PUMPE

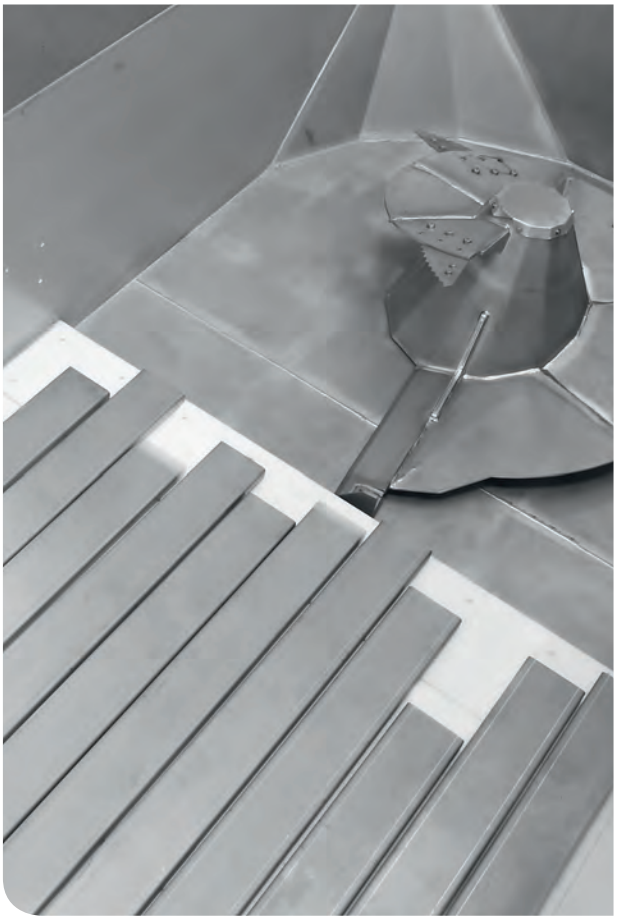
Our technology makes an impact.

DOSING TECHNOLOGY



BIG-Mix

Type 35
Type 48
Type 55
Type 60
Type 80
Type 100
Type 110
Type 118
Type 120
Type 150



Areas of application

Optimal solutions for all requirements.

Our experience has taught us that every plant has its own unique requirements when it comes to capacity, substrate materials and conveyor technology. With our customized and proven BIG-Mix dosing units, we here at PUMPE have developed just the right solution to each of these challenges. Here are a few examples of areas of application.



BIG-Mix Model 48/2500

- 48 m³ storage volumes
- Out-feed via 1 vertical mixing screws
- Mixing screw drive 1x 22 kW
- 3-piece conveyor screw section model 360, consists of a base frame screw, conveyor screw and fermenter screw
- Fill level monitoring
- Weighing system



BIG-Mix Model 80/3000

- 80 m³ storage volumes
- Out-feed via 1 vertical mixing screws
- Mixing screw drive 1x 22 kW
- 3-piece conveyor screw section model 360, consists of a base frame screw, conveyor screw and fermenter screw
- Fill level monitoring
- Weighing system



BIG-Mix Model 60/3000 extended to 100m³

- 100 m³ storage volumes
- Out-feed via 1 vertical mixing screws
- Mixing screw drive 1x 22 kW
- 1-piece conveyor screw section model 450, consists of a base frame screw and inclined conveyor screw on mixing pump/liquid in-feed
- Fill level monitoring
- Weighing system



BIG-Mix Model 60/3000



BIG-Mix Model 80/3000

BIG-Mix dosing unit from PUMPE

Innovative. Long-lasting. Efficient.

The storing and dosing of difficult, long-fibered substrates, such as grass silage and solid manure, plays an important role in many biogas plants. The PUMPE BIG-Mix dosing unit is characterized by a large storage volume with reliable downstream mixing and dosing technology. It is also versatile when it comes to difficult substrate and requires and impressively low amount of energy. With our PUMPE BIG-Mix, you can be assured of a long-lasting system with proven technology, customizable options and of course our comprehensive PUMPE service package.



Storage container
The robust design of the storage container is the product of our many years of experience. The section of the container that comes into contact with products is made from stainless steel.

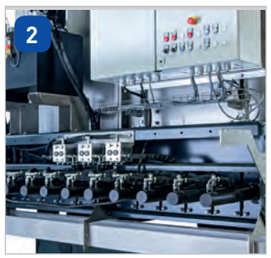


Level measurement
A standard-equipped, high-quality, ultrasonic sensor monitors the fill level in the processing and dosing area. The push strips only continue to convey material into the dosing area when the level in that area falls below the adjustable level setting. This control significantly reduces the running times of the hydraulic power systems.

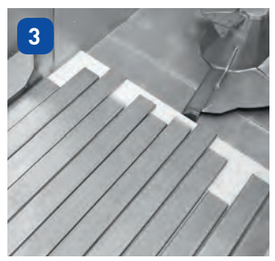








Hydraulic power unit - controls
The push strips are driven by an electric hydraulic power unit, which is standard-equipped with thermal monitoring and a low oil switch. The BIG-Mix comes equipped as standard with a PLC for controlling the push strips and the mixing and dosing area.



Push strip system
On the floor of the dosing container, hydraulically driven stainless steel push strips convey the material to the processing area. The floor itself is coated with wear-resistant plastic, which results in low friction between the push strips and the floor.



Motors
Robust electric motors (equipped with a spur gear system depending on the application) transfer the output to a planetary bevel gear via a drive shaft. Available performance classes 11 and 22 kW.



Planetary bevel gear
This type of gear mechanism transmits high torques with a compact design by distributing the load across multiple planetary gears. The result is the highest degree of efficiency, productivity and process reliability.



Processing and dosing area
Standard-equipped, stainless steel vertical mixing screws are used to process the stored substrates. The mixing screws can be equipped with stainless steel cutting blades.



Oil Reservoir
With its robust, stainless steel design, the oil reservoir ensures easy control of optimum levels in the planetary bevel gear. The gear's output bearing is supplied with lubricant and easy to use.

Equipment options and accessories

Customized BIG-Mix dosing unit for your business.



Cover
In order to reduce emissions and weathering, the BIG-Mix dosing unit can be equipped with a hydraulically operated cover. The cover is designed in segments and made from sturdy stainless steel. The cover can be operated via radio remote control upon request.



Overload protection
In order to prevent substrate from getting behind the container during loading, additional stainless steel assembly elements can be mounted (only possible for devices without covers).

Weighing system
For precise control of fill quantities, we rely on shear force or pressure sensors. Various display devices – optionally coupled with an easily legible, alphanumeric large display with two rows of LEDs – ensure ease of use and simple programming of optimum dosage. For further processing of data, analogue signal outputs as well as Profibus interfaces can be made available.



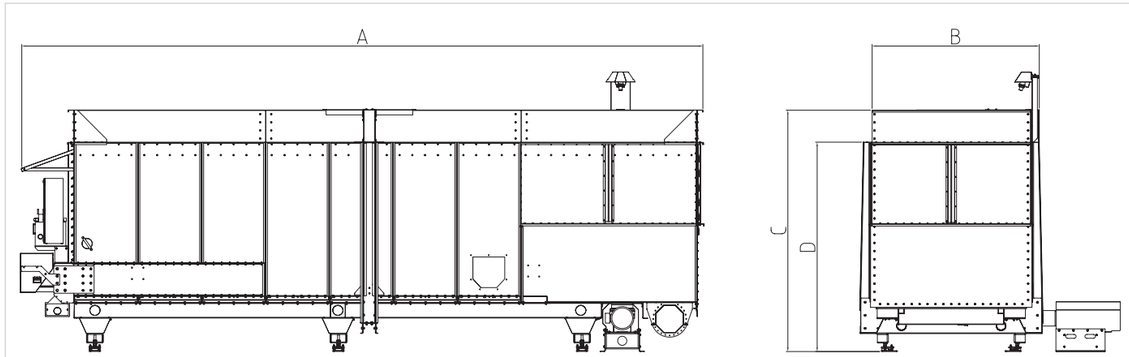
Access opening
In order to simplify maintenance, containers can be optionally equipped with access openings in the sidewalls.



Ladder
A hot-dip galvanized, non-slip ladder is available for a good and above all safe view of the BIG-Mix dosing unit.

An overview of models

Technology that makes an impact.



basic module	35 / 2500	48 / 2500	55 / 3000	60 / 3000	60 / 3000	80 / 3000	80 / 3000	100 / 3000	110 / 3000	118 / 3000	120 / 4000	120 / 4000	150 / 4000
expansion module	-	-	-	-	60 / 3000	-	80 / 3000	-	-	-	-	120 / 4000	-
contents (m³) (t)	35 m³ 25 t	48 m³ 34 t	55 m³ 38 t	60 m3 42 t	100 m3 70 t	80 m3 56 t	140 m3 100 t	100 m³ 70 t	110 m3 80 t	118 m³ 83 t	120 m3 85 t	210 m3 150 t	150 m³ 105 t
content with additional structure (m3) / (t)	42m³ / 30 t	-	-	-	-	-	-	-	-	-	-	-	-
A – total length (m)	7,6	8,6	9,1	8,5	14	11,5	20	13,9	14,5	14,9	12	21	14,5
B – container width (m)	2,5	2,5	3	3	3	3	3	3	3	3	4	4	4
C – total height (m)	3,6	3,6	3,6	3,6	3,6	3,6	3,6	4,1	4,1	4,1	3,6	3,6	3,6
D – sill height (m)	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,1	3,6	3,1	3,1	3,1
hydraulic drive (kW)	7,5	7,5	7,5	7,5	2x 7,5	7,5	2x 7,5	7,5	7,5	7,5	2x 5,5	2x 5,5	2x 5,5
mixing screw drive	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW	1x 22 kW
optional drive (kW)	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	1x 11 kW	-	-	-
hinged cover	o	o	o	o	o	o	o	o	o	o	-	-	-
stainless steel dosing area	x	x	x	x	x	x	x	x	x	x	x	x	x
bottom plate plastic cover 20 mm	x	x	x	x	x	x	x	x	x	x	x	x	x
weighing system	o	o	o	o	o	o	o	o	o	o	o	o	o
electrical control cabinet for push strip drive and mixing screw drive with fill level	x	x	x	x	x	x	x	x	x	x	x	x	x
transfer to conveyor screw model 360	o	o	o	o	o	o	o	o	o	o	o	o	o
transfer to conveyor screw model 450	o	o	o	o	o	o	o	o	o	o	o	o	o
x = standard equipment, o = optional, – = not available													

Konrad Pumpe GmbH

Innovative technology plus experience.



AGRICULTURAL TECHNOLOGY

For more than 180 years, we have been closely following the developments and increasing demands of the agricultural industry. Our barn equipment and feeding systems are characterized by sophisticated functionality, individual concepts and the highest standards of quality and durability. Partnership is our foundation; reliability and professionalism are our recipe for success.



DOSING TECHNOLOGY

The transition to renewable sources of energy is opening up new perspectives for agricultural practices. We here at PUMPE are reliable partners to the energy farmers of tomorrow and offer innovative products and proven technology for biogas operators. From the design process, to manufacturing in our own production facilities, to installation and maintenance, we guarantee perfect service from a single source.



METAL TECHNOLOGY

Our origin is our expertise. Since 1830, we have been forging solid realities out of metal. With the latest technology and our years of experience, we are coming up with customized metal solutions for various applications in agriculture and industry. Custom-made solutions and in-house developments using steel and stainless steel is our passion.

Our service for your success

- Full service – from design and manufacturing to installation and service
- 365 days a year customer service for our clients
- Our own high bay warehouse and in-house production guarantee availability of all spare parts
- Quick reaction times and personal contacts
- Customized production and adaptations for individual specifications
- Close cooperation with our clients and consulting by our specialists
- Short distances and clear structures for perfect customer service
- Worldwide installation and maintenance of your equipment
- Quality and material "Made in Germany"
- A qualified staff that receives ongoing training guarantees the highest level of service
- More than 180 years of experience in the metal processing
- Owner-managed family company



Konrad Pumpe GmbH

- project engineering
- special machinery
- CNC sheet metal
- accessory and containers
- machinery and equipment
- steel construction
- barn equipment
- feeding systems for pigs
- dosing technology for biogas plants

PUMPE

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