

EFFECTIVE AND ENVIRONMENTALLY FRIENDLY SPREADING TECHNOLOGY

Dribble bar systems and trailing shoe systems for efficient liquid manure management

VOGELSANG – LEADING IN TECHNOLOGY







YOU CAN RELY ON IT

Quality, experience and expertise guarantee future-proof technology

As a pioneer in agricultural technology, Vogelsang remains one of the leading mechanical engineering companies in this sector. Farmers and contractors worldwide rely on the innovative design and high quality standards of our spreading technology.

Based on our diverse experience and continuous development work, we build highly functional components and entire systems that facilitate precise distribution of the nutrients in the liquid manure.

Both the production and material quality of our dribble bar systems and precision distributors are testimony to our responsible actions for the benefit of our customers. Their adaptability and versatility boost yields as well as fostering sustainability and allowing agricultural operations to react effectively to current legal requirements.

OUR INVENTION, YOUR BENEFIT

The nutrient-efficient low-level spreading system with dribble bar and trailing shoe systems

Liquid manure as a nutrient source

Liquid manure and digestates are valuable reusable materials. These highly valuable nutrient sources, which contain trace elements and organic forming matter, become more important as the cost of mineral fertilizer rises. However, to use liquid manure as a natural source of nutrients economically, successfully and properly, the distribution system must be precise, clean and low in odors. All Vogelsang spreading systems for liquid manure satisfy these requirements even under difficult conditions.

Cutting-edge technology and superior quality

We continuously develop and optimize our spreading technology. The practical results reveal that these efforts pay off, which has also been confirmed in various tests: Intelligent designs maximize the working widths and ensure even fertilization regardless of the weather conditions. Robust frame designs, variable management of partial width sections, optimized hose laying, innovative special solutions and precise and robust precision distributors have been ensuring the success of farms, contractors and machinery syndicates for more than 30 years.

Efficient and flexible spreading

We support highly effective transport chains and umbilical application systems with linkages up to 36 m long, and up to 18 m long for self-propelled vehicles. Every system allows you to spread liquid manure with low emissions and efficient nutrient use. The Vogelsang range consists of conventional dribble bar systems for direct spreading in growing crops and trailing shoe systems that separate the crops and thus place the liquid manure under the plants.

Practical, rugged and convenient

Vogelsang dribble bar systems and trailing shoe systems are tailored for the different applications of farmers, machinery syndicates and contractors. The functionality and efficiency of the systems are utilized optimally by our proven precision distributors, as they guarantee even and constant distribution of the liquid manure into the spreading hoses. Our linkage technology also ensures maximum precision and flexibility, offering maximum working widths with compact transport dimensions.



Overview of Vogelsang spreading technology

Dribble bar systems for tankers



SwingUp

• Working widths from 7.5 to 18 meters



SwingMax

• Working widths from 21 to 33 meters



SwingMax36

• Working width 36 meters

Dribble bar systems for self-propelled vehicles



Compax

• Working widths from 12 to 18 meters

Dribble bar systems for the umbilical application system



BackPac

- Working widths from 21 to 30 meters
- Especially designed for liquid manure transfer to the field via a pressure line

Trailing shoe systems for tankers



SwingUp Slide

• Working widths from 12 to 18 meters



SwingMax Slide

• Working widths from 21 to 30 meters

Precision distributors



DosiMat DMX

- Maximum precision
- Variable spreading capacity
- High distribution accuracy regardless of the spreading capacity
- Easy maintenance



ExaCut ECL

- Best cutting and distribution effect
- With heavy material separator
- Very smooth running



ExaCut ECQ

- Fast, simple and straightforward maintenance
- Longer service life
- Better distribution precision due to flow optimization
- Low power requirements
- Large cross-sections for less pressure loss
- Resistant to dry running

TECHNOLOGY WITH AN **EXPERTISE ADVANTAGE**

Perfectly coordinated individual components for maximum functionality

Spreading technology involves teamwork

The frame, distributor, drain hoses and technical innovations - all are needed for the best spreading performance.

Optimum hose routing

The discharge hoses of Vogelsang dribble bar systems all have similar lengths thanks to optimized hose guidance. The liquid manure reaches the soil almost simultaneously. Even spreading across the entire working width and length is ensured as well.

Vogelsang special hose

Our hose material and the composition of the plastic were developed specially for Vogelsang over decades. The combination of raw materials that we use for our special hose is characterized by high robustness, elasticity and UV resistance. That makes the hoses resistant to the effects of chemicals and environmental influences. The unique manufacturing technique we use for our rigid end hoses brings additional benefits. The hose sections used as end hoses are always straight and absolutely dimensionally stable.

Your advantage is that there is no need for springs, which are prone to wear, and the hoses always remain open and do not stick. Furthermore, this rigid arrangement of the end hoses ensures a defined distance between discharge lines.

Vogelsang precision distributors

Liquid manure, a valuable commodity, must be spread evenly and reliably in the distribution hoses. The Vogelsang precision distributor permits the precise distribution of the nutrients with a distribution coefficient of less than 5 percent. That makes spreading a safe and reliable process without fluctuations, which also guarantees the even growth of the plants.

Section management

Retracting or folding linkage parts using TeleShift or TopSwing further reduces the transport dimensions, preventing the system from overlapping out at the front and rear of the vehicle. The patented Comfort Flow Control (CFC) system allows the corresponding discharge hose to be simply pneumatically sealed.

DropStop

When driving on the road, the hoses of the dribble bar system are rotated upward 180° so that they are vertical. This reliably prevents leakage and keeps the road clean and safe.

Slope compensation

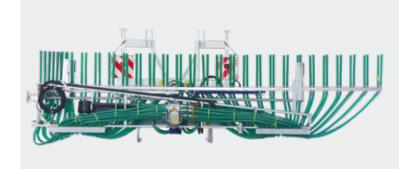
Flexible drain hoses, the elastic suspension and slope compensation of the supporting frame of the SwingMax systems allow the linkage to be optimally adapted to any terrain. All rigid elements are kept at a maximum distance from the ground, making it safe to drive over uneven terrain.

EasyPack

We supply dribble bar systems as EasyPack, completely preinstalled and tested. This makes it easy for you to quickly modify your Vogelsang dribble bar system on the farm. The system can also be installed directly on your vehicle in our factory.







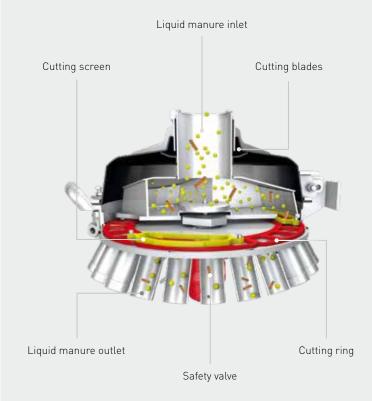


THE HEART OF EVERY DISTRIBUTION SYSTEM

Precision distributors for precise and reliable nutrient distribution

The DosiMat DMX

Internal view



Variable spreading capacity, precise distribution

With this hydraulically operated cutting and dosing system, the liquid manure flows from above into the distributor where it is distributed evenly to the outlets by the rotor. Fibrous matter and foreign objects are shredded reliably by the cutting blades.

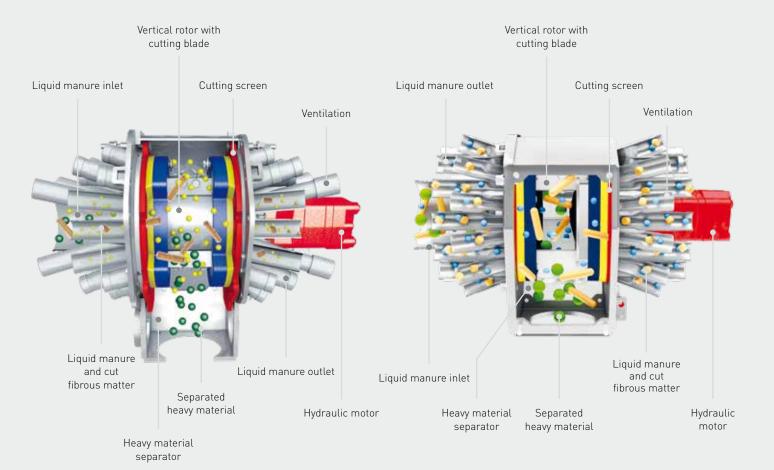
What is also impressive about the DosiMat DMX is its flow-optimized rotor, which ensures outstanding distribution accuracy. It distributes large, but also small spreading capacities without the need for conversion. Its maintainability proves to be just as practical.

The ExaCut ECL

The ExaCut ECQ

Internal view

Internal view



Optimal cutting results, maximum reliability

Thanks to its rotor technology, the compact ExaCut ECL cuts and distributes excellently. The steady rotor movements make for very smooth running. The liquid manure is distributed evenly to the 20 to 48 outlets.

With hose diameters up to DN 60, even large amounts of liquid manure can be dealt with. With the self-adjusting and self-sharpening cutting system, the product boasts an extremely long lifetime together with maximum ease of maintenance. The integrated heavy material separator protects the entire spreading system against foreign matter.

Expect the best

The ExaCut ECQ, a further development of the ECL, also works using rotor technology. It also has new features that put it in the top spot in the market: Unbeatable distribution accuracy and maintainability accompanied by an increase in service life and lower power requirements.

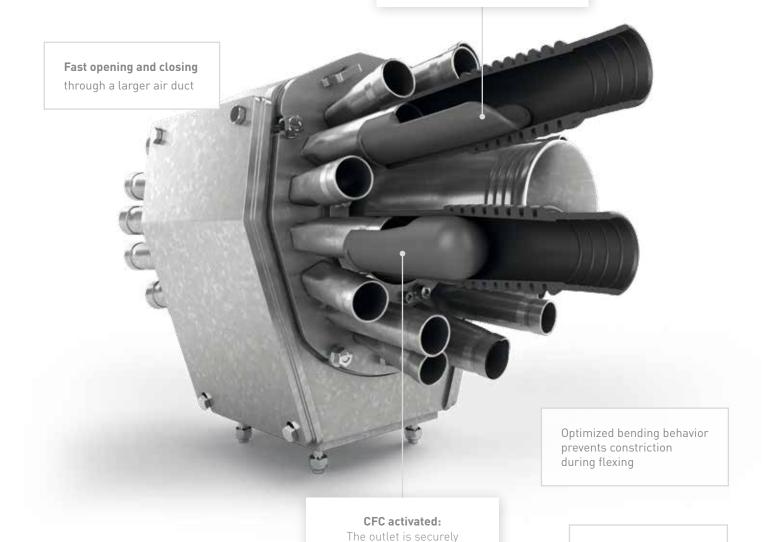
SPREADING LIQUID MANURE PRECISELY AND CLEANLY

The equipment options for optimal partial width management and safe driving High weather resistance thanks to the EPDM rubber used

Very simple assembly

CFC deactivated:

Free flow without edges on which fibrous matter could accumulate



closed.

ExaCut with Comfort Flow Control

Comfort Flow Control

Comfort Flow Control (CFC) is the universal solution for part-width section cutoffs, tramline switching and/or closing off selected hose groups on the dribble bar system. The patented CFC is unique in its simple and ingenious functional principle: an air bellows developed specially by Vogelsang is filled with air pressure, sealing off the liquid manure inflow to the corresponding discharge hose. For this purpose, the CFC is installed in the hose outlets of the spreader device immediately downstream of the respective distributor. From the cab, each hose or group of hoses can be turned off. In addition, the CFC can be used for a compact and reliable DropStop for cultivators or injectors.

DoubleFold

DoubleFold allows you to reduce the working width. The outermost frame elements – the TopSwing – is manually folded in half. The Comfort Flow Control seals the corresponding discharge hoses.

TopSwing

TopSwing customizes the working width by hydraulically folding the outer frame elements through 180°. The frame elements are then placed on top of the basic linkage. The corresponding discharge hoses are sealed by Comfort Flow Control.

TeleShift

TeleShift not only reduces the transport dimensions, it also reduces the working width. The extending and retracting ends of the booms allow flexible working widths in conjunction with Comfort Flow Control.

By the way, in SwingMax linkages, the TopSwing folding mechanism can be combined with TeleShift, reducing the transport length by up to 4 meters. In this way, SwingMax linkages can also be used on compact and short tanks.

Half-boom section switch-off

In this option, one of the two supply lines to the ExaCut is sealed pneumatically, hydraulically or manually, so that only one boom is fed with liquid manure.

Standard with tramline



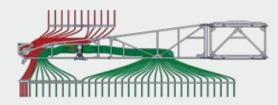
DoubleFold



TopSwing



TeleShift



Half-boom section switch-off



EASY SETUP, POWERFUL PERFORMANCE

The SwingUp with compact dimensions and high-grade technology for universal and flexible use



SwingUp is our all-rounder for liquid manure spreading. The dribble bar system also combines great stability and flexibility. Weighing just one metric ton and with a working width of 12 meters, SwingUp is unusually light and therefore also suitable for compact vehicles.

SwingUp means maximum spreading accuracy. This is provided by the precision distributors, Vogelsang's special hoses that adapt to the shape of the ground, and the rigid end hoses that precisely deposit the liquid manure on the ground and not on the plants.

This system is particularly easy to install and can be easily and quickly retrofitted on existing tankers. In general, the onboard hydraulic system of the tractor will be sufficient to control all of the functions of the dribble bar system.

Just ask and we will be glad to configure a SwingUp system for you.

SwingUp features

- Highly precise distribution with the precision distributor and the double symmetrical hoses
- DropStop by rotating the end hoses up 180°
- Transport position above the fender
- Narrow transport width
- Remote unlocking of booms
- Fixed installation on tank
- Easy to install thanks to EasyPack
- Variable mounting brackets for customized installation
- Even spraying distance between discharge hoses ensures optimum growth

SwingUp options

- Comfort Flow Control (CFC) for part section switch-off
- Half-boom part section switch-off
- End hoses in DN 50
- Hydraulic unlocking of the booms
- Available as 4-point design
- TeleShift at rear/front to reduce the transport dimensions
- Complete installation on tanker at the Vogelsang factory

Working widths

- 7.5/9/12/15/18 m
- Custom widths available upon request



What our customers say

"With the SwingUp system including part section switch-off we are able to meet the exacting demands of our customers. Whatever the crops and weather, the spreading is perfect with minimum odor. This is a fact for which both the farmers and their neighbors are thankful."

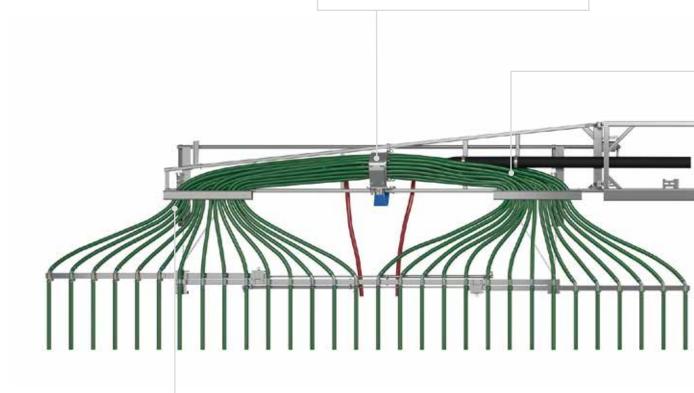
Christof Schürmann, agricultural contractor, Börger, Germany

COMPACT, VERSATILE AND EASY TO INSTALL

The SwingUp

Accurate precision distributors

Maximum reliability, precise distribution of nutrients and optimal shredding of foreign and fibrous matter for minimized downtime



Special hose

Robustness, elasticity, and UV resistance thanks to unique production process

MAXIMUM SPREADING ACCURACY

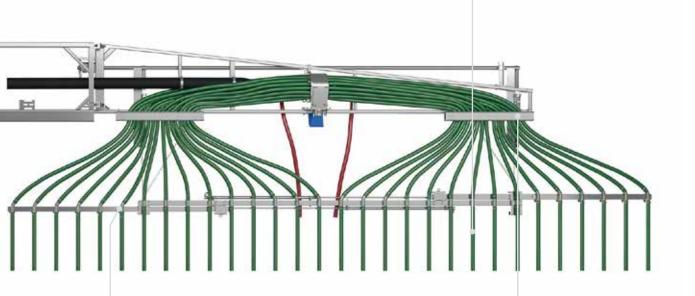
Optimal use of nutrients thanks to precise application under the crops

Clever hose routing

Discharge hoses of approximately the same lengths to prevent the "V shape" that can form at the start

Rigid end hoses

Even spraying distance, no overlapping of hoses as well as precise spreading of liquid manure under the crops for minimized crop contamination



TeleShift

Allows the boom ends to extend or retract for transport purposes or in order to reduce the working width

Sturdy, fully galvanized frame designs

Durability coupled with low overall weight

MAXIMUM PERFORMANCE AND FLEXIBILITY

The versatile SwingMax for maximum effectiveness



SwingMax is the optimum solution for liquid manure spreading with large working widths. Optional features like TopSwing, DoubleFold, TeleShift and Comfort Flow Control ensure maximum flexibility in use. The special double-frame design is able to deal with maximum dynamic loads, thereby ensuring trouble-free, cost-effective operation with weight optimization at the same time.

The coordinated hydraulic and mechanical components in the SwingMax ensure secure and speedy folding and unfolding. At the heart of the SwingMax are the ExaCut distributors located decentralized in the booms, which can be configured according to the customer's specifications. The location of the precision distributors ensures quick-and-easy access at any time for maintenance work.

SwingMax provides professional technology for the most stringent requirements, suitable for agricultural contractors, machinery rings and large agricultural operations. It offers profitability through maximum efficiency.

SwingMax features

- Boom with double tubular frame for extra stability
- Maximum spreading accuracy thanks to ExaCut distributor and double symmetrical hoses
- DropStop by rotating the end hoses up 180°
- Transport position above the fender
- Slope compensation, passive via central suspension
- TopSwing to reduce the transport dimensions
- Mounted in a 4-point design
- Compact installation on the tanker
- Easy to install thanks to EasyPack
- Even spraying distance between discharge hoses ensures optimum growth

SwingMax options

- Comfort Flow Control (CFC) for part section switch-off
- Half-boom part section switch-off
- End hoses in DN 50
- DoubleFold
- TeleShift at rear/front to reduce the transport dimensions
- Active slope compensation

These features and options are also applied for the SwingMax Slide on page 28 – 29.

Working widths

- 21/24/27/30/33 m
- Custom widths available upon request



What our customers say

"In addition to the flexible adjustable working widths, we appreciate the very good price-performance ratio of Vogelsang's SwingMax. Maintenance costs are low and output is high due to the enormous area output. We record low nitrogen losses and low spreading costs, which benefits our customers."

Henning Kruse, Kruse Friedewalde GmbH, Petershagen

FLEXIBLE, POWERFUL AND EFFECTIVE

The SwingMax

Comfort Flow Control (CFC)

Allows individually defined hose groups to be switched off using air pressure. This is controlled from the driver's cab.

Special hose

Robustness, elasticity, and UV resistance thanks to a unique production process

Accurate precision distributors

Maximum reliability, precise distribution of nutrients and optimal shredding of foreign and fibrous matter for minimized downtime

Clever hose routing

Discharge hoses of approximately the same lengths to prevent the "V shape" that can form at the start

MAXIMUM SPREADING ACCURACY

Optimal use of nutrients thanks to precise application under the crops

High effectiveness

Optimum working width for minimal costs, time savings and less travel

Sturdy, fully galvanized frame designs

Durability coupled with low overall weight

Compact transport widths

Minimal transport widths with optimal working widths of up to 36 meters

Rigid end hoses

Even spraying distance, no overlapping of hoses as well as precise spreading of liquid manure under the crops for minimized crop contamination

Ultimate flexibility

Flexible management of part-width sections to suit every tramline and working width

A NEW DIMENSION IN DRIBBLE BAR SYSTEMS

The SwingMax36 with an unrivaled working width of 36 meters with great flexibility and stability



SwingMax36 advances to a new dimension. For the first time, it's now possible to spread organic fertilizer evenly across a working width of 36 meters. This allows the existing tramlines to be used, reducing the cost and time taken to a minimum, as well as the amount of travel across the field

SwingMax36 is also designed for maximum flexibility. Intelligent section management means that the 36 meter linkage can be adjusted flexibly to working widths of 21, 24 or 30 meters. This is made possible by the TeleShift and TopSwing elements.

SwingMax36 is a design based on the tried-and-tested SwingMax3 dribble bar system. The framework has been designed as a triple construction due to the huge working width and an additional folding element was added. Three ExaCut precision distributors ensure precise spreading.

SwingMax36 features

- Boom with double tubular frame for extra stability
- Maximum spreading accuracy thanks to ExaCut distributor and double symmetrical hoses
- DropStop by rotating the end hoses up 180°
- Transport position above the fender
- Slope compensation, passive via central suspension
- TopSwing to reduce the transport dimensions
- Mounted in a 4-point design
- DoubleFold
- Compact installation on the tanker
- Even spraying distance between discharge hoses ensures optimum growth

SwingMax36 options

- Comfort Flow Control (CFC) for part section switch-off
- End hoses in DN 50
- TeleShift at rear/front to reduce the transport dimensions
- Active slope compensation



What our customers say

"Our customers on the island of Rügen have strict demands for the spreading technology and require a working width of 36 meters. The SwingMax system allows me to meet these requirements easily. The device is excellently finished, durable and versatile in use. Maintenance work is rarely required and completed quickly by Vogelsang's service team, so extended downtime is never a problem."

Anton Reetz, Rügen Agricultural Service, Garz, Germany

THE FLEXIBLE SOLUTION FOR SELF-PROPELLED VEHICLES

Compax for efficient spreading and maximum efficiency with a large working width and compact transport dimensions



The Compax dribble bar system and self-propelled vehicles are an excellent combination for spreading liquid manure that is easy on the soil. The folding technology of the Compax was adapted for spreading manure with a self-propelled vehicle: The Compax folds up completely behind the vehicle so that the driver's vision is not blocked and the width of the vehicle is not enlarged.

Overall, the Compax was designed to accommodate the special requirements of self-propelled vehicles that are used in season around the clock. The liquid dispersal system, hoses and ExaCut distributor are designed to spread large amounts at maximum speed.

Compax features

- Maximum spreading accuracy thanks to ExaCut precision distributor
- Compact transport dimensions of 3 meters behind the self-propelled vehicle
- Electrohydraulic folding
- DropStop by means of CFC hose switch-off
- Slope compensation, passive via central suspension
- Discharge and end hoses in DN 50
- Mounted in a 3-point design
- Even spraying distance between discharge hoses ensures optimum growth

Compax options

- Comfort Flow Control (CFC) for part section switch-off
- Active slope compensation

Working widths

• 12/15/18 m





What our customers say

"The Compax dribble bar system is a perfect match for our self-propelled vehicles. With a transport width of 3 meters, the machine is very easy to use. Depending on the length of the field, I can adjust the working width to 9, 12 or 15 meters and thereby give my customers very economical and attractive offers."

Rainer Fischer, Heinrich Fischer GmbH Contractor, Damme

LIGHTWEIGHT, STABLE AND SUPER SMART

BackPac – The intelligent trailing shoe and dribble bar system for umbilical application systems Especially in larger farms or farms with rolling hills, liquid manure spreading via an umbilical application system has become an established method. Not only because supplying fertilizer via an umbilical application system is extremely efficient, but also the fact that there is no tanker has a positive effect on the field: The considerably lower weight of the tractor and linkage protects the soil.

Vogelsang's solution is the BackPac with a more stable linkage and a stronger pull swivel as well as with a more strategically placed precision distributor: Mounted almost centrally, it provides a corresponding center of gravity when folded. The fact that the hose lengths in the linkage could also be adjusted as a result also contributes to a more constant flow of liquid manure.



New: Flow rate and pressure measurement

The pressure at which the liquid manure flows through the BackPac can now be read off at the driver's terminal, as it can be delivered with flow rate and pressure measurement function if required. This makes it possible to monitor the operation of the pump that fills the umbilical application system and also to record the liquid manure quantity applied.

New: Integrated electrohydraulics

The BackPac linkage's electrohydraulic system can also be controlled from the terminal and is connected to the tractor via the ISOBUS.

New: The headland management function

A further innovation in the field of liquid manure flow control enables the driver to stop spreading the liquid manure on the headland through the right or left side of the linkage at the push of a button. When the "headland management" function is activated, the liquid manure is either not spread at all or only spread at one side depending on the setting when turning. The function initiates the automatic closing of the part-width gate valves, switches off the entire distributor and locks the corresponding discharge hoses via the CFC.





BackPac features

- Mounted in a 3 point design
- Reinforced frame and pull swivel to protect against deformation
- Compatible with ExaCut ECL and ETX precision distributors for the highest distribution accuracy
- Low weight and compact design
- Optimized center of gravity for smoother driving on the field
- Transport position behind the tractor (transport width 2.55 m)
- Headland management function
- Half-boom part-width section switch-off
- Integrated electrohydraulics
- Controllable oscillation movement
- Active slope compensation from 21 m

BackPac options

- Comfort Flow Control (CFC) for part-width section switch-off
- Digital flow rate and pressure measurement, can be called up on the terminal
- Automatic unfolding procedure
- Lifting device

Designs

• Available as dribble bar and trailing shoe system

Working widths

• 21/24/27/30 m



What our customers say

"When spreading liquid manure, we seek to maximize efficiency and minimize soil compression on our farm. That is why we chose an umbilical application system for liquid manure. Whether spreading manure on crops or a meadow, the Vogelsang BackPac dribble bar system allows you to spread manure quickly, precisely and reliably."

Gerd Wolken, Wolken Wittmund Agricultural Contractor, Wittmund, Germany

NUTRIENT-EFFICIENT AND LOW EMISSIONS

The trailing shoe systems
SwingUp Slide and SwingMax Slide
for gentle liquid manure
spreading in growing crops



To make optimal use of liquid manure, soil-level depositing of the liquid manure under the crops is ideal. That allows the plants to absorb the nutrients efficiently, without contaminating the crops. This process has a positive impact on the yield and creates ideal growth conditions, especially for pastureland.

The trailing shoe systems operate with an integrated skid that separates the plants and deposits the liquid manure in a narrow strip behind the skid. This not only prevents contamination of crops but also deposits the liquid manure exactly at the place the plants require it. The trailing shoe system is versatile and can be used on all kinds of crops. The trailing shoe always follows the contour of the soil thanks to its sturdy and permanently elastic shaft material. That ensures even spreading close to the soil for many years, even on uneven terrain.

As with other dribble bar systems, the weight-optimized design of this linkage permits large working widths of up to 30 meters. This means already existing tramlines can be used with less impact on the soil. This achieves a level of effectiveness never before seen in trailing shoe technology. Please note that the Vogelsang trailing shoe systems are also available as a BaseRunner retrofit kit, allowing you to convert existing dribble bar systems in just a few steps.

SwingMax Slide

SwingUp Slide

SwingUp Slide features

- Maximum spreading accuracy thanks to ExaCut distributor and double symmetrical hoses
- DropStop by rotating the end hoses up 180°
- Transport position above the fender
- TeleShift at rear
- Mounted in a 4-point design
- Easy to install thanks to EasyPack

SwingUp Slide options

- Comfort Flow Control (CFC) for part section switch-off
- Half-boom part section switch-off
- Separate DropStop
- TeleShift at front

Working widths

• 12/15/18 m

What our customers say

"When it comes to trailing shoe systems, I want value for money. We spread roughly 30,000 m³ of liquid manure in Southern Oldenburg with the Vogelsang SwingUp Slide this year. What impressed me during testing was that the linkage is compact, organized and powerful. The precise liquid manure depositing impresses me again and again."

Franz-Josef Otte, Otte Contractors, Badbergen, Germany

SwingMax Slide

For detailed information on the features and options for the SwingMax Slide, see page 19.

Working widths

• 21/24/27/30 m

What our customers say

"Reliable technology is important for me. The SwingMax Slide allows me to use a wide range of working widths. The low weight was also a key point for my purchase decision. The simple operation, the low operating costs, combined with the high-quality finishing, confirmed my choice. It offers great bang for your buck!"

Jakob Eveslage, Eveslage Contractors, Dinklage, Germany

WHEN IT COMES TO SERVICE, WE LEAVE NOTHING TO CHANCE

Comprehensive services for smooth operation and a long lifetime

Support and supply from A to Z

Because we are aware that close customer proximity is essential for our mutual success, we design our services to best meet your needs. In Germany and in countries where we have subsidiaries, Vogelsang service centers and contractual partners generate an active dialog with our customers and provide reliable support.

This means you always get the precise support you need in every phase of our partnership. Our highly qualified staff make it possible – experts such as consultants and technicians who know your Vogelsang machines inside and out.





We think ahead

Thinking ahead in your best interest begins with our extensive and detailed product documentation. Spare parts are available within a short time due to our high degree of vertical integration in production. In addition, you will always find an authorized service partner in your area who can help with repairs and wear part replacement. The Vogelsang ServicePack completes the offer. Whether you need start-up, on-site training, training at the Vogelsang facility, or full service support with a maintenance contract and a wear parts service package – we offer a support program tailored specifically to your needs.

What we offer

We provide solutions in the following sectors: AGRICULTURAL TECHNOLOGY, BIOGAS, INDUSTRY, TRANSPORTATION, WASTEWATER











Our broad range of products and services

- Consulting and service
- Data management and control technology
- Disintegration technology
- Individually tailored solutions for special applications
- Pumps and pump systems
- Solid matter feeders
- Solids reduction, separators and mixers
- Spreading technology
- Supply, disposal and cleaning

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