



Complete Range



Complete Range

The company was established in 1980 as a family business in Nassau an der Lahn to produce bulk materials handling equipment. The company's continuous growth and expansion of its range into plastic mould construction in 1986 and drilling technology in 1989 has played a major role in EMDE's success story. In early 2000, EMDE WUTRA, was established in Wurzen to produce bulk materials conveying equipment.

formance, CNC-controlled machinery and the latest electronic welding machines to achieve optimum quality and short delivery times. For complex components production data is transferred direct from the CAD system to the production machines.

Our spacious manufacturing facility and good handling systems allow the manufacture of large items with dimensions of up to 4.5 x 4.5 x 40 m with a maximum weight of up to 40 tonnes.

Innovation is our speciality. Engineering know-how is our strength !

The design, manufacture and marketing of all bulk handling equipment is carried out in-house. Our range of products are the culmination of two decades of experience and innovation.

Emde employ over 160 people who form a motivated team trained to provide solutions to your bulk materials handling requirements. Emde are represented in many European countries through agent companies.

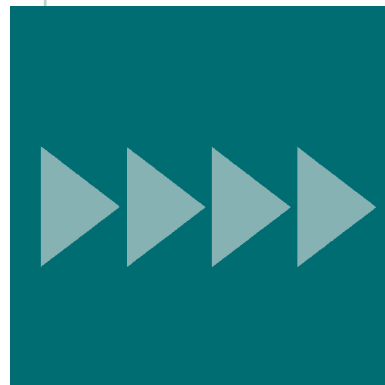
Our bulk handling systems and equipment are designed in our engineering offices in Nassau and Wurzen. Design and detailing is carried out on the latest 3D CAD equipment to provide speed and accuracy. Manufacturing is carried out on high-per-

We encourage our customers to visit us at our factories and offices in Nassau and Wurzen to view our modern and efficient facilities. Why not make an appointment right away!

EMDE works in Nassau



Conveying



Filling + Emptying



Individually tailored and cost effective solutions for problems in the fields of bulk materials handling are a requirement demanded by today's industries. As your partner we give priority to the efficient processing of projects. Starting from the initial planning through to final production, we provide the highest level of service and quality.

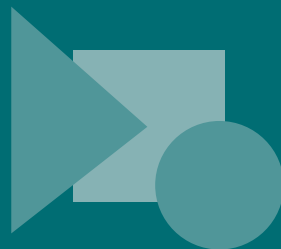
As requirements increase – We keep pace with them.

The reliability of individual components is important to ensure the efficiency of the entire plant.

Dosing + Mixing



Plants + Components



EMDE WUTRA works in Wurzen



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Grain handling with WUTRA belt type bucket elevators



WUTRA chain and bucket elevators for an asphalt plant



WUTRA are leaders in the field of bucket elevators offering a wide range of economic models. WUTRA elevators have been used in extreme conditions and in arduous continuous operation. WUTRA bucket elevators are designed, manufactured and assembled as a modular system in many variations, to provide a cost effective solution to conveying requirements.

Bucket width:
up to 1,250 mm

Conveying capacity:
up to 800 m³/h

Conveying height:
up to 90 m

Frames and casings:
Mild steel, painted or hot-dip galvanised
Stainless steel 304 or 316

WUTRA Bucket Elevators

- 1 **Drive system with overload safety device and backstop**
- 2 **Optimum discharge**
- 3 **Bearing seals with system**
- 4 **Monitoring of circulation and skew running**
- 5 **Dust-tight casing with large maintenance doors**
- 6 **Bucket shapes to DIN or high-performance geometry**
- 7 **Individual tensioning devices as parallel or spindle system**
- 8 **Reduced dead space (option)**
- 9 **Dimensionally stable boot**

Buckets:
Mild steel, stainless steel, rubber, plastic, wear protection with armouring or HARDOX

Fields of application:
Building minerals, mining materials, fertilisers, grain, filter and environmental engineering, coal, plastics industry, oil seeds, recycling, salts, cement, sugar

Head and boot stations



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Plant for special building materials with WUTRA bucket elevators



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Flexible Screw Conveyors EMDE-LIFT

Flexible screw conveyors, EMDE-LIFT, have been in service for many years in a wide variety of sectors. The innovative technology and outstanding quality of the EMDE-LIFT have helped this conveyor to rank among the market leaders.

Conveying many bulk materials at low cost without any detrimental impact on the environment and product: That's the strength of the EMDE-LIFT.



Powder dosing into a weigher bin



Additive dosing with EMDE-LIFT for the petrochemicals industry



Mobile EMDE-LIFT with hopper for flexible feeding



- 1 **Drive with torque reserve for safe start-up**
- 2 **Discharge section for universal connection**
- 3 **Shape and material of the conveyor spiral are matched to suit the product to be conveyed**
- 4 **Flexible conveying pipe adapts to suit the space available**
- 5 **Optimised product feed at the inlet**
- 6 **Cleaning opening for rapid emptying**

Conveying capacity:
0.1 - 20 m³/h

Media:
Powder and granular bulk materials, dry, free flowing

Conveyor tube:
Flexible polyamide or polyurethane tube
Steel or stainless steel pipe with bends and plastic inliner (option)

Conveyor spiral:
Round wire, flat profile or square helix

Conveying length:
Depends on product, up to max. 50 m

Bending radius:
1.0 - 2.5 m

Fields of application:
Food and Chemical industries, filter and environmental engineering, plastics, pharmaceutical, recycling

Weighing and conveying plant for sugar



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EMDE-LIFT in a high-precision dosing plant for synthetic resin and aluminium powder



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Feeding a batch vessel with EMDE-LIFT



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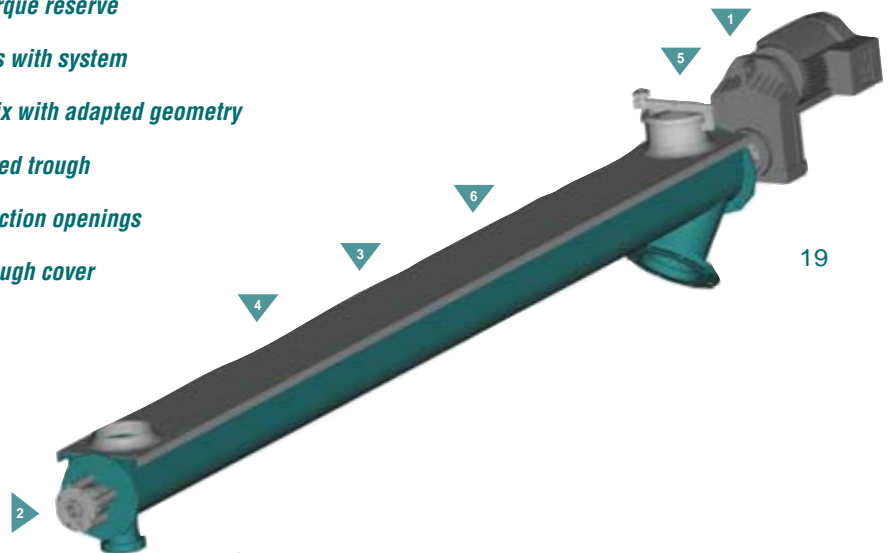
Rigid – but still flexible!

It is under this slogan that EMDE supplies the time-tested WUTRA screw conveyors for use under the most arduous conditions.

Rigid means maximum stability with abrasive or corrosive media and at extreme temperatures.

Flexibility means the wide variety and the modular design of the WUTRA conveyors, which keep costs low even for customised versions.

- 1 *Drive with torque reserve*
- 2 *Bearing seals with system*
- 3 *Powerful helix with adapted geometry*
- 4 *Wear-protected trough*
- 5 *Sealed inspection openings*
- 6 *Dust-tight trough cover*



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WUTRA trough screw conveyor for the transport of wood chips

WUTRA tubular screw conveyor for multi-component dosing



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Double screw with swivel system



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Trough or pipe diameter:
80 - 1,250 mm ø

Conveying capacity:
0.1 - 300 m³/h

Media:
Powder or granular bulk materials and compact sludge

Designs:
Mild steel, painted or hot-dip galvanised
Wear-resistant armoured or HARDOX
Stainless steel 304 and 316
and special corrosion-resistant grades

WUTRA Trough and Tubular Screw Conveyors

Conveying length:
without intermediate bearing max. 12 m
with intermediate bearings up to 80 m

Fields of application:
Waste and refuse recycling, building minerals and mining, chemical industry, filter and environmental engineering, plastics, food, pharmaceutical

Mobile tubular screw conveyor for the chocolate industry

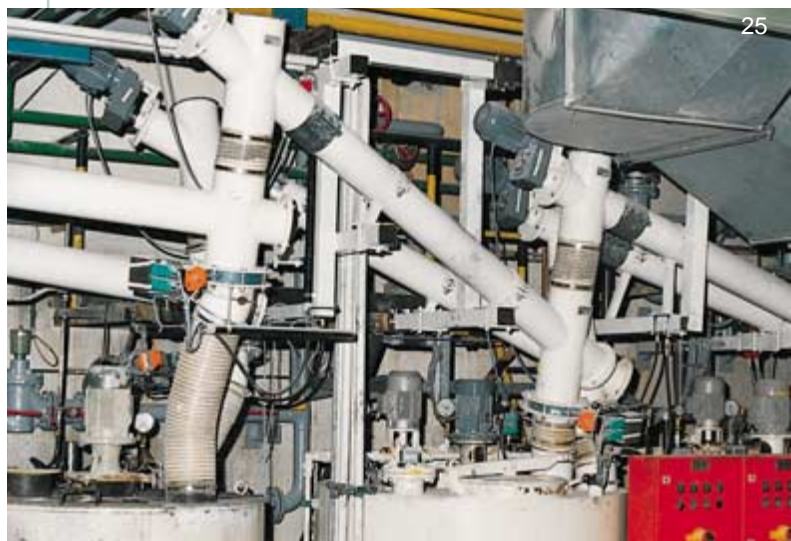
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Trough screw conveyor for dosing grinding sludge

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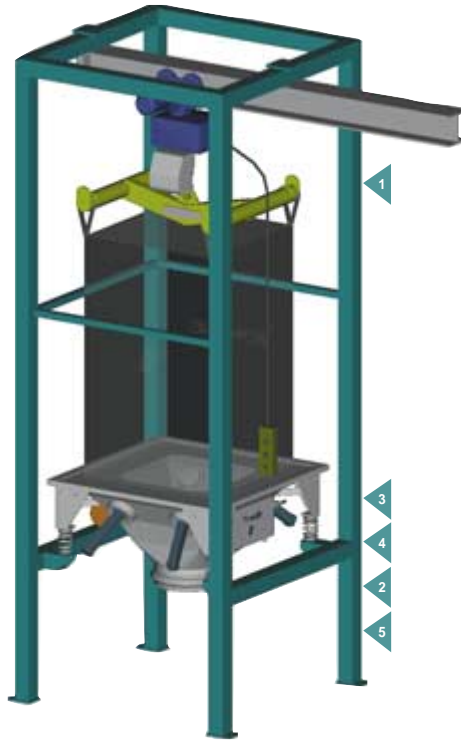
Filter auxiliary agent dosing with tubular screw conveyors

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The EMDE big-bag discharger has a modular design with many variations which enable it to be customised to suit specific applications.

EMDE FIBC Discharger



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Emptying of disposable and reusable FIBC's (big-bags) with or without discharge spout

Various options for sealing the bag bottom and the discharge spout

Max. FIBC dimensions:
1.2 x 1.2 x 2.5 m high

Load-bearing capacity:
up to 2.5 t

Accessories:

- Loading frame
- Lifting facilities
- Vibratory discharge plate
- Massage system
- Stirrer devices
- Cross knives for opening one trip bags without discharge spout
- Dust systems with dust recycling

- 1 **Sturdy frame construction**
- 2 **Ease of operation**
- 3 **Universal docking system**
- 4 **Dust-tight**
- 5 **Smooth operation through discharge aid**

Loading the discharge station using a fork truck



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Multi-component dosing plant for the production of abrasives



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Combined sack and FIBC discharger



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EMDE FIBC discharger with lifting device for the food industry



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We offer you filling stations to suit your application for the clean, accurate and safe filling of FIBC's of all shapes and sizes. The stations have a modular design and can also be integrated into existing plant concepts. The EMDE FIBC filling station is available in many versions - from a manually-controlled system to a fully automated high-performance system.

Combination units:
used for alternately filling FIBC's, drums or skips

Accessories:
Bag inflation device
Compaction systems
Dosing plants
Pallet feed and removal system
Pallet magazine

EMDE FIBC Filling Station

filling FIBC's (big-bags) with powdery and granular materials

Filling capacity:
up to 60 big-bags/h

Filling weight:
up to 2,500 kg

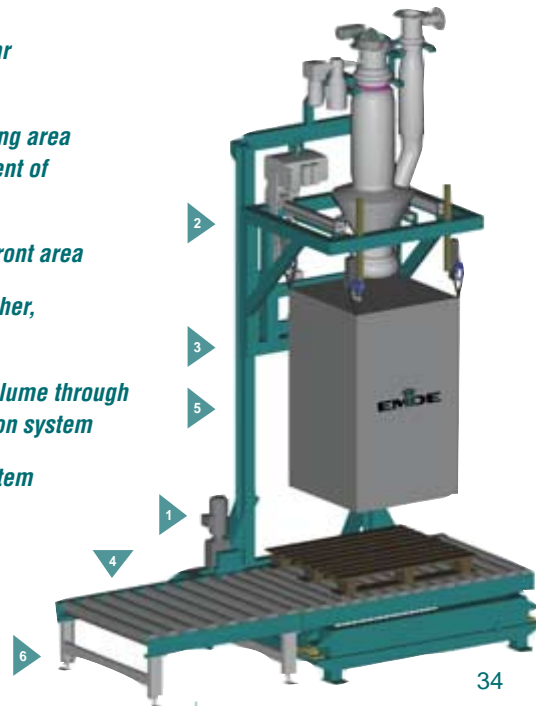
Connection of the FIBC:
with bag clamp or inflation grips, loop holder operated manually or pneumatically

Filling head:
Height adjustable with hand winch, electric chain tackle or spindle lifting gear

Automatic, verifiable dosing of the filling volume by means of a frame weigher

Complete system can be calibrated as an automatic weighing plant and certified for use to trading standards

- 1 **Strong, torsionally rigid tubular section frame**
- 2 **Ergonomically designed working area at the filling head for attachment of the bags**
- 3 **No disruptive columns in the front area**
- 4 **High accuracy, verifiable weigher, dust and splashwater-proof**
- 5 **Utilisation of the entire bag volume through inflation facility and compaction system**
- 6 **Integrated pallet transport system**



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Automated double station for washing agents

Compact filling station, removal of the full bags by manual pallet truck

EMDE FIBC filling station with compaction system



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When filling sacks with dusty materials, it is essential to minimise dust emissions to protect operators and the environment. Some manufacturing systems only process small amounts of constantly changing products, and do not warrant the use of automated plants. For these applications we offer three different systems of manually operated sack tip stations:

EMDE sack discharger type SE
Enclosed EMDE sack emptying booth type SK
EMDE sack chute type ST

The wide variety of products to be discharged and many diverse applications led to the development of these three different emptying systems. They can be used with any configuration of commercially available conveying and dosing facilities.

Enclosed EMDE sack emptying booth

Fully enclosed, dust-tight design
 Capacity: up to 20 sacks per hour
 Operation from outside via a glovebox system
 Sack knife: secured in dust collecting hood with chain

EMDE sack chute:

Compact design
 Easy to clean and disinfect
 Very easy to operate
 High emptying capacity up to 120 sacks/h possible

...All round – simply clean EMDE Sack Emptying Systems

EMDE sack discharger:
 Dust emissions eliminated
 Ergonomically designed operation
 Emptying flap can also be used as a safety door with lock
 Simple operation
 Emptying capacity: up to 60 sacks per hour



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EMDE sack discharger for use with additives



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Mobile EMDE sack discharger with lump crusher for pharmaceutical products



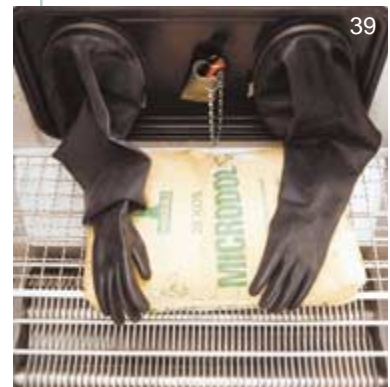
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EMDE sack chute for powdered milk



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Inside view of the EMDE sack emptying booth

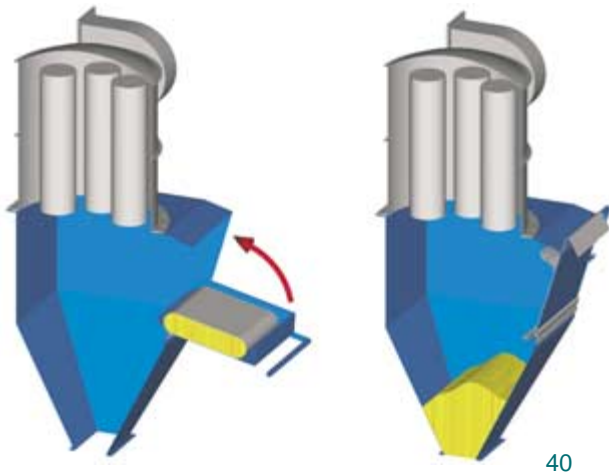


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Clean emptying of bulk material containers (IBC's). We offer you economically priced IBC dischargers that are specially designed for your containers and your bulk materials. Safe and clean discharge as well as ease of operation were given top priority. The EMDE container emptier is of modular design and discharge aids, filling level indicators and weighing systems are available as accessories.

EMDE IBC Dischargers



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Sealed unit:
Spring-loaded or designed with pneumatically operated pressing unit

Soft rubber seal or pneumatic expanding clamp

Frame with centring pockets for container feet

Discharge adapter with flange, suitable for screw conveyor or other equipment

Loading capacity:
up to 2.5 t

Accessories:
Vibratory facility
Loosening stirrer
Various filling level indicators
Mechanical container discharge activation
Weighing systems

EMDE sack emptying booth with weigher and tubular screw conveyor as a loss-in-weight dosing station

IBC discharger feeding a belt conveyor



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EMDE IBC discharger with vibratory discharge aid



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EMDE dosing screws are made up of matching assemblies. With this concept EMDE always offers the right machine for your particular dosing problem.

Two sizes cover the entire capacity range up to 5,000 litres/h. The dosing machines are equipped with spiral screws so there is no impact on the product. The screws are available as single and double shaft systems. The stirrer is driven by a separate gearmotor at constant speed to achieve a consistent discharge.

Accessories:

- Feed hopper
- Actuated discharge valve
- Filling level indicator

EMDE Dosing Screw

The dosing screw drive can be provided with various speed control systems. The variable-speed drive is separate from the stirrer drive, preventing overload.

Dosing capacity:

- Type D 10/D 11: 0.01-500 l/h
- Type D 20/D 21: 1 - 5,000 l/h
- Higher capacities on request

Dosing screw drive options:

- Variable speed gear motor 1 : 10 or 1 : ∞
- Gearmotor, frequency inverter controlled
- AC servo-drive with speedometer

Cleaning:

- The dosing screw can be dismantled easily with snap connectors.



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EMDE dosing screw DS 11 with feed hopper



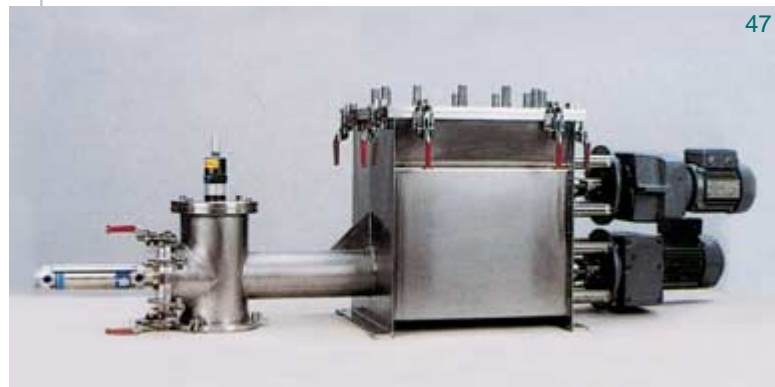
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Optimised stirrer for constant discharge



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EMDE dosing screw DS 21 designed for pharmaceutical applications



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The horizontal mixing shaft of the EMDE double-screw mixer is fitted with two concentric, counter-rotating screws. These screws produce a high mixing capacity and excellent mixing quality. The EMDE double-screw mixer does not impact on the product due to low product shear and low circumferential velocity.

EMDE Double-Screw Mixer

Designs:

Mild steel, painted or coated
Wear protection through armouring or HARDOX
Stainless steel 304 and 316

Functions:

Mixing of bulk materials, wetting, drying, agglomerating, crystallising.

Fields of application:

Food and chemical industries, minerals and plastics

Effective capacity: 25 - 8,000 l

Mixing time: 1 - 10 min.

Mixer shaft:
with counter-rotating, left/right helical screw blades

WUTRA Paddle Screw Mixer

Single or double-screw fitted with paddles for continuous operation. The WUTRA paddle screw mixers excel through their high mixing efficiency and optimum mixing quality. They are available in trough and tubular designs.

Designs:

Mild steel, painted or coated
Wear protection through armouring or HARDOX
Stainless steel 304 and 316
Resistant to pressure surges

Functions:

Continuous mixing of powders, granulates, fibres and lumpy media; moistening and dust-bonding

Fields of application:

Food and chemical industries, minerals, plastics and recycling

Screw size: DN 100 - DN 800

Throughput rate: 0.2 - 500 m³/h

EMDE double-screw mixer as a weighing bin

WUTRA paddle screw mixer for wetting sewage sludge

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EMDE double-screw mixer with sack chute and filter

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Clean charging of the double-screw mixer using EMDE sack discharger

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We supply complete dosing and mixing systems for the automated processing of bulk materials. From the handling of raw materials in silos, sack emptying or FIBC stations, conveying and dosing, mixing and interim storage to filling systems for the finished product. We design and manufacture complete, turnkey systems for the automated handling of bulk materials.

EMDE System Engineering

Advantages with EMDE systems:

- ▶ *Careful and practical planning from one source*
- ▶ *The plant can be extended at any time due to the use of standard components. The plant can grow with production.*
- ▶ *Sturdy design*
- ▶ *Flexible conversion possibilities*
- ▶ *High throughput rates*

At the heart of any plant is the control system. Designed by our experienced engineers, assembled and tested in our own works, we are able to offer various control options:

- ▶ *Stand alone control system with or without PLC control*
- ▶ *Link to existing process control systems via a professional bus*
- ▶ *Integration into master control systems*

With our time-tested EMDE frame weighers and our high-performance weigher processors, we offer you more than just the state of the art:

- ▶ *Load cells with protected installation*
- ▶ *Locking mechanism for transport and repair work*
- ▶ *Weighing accuracy to trading standards regulations and EN 45501*
- ▶ *Systems for effective vibration insulation*

Service

The EMDE plant is only a success for you if it continues to produce reliably for many years. So we offer you our worldwide, fast and punctual spare parts service.

Only professional maintenance ensures availability at acceptable cost in the long term. We offer you this security with our experienced service staff.

Dosing and mixing plant for liquorice production



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Sugar dosing plant in the drinks industry



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Plant for fibre dosing



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EMDE Lump Breaker

Application: Breaking of agglomerates and lumps in bulk materials. We offer you two versions of the lump breaker:

Single-shaft breaker

Low-priced machine for the size reduction of light caking and, at the same time, for loosening the product. Working principle: blade shaft, combing through screen.

Double-shaft breaker

Reduction of hard lumps and agglomerates to a defined grain size. Working principle: Intermeshing cutting discs, optionally with screen.

Capacity: up to 40 m³/h

Size reduction: Smallest grain size attainable 5 mm

Various sizes

from 200 x 200 mm to 600 x 1,200 mm

Low height: of only 230 mm with the double-shaft crusher type KB 32

Rapid-cleaning version with laterally extendable cutting tool (option)

With inlet and discharge shafts, also available as single units

Design:

Version suitable for food, rapid-cleaning system and screen

EMDE Bin Discharger

The purpose of the EMDE vibratory bin discharger is to achieve safe discharge from containers and silos.

The material is loosened and discharged purely by mechanical means, with no exhaust air which would have to be filtered. There are no moving parts in the product and the EMDE bin discharger is extremely low in wear.

The vibratory table is provided with a high-performance vibration insulation feature so that the adjacent structures are only minimally affected and extremely quiet operations are ensured.

Size:

DN 400 to DN 3,600 mm

Discharge:

Flange as preferred

Design:

Mild steel, painted, stainless steel 304 or 316

Drive:

Electric or pneumatic vibrator

EMDE vibratory bin discharger
DN 3,200

Double-shaft lump breaker with
rapid-cleaning system

High-performance double-shaft
lump breaker

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EMDE Empty Bag Compactor and Big-Bag Compactor

EMDE empty bag compactor for sacks and FIBC's (big-bags) are used for the dust-free disposal of emptied sacks or FIBC's. These compactors provide the answer to disposal of emptied FIBC's and sacks. The emptied sacks are thrown directly into a transfer chute and into the empty bag compactor. Compaction is performed by a decreasing pitch screw and tamping action.

EMDE Expansion Joints

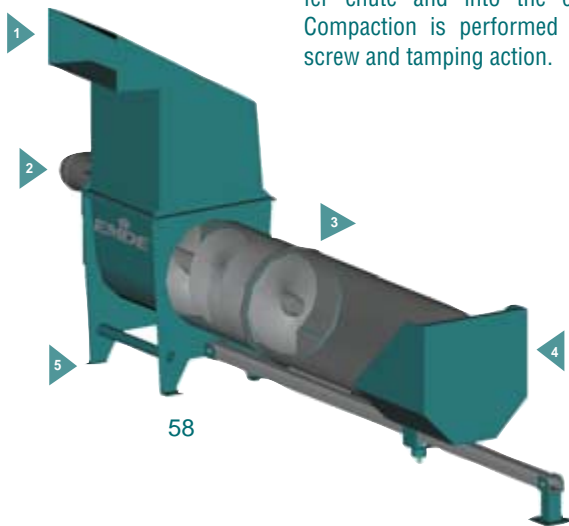
EMDE flexible expansion joints are injection-moulded without seams from silicon and are used for flexible connections in bulk material lines. Problems with brittle or torn rubber parts are now a thing of the past.

Convincing in every aspect:

- ▶ **Highly flexible, especially suitable for precision weighers**
- ▶ **Permanently dust-tight injection-moulded without seams**
- ▶ **Material LSR (liquid silicon rubber)**
- ▶ **Perfectly hygienic**
- ▶ **Transparent**
- ▶ **Can be retrofitted into existing plants**
- ▶ **High strength**
- ▶ **Extremely temperature stable from -40 to +150°C**
- ▶ **Vibration-resistant even at high amplitudes**

Fields of application for EMDE expansion joints:

- ▶ **Weighing technology**
- ▶ **Dosing units**
- ▶ **Vibration technology**



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- ▶ **Feed chute for reliable charging**
- ▶ **Low-maintenance drive with integrated bearing for the compactor screw**
- ▶ **Compactor screw with decreasing pitch**
- ▶ **Brake carriage with adjustable braking force to increase the compaction performance of the empty bag compactor**
- ▶ **Machines available as a single unit, mobile or fixed installation**

EMDE big-bag compactor



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Mobile EMDE empty bag compactor at a sack emptying station



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EMDE expansion joint, highly flexible corrugated



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WUTRA Shut-off Slide Valves and Diverter Valves

WUTRA slide valves are an important link in plants for handling bulk materials. They excel through their effective sealing, operational reliability and streamlined geometry of the inlet area.

WUTRA diverter valves are designed for coarse particles, granular and fine powders and are dust-tight. The diverter valves are offered as two or multi-way diverters.

Size:

up to 2,000 x 2,000 mm or DN 1,200

Design:

Mild steel, painted
Stainless 304 or 316
Option: Wear protection through HARDOX sheet
Corrosion protection through rubber

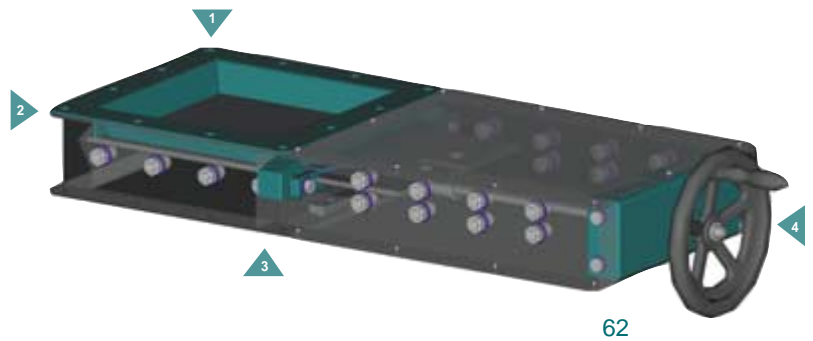
Activation:

Hand wheel or crank
Pneumatic
Hydraulic
Electric motor

Fields of application:

Emergency and operating shut-off slide valve
Dosing slide valve
Two and multi-way diverters

Tailor-made versions are our speciality



- 1 All dimensions and flange patterns available
- 2 No blocking or caking of the product thanks to optimised housing design
- 3 All-round, dust-tight stuffing box packing
- 4 Modular drive concept

EMDE expansion joint in a FIBC filling station

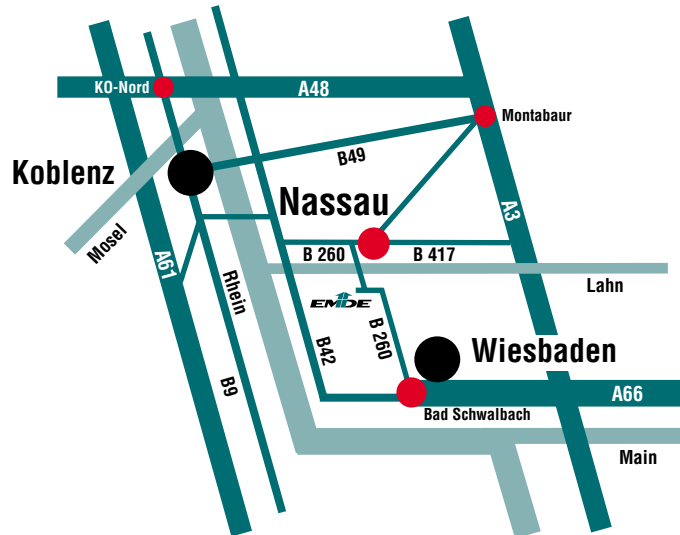
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2/3-way diverter valve

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You will find us in the Koppelheck industrial estate directly beside the new Lahn bridge in Nassau. How to get to Nassau from the north: A3, Montabaur exit, follow the signs to Nassau. From the south: At the Wiesbaden intersection, drive onto the A66, Bad Schwalbach exit, then take the B260 heading for Nassau.

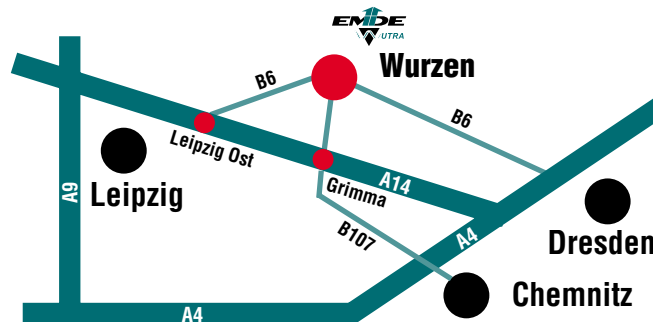


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We are always close to you!

You'll find us in the commercial centre (road sign "Mittelstandszentrum") on Lüptitzer Strasse in the north-east of the town of Wurzen. Motorway A14, 'Leipzig Ost' exit (to the B6) or Grimma (to the B107).



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