

TERBRACK

MASCHINENBAU GMBH



PRODUCTCATALOG

**YOUR PARTNER FOR CONVEYING,
DOSING AND FEEDING**

www.terbrack-maschinenbau.de



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Terbrack Maschinenbau GmbH is a family-run company, founded in 1997 in Vreden in Germany's Münsterland region. For over twenty-five years, we have been producing innovative conveyance, dosage and feeding technology for a wide variety of different uses.

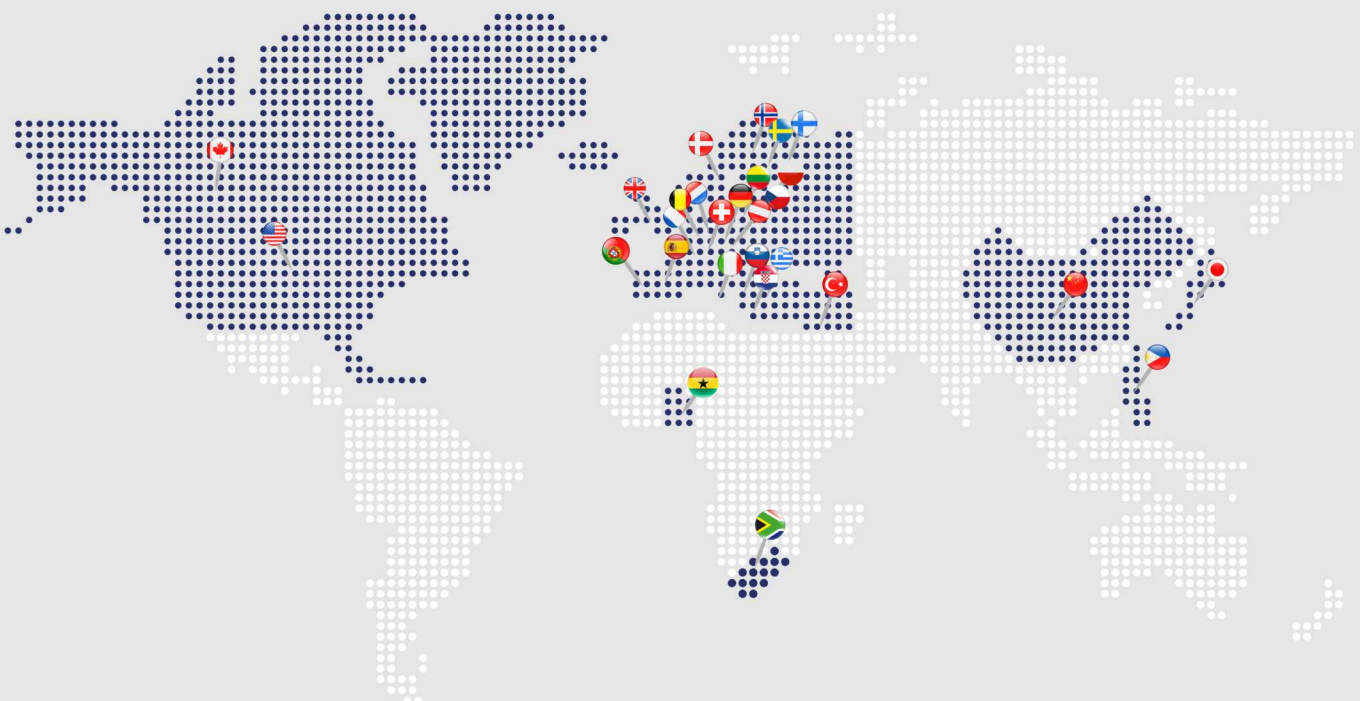
At the beginning, Terbrack Maschinenbau GmbH was primarily known as a biogas/agroindustry supplier. Today, the name Terbrack Maschinenbau denotes a company with a proven international track record as a leading manufacturer in a wide variety of branches, including the recycling, plastic, composting, waste materials, replacement fuels, sewage sludge, biomass and agroindustries.

Our company's history has been shaped by our pioneering spirit and innovative ingenuity. We have implemented well over 1,500 projects, making us one of today's most sought after leading partners in the conveyance, dosage and feeding technology industries worldwide. We offer technical solutions that are both of excellent quality and economical for an extensive and constantly growing range of branches of industry. We can fit the individual components together for you, like pieces of a jigsaw puzzle. And, whatever we do, we never lose sight of what is most important to you: efficient technology and ease of use.

Our company's size and clear structures make things run quickly and smoothly, which is especially important when producing customised products and special components for our clients. Our goal is to provide you with the highest quality products, carefully designed to meet your needs and, above all, sustainable. Our products are assembled both nationally and internationally by our own highly motivated, optimally educated and trained workforce.

Do you want to expedite your projects and need a complete performance portfolio? Terbrack Maschinenbau GmbH is your ideal partner! We can not only deliver the product to your doorstep, but also offer complementary customised solutions and comprehensive customer support. Discover our creativity and innovativeness for yourselves! Take a close look at Terbrack Maschinenbau's range of services and benefit from the advantages we offer.

PROJECTS COMPLETED WORLDWIDE





VARIO PRODUKTÜBERSICHT



The Vario dosage container is a modular system that comes in sizes ranging from 7 m³ – 325 m³ and can be adapted to meet your individual needs.



The Vario *DUO* dosage container – our larger model –
If our Vario dosage container is too small to meet your needs, the Vario DUO, available in 150 m³ – 650 m³ sizes, may offer the perfect alternative.



The Vario *GO* dosage container – worldwide plug and play –
Our Vario system directly integrated into a standardsized 40' open top ISO container. Simple and economical transportation.



The Vario *FLOOR* is our tried-and-tested system for use in concrete bunkers.



The *TT* dosage system is energy efficient and low maintenance.
Its 3 m³ – 15 m³ dimensions make it the ideal system for smaller plants.



Our Conveyor technology offers innovative, goal-oriented and customised conveyor equipment specially designed to meet your needs.



VARIO FUNCTIONAL PRINCIPLE



CONTROL

The standard system comes equipped with a Siemens S7 that permits autonomous control. It can also be integrated into a new or existing control system.

STORAGE CONTAINERS

The container is impervious to fluids. Its modular construction allows it to be expanded later.

DISSOLVING AUGER

The dissolving auger permits even, unobstructed dosing, even with media that are cumbersome to transport.

HYDRAULIC UNIT

An electrically powered hydraulic unit is used to drive the Vario push components.

TRANSMISSION & MOTORS

We use planetary gear technology, which provides a high degree of efficiency and is resistant to wear and tear.

CYLINDER PERFORMANCE

The stainless steel piston rods in the hydraulic cylinders are equipped with a dual seal, which prevents the medium from mixing with the hydraulic oil.

DISCHARGE SCREW CONVEYOR

The position of the integrated discharge screw conveyor allows for even delivery of the medium.

VARIO PUSH COMPONENTS

Vario's conveyor rails are made of stainless steel and plastic. The outstanding efficiency and stability of this technology is unrivalled in the entire branch.



One of its special features is our Vario conveyor rails. Their alternating conveyor mechanism allows for the steady, even discharge of materials. When the conveyor elements are moving forward, the push components unfold to powerfully drive the materials in the output direction. When the rails are moving backwards, the push components lie flat and slide through the material with very little resistance, allowing very little material to be pulled backwards.

In its standard configuration, the Vario dosage container can produce an output of up to 20 m³/h, depending on the medium. You can find further output performance statistics under Equipment and Accessories.

The Vario dosage container is available in left-hand, right-hand and centre output options.

The Vario can be integrated with all the usual subsequent equipment, for example:

- Conveyor belt
- Crushing equipment
- Screw technology



VARIO STANDARD SIZES

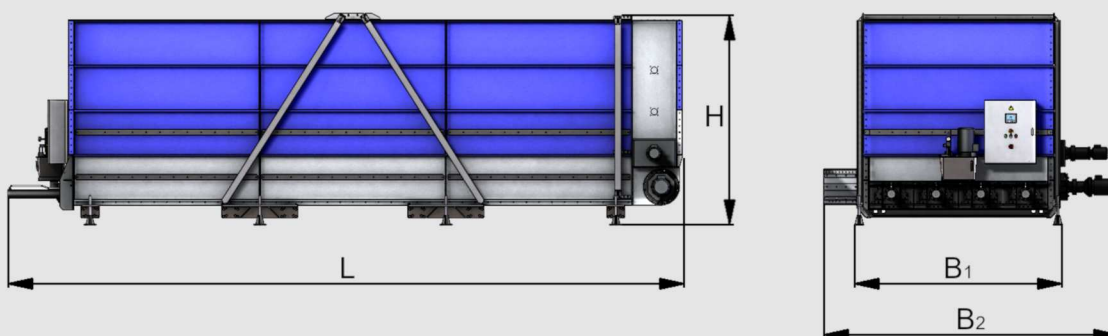
Equipment size / model designation is presented as follows. (Example Model 212)

The first number indicates the number of conveyor rails, width of the machine.
(in the example of Model **212**: 2 conveyor rails; each further conveyor rail +0.7 m)

The second number indicates the number of cassettes along the length of the machine.
(in the example of Model **212**: 1 cassette; each further cassette +3 m)

The third number indicates the number of cassettes along the height of the machine.
(in the example of Model **212**: 2 cassettes; each further cassette +0.7 m)

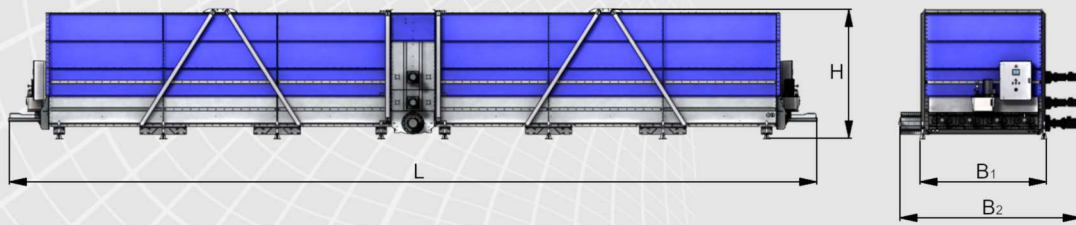
VARIO DOSAGE CONTAINER



Vario Type	Volumes	Dimensions		Load height H
		Length L	Width B1/B2	
212	7,1m ³	4,9m	1,9m / 3,4m	2,0m
Intermediate sizes are available on request				
216	21,2m ³	4,9m	1,9m / 3,4m	4,8m
313	15,9m ³	4,9m	2,6m / 4,1m	2,7m
Intermediate sizes are available on request				
339	124,4m ³	10,7m	2,6m / 4,1m	6,9m
413	21,2m ³	4,9m	3,3m / 4,8m	2,7m
Intermediate sizes are available on request				
449	216,9m ³	13,6m	3,3m / 4,8m	6,9m
513	26,5m ³	4,9m	4,0m / 5,5m	2,7m
Intermediate sizes are available on request				
549	271,1m ³	13,6m	4,0m / 5,5m	6,9m
613	31,8m ³	4,9m	4,7m / 6,2m	2,7m
Intermediate sizes are available on request				
649	325,4m ³	13,6m	4,7m / 6,2m	6,9m

All figures are estimates

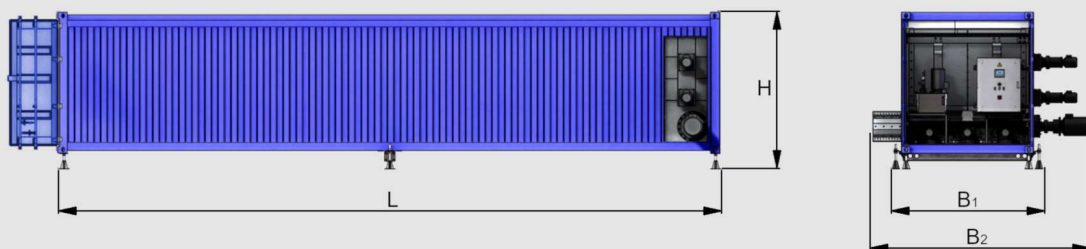
VARIO *DUO* DOSING SYSTEM



Vario <i>DUO</i> Type	Dimensions			
	Volumes	Length L	Width B1/B2	Load height H
464	150m ³	20,9m	3,3m / 4,8m	3,4m
Intermediate sizes are available on request				
469	337,5m ³	20,9m	3,3m / 4,8m	6,9m
484	193m ³	26,8m	3,3m / 4,8m	3,4m
Intermediate sizes are available on request				
489	434,3m ³	26,8m	3,3m / 4,8m	6,9m
564	185m ³	20,9m	4,0m / 5,5m	3,4m
Intermediate sizes are available on request				
569	416,3m ³	20,9m	4,0m / 5,5m	3,4m
584	240m ³	26,8m	4,0m / 5,5m	3,4m
Intermediate sizes are available on request				
589	540m ³	26,8m	4,0m / 5,5m	6,9m
664	222m ³	20,9m	4,7m / 6,2m	3,4m
Intermediate sizes are available on request				
669	499,5m ³	20,9m	4,7m / 6,2m	6,9m
684	288m ³	26,8m	4,7m / 6,2m	3,4m
Intermediate sizes are available on request				
689	650m ³	26,8m	4,7m / 6,2m	6,9m

All figures are estimates

VARIO GO SEECONTAINER

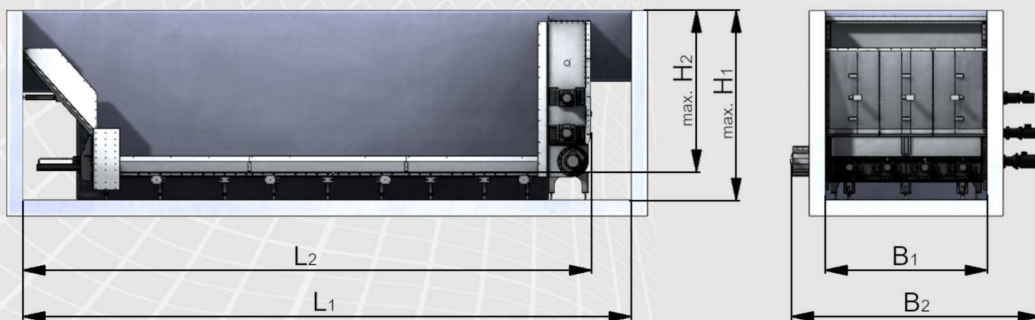


Vario <i>GO</i> Type	Dimensions			
	Volumes	Length L	Width B1/B2	Load height H
60	60m ³	12,6m	2,9m / 4,1m	2,9m
80	80m ³	12,6m	3,1m / 4,1m	3,9m
100	100m ³	12,6m	3,1m / 4,1m	4,6m
The transportation size of all variants is a standard 40' open top ISO container L= 12,2m B=2,5m H=2,6m				

All figures are estimates



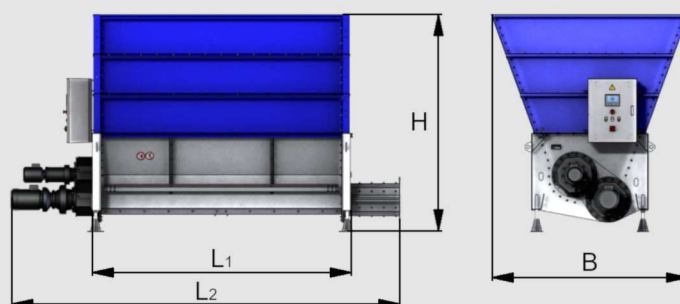
VARIO FLOOR



Vario FLOOR Type	Volumes	Dimensions					
		Length		Width		Height	
		Bunker L1	Floor L2	Bunker B1	B2	Bunker max. H1	Load height max. H2
80	80m ³	11,3m	10,6m	3,0m	4,7m	3,5m	3,0m
100	100m ³	11,3m	10,6m	4,0m	5,5m	3,5m	3,0m
120	120m ³	12,8m	12,1m	4,0m	5,5m	3,5m	3,0m
160	160m ³	14,7m	14,0m	4,0m	5,5m	3,8m	3,3m

All figures are estimates

DOSING SYSTEM TT



Vario TT Type	Volumes	Dimensions		
		Length	Width	Load height
		L1/L2	B	H
3	3,0m ³	3,4m / 4,9m	1,8m	1,7m
4	4,0m ³	4,4m / 5,9m	1,8m	1,7m
7	7,0m ³	3,4m / 4,9m	2,1m	2,2m
9	9,0m ³	4,4m / 5,9m	2,1m	2,2m
10	10,0m ³	3,4m / 4,9m	2,5m	2,7m
13	13,0m ³	4,4m / 5,9m	2,5m	2,7m

All figures are estimates



STEEL MODELS, PARTIALLY OR FULLY STAINLESS STEEL

The standard steel model (only for non-corrosive substrates!)

In the steel model, the entire inner container, i.e. all parts that come into contact with the substrate, is made of steel, as are all parts of the conveyor equipment and the screws.

The partially stainless steel model:

All the inner parts of the floor and the container's first C-profile ring, which come into contact with the substrate, are made of stainless steel and plastic, as are all parts of the conveyor equipment and the screws. All other parts are made of powder-coated steel.

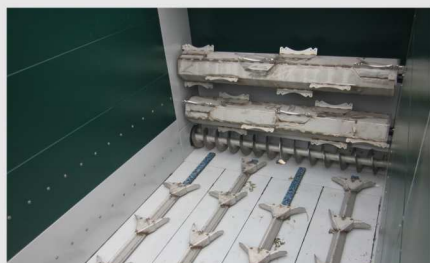
The fully stainless steel model:

In the fully stainless steel model, the entire inner container, i.e. all parts that come into contact with the substrate, is made of stainless steel and plastic, as are all parts of the conveyor equipment and the screws.

RAISING OUTPUT PERFORMANCE

The standard configuration can deliver up to 20 m³/h, depending on the substrate.

Output performance can be increased to up to 100 m³/h.



ADDITIONAL DISSOLVING AUGER

The dissolving auger ensures even and unobstructed dosage. Up to 3 opening rollers can be installed, depending on the height of the container.

DISTRIBUTION SCREW

The distribution screw allows the material to be evenly distributed throughout the dosage container, in order to make optimal use of the entire filling volume.



VARIO STUD FRAME MOUNTING

In order to customise the height of the discharge screw conveyor output, the Vario dosage container can be mounted onto a stud frame.



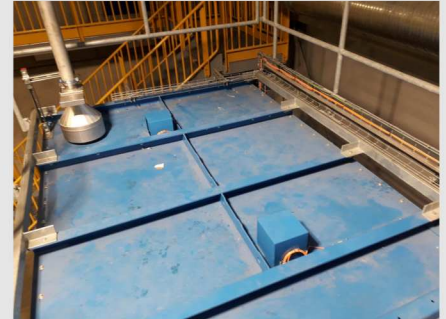
EQUIPMENT, OPTIONS AND ACCESSORIES

SPECIAL ELECTRICAL FEATURES

- Wireless remote control unit
- Integration with ProfiNET / Profibus DP
- Tricolour operating indicator column
- Load-dependent control
- Operating indicator light
- Load break switch

SECURE SCREW-TOP LID

The Vario equipment can be fitted with a secure screw-top lid. The lid can also be fitted in combination with e.g. a connection to a cyclone unit.



MOUNTING BRACKET FOR CYCLONES ETC.

We offer the appropriate mounting brackets to allow you to attach cyclones or other components to your Vario equipment.

HYDRAULIC LID

To minimise emissions and weather damage, the Vario dosage container can be fitted with a hydraulic lid, operated using a wireless remote control.

For example, if you are planning to load your Vario dosage system using a truck or lorry, we can offer you a variety of customised solutions.

(The hydraulic lid cannot be fitted in combination with overcharge protection.)



INSPECTION APERTURE

To facilitate maintenance work, we offer an inspection aperture with safety switches in two sizes.



SIGHT GLASS FITTING

The round sight glass fitting with in-built wiper allows for observation of the interior of the dosage container.



AUTOMATED LUBRICATION

To provide automated lubrication, we offer centralised, automated lubrication.

CONTROL CABINET ROOF

If the equipment is installed outside of the container, a control cabinet roof can be fitted, to protect the control cabinet from weather damage.

FILLING STATUS MONITOR

To allow you to monitor filling status, we offer the appropriate system for each medium. Used in combination with our Vario control system, this ensures precision dosage of the medium.

- Radar sensors
- Laser sensors
- Rotary position monitors
- Weighing systems

SPECIAL PAINTWORK

The Vario dosage container is available in other colours, on request.

Standard Colours:

C profile (steel): moss green (RAL 6005).

C profile (stainless steel): aluminium white (RAL 9006).

Substructure and side supports: zinc plated

Motors, transmission crossbeams, cylinders etc.: deep black (RAL 9005)



OVERVIEW OUR ADVANTAGES

- Low energy consumption
- Liquid-tight
- Modular, extendable
- Customer service 365 days a year
- Interconnection with all common and popular downstream systems possible
- Unique Vario push element system
- Worldwide assembly, maintenance and service
- Customer care from start to finish
- Highest quality „Made in Germany“
- Trouble-free dosing of a wide variety of substrates, even long-fibrous



CONVEYOR TECHNOLOGY

Conveyor technology "Our know-how - your benefit"

We offer innovative, goal-oriented, customised, sustainable mechanical conveyor technology. You can choose between solutions that address your entire process and partial solutions for individual domains. But the approach is always determined by which medium you are handling.

There can be no doubt about it: different media demand different conveyor technology designs. Our screws are manufactured with the utmost precision, in order to ensure the highest quality and accuracy.

EQUIPMENT AND ACCESSORIES



INSPECTION APERTURE

To facilitate maintenance work, we offer an inspection aperture with a safety switch.

GYRATION TRACKER

The gyration tracker can identify when a screw breaks, thereby protecting the dosage system and other equipment from major harm.



CLOGGING SENSOR

The clogging sensor protects screw technology and other equipment from damage.



Our screw technology can be integrated with all the usual subsequent equipment



Screw with free ejection



Customised free eject shape



Inclined conveyance screw with stuffing screw



Straight connection to inclined conveyance screw



Free ejection with an clogging sensor



free ejection on conveyor belt



Free ejection with an clogging sensor



Free ejection



free ejection on conveyor belt



SAMPLE APPLICATIONS



Vario, partial stainless steel design, Type 549 (approx. 275m³)



Vario, steel design with rear-mounted drive unit



Vario, partial stainless steel design, with middle discharge on conveyor belt



Vario with 2 cyclones



Vario *DUO*, full stainless steel design



Vario with special paintwork



Vario, full stainless steel design,
with discharge 500



Vario as truck acceptance



Vario with special paintwork



Vario with mixing screw



Vario, partial stainless steel design



Vario on a stud frame



AGRO BIOGAS



INDUSTRY RECYCLING



SEWAGE SLUDGE

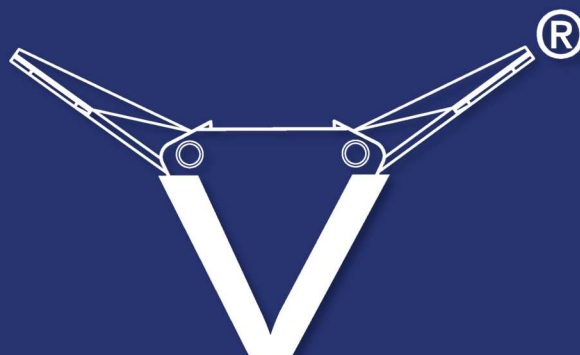


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