



EMDE-LIFT



# *Flexible Spiral Conveyor*

Flexible spiral conveyors EMDE-LIFT have been used for many years in various industries. The innovative technique as well as the outstanding quality of the EMDE-LIFT has given us a leading position in the market. The advantages:

*Closed system for dustfree and gentle conveying of fragile products*

*High conveying capacity with a small cross section and low motor power*

*Energy-saving*

## EMDE-LIFT – The Economic Conveyor

In principle the EMDE-LIFT is working dustfree because it is an enclosed mechanical conveyor system. It uses no air for conveying and requires no filters. The dust tight design ensures clean and safe conveying of your products at low investment and service costs.

EMDE-LIFT's flexible installation is advantageous in existing plants as well as in new systems. The EMDE-LIFT saves space which can be used for additional components.

*Transport of dry powders of all sorts*

*Large range of applications*

*Conveying distances of up to 40 m with one conveyor*

*Conveying capacities between 0.2 - 20 m<sup>3</sup>/h*

*Conveyor pipe diameter from 30 to 100 mm.*

*Easy to maintain*

*Easily integrated with existing machines*

*Easy cleaning*

*Flameproof design according to European and international standards*

*Design for CIP-cleaning*

*Pressure- and vacuum-tight as well as explosion-proof*

EMDE-LIFT MDB 90 charging a reactor



4

Two EMDE-LIFT MDB 80 conveying sugar



5

EMDE-LIFT MDB 70 dosing filler for glue



6



1 Drive with torque reserve for safe start-up

2 Discharge section for universal connection

## Perfect technique and performance

3 Neither filter nor rotary valve at the outlet

4 Cross-section and material of the conveyor spiral are matched to suit the the product to be conveyed

5 Flexible conveying pipe adapts to suit the space available

6 Optimised product feed at the inlet

7 Cleaning opening for rapid emptying

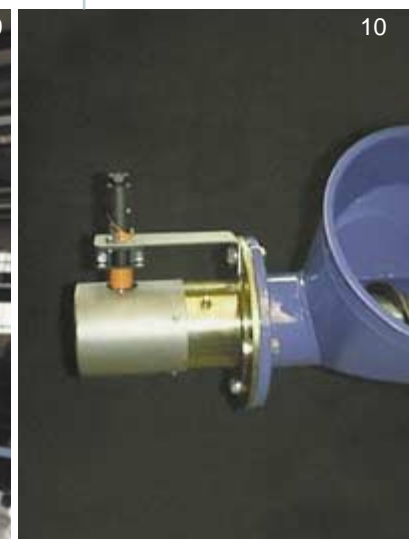
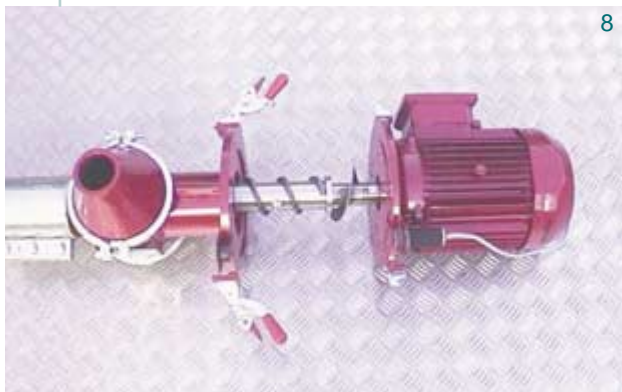
### Safety Options

- Totally closed system
- Level indicator
- Monitoring of motor power
- Safety switch at all cleaning and inspection doors
- Revolution encoder

EMKOM expansion joints between the outlet of EMDE-LIFT and a weighing hopper

Inlet with revolution encoder

Motor and spiral with quick clamps for easy cleaning



**Chemical Industry:**

Feeding of reactors; Discharging of mixers and packing machines; Packing into Big Bags, casks and sacks; Complete systems with multiproduct dosing  
Dosing of additives ...

**Products:**

baryte, bentonite, borax, calcite, cellulose, ceramics, French chalk, metaloxides, mica, resin, salicilic acid, soda ash, sulfamic acid, zinc stearate ...

**Applications in Environmental Technology:**

Conveying and dosing of water conditioning chemicals; Charging and discharging of filter aids; Addition of reactants and precipitants; Discharging of ash incl. mixing- and wetting devices; Discharging of bins  
Filling of containers and Big Bags; Dewatering of sewage; Discharging of filter dust ...

## EMDE-LIFT in Practice

**Applications in Plastics Technology:**

Conveying from bins, containers, FIBCs, sack-dischargers as well as from weighing containers to process; Machines for reworking; Mixing and simultaneous conveying; Conveying of regrind from a granulator; Packing of granules and powder ...

**Products:**

activated carbon, adsorber, cellulose fibres, filter aid, filter dust, gypsum, lime, metal slurry, precipitants, sodium carbonate, wood dust ...

**Products:**

additives, colours, fibres, filling materials, flame retardant, foil flakes, granules, pellets, powder, PVC-dry-blend, rubber granules, shellac, stabilizers ...

EMDE-LIFT at a moveable cleaning plant for soil

Multi component mixing and dosing system with EMDE-LIFT MDS 40

explosion-proof EMDE-LIFT MDB 80



11



12



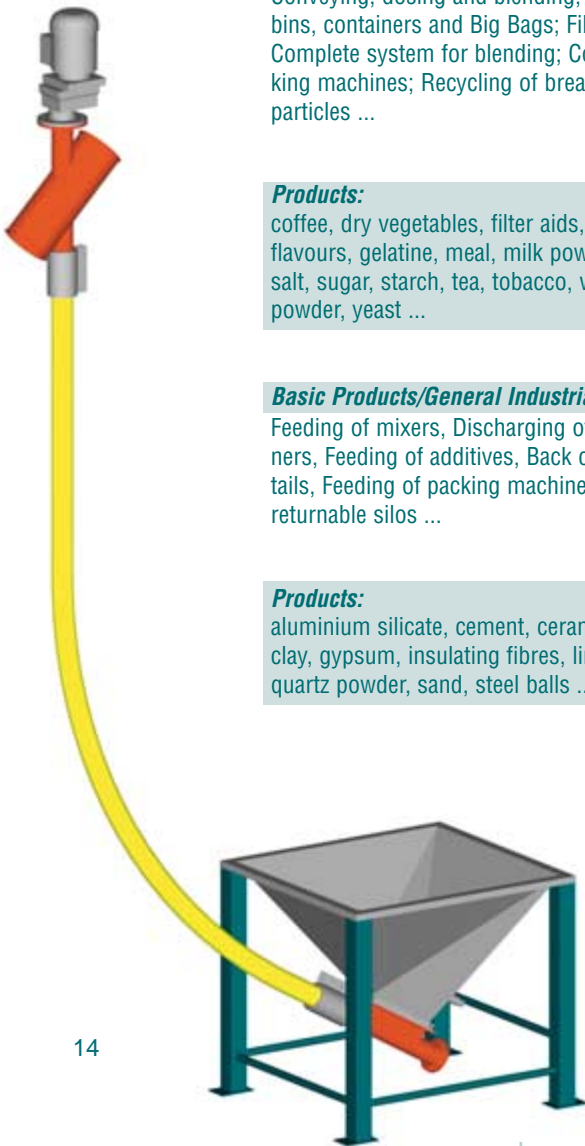
13

**Foodstuff Industry:**  
 Conveying, dosing and blending; Discharging of bins, containers and Big Bags; Filling of Big Bags  
 Complete system for blending; Conveying to packing machines; Recycling of breakages and oversize particles ...

**Products:**  
 coffee, dry vegetables, filter aids, finished soups, flavours, gelatine, meal, milk powder, nuts, oatmeal, salt, sugar, starch, tea, tobacco, whey powder, yeast ...

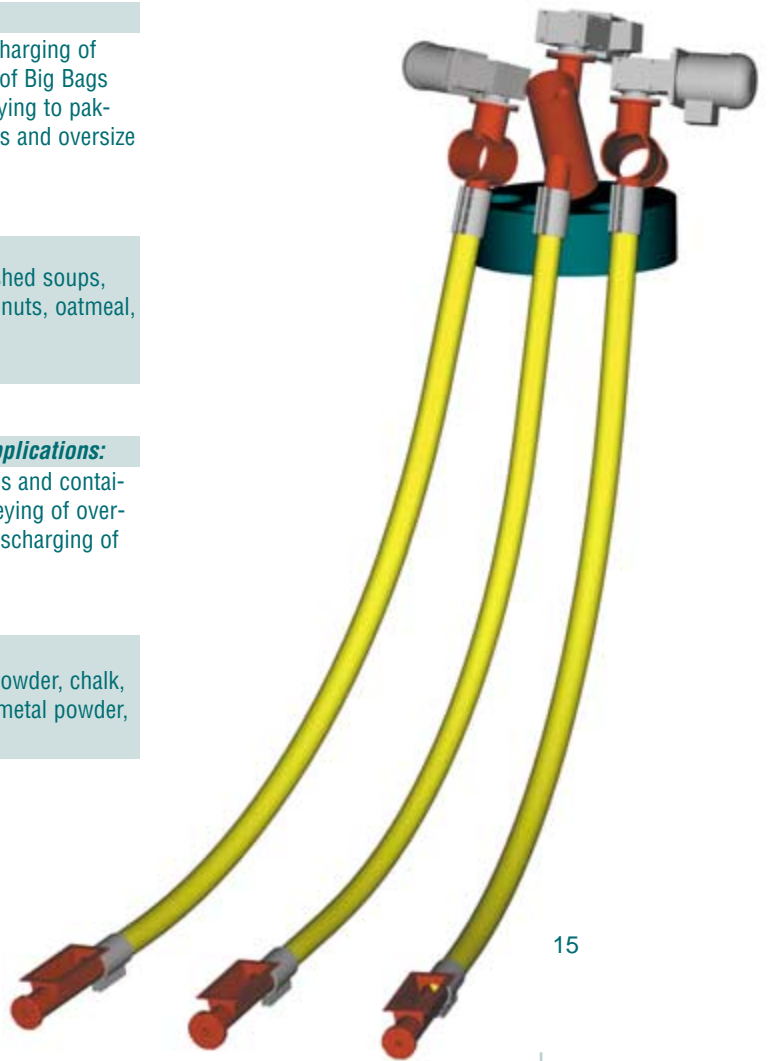
**Basic Products/General Industrial Applications:**  
 Feeding of mixers, Discharging of silos and containers, Feeding of additives, Back conveying of over-tails, Feeding of packing machines, Discharging of returnable silos ...

**Products:**  
 aluminium silicate, cement, ceramic powder, chalk, clay, gypsum, insulating fibres, lime, metal powder, quartz powder, sand, steel balls ...



14

Dosing of alloys in a steel works with five EMDE-LIFT MDB 90 und MDB 70



15

EMDE-LIFT for limestone

EMDE dosing system for liquorice mixture. Dosing and transport with EMDE-LIFT



16



17



18

The great variety of products requires the exact engineering of the EMDE-LIFT to get a safe and efficient conveyor.

EMDE offers optimised conveyors in various sizes and materials for each product. Our experienced engineers will be pleased to advise you and we have a test equipment at your disposal. Why not make an appointment right away!

## The correct conveyor spiral for each product

### Materials:

**Spiral:** High tensile spring steel and stainless spring steel

### Conveyor Pipe:

**plastic materials:** flexible polyamide hose for general use, food grade semi rigid version, metal hose with plastic liner of various qualities for highest reliability of operation

**metal:** semi rigid version with steel- or stainless steel-tube with prefabricated bends

**without conveying pipe:** to install into existing containers or troughs

### Conveyor Spirals of the EMDE-LIFT

#### Flat Ribbon Spiral

MDB	smallest bending radius [m]	max. grain size [mm]	max. conveying rate [m³/h]
50	1,5	3	2,0
70	1,9	4	5,0
80	2,2	6	10,0
90	2,2	10	12,0
100	2,5	10	20,0

**Application:** High capacity, Poor flowing powders  
Long conveying distances

#### Round Wire Spiral

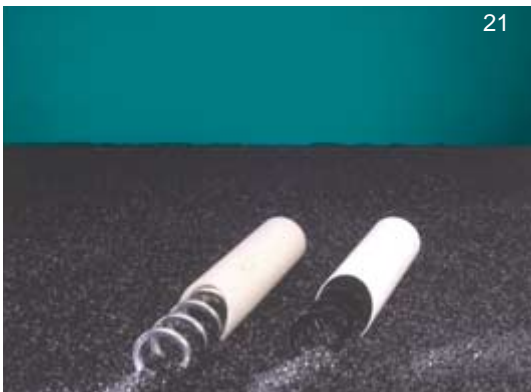
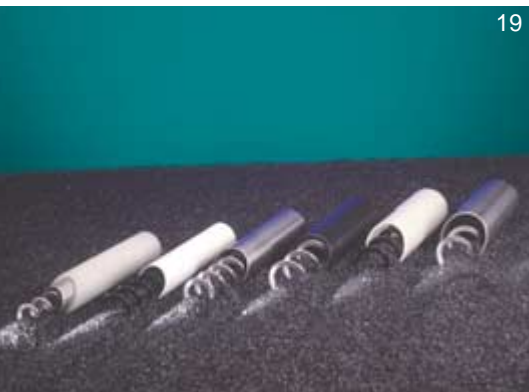
MDS	smallest bending radius [m]	max. grain size [mm]	max. conveying rate [m³/h]
30	1,0	2	0,2
40/40 S	1,3	3	0,5
50	1,5	4	1,5
65	1,9	8	4,0
75	2,2	9	8,0
85	2,5	15	10,0

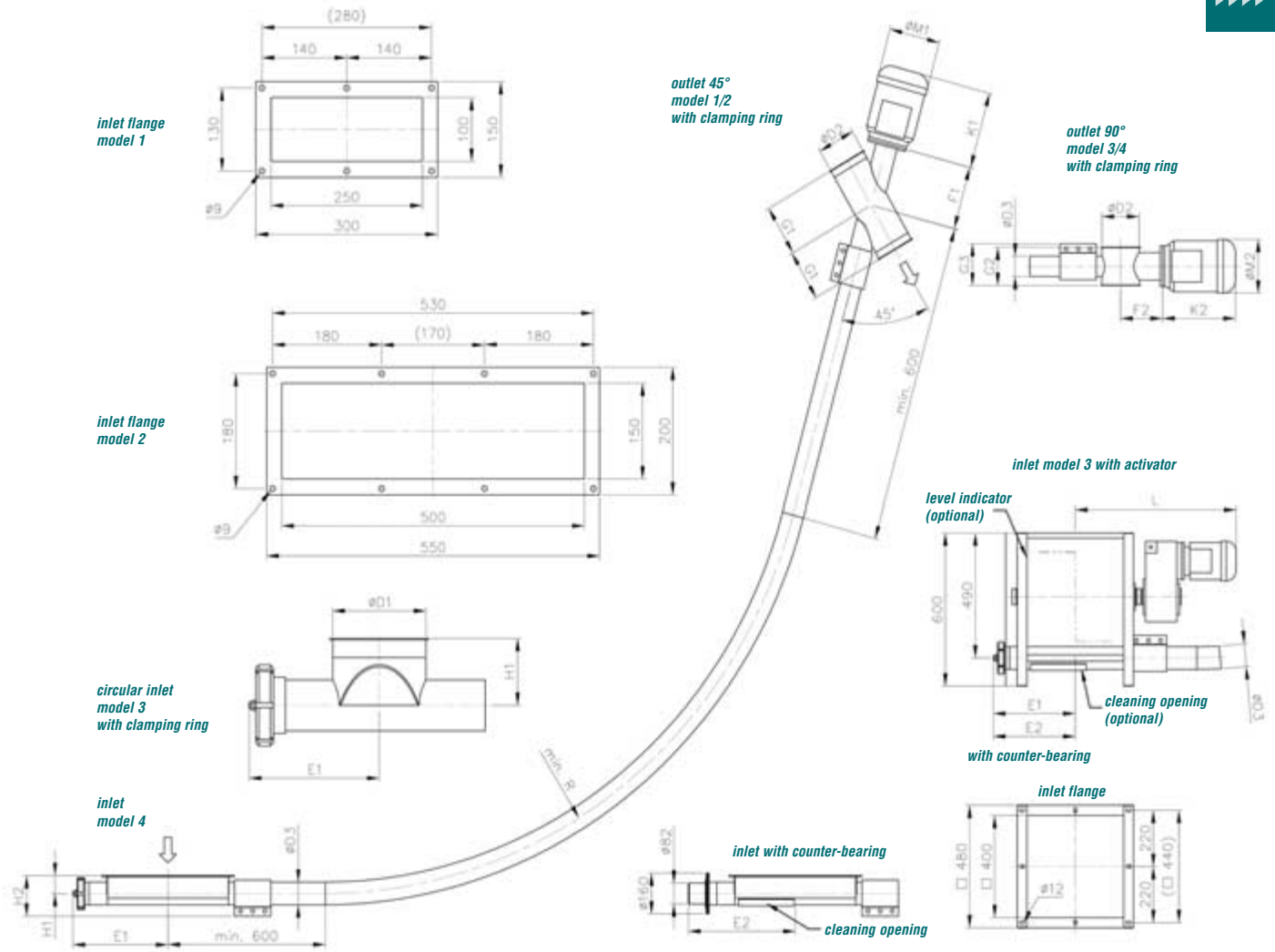
**Application:** Coarse granules, Gentle conveying,  
Low cost version

#### Square Spiral

MDK	smallest bending radius [m]	max. grain size [mm]	max. conveying rate [m³/h]
65	1,9	1	2,5

**Application:** Difficult powders, Cohesive products,  
Especially suitable for lime, chalk and similar powdered materials





dimension sheet EMDE-LIFT – dimensions K1, K2, L, ØM1 and ØM2 depend on the actual drive

size	Ø D3	min. R	rectangular inlet						inlet with activator model 3				circular inlet model 4				
			model 1			model 2			H1	H2	E1	E2	Ø D1	E1	E2	H1	H2
MDS 30	34	1,0 m	270	338	60	116	-	-	-	-	328	287	100	190	238	150	213
MDS 40	48	1,3 m	270	338	60	123	-	-	-	-	328	287	100	190	238	150	213
MDS 50 / MDB 50	60	1,5 m	270	338	60	129	390	458	60	129	328	287	150	215	263	110	173
MDS 65																	
MDB 70 / MDK 65	80	1,9 m	270	338	60	149	390	458	60	149	339	287	200	240	288	155	234
MDS 75 / MDB 80	89	2,2 m	270	338	70	154	390	458	70	154	339	287	200	240	288	155	239
MDS 85 / MDB 90	102	2,2 m	270	338	70	160	390	458	70	160	339	287	200	240	288	155	239
MDB 100	108	2,5 m	270	338	70	166	390	458	70	166	350	287	200	240	288	155	246

size	Ø D3	min. R	outlet 45°						outlet 90°							
			model 1			model 2			model 3			model 4				
			Ø D2	F1	G1	Ø D2	F1	G1	Ø D2	F2	G2	G3	Ø D2	F2	G2	G3
MDS 30	34	1,0 m	100	198	160	150	248	200	100	150	100	106	150	175	150	157
MDS 40	48	1,3 m	100	198	160	150	248	200	100	150	100	113	150	175	150	157
MDS 50 / MDB 50	60	1,5 m	150	248	200	200	294	250	150	175	150	157	200	200	150	157
MDS 65																
MDB 70 / MDK 65	80	1,9 m	150	248	200	200	294	250	150	175	150	157	200	200	150	157
MDS 75 / MDB 80	89	2,2 m	150	248	200	200	294	250	150	175	150	159	200	200	150	159
MDS 85 / MDB 90	102	2,2 m	150	248	200	200	294	250	150	175	150	159	200	200	150	159
MDB 100	108	2,5 m	150	248	200	200	294	250	150	175	150	165	200	200	150	165

**Accessories:**

EMDE offers extensive accessories to integrate the EMDE-LIFT in plants and to ease cleaning and maintenance:

- Structural steel engineering
- Diverter valves
- Chutes
- Activators
- Shut-off valves
- Dust control systems

**Service**

On request our engineers install and start up the flexible screw conveyor EMDE-LIFT. For regular inspections our experienced specialists are to your disposal.

**Research and Development:**

The EMDE-LIFT is being continuously developed to be the leader in this technology. Design and engineering take into consideration the latest scientific findings. EMDE cooperates with well-known scientific institutes in projects for new conveying systems.

## The Complete Range of EMDE and EMDE WUTRA

**Conveying**

WUTRA Bucket Elevators  
Flexible Screw Conveyors  
EMDE-LIFT  
WUTRA Trough and Tubular Screw Conveyors

**Filling and Emptying**

EMDE FIBC Discharger  
EMDE FIBC Filling Station  
EMDE Sack Emptying Systems  
EMDE IBC Dischargers

**Dosing and Mixing**

EMDE Dosing Screw  
EMDE Double-Screw Mixer  
WUTRA Paddle Screw Mixer

**Systems and Components**

EMDE System Engineering  
EMDE Lump Breaker  
EMDE Bin Discharger  
EMDE Empty Bag Compactor  
EMDE Big-Bag Compactor  
EMKOM Expansion Joints  
WUTRA Shut-off Slide Valve

Please ask for detailed information.



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