.

Mobile Systems:

Fork lift tunnel for fork lift operation and adjusting spindles

Profile rollers for transportation on a rail system

Heavy-duty rollers and adjusting spindles

- ▶ **Compression Device Separate to Prevent Transmission of Vibrations. Product is Compressed during Filling and Cone Formation minimised**
- ▶ **Operation Platform with Space for Pallet and Empty FIBCs**

- ▶ **Loop Holder with Swivel Hooks for the Removal of the Filled FIBC with Fork Lift or Height-Adjustable Tubular Forks**
- ▶ **Inflation Device with Ventilator, Flap Trap and Aspiration Flap to the Local Filtering System**
- ▶ **Filling Head Filter to Dedust the Displaced Air with Direct Recirculation into the FIBC. Pneumatic Cleaning of the Filter Cartridges with Air Pulse including Compressed Air Tank**
- ▶ **Filling Head Vibrator for Removing Lumps from the Filling Head**
- ▶ **Manually Activated Butterfly Disc to Prevent Dust Leakage at the Funnel of the Filling Head**
- ▶ **Dust-Tight Filling Spout Connection with Inflatable Grip of Rubber or Silicon and Internal Pressure-Checked Inflatable Grip Control**
- ▶ **Pneumatically Actuated Pressure Pad for Connection of FIBCs with Longer Side-Walls together with Inflatable Grip Sealing**

Pneumatically actuated pressure pad



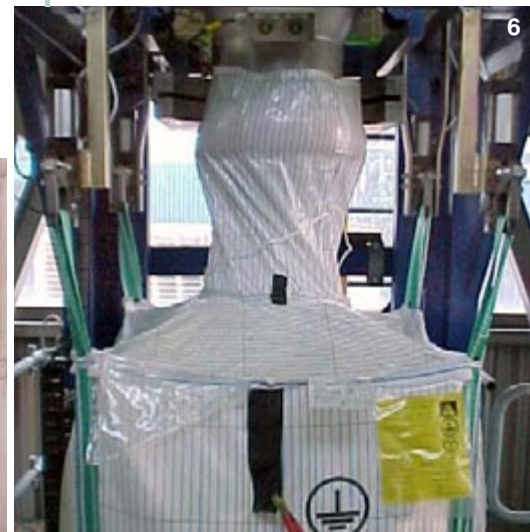
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Swivel hook for removal with fork lift



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Filling spout connection with inflatable grip



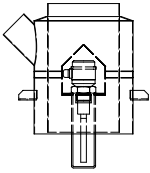
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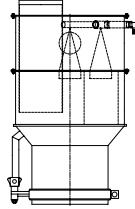
Optimal Combinations

1 Filling head

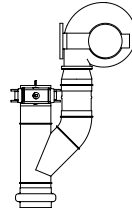
1.1 Level indicator



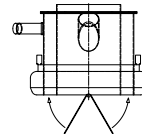
1.2 Filling head filter and single-hand sack clamp



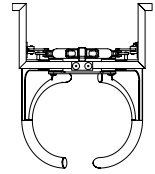
1.3 Inflatable device



1.4 Dirt flap and inflatable grip

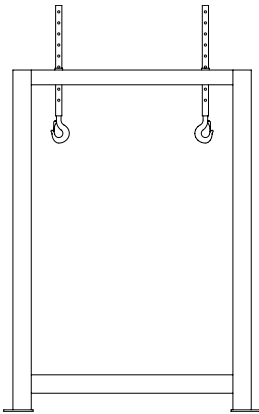


1.5 Pneumatically actuated pressure pad

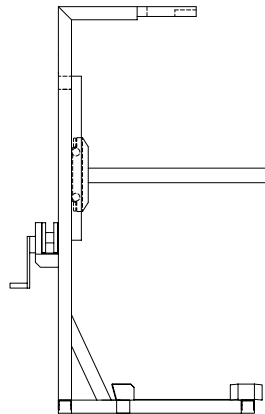


2 Frame

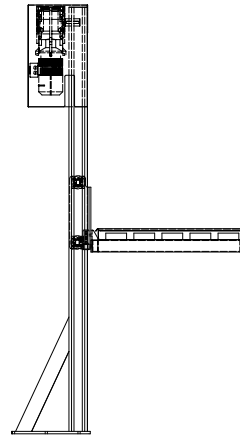
2.1 Supporting frame with safety load hooks



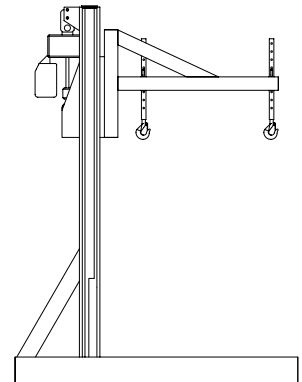
2.2 Lifting mast with tubular fork, carrying capacity 500 kg



2.3 Lifting column with chain drive

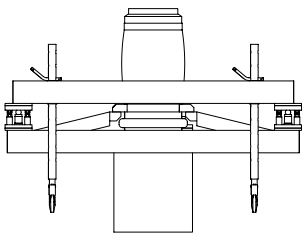


2.4 Lifting mast, heavy-duty design, carrying capacity 2,000 kg

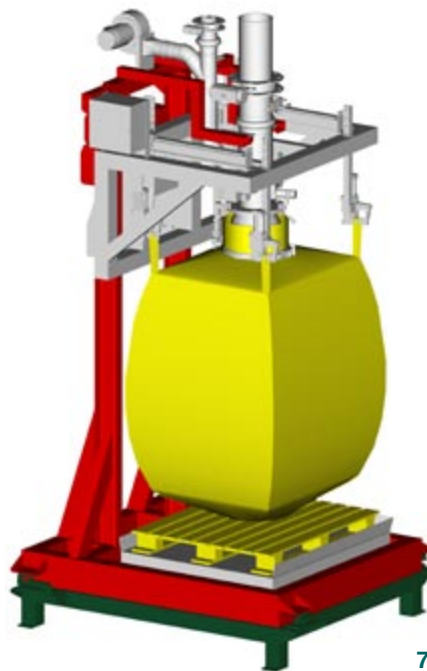
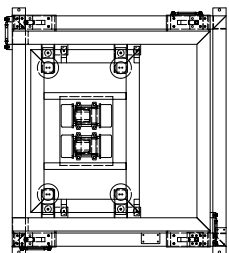


3 Weighing system

3.1 Overhead weighing system



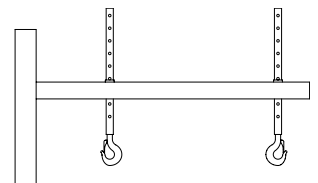
3.2 Low weighing system with compression device



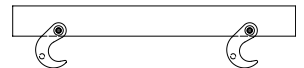
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4 Loop holder

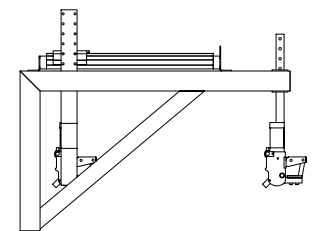
4.1 Height-adjustable safety hooks



4.2 Swivel hooks



4.3 Mobile flap hooks





Our designs are the culmination of many years of experience. Innovative thinking is what underpins the constant upgrading of our technology and the implementation of new ideas.

The main criterion underlying our range of designs is to supply a dust-free and stable filling system for FIBCs which complies with safety regulations.

The extensive choice of different design variations makes for easy and rapid handling.

By using an upstream pallet magazine and downstream accumulating roller conveyors, manual activity is limited to hanging up empty FIBCs and tying filled bundles.

Small Capacity Filling Stations

Filling Capacity:

Up to 10 FIBCs/h

Weighing Range:

200 – 2,000 kg (can be calibrated)

► **Ergonomic Suspension and Removal with due Consideration for the Respective Size of the FIBC**

► **Integrated Electric Control System**

Frame:

Stable rectangular pipe frame in welded design suitable for suspended filling of FIBCs

Carrying capacity: 2,500 kg

Lifting mast with C-rail guidance; hand winch or electric chain hoist

Carrying capacity: 500 kg

Filling Head:

Full status indicated by level indicator in the filling head (volumetric measuring) or weighing frame (gravimetric control)

Filling head coaxial, with aspiration spout

FIBC Connection:

Dust-tight filling spout connection with manual sack clamp or inflatable grip

Safe loop holder with height-adjustable safety load hooks

Weighing System:

Overhead weighing system for suspended filling

Ground-frame integrated weighing system for standing and/or suspended filling

Mobile Filling Station with docking at silo in dispatch area



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FIBC Filling Station for volumetric filling



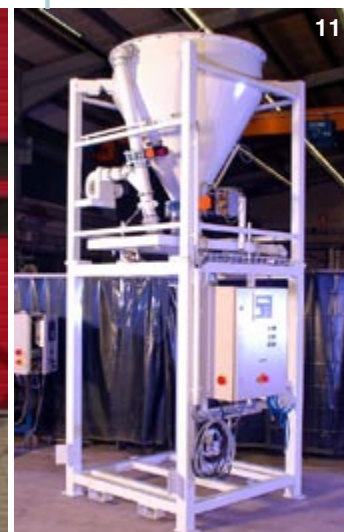
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FIBC Filling Station with ground-frame integrated weighing system



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Mobile system for cement products with integrated weighing frame and receiving bin



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Customer-orientated consultation with a technical expert at the planning phase is the prerequisite for planning an optimal solution which meets the complete needs of the user. Please ask our specialist personnel for more details. We can supply both upstream conveying and dosing technology and pallet feeding with a pallet magazine, paper support and delivery over accumulating roller conveyors, conveying belts or chain conveyors from our complete delivery programme.

SPS control technology, connected on request to a higher-level PLC by process data highway DP, is both built and programmed in-house. Our systems are used in all branches of industry. Even special requirements of the food and pharmaceutical sectors can be accommodated.

Filling Stations for the High Capacity Range



ATEX Explosion-Proof Design as per Directive 94/9/EC for Potentially Explosive Atmospheres where Dust or Gas is Present

Filling Capacity:
Up to 25 FIBCs/h

Weighing Range:
200 – 2,000 kg (can be calibrated)

- ▶ **Automatic Height Adjustment of the Filling Head**
- ▶ **Possibility of Stacking Several FIBCs**

Lift Compensation:

Lift compensation hose of PU with internal product feed pipe

Loop Holders:

With height-adjustable safety load hooks or automatic flap hooks, pneumatically actuated

Frame:

Warp-resistant rectangular pipe frame with lifting mast for suspended or standing filling

Lifting Mast:

For heavy-duty continuous operation with electric chain hoist and robust double-T profile guidance of the lifting frame
Carrying capacity: 2,000 kg

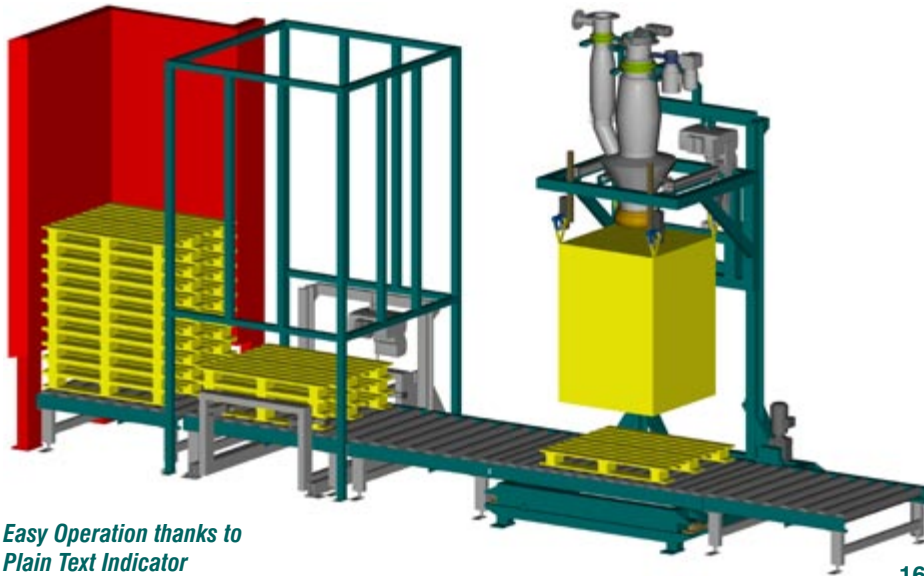
Double Filling Station with Distributing Screw RSD 160

Composite station for cardboard and FIBCs in the food industry

Compact Filling Station with flat vibration table for colouring pigments

Filling Station with ground-frame integrated weighing system and accumulating roller conveyors





- ▶ **Easy Operation thanks to Plain Text Indicator**
- ▶ **Weighing Control Panel with Adjustable Programme to Control the Basic Functions of the Filling Station**

- ▶ **Pallet Magazine**
- ▶ **Automatic Paper-Support**

Basic Functions of the Filling Station:
 Automatic taring
 Inflation of the FIBC
 Compressing at 3 filling weights
 Dosing systems for fine/coarse flows
 Automatic preact correction

Explosion-Proof Design:
 ATEX explosion-proof systems as per Directive 94/9/EC
 Potentially explosive atmosphere with dust,
 potentially explosive atmosphere with gas
 Each with intrinsically safe operating unit and separated electronics

Electric Control System:
 Freely programmable SPS control
 S/N EC L2 DP field bus interface
 (process data highway DP)
 Serial bus for printer connection or data transmission

Pallet Magazine:
 For at least 20 pallets, with mechanical or automatic adjustment for different pallet sizes

Pallet Transportation:
 With roller conveyor or chain conveying system
 Accumulating roller conveyor with single drive
 Removal facility with robust collision protection guard for fork lift
 Safety device with safety grill and safety light barrier in the working area

Waste material silo which fills FIBCs for underground storage

FIBC Filling Station with roller conveyor and operating platform

Pallet magazine for 20 pallets

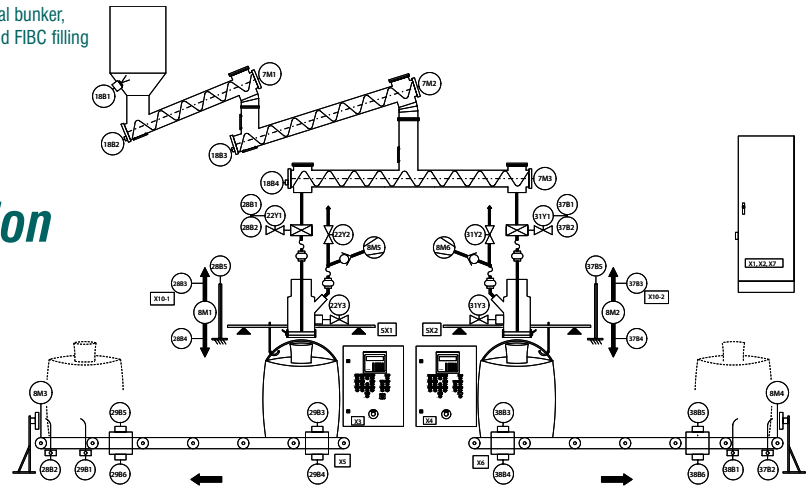
Electric control system with weighing system control panel





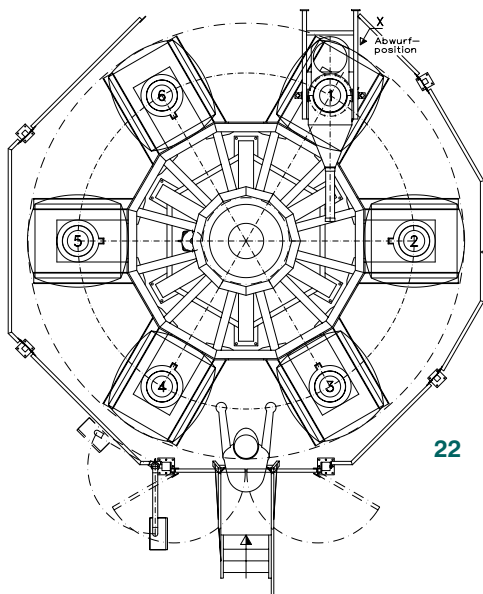
System solution with bulk material bunker, discharge, conveying, dosing, and FIBC filling

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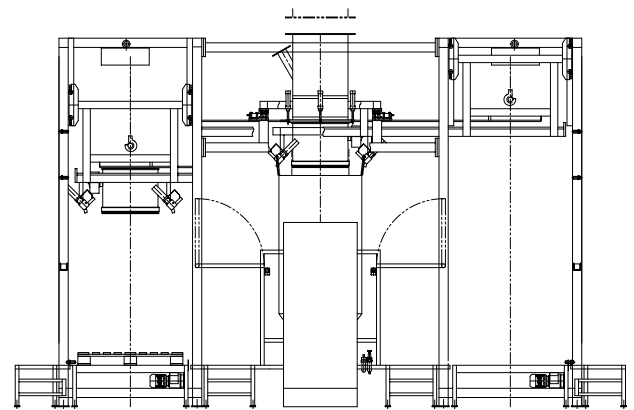


Complete Plant Construction

FIBC filling carousel with separate filling and removal positions



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FIBC filling plant with transportable lifting frame and overhead weighing system in the filling position

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Double Filling Station for automatic filling in single-loop FIBCs

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Filling carousel for IBC with integrated weighing system and dosing screw

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Mobile Filling Station

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Discharging conveyor with handover point for fork lifts and safety technology

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Consultation

One phone call is all it takes – our sales engineers will visit you as soon as possible for an on-the-spot consultation. Don't hesitate to tell us exactly what you need – we welcome every challenge.

Design

The modern computer-supported 3D design system lets you visualise your system and quickly prepares a drawing.

Manufacture

We use modern and state-of-the-art technology to manufacture in-house, guaranteeing short delivery times with high flexibility. Our own control system engineering means adjustments can be made without delay.

Service

Erection and start-up are carried out promptly by our own skilled personnel. Maintenance and repairs are always possible at short notice.

The Complete Range



Conveying

EMDE Screw Conveyors
WUTRA Bucket Elevators
Flexible Screw Conveyor EMDE-LIFT

Filling and Emptying

EMDE FIBC and IBC Systems
EMDE Sack Emptying Systems

Dosing and Mixing

EMDE Dosing Screws
EMDE Batch Mixers and Mixing Screws

Systems and Components

Multi-Components Dosing Systems,
Batching and Weighing Systems,
Empty Sack and FIBC Compactors,
Lump Breakers, Vibrating Trays,
Expansion Joints, Inflating Hoses,
Flat Slide Valves



Pneumatic Conveying Systems

EMDE Pressure Conveying Systems
EMDE Suction Conveying Systems

Vacuum Transport Systems



Machinery and Plant Construction

EMDE High-Performance Filters
EMDE Rotary Kilns
EMDE Steam Tube Calciners
EMDE Rotary Dryers
EMDE Rotary Coolers
EMDE Lime Shaft Kilns
EMDE Thickeners
Special Steel Equipment

Foundry

STASSFURT Iron Castings
Cast Iron Kolumns

Windpower Plants

Towers
Cast Iron Components (hubs, shafts)

Systems and Components

Equipment for the Soda, Potash and
Sugar Industry

Vacuum Cleaning Systems

EMDE Vacuum Cleaning Systems (stationary/mobile)

Trough-Chain Conveyors

We will be happy to send you detailed information on request.

