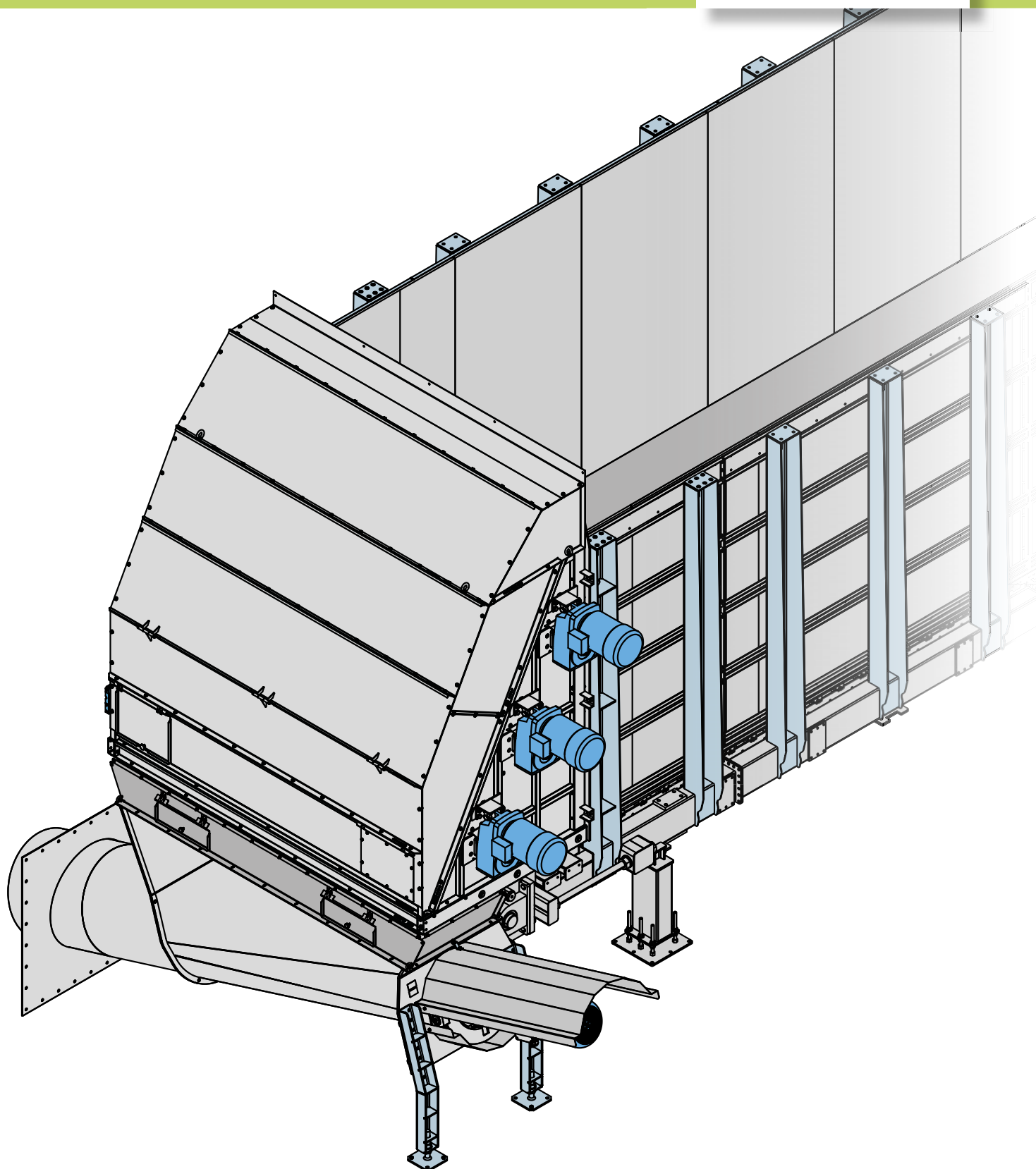


Easyfeeder

Feeding Technology



Scan the QR-Code
for more information:



FLEXIBLE APPLICATION
SUITABLE FOR ANY DIGESTER

Our EASYFEEDER feeding technology can be adapted to different types of digesters.

RELIABLE HANDLING
OF CHALLENGING SUBSTRATES

Whether long-fibre grass silages or other demanding materials – the EASYFEEDER feeding technology performs powerfully and reliably in every version.

MODELS FOR EVERY NEED

From entry-level models to systems with container, vertical screw, or milling unit – we offer the right solution for every volume and material.

ROBUST AND ENERGY-EFFICIENT

Power consumption and wear are minimized. All components have a particularly sturdy design and feature intelligent control systems.

CORROSION PROTECTION
AND SAFETY

The conveyor screws and drive units are made from stainless steel. Load monitoring and interval control ensure trouble-free operation.

COMPLIANT WITH
LEGAL REQUIREMENTS

All components meet the requirements of Machinery Directive 2006/42/EC and are approved for restricted use in ATEX zones.

CONTENTS

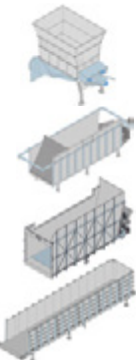
MODULAR SYSTEM

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FEEDER

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PRODUCTS

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MODULAR SYSTEM

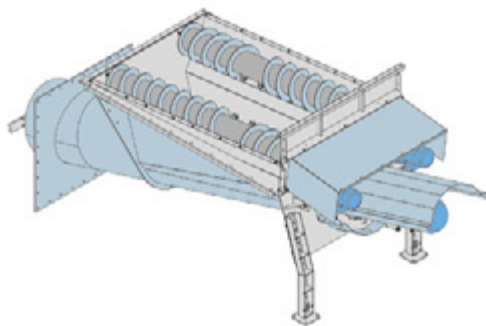
EASYFEEDER

combined with a feed container

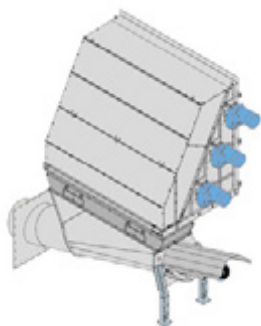
COMBINATIONS

Products of the Feeding Technology – Easyfeeder

Proven feeding solution for digesters installed into the ground



Easyfeeder AS
EBT-ST-AS

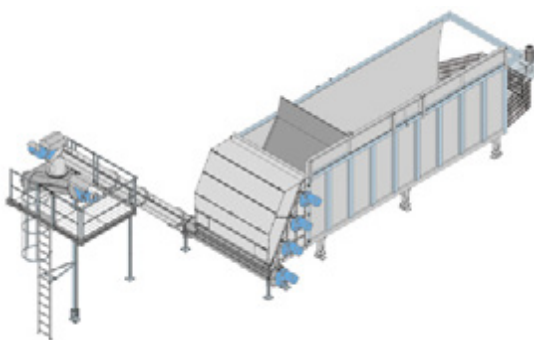


Easyfeeder FA
EBT-FA

Top-Serie: Solids feeding systems for digesters placed aboveground



Easyfeeder Top AS
EBT-T-AS



Easyfeeder Top FA
EBT-T-FA



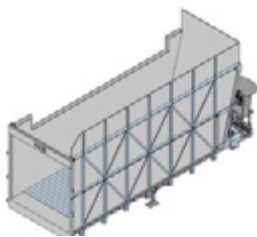
Feed Container



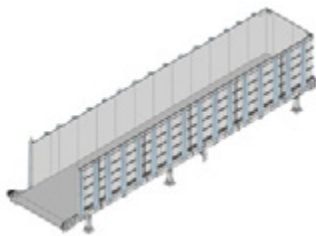
FEED HOPPER STANDARD
For entry-level and small feeding quantities



PUSH-OFF CONTAINER
Simple and cost-effective solution

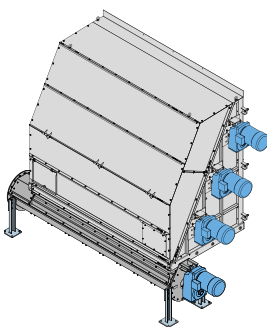


MOVING-FLOOR CONTAINER
Large capacity with minimal space requirements

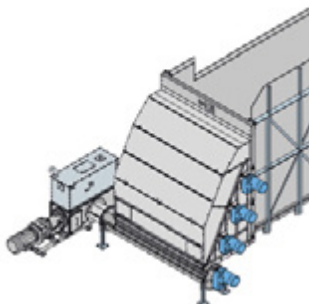


BELT CONTAINER
For high feeding quantities

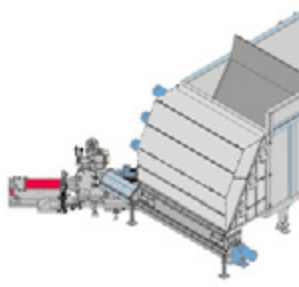
Mix-Serie: The flexible combination of Easyfeeder FA and a dosing station as a liquid feeding system



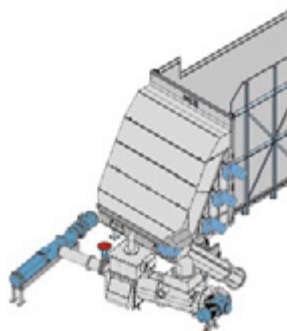
Easyfeeder Mix Flex
EBT-M-FX



Easyfeeder Mix BioMix
EBT-M-WP



Easyfeeder Mix PreMix
EBT-M-VS



Easyfeeder Mix BioMerge
EBT-M-BG

Combinations - Easyfeeder and Feed containers

Product	Feed hopper		Push-off container				Moving-floor container			Belt container									
			2.38m		2.78m		2.78m			2.36m				2.96m					
	10	13	25	30	35	40	40	65	80	100	60	80	100	120	60	80	100	120	150
Easyfeeder AS	10 m³	13 m³	35 m³	40 m³	45 m³	50 m³	-	-	-	-	72 m³	94 m³	107 m³	127 m³	-	-	-	-	-
Easyfeeder FA	-	-	-	-	-	-	40 m³	64 m³	81 m³	97 m³	62 m³	84 m³	97 m³	117 m³	-	-	-	-	-
Easyfeeder Top AS	12 m³	16 m³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Easyfeeder Top FA	-	-	25 m³	30 m³	35 m³	-	40 m³	64 m³	81 m³	97 m³	62 m³	84 m³	97 m³	117 m³	62 m³	84 m³	97 m³	117 m³	146 m³
Easyfeeder Mix Flex	-	-	25 m³	30 m³	35 m³	-	40 m³	64 m³	81 m³	97 m³	62 m³	84 m³	97 m³	117 m³	62 m³	84 m³	97 m³	117 m³	146 m³
Easyfeeder Mix BioMix	-	-	25 m³	30 m³	35 m³	-	40 m³	64 m³	81 m³	97 m³	62 m³	84 m³	97 m³	117 m³	62 m³	84 m³	97 m³	117 m³	146 m³
Easyfeeder Mix PreMix	-	-	25 m³	30 m³	35 m³	-	40 m³	64 m³	81 m³	97 m³	62 m³	84 m³	97 m³	117 m³	62 m³	84 m³	97 m³	117 m³	146 m³
Easyfeeder Mix BioMerge	-	-	25 m³	30 m³	35 m³	-	40 m³	64 m³	81 m³	97 m³	-	-	-	-	-	-	-	-	-

Additional combination options are available on request.

OPTIONAL FEATURE

WEIGHING SYSTEM

WITH LARGE DISPLAY



APPLICATION



FEEDING



TECHN. SPECIFICATIONS



BENEFITS

The feeding process can be equipped with an optional weighing system. The feeding technology is mounted on load cells to record the total weight including contents. The quantity of substrate fed in is recorded automatically.

During dosing to the biogas plant, the total weight of the feed container is used to determine the amount of substrate conveyed to the fermenter.

This enables precise, weight-based dosing.

► For controlling the feed quantity on the basis of weight

► Independent of substrate type

► Suitable for all feeding modes and container combinations

► The system operates via load cells in combination with a weighing controller.

► Consistent and reproducible dosing

► Easy and safe operation

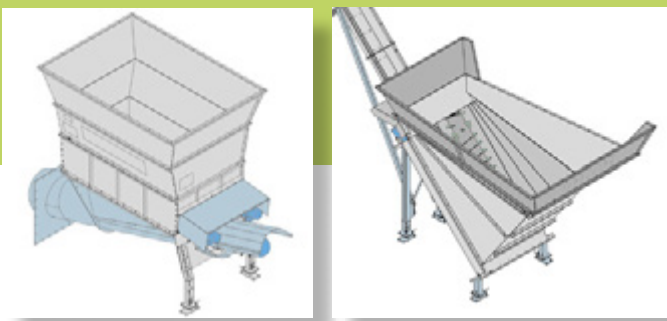
► Robust, long-lasting design

► High ease of use

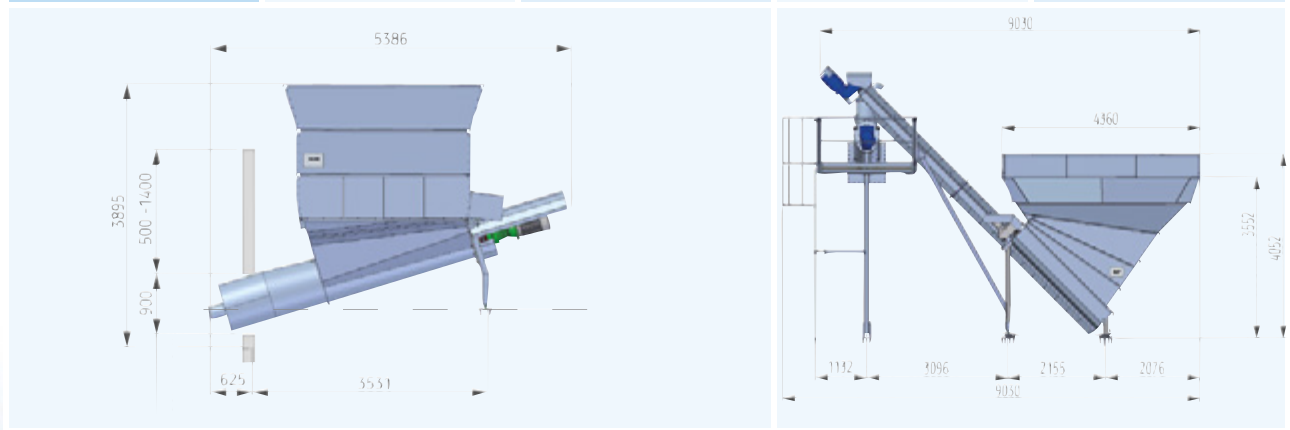
*From practice...
... for practice!*



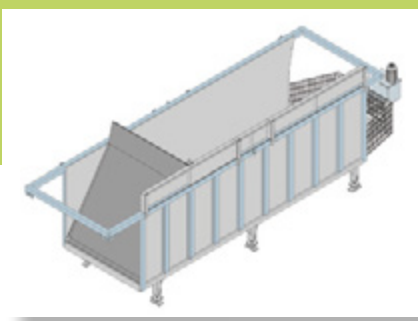
Feed Hopper TR



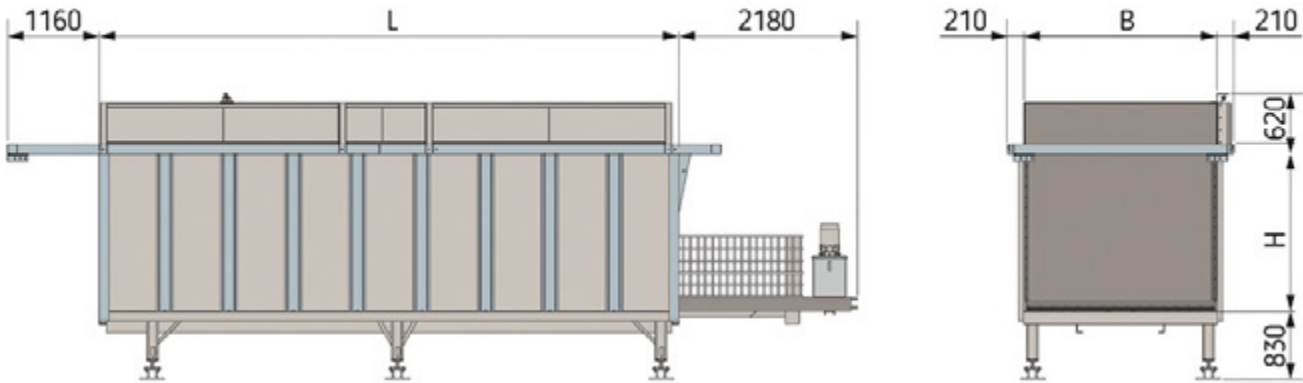
	Standard		Top	
Type:	10	13	10	13
Qty Support feet:	2	2	4	4
Volume:	ca. 10 m³	ca. 13 m³	ca. 12 m³	ca. 16 m³
System:	Feed hopper			
Design:	Steel powdercoated			
Colour:	Steel powdercoated RAL 7016			
Dimensions:				
Length L:	5386 mm	5386 mm	4360/ 9030 mm	4360/ 9030 mm
Width B:	2116 mm		3110 mm	
Height H:	3380 mm	4100 mm	3552 mm	4052 mm



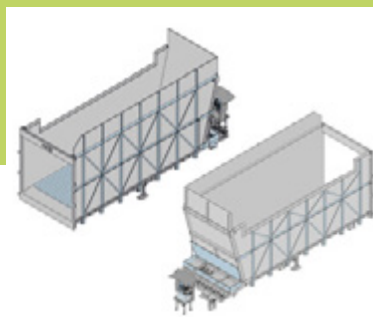
Push-off Container AM



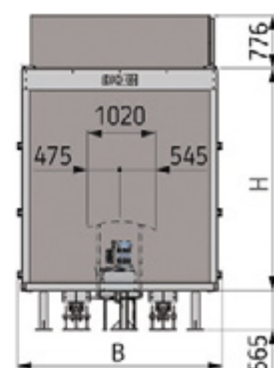
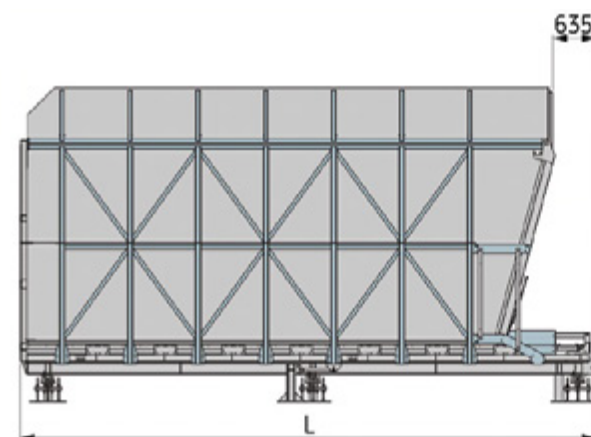
	2,38 m				2,78 m
Type:	25	30	35	40	40
Configuration:	Stationary push-off container with disintegrator screw				with milling unit
Qty Support feet:	4	4	6	6	6
Capacity:	25 m³	30 m³	35 m³	40 m³	40 m³
Power consumption:	2,2 kW				
System:	Push-off container with push-off slide				
Construction:	- Container with 5mm bottom of stainless steel - Side walls of 3mm stainless steel - Side beam with steel- cap profile - Moving carrier plate of stainless steel with robust substructure of steel, galvanised - Double-acting Hydraulic cylinder				
Type of push-off-slide :	not for dumping	not for dumping	not for dumping	for dumping	not for dumping
Colour:	The container is primed and painted in RAL 7016 (interior surfaces made of SS are not painted).				
Dimensions:					
Length L:	5,0 m	6,0 m	7,0 m	8,0 m	7,0 m
Width B:	2,4 m	2,4 m	2,4 m	2,4 m	2,8 m
Height H:	2,0 m	2,0 m	2,0 m	2,0 m	2,0 m



Moving-floor Container SC



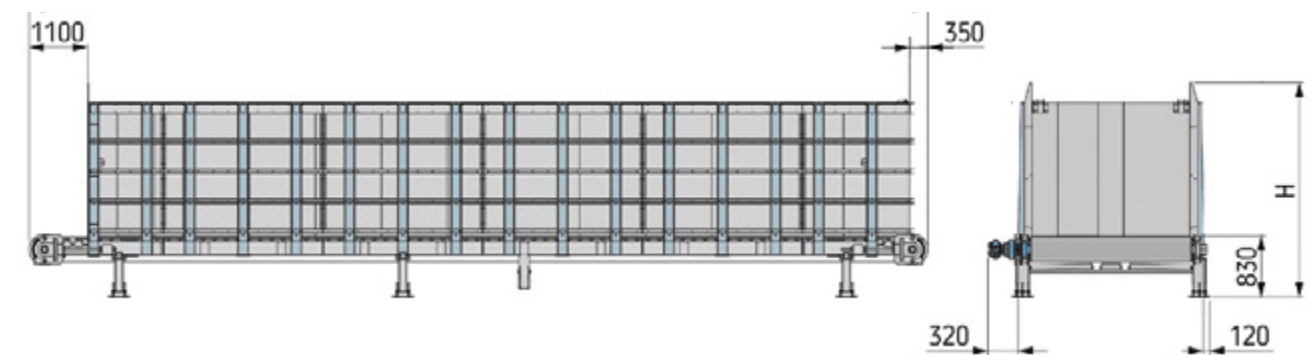
	2,78 m		
Type:	65	80	100
Configuration:	Stationary moving-floor container for the use with milling-unit		
Qty Support feet:	6	8	8
Capacity:	64 m³	81 m³	97 m³
System:	BioG container with stripe-moving-floor of steel with PE roller bearings		
Construction:	- On one side wall and at the front end, the container wall is raised by 50 cm (as filling aid and additional volume). - Feet prepared for installation of a weighing system. - Side walls: steel construction with phenolic resin-coated multi-layer composite panels. - Base frame and side wall structure: painted steel sections. - Floor trough and roller supports made of stainless steel with lateral service opening and floor drain DN 100 for liquids (connection by customer). - Hydraulic power unit 4 kW, IE4. - Each floor rail is equipped with a hydraulic cylinder to ensure uniform material flow towards the milling unit.		
Colour:	Standard Colour RAL7016 grey		
Range of application:	Suitable for solids with 15 % to 100 % dry matter - For fiber lengths from 0.2 to 15 cm - Fiber lengths of 15 - 20 cm: less than 20 % - Fiber lengths of 20 - 30 cm: less than 10 %.		
Accessories (incl.):	- Control & electrics (pre-control for hydraulics) - Wear floor - Loading		
Dimensions:			
Length L:	8,0 m	10,0 m	12,0 m
Width B:	2,7 m	2,7 m	2,7 m
Height H:	3,0 m	3,0 m	3,0 m



Belt Container RC



	2,36 m				2,96 m				
Type:	60	80	100	120	60	80	100	120	150
Configuration:	Stationary belt container for the use with milling-unit								
Qty Support feet:	4	6	6	8	4	6	6	6	8
Capacity:	60 m³	80 m³	100 m³	120 m³	60 m³	80 m³	100 m³	120 m³	150 m³
System:	Rubber belt with heavy-duty rollers and self-supporting walls								
Construction:	- Side walls: steel construction with plastic coating - Side walls connected without brackets - Multilayer composite panels - Base frame and side wall construction: painted steel profiles - 1 pc. rubber belt, oil-, grease-, and acid-resistant, 4-ply, 11 mm thick - 1 pc. manhole, designed as a lockable door in the side wall - 1 pc. wooden plank 200 x 40 mm as edge protection on the loading side of the container wall								
	- 1 pc. rear wall made of plastic-coated multilayer composite panels, foldable, serving as an opening.							Can be folded down for emptying in case of malfunction.	
Colour:	RAL7016								
Qty rubber-coated drive drums:	1 St	1 St	2 St	2 St	1 St	1 St	2 St	2 St	2 St
Power planetary gear motor:	0,25 kW								0,55kW
Installed electrical power:	0,25 kW	0,25 kW	0,5kW	0,5kW	0,25 kW	0,25 kW	0,5 kW	0,5 kW	1,1kW
Sound power level LW:	70 dB(A)								
Dimensions:									
Length L:	11,15 m	15,15 m	18,15 m	21,15 m	9,15 m	12,15 m	15,15 m	17,15 m	21,15 m
Width B:	3,5 m				4,1 m				
Height H:	3,8 m								



FEEDING TECHNOLOGY

EASYFEEDER AS

with Disintegrator screw unit



APPLICATION

- ▶ Entry-level model for small and large feeding quantities
- ▶ Suitable for the use with hopper



FEEDING

- ▶ Maize silage
- ▶ Grass silage
- ▶ Renewable resources chopped
- ▶ Solid manure (with optional agitator shaft)



OPERATION

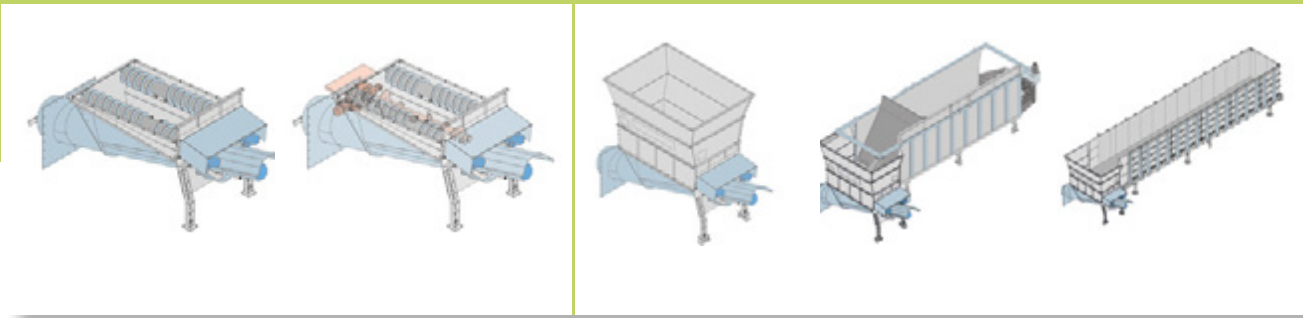
- ▶ A wheel loader fills the feed container with solid material.
- ▶ The disintegration screws break up the incoming material and ensure optimal dosing.
- ▶ The main conveyor screw transfers the material into a fermenter set into the ground.



BENEFITS

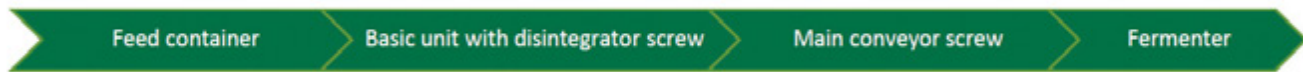
- ▶ Energy-efficient operation
- ▶ Proven and robust
- ▶ Gentle material feed
- ▶ User-friendly
- ▶ Optimised for easy maintenance
- ▶ Very low-wear design

TECHNICAL SPECIFICATIONS



Easyfeeder AS

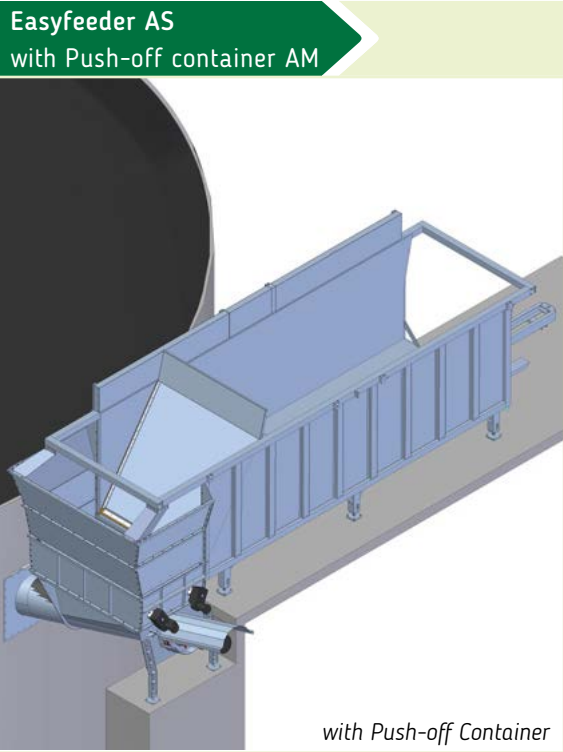
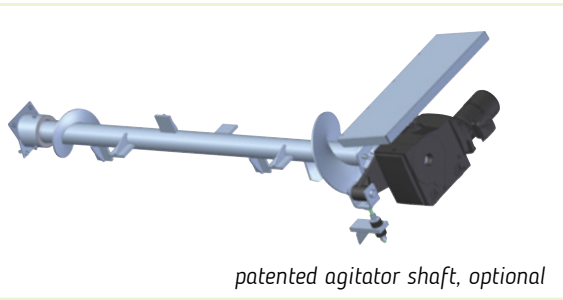
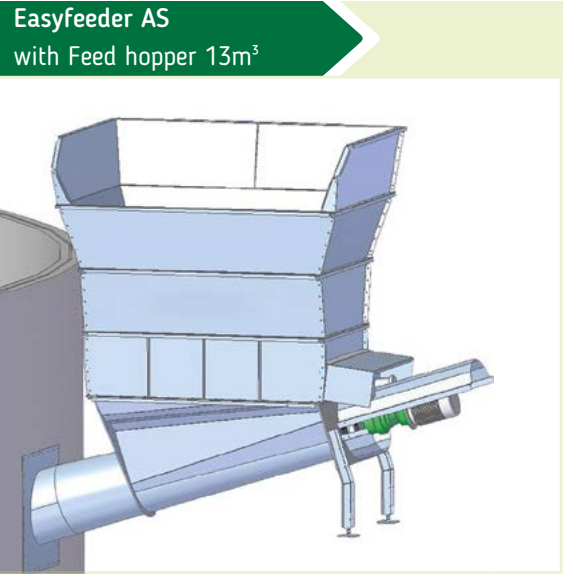
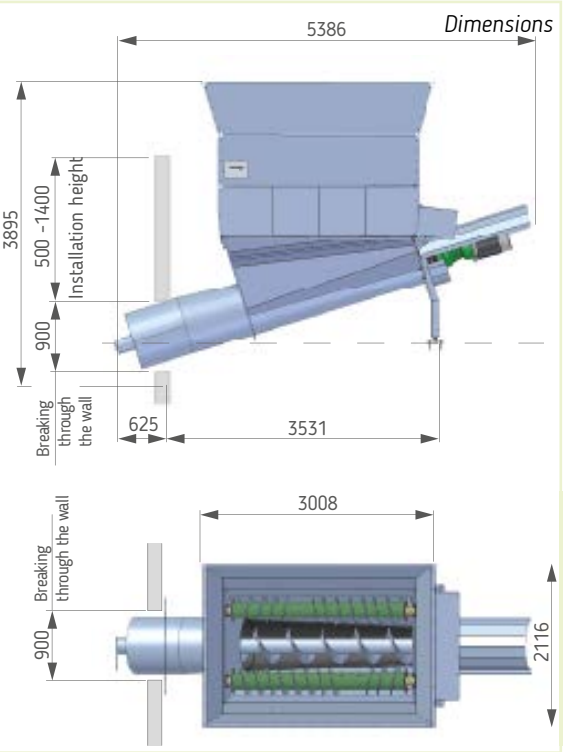
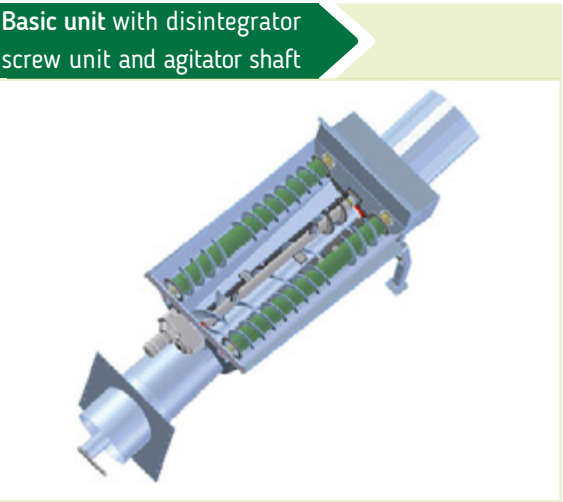
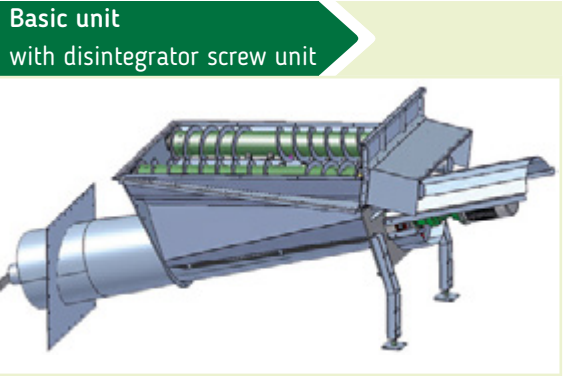
EBT-ST-AS



Easyfeeder AS – Feeding technology with disintegrator screws and feed container		
	Control:	Stand-alone or integrated into the higher-level control system
	Electric supply of the control unit:	400 V AC, 50 Hz
Feed container:		
	Variants:	- Feed hopper - Push-off container - Belt container
	Capacity:	See container variant matrix, page 5
	Options:	- Weighing System - Weighing System ATEX - Large display
Basic unit:		
	Installation height:	1.4 m - 1.9 m from the top edge of the digester
	Material:	- Stainless steel - Painted steel - Plastic inserts
	Capacity:	300 - 400 kg/min of silage
	Power consumption:	ca. 0.1 to 0.3 kWh per m³ material (1 m³ equals ca. 300 - 400 kg)
Disintegrator screw unit:		
	Material:	Stainless steel (optional steel)
	Motor drive:	2 Parallel-shaft gearmotors
	Power consumption:	2 x 1.1 kW (400 V AC, 50 Hz)
Main conveyor screw:		
	Material:	Stainless steel (optional professional version or steel)
	Motor drive:	Electric motor with coaxial planetary gear
	Drive power/Electric supply:	15 kW (400 V AC, 50 Hz)
	Diameter:	450 mm
Options/Accessories:		
	Feed Hopper	Container
	Agitator shaft (1,5 kW)	Protective cover on request

Additional combination options are available upon request.

EASYFEEDER AS



From practice...
... for practice!



EASYFEEDER FA

with milling unit and feed container



APPLICATION



FEEDING



OPERATION

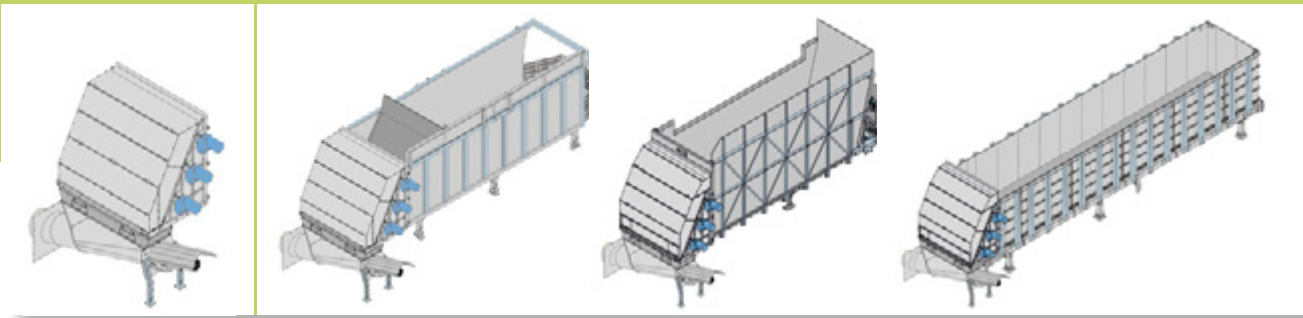


TECHN. SPECIFICATIONS



BENEFITS

- ▶ Automated feeding of biogas fermenters with a variety of solid substrates
 - ▶ Also suitable for demanding and long-fibred materials
-
- ▶ Long-fibre silage (without chopping)
 - ▶ Challenging materials
 - ▶ All types of manure
 - ▶ Renewable raw materials (maize silage, grass silage, whole crop silage, etc.)
-
- ▶ The solid material is fed into the feed hopper by a wheel loader.
 - ▶ The milling unit – optionally equipped with up to 4 milling drums – reliably breaks up the material.
 - ▶ The main screw conveyor transports the disintegrated solid material below the filling level into the fermenter.
 - ▶ The filling level extends into the screw area, ensuring that the substrate in the container is mixed.
-
- ▶ Efficient and gentle feeding with low power consumption
 - ▶ Robust design, specifically engineered for high loads and long service life
-
- ▶ Consistent dosing even with demanding substrates
 - ▶ Independent of conveying distance
 - ▶ Energy efficient
 - ▶ Easy handling
 - ▶ Robust design
 - ▶ Protects fermenter biology
 - ▶ User friendly



Easyfeeder FA

EBT-FA



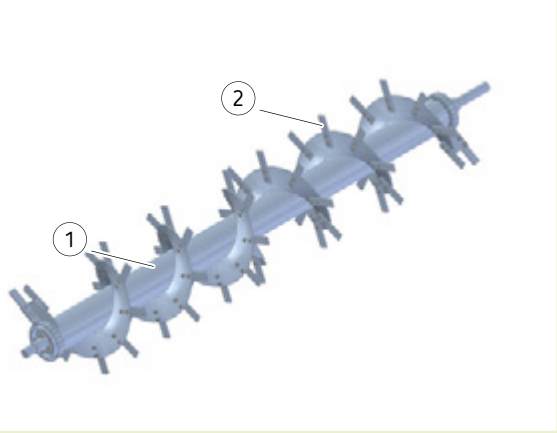
Easyfeeder FA – Feeding technology with milling unit and feed container		
	Control:	Stand-alone or integrated into the higher-level control system
	Electric supply of the control unit:	400 V AC, 50 Hz
Feed container:		
	Variants:	- Push-off container - Moving-floor container - Belt container
	Capacity:	See container variant matrix, page 5
	Options:	- Weighing system - Weighing system ATEX - Large display - Protective cover on request
Milling unit:		
	Material:	Stainless steel
	Material Milling drum:	Painted steel; Ripper teeth: stainless steel
	Qty Milling drums:	3 (Standard); 4 (optional)
	Drive for Milling drums:	Parallel shaft gear unit (optional angular gear)
	Drive power/Electric supply:	7,5 kW (400 V AC, 50 Hz)
Basic unit:		
	Installation height:	1,4 m from the top edge of the fermenter
	Material:	- Stainless steel - Painted steel - Plastic inserts
	Capacity:	300 – 400 kg/min of silage
	Power consumption:	ca. 0,1 to 0,3 kWh per m³ material (1 m³ equals ca. 300 – 400 kg)
Main conveyor screw (mixing screw):		
	Material:	Stainless steel (optional professional version or steel)
	Motor drive:	Electric motor with coaxial planetary gear
	Drive power/Electric supply:	15 kW (400 V AC, 50 Hz)
	Diameter:	450 mm

Additional combination options are available on request.

EASYFEEDER FA

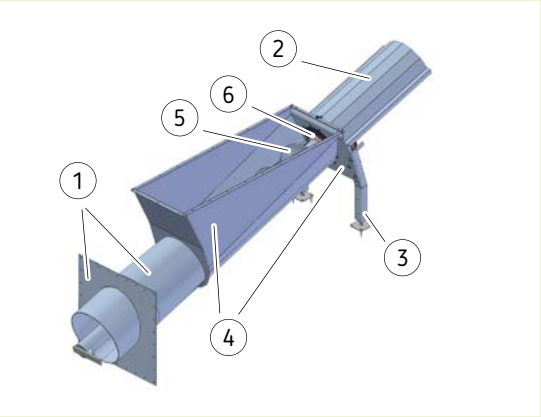
Milling drum

- 1. Painted steel (optional stainless steel)
- 2. Ripper tooth (stainless steel)



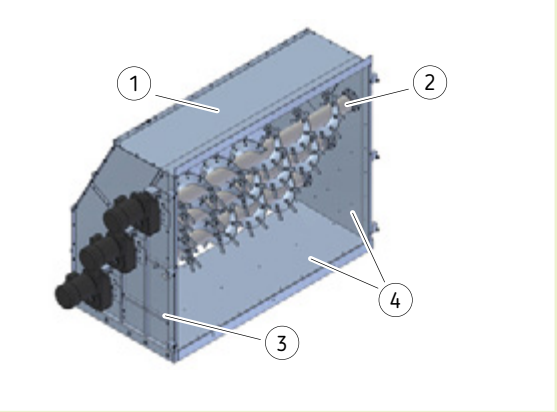
Basic unit of Easyfeeder FA

- 1. Stainless steel, painted
- 2. Sheet metal, galv.
- 3. Feet, steel, galv.
- 4. Support structure, painted steel
- 5. Screw, painted steel
- 6. Plastic insert



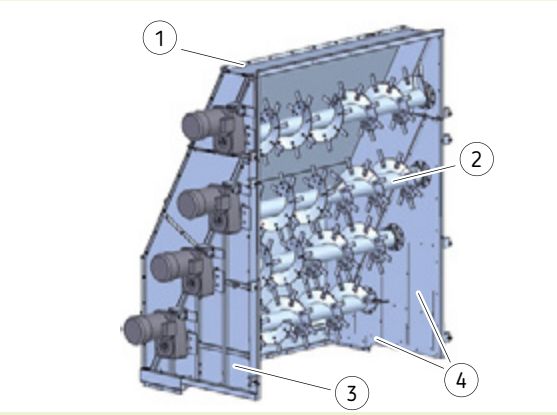
Milling unit with 3 milling drums

- 1. Stainless steel
- 2. Milling drum, painted steel (optional stainless steel)
- 3. Frame, steel, galv.
- 4. Plastic inlay Stainless steel



Milling unit with 4 milling drums

- 1. Stainless steel
- 2. Milling drum, painted steel (option stainless steel)
- 3. Frame, steel, galv.
- 4. Plastic inlay



From practice...
... for practice!



EASYFEEDER TOP AS

with disintegrator screw unit and feed hopper



APPLICATION



FEEDING



OPERATION



TECHN. SPECIFICATIONS



BENEFITS

- ▶ Automatic and continuous filling of aboveground fermenters
- ▶ Possible conveying heights: 4 m / 5 m / 6 m

- ▶ Maize silage
- ▶ Grass silage
- ▶ Renewable resources chopped
- ▶ Solid manure

- ▶ A wheel loader fills the feed hopper with solid material.
- ▶ The disintegrator screw breaks up and pre-doses the material.
- ▶ The inclined screw conveyor transports the loosened matter upwards.
- ▶ The plug screw conveys the material directly into the fermenter.

- ▶ The fermenter is filled from above.
- ▶ Disintegrator screw unit in the trough for breaking up and conditioning the fed material.
- ▶ Inclined screw conveyor for diagonal upward conveying of the conditioned material.
- ▶ Plug screw for feeding the material into the fermenter below the filling level.
- ▶ Top platform for supporting the inclined screw housing and providing the mounting base for the plug screw conveyor.

- ▶ Energy efficient
- ▶ Proven and robust
- ▶ User-friendly
- ▶ Easy to maintain
- ▶ Gentle and safe feeding into the fermenter



Easyfeeder Top AS

EBT-T-AS



Easyfeeder Top AS – Feeding of aboveground fermenters with disintegrator screw unit and feed hopper

Control:	Stand-alone or integrated into the higher-level control system
Electric supply of the control unit:	400 V AC, 50 Hz

Feed container:

Variants:	Feed hopper
Capacity:	See container variant matrix, page 5
Options:	- Weighing system - Large display

Basic unit:

Material:	Stainless steel
Capacity:	100 – 200 kg/min of silage
Power consumption:	ca. 0,2 to 0,3 kWh per m³ material (1 m³ equals ca. 300 – 400 kg)

Disintegrator screw unit:

Material:	Steel
Motor drive:	2 Parallel-shaft gearmotors
Drive power/Electric supply:	2 x 1,1 kW (400 V AC, 50 Hz)

Inclined screw conveyor:

Material housing:	Stainless steel
Material screw:	Stainless steel (optional painted steel)
Motor drive:	Parallel-shaft gearmotor
Drive power/Electric supply:	11 kW (400 V AC, 50 Hz)
ATEX-protection:	II 2G Ex II T3
Diameter:	400 mm

Plug screw conveyor:

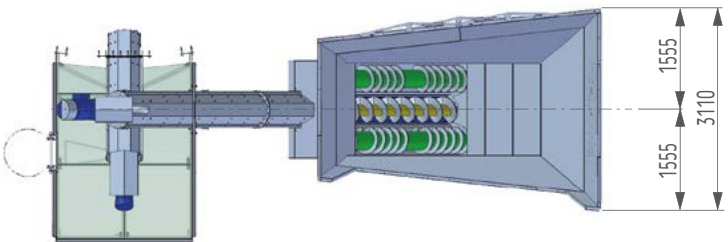
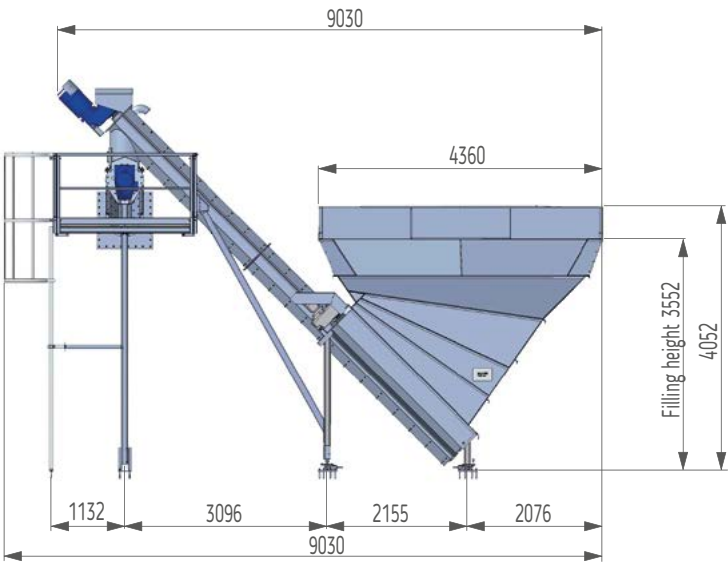
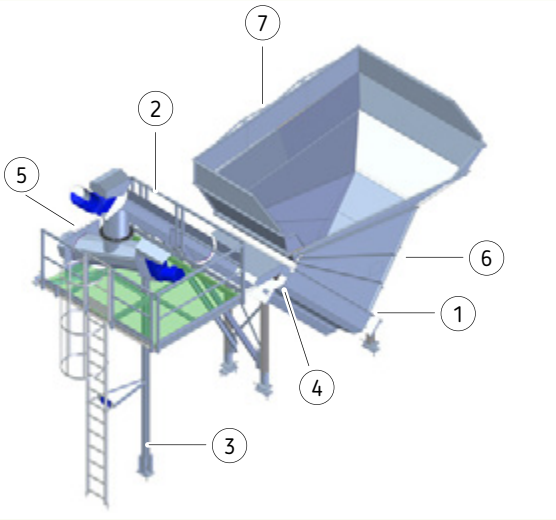
Material housing:	Stainless steel
Material screw:	Stainless steel (optional painted steel)
Motor drive:	Parallel-shaft gearmotor
Drive power/Electric supply:	5,5 kW (400 V AC, 50 Hz)
ATEX-protection:	II 2G Ex II T3
Diameter:	410 mm

Additional combination options are available on request.

EASYFEEDER TOP AS

EASYFEEDER Top AS

- 1. EBT-T-AS
incl. pos. 2 und 3
stainless steel
- 2. Inclined screw conveyor
stainless or painted steel
- 3. Platform
steel, galv.
- 4. Disintegrator screw unit
stainl. or painted steel
- 5. Plug screw
stainl. or painted steel
- 6. Feed hopper
steel powdercoated
- 7. Feed hopper extension
steel powdercoated



From practice...
... for practice!



EASYFEEDER TOP FA

with milling unit and feed container



APPLICATION



FEEDING



OPERATION

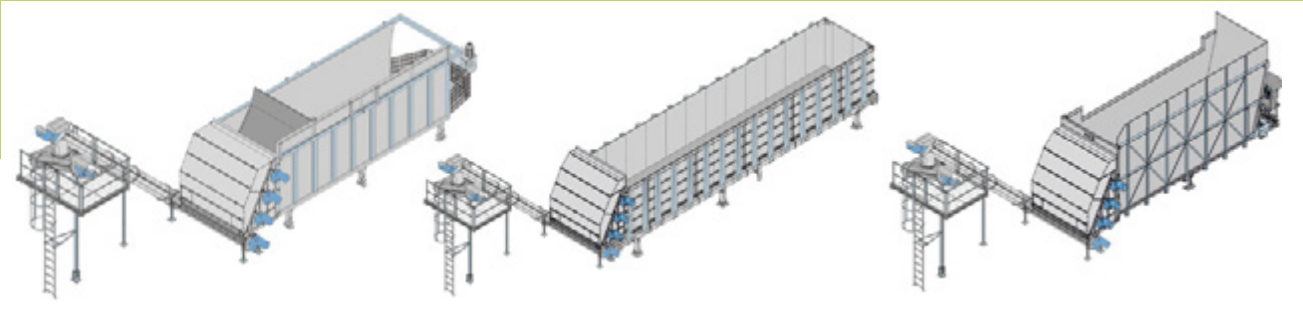


TECHN. SPECIFICATIONS



BENEFITS

- ▶ Automatic and continuous filling of aboveground fermenters
 - ▶ Also suitable for demanding and long-fibred materials
 - ▶ Possible conveying heights: 4 m / 5 m / 6 m
-
- ▶ Long-fibre silage (without chopping)
 - ▶ Challenging materials
 - ▶ All types of manure
 - ▶ Renewable resources (maize silage, grass silage, GPS etc.)
-
- ▶ A wheel loader fills the feed container with solid matter.
 - ▶ The milling unit breaks up the material.
 - ▶ The cross screw conveyor transports the loosened material to the inclined screw conveyor.
 - ▶ The inclined screw conveyor transports the loosened material upwards to the plug screw.
 - ▶ The plug screw conveys the material precisely into the fermenter.
-
- ▶ Independent of conveying distance
 - ▶ The fermenter is filled from above:
 - ▶ Disintegrator screw unit in the trough for breaking up and conditioning the fed material.
 - ▶ Inclined screw conveyor for diagonal upward conveying of the conditioned material.
 - ▶ Plug screw for feeding the material into the fermenter below the filling level.
 - ▶ Top platform for supporting the inclined screw housing and providing the mounting base for the plug screw conveyor.
-
- ▶ Energy efficient
 - ▶ Proven and robust
 - ▶ User-friendly
 - ▶ Easy to maintain
 - ▶ Gentle and safe feeding into the fermenter
 - ▶ Consistent dosing



Easyfeeder Top FA

EBT-T-FA



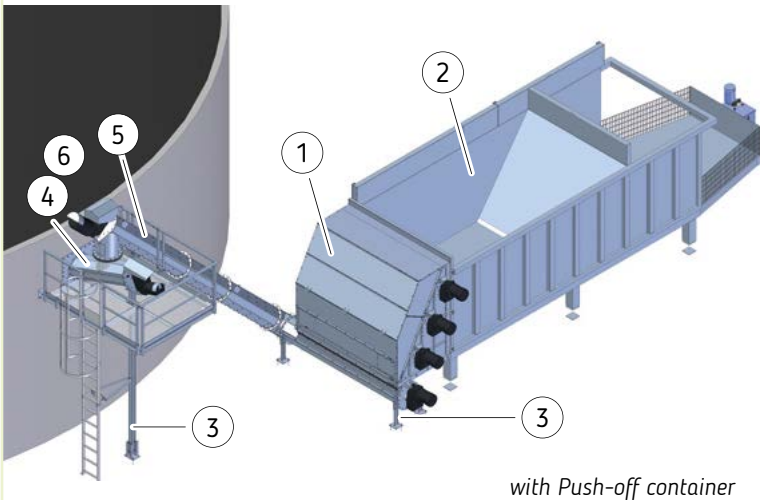
Easyfeeder Top FA – Feeding of aboveground fermenters with disintegrator screw unit and feed container		
Control:	Stand-alone or integrated into the higher-level control system	
Electr. supply control unit:	400 V AC, 50 Hz	
Feed container:		
Variants:	- Push-off container - Moving-floor container - Belt container	
Capacity:	See container variant matrix, page 5	
Options:	- Weighing system - Large display - Protection cover on request	
Milling unit:		
Material:	Stainless steel	
Material Milling drum:	Painted steel; Ripper teeth: stainless steel	
Qty Milling drum:	3 (Standard); 4 (optional)	
Drive Milling drum:	Parallel-shaft gearmotor (optional angular gear)	
Drive power/El. supply:	7,5 kW (400 V AC, 50 Hz)	
Cross screw conveyor:		
Material:	Stainless steel (optional painted steel)	
Capacity:	Ca. 0,7 m³/min (42 m³/h) of silage ca. 150 – 200 kg/min → 9 - 12 t/h	
Drive:	Parallel-shaft gearmotor	
Drive power/El.supply:	5,5 kW (400 V AC, 50 Hz)	
Diameter:	410 mm	
Inclined screw conveyor:		Plug screw conveyor:
Material housing:	Stainless steel	Stainless steel
Material screw:	Stainless steel (optional painted steel)	Stainless steel (opt. painted steel)
Drive:	Parallel-shaft gearmotor	Parallel-shaft gearmotor
Drive power/El.supply:	11 kW (400 V AC, 50 Hz)	5,5 kW (400 V AC, 50 Hz)
ATEX-Protection:	II 2G Ex II T3	II 2G Ex II T3
Diameter:	400 mm	410 mm

Additional combination options are available on request.

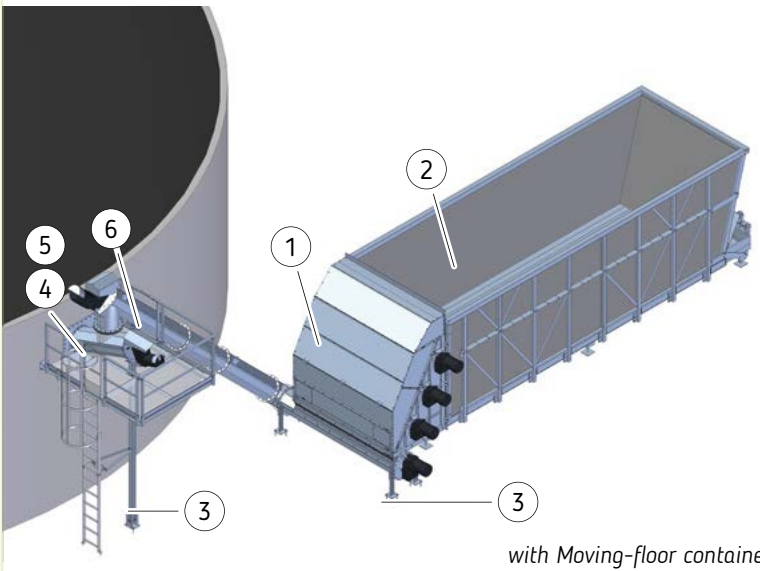
EASYFEEDER TOP FA

Easyfeeder Top FA

- | | |
|--|---|
| 1. Milling unit
<i>Stainless steel, painted steel</i> | 3. Platform and feet
<i>Steel galv.</i> |
| 2. Push-off container
or
Moving-floor container
<i>Interior panelling
Painted stainless steel/
multi-layered composite panels</i> | 4. Plug screw housing
<i>Stainless steel</i> |
| | 5. Inclined screw conveyor
<i>Stainless steel, painted steel</i> |
| | 6. Plug screw conveyor
<i>Stainless steel, painted steel</i> |



with Push-off container



with Moving-floor container

From practice...
... for practice!



EASYFEEDER MIX FLEX

Liquid feeding system with flexible interface to a dosing station



APPLICATION

- ▶ Processing of solid material as an addition when a manufacturer-independent dosing station is already available.
- ▶ Flexibly adaptable to the local conditions.



FEEDING

- ▶ Maize silage
- ▶ Grass silage
- ▶ GPS
- ▶ Renewable resources chopped
- ▶ Solid manure



OPERATION

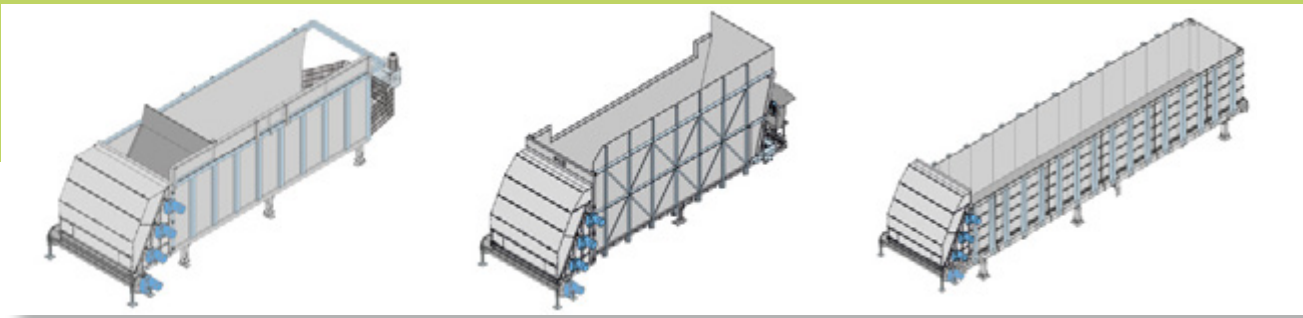
- ▶ A wheel loader fills the feed container with solid material.
- ▶ The milling drums of the milling unit break up the supplied material and ensure optimal dosing into the cross screw conveyor.
- ▶ The cross screw conveyor transports the conditioned material to the dosing station. The interface must be defined individually in each case.



BENEFITS

Liquid feeding system:

- ▶ Homogenisation increases biogas yield and process stability.
- ▶ Due to the pumpable viscosity, longer distances and differences in height can be covered.
- ▶ Modular design for high flexibility.



Easyfeeder Mix Flex

EBT-M-FX



Easyfeeder Mix Flex – Liquid feeding system with flexible interface to a dosing station	
Control:	Stand-alone or integrated into the higher-level control system
Electric supply of control unit:	400 V AC, 50 Hz
Feed container:	
Variants:	- Push-off container - Moving-floor container - Belt container
Capacity:	See container variant matrix, page 5
Options:	- Weighing system - Weighing system ATEX - Large display - Protective cover on request
Milling unit:	
Material:	Stainless steel
Material milling drum:	Painted steel; Ripper teeth: stainless steel
Qty milling drum:	3 (Standard); 4 (optional)
Drive milling drum:	Parallel shaft gearmotor (optional angular gear)
Drive power/Electric supply:	7,5 kW (400 V AC, 50 Hz)
Cross screw conveyor:	
Material:	Stainless steel (optional painted steel)
Capacity:	Ca. 0,7 m³/min (42 m³/h) bei Silage ca. 150 – 200 kg/min → 9 – 12 t/h
Drive:	Parallel-shaft gearmotor
Drive power/Electric supply:	5,5 kW (400 V AC, 50 Hz)
Diameter:	410 mm
Interface dosing station:	
Engineering:	Customer-specific adaptation required depending on the dosing station
Additional combination options are available on request.	

EASYFEEDER MIX BIOMIX

with Dosing station BioMix from Wangen Pumps



APPLICATION



FEEDING



OPERATION



TECHN. SPECIFICATIONS

The Easyfeeder Mix BioMix is suitable for the automated feeding of biogas fermenters with solid and liquid substrates. The system is designed in particular for agricultural operations that want to efficiently utilise various input materials, including long-fibre and demanding materials or food waste.

The mixing takes place directly in the hopper feed pump and ensures a homogeneous, pumpable suspension.

- ▶ Processing of two or more substrates
 - ▶ Also suitable for demanding and long-fibre materials
 - ▶ Also suitable for food waste
-
- ▶ Long-fibre silage (without chopping)
 - ▶ Demanding materials
 - ▶ All types of manure
 - ▶ Renewable resources (maize silage, grass silage, GPS etc.)
-
- ▶ The feed container is filled from outside with solid substrate.
 - ▶ The milling unit is automatically fed from the feed container and breaks up the substrate.
 - ▶ The conditioned material is conveyed via the cross screw conveyor to the BioMix dosing station.
 - ▶ At the same time, liquid substrate is conveyed from the fermenter/secondary fermenter into the BioMix.
 - ▶ The solid and liquid substrates are thoroughly mixed.
 - ▶ The suspension is returned to the fermenter by the hopper feed pump.
 - ▶ Feeding of several fermenters is easily possible.
-
- ▶ Combination of several process steps (conveying, disintegration, dosing, mixing, heavy matter separation, return) in a single unit
 - ▶ High robustness against foreign heavy matter
 - ▶ Easy integration into existing plants
 - ▶ Compact design for space-saving integration
 - ▶ Flexible use for different applications
 - ▶ Depending on the piping layout, several tanks can be supplied.
Line length and pressure losses must be taken into account (impact on efficiency).

Easyfeeder Mix BioMix

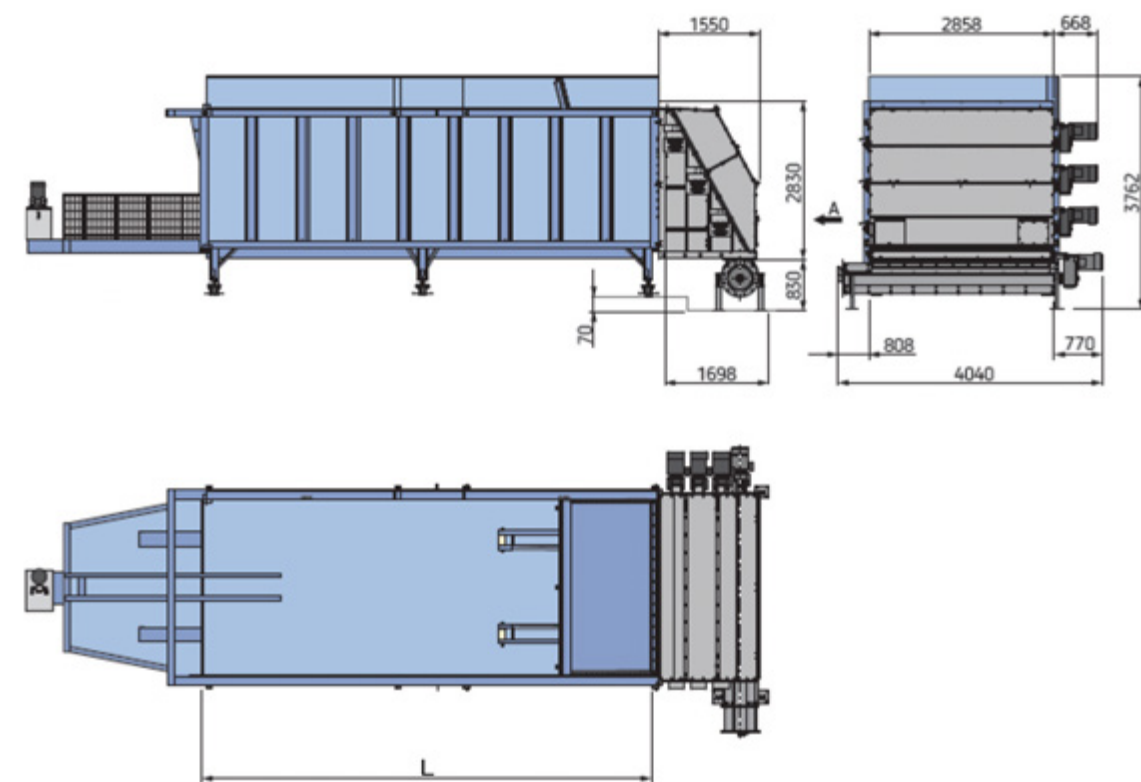
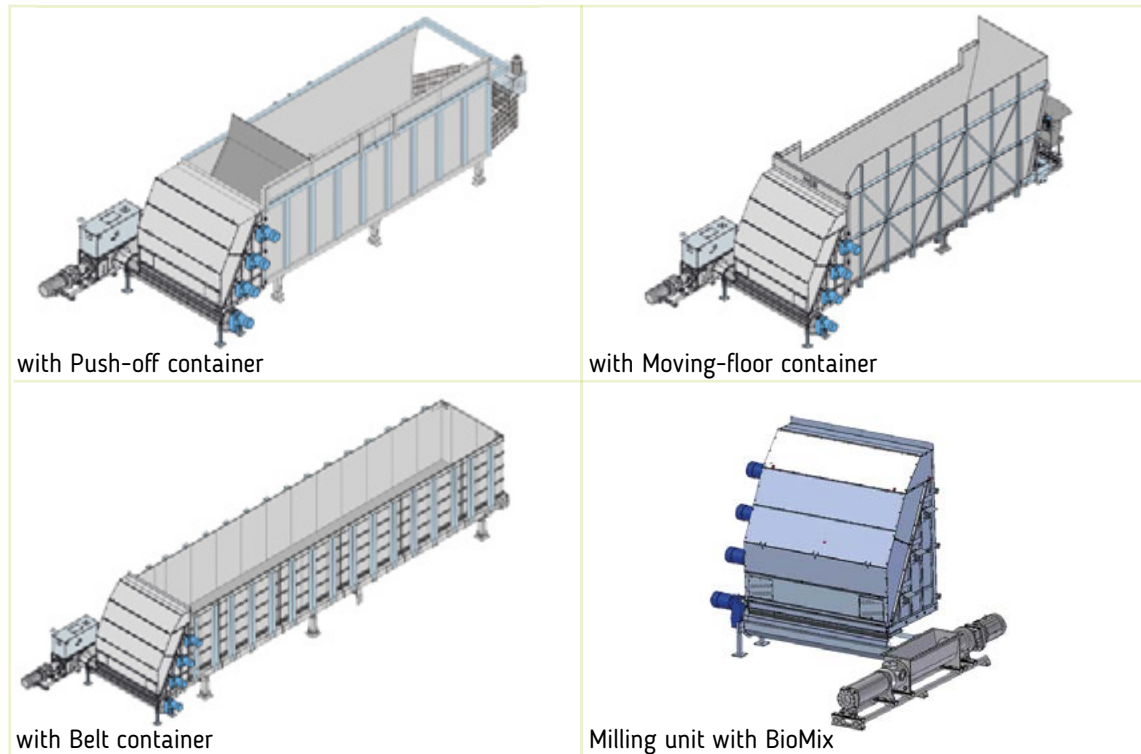
EBT-M-WP



Easyfeeder Mix BioMix – Liquid feeding system with dosing station BioMix from Wangen Pumps				
Control:	Stand-alone or integrated into the higher-level control system			
Electric supply of control unit:	400 V AC, 50 Hz			
Feed container:				
Variants:	- Push-off container - Moving-floor container - Belt container			
Capacity:	See container variant matrix, page 5			
Options:	- Weighing system - Weighing system ATEX - Large Display - Protective cover			
Milling unit:				
Material:	Stainless steel			
Material milling drums:	Painted steel; Ripper teeth: stainless steel			
Qty milling drums:	3 (Standard)			
Drive milling drums:	Parallel shaft gearmotor (optional angular gear)			
Drive power/Electric supply:	7,5 kW (400 V AC, 50 Hz)			
Cross screw conveyor:				
Material:	Stainless steel (optional Painted steel)			
Capacity:	Ca. 0,7 m³/min (42 m³/h) of silage ca. 150 – 200 kg/min → 9 – 12 t/h			
Drive:	Parallel shaft gearmotor			
Drive power/Electric supply:	5,5 kW (400 V AC, 50 Hz)			
Diameter:	410 mm			
Feed pump (minimum requirements):				
Capacity:	100 m³/h			
Pump type:	Progressive cavity pump			
Dosing station „BioMix“:				
Variants:	125.1	140.0	165.0	200.0
Drive power/Electric supply:	22 kW	22 kW	30 kW	45 kW
Capacity:	30 m³/h	40 m³/h	85 m³/h	150 m³/h
Dimensions:	-	-	4,6 x 0,8 x 0,8 m	5,7 x 1,2 x 1,36 m
Dimension hopper feed pump:	500 x 1500 mm			750 x 2500 mm
Material hopper feed pump:	Stainless steel			
Frame:	Steel			
Foreign matter separation:	integrated			
Side inlet:	Flange (left/right)			
Shaft sealing:	LWD BARRIERE™ system			
Pressure port:	DN 200/PN 16, cast iron		DN 200/PN 10, VA	DN 300/PN 10, VA
Drive:	Spur gear motor			
Efficiency class:	IE3			
Dry matter content (DM):	Max. 16 % DM		Max. 14 % DM	

Additional combination options are available on request.

EASYFEEDER MIX BIOMIX



*From practice...
... for practice!*



EASYFEEDER MIX PREMIX

with Dosing station PreMix from Vogelsang



APPLICATION



FEEDING



OPERATION



TECHN. SPECIFICATIONS

Easyfeeder Mix PreMix is the versatile dosing system for feeding biogas plants with solid substrates, which are mixed directly with fermenting substrate from the fermenter to form a liquid feed.

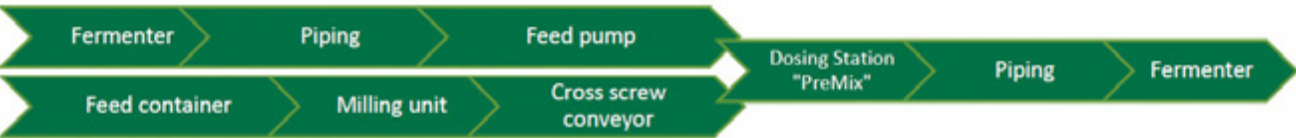
In combination with the Easyfeeder EBT with milling unit and feed container, the PreMix enables reliable premixing of long-fibre, demanding or stackable residual materials. It is therefore particularly suitable for agricultural operations.

These systems are ideal for farms that aim to efficiently utilise a wide range of input materials and waste streams.

- ▶ Processing of two or more substrates
- ▶ Also suitable for demanding and long-fibre materials
- ▶ Also suitable for stackable waste materials (food waste)
- ▶ Long-fibre silage (without chopping)
- ▶ Demanding materials
- ▶ Liquid manure of all kinds
- ▶ Renewable resources (maize silage, grass silage, GPS etc.)
- ▶ The feed container is filled with solid substrates from outside.
- ▶ The milling unit is fed automatically from the feed container and disintegrates the substrate.
- ▶ The disintegrated material is conveyed via the cross screw conveyor into the PreMix dosing station.
- ▶ At the same time, liquid substrate from the fermenter or post-fermenter is fed into the PreMix.
- ▶ Intensive mixing of solid and liquid substrate takes place.
- ▶ Heavy foreign matter such as stones or metal parts are removed from the mixed substrate.
- ▶ The suspension is pumped back into the fermenter by the progressive cavity pump.
- ▶ Feeding multiple fermenters is easily possible.
- ▶ Combination of several process steps (conveying, disintegration, dosing, mixing, foreign matter separation, return feed) in one unit
- ▶ High operational reliability due to foreign matter separator
- ▶ Easy integration into existing plants
- ▶ Compact design saves space
- ▶ Flexible use with various substrates
- ▶ Homogenisation increases biogas yield and process stability
- ▶ Depending on the piping design, several tanks can be supplied; line length and pressure losses must be taken into account (impact on efficiency).

Easyfeeder Mix PreMix

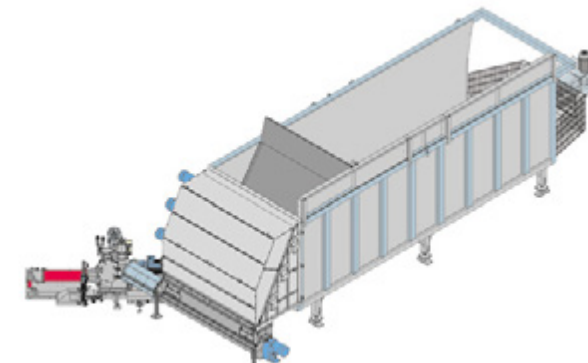
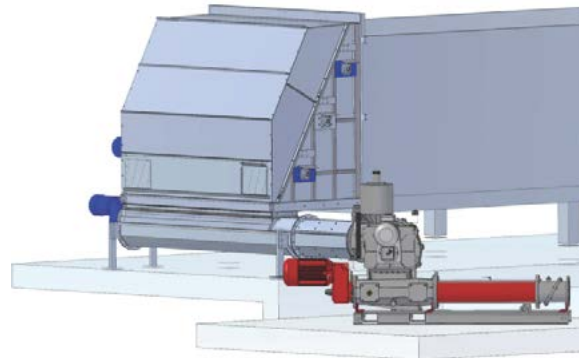
EBT-M-VS



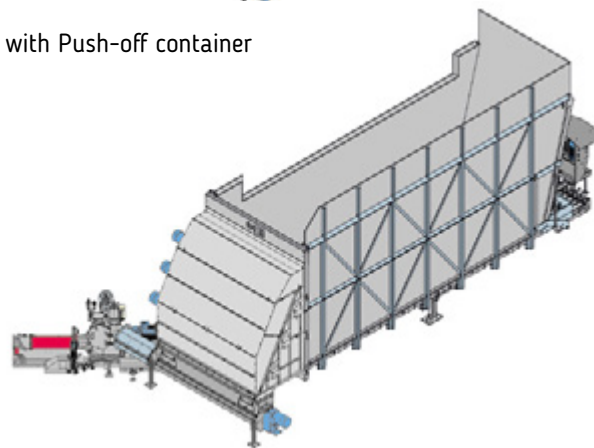
Easyfeeder Mix PreMix – Liquid feeding system with dosing station PreMix from Vogelsang			
Control:	Stand-alone or integrated into the higher-level control system		
Electric supply of the control unit:	400 V AC, 50 Hz		
Feed container:			
Variants:	- Push-off container	- Moving-floor container	- Belt container
Capacity:	See container variant matrix, page 5		
Options:	- Weighing system - Large display	- Weighing system ATEX - Protection cover	
Milling unit:			
Material:	Stainless steel		
Material milling drums:	Painted steel; Ripper teeth: stainless steel		
Qty milling drums:	3 (Standard), 4 (optional)		
Drive milling drums:	Parallel shaft gearmotor (optional angular gear)		
Drive power/Electric supply:	7,5 kW (400 V AC, 50 Hz)		
Cross screw conveyor:			
Material:	Stainless steel (optional painted steel)		
Capacity:	Ca. 0,7 m³/min (42 m³/h) of silage ca. 150 – 200 kg/min → 9 – 12 t/h		
Drive:	Parallel shaft gearmotor		
Drive power/Electric supply:	5,5 kW (400 V AC, 50 Hz)		
Diameter:	410 mm		
Feed pump (minimum requirements):			
Capacity:	depending on the dosing station		
Pump type:	Progressive cavity pump		
Dosing station „PreMix“:			
Variants:	PreMix HiCone 66V3 RCX-58G	PreMix HiCone 77V3 RCX-68G	
Rated power pump:	18,5 kW	30 kW	
Capacity:	49 m³/h	85,5 m³/h	
Pressure:	2 bar	2 bar	
Pump type:	Progressive cavity pump Typ Hicone 66-V3	Progressive cavity pump Typ Hicone 77-V3	
Heavy material separator:	RotaCut RCX-58G (integrated)	RotaCut RCX-68G (integrated)	
Rated power RotaCut:	16,5 kW	20,4 kW	
Design:	compact, easy to install	compact, easy to install	
Material:	Steel, hot-dip galvanised	Steel, hot-dip galvanised	
Drive:	Parallel-shaft gearmotor	Parallel-shaft gearmotor	
Max. particle size:	up to 50 mm	up to 50 mm	
Dry matter content:	up to 15 % DM	up to 14 % DM	

Additional combination options are available on request.

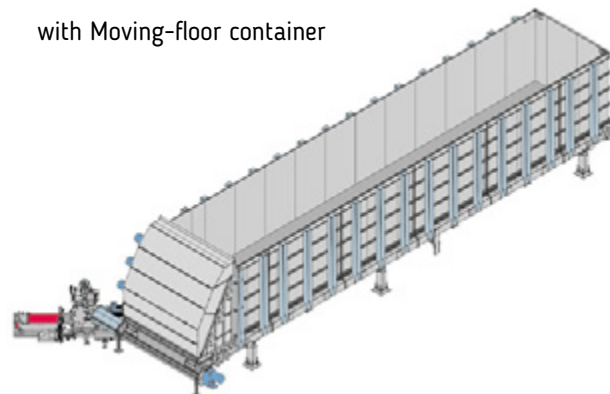
EASYFEEDER MIX PREMIX



with Push-off container



with Moving-floor container



with Belt container

*From practice...
... for practice!*



EASYFEEDER MIX BIOMERGE

with dosing-station BioMerge from BioG



APPLICATION



FEEDING



OPERATION



TECHN. SPECIFICATIONS

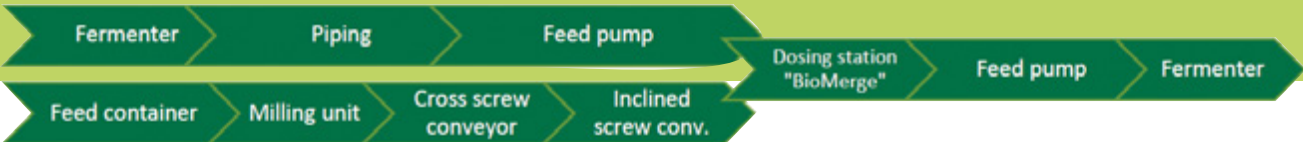
The Mix BioMerge liquid feeding system with dosing station from BioG is the ideal combination of feeding technology, pretreatment and mixing when two or more substrates with different consistencies are involved.

Organic material is mixed with liquid manure from a fermenter or post-fermenter to prepare it optimally for anaerobic digestion in the biogas plant.

- ▶ Processing of two or more substrates
- ▶ Also suitable for demanding and long-fibre materials
- ▶ Long-fibre silage (without chopping)
- ▶ Demanding materials
- ▶ All types of manure
- ▶ Renewable resources (maize silage, grass silage, GPS etc.)
- ▶ The feed container is filled with solid substrate 1 from outside.
- ▶ The milling unit is fed automatically from the feed container and disintegrates substrate 1.
- ▶ The disintegrated substrate 1 is conveyed via the cross screw conveyor to the inclined screw conveyor.
- ▶ The inclined screw conveyor feeds the disintegrated substrate 1 into the mixing tank of the BioMerge.
- ▶ At the same time, liquid substrate 2 from the fermenter or post-fermenter is pumped into the mixing tank of the BioMerge.
- ▶ In the mixing tank of the BioMerge, both substrates are mixed by a mixing screw, displacing air from the substrate.
- ▶ Heavy foreign matter such as stones or metal parts are removed from the mixed substrate 3.
- ▶ The mixed substrate 3 is returned to the fermenter or post- fermenter as a homogeneous suspension for further processing.
- ▶ The consistency of substrate 3 can be controlled via automatic pressure monitoring of the feed-/ discharge pumps and the speed of the mixing screw in the BioMerge.
- ▶ Combination of several process steps (conveying, disintegration, dosing, mixing, foreign matter separation, return feed) in one unit.
- ▶ High operational reliability due to foreign matter separator.
- ▶ Easy integration into existing plants
- ▶ Compact design saves space
- ▶ Flexible use with various substrates
- ▶ Homogenisation increases biogas yield and process stability.
- ▶ Depending on the piping design, several tanks can be supplied; line length and pressure losses must be taken into account (impact on efficiency).

Easyfeeder Mix BioMerge

EBT-M-BG

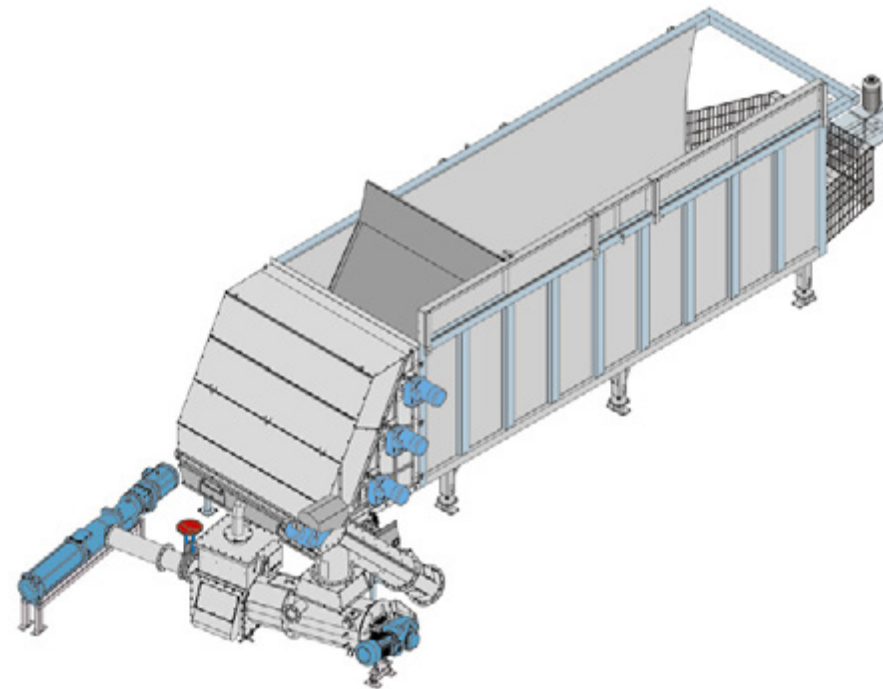


Easyfeeder Mix BioMerge – Liquid feeding system with the dosing station BioMerge from BioG

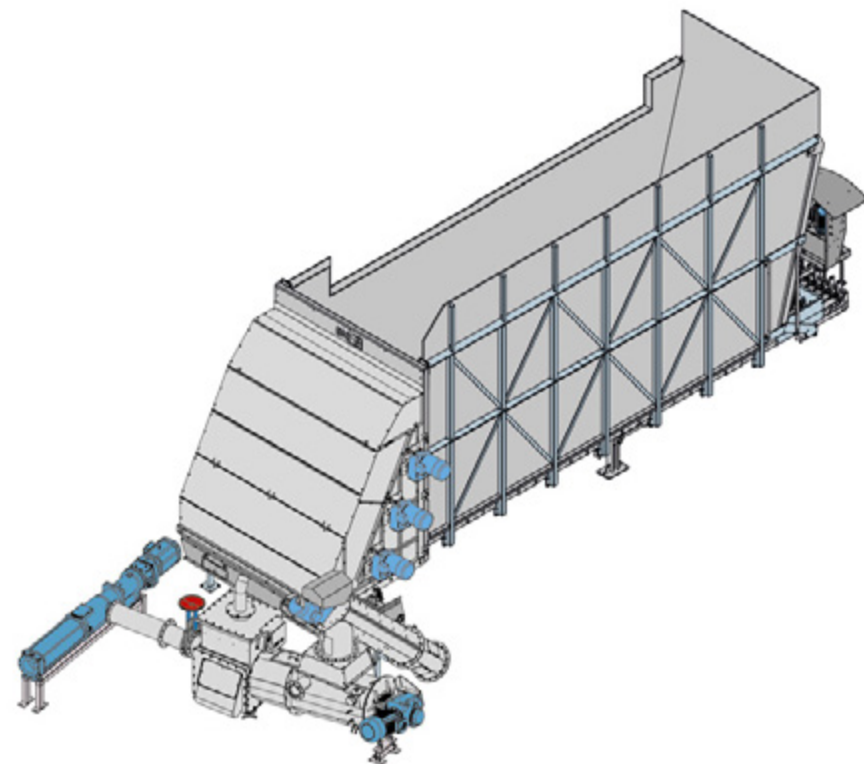
Control:	Stand-alone or integrated into the higher-level control system	
Electric supply of the control unit	400 V AC, 50 Hz	
Feed container:		
Variants:	- Push-off container - Moving-floor container	
Capacity:	See container variant matrix, page 5	
Options:	- Weighing system - Weighing system ATEX - Large display - Protective cover	
Milling unit:		
Material:	Stainless steel	
Material milling drums:	Painted steel; Ripper teeth: stainless steel	
Qty milling drums:	3 (Standard)	
Drive milling drums:	Parallel shaft gearmotor (optional angular gear)	
Drive power/Electric supply:	7,5 kW (400 V AC, 50 Hz)	
Cross screw conveyor:		
Material:	Stainless steel (optional painted steel)	
Capacity:	Ca. 0,7 m³/min (42 m³/h) of silage ca. 150 – 200 kg/min → 9 – 12 t/h	
Drive:	Parallel-shaft gearmotor	
Drive power/Electric supply:	5,5 kW (400 V AC, 50 Hz)	
Diameter:	410 mm	
Inclined screw conveyor:		
Material housing:	Stainless steel	
Material screw:	Stainless steel	
Drive:	Parallel-shaft gearmotor	
Drive power/Electric supply:	5,5 kW (400 V AC, 50 Hz)	
Diameter:	410 mm	
Feed pump 1 (minimum requirements):		
Capacity:	100 m³/h	
Pump type:	Progressive cavity pump	
Drive power/Electric supply:	ca. 22 kW	
Dosing station „BioMerge“:		
Variant:	BioMerge 700	
Rated power pump:	18,5 kW	
Heavy material separator:	Separator box left/right	
Material:	Stainless steel	
Drive:	Spur gear motor	
Feed pump 2 (minimum requirements):		
Capacity:	150 m³/h	
Pump type:	Progressive cavity pump	
Drive power/Electric supply:	45 kW	

Additional combination options are available on request.

EASYFEEDER MIX BIOMERGE

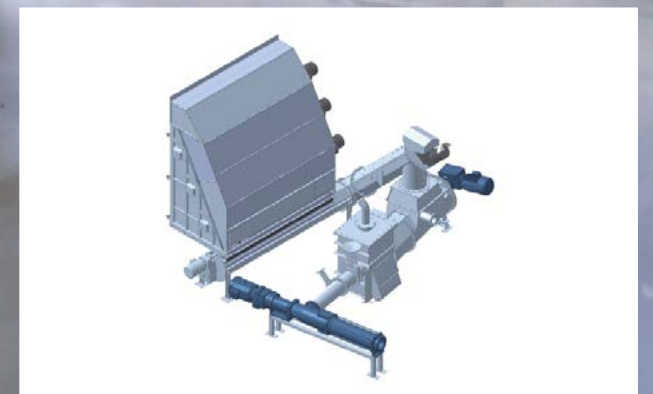


with Push-off container



with Moving-floor container

*From practice...
... for practice!*





Biogastechnik Süd GmbH

Am Schäferhof 2
D-88316 Isny, Germany

Telefon: +49 (0) 7562 970 85-40
Telefax: +49 (0) 7562 970 85-50

E-Mail: info@biogastechnik-sued.de
Website: www.biogastechnik-sued.de/en



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