PRECISION DISTRIBUTION TECHNOLOGY

Vogelsang precision distributors for accurate liquid manure spreading
02 | 03 Introduction
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 reliable and efficient distribution of the nutrients.

Both the production and material quality of our precision distributors and optional equipment are testimony to our responsible actions for the benefit of our customers. Their adaptability and versatility boost yields in addition to fostering sustainability, and allow agricultural operations to react effectively to current circumstances or legal requirements.
Liquid manure – a valuable material
Liquid manure and digestates are reusable materials. They are a natural source of plant nutrients that can be precisely spread onto the soil, meaning the need for inorganic fertilizers is greatly reduced. This technology for targeted and precise spreading of liquid manure on arable land or growing crops is not only state of the art, it also prevents the loss of nutrients and is better for the environment than splash spreading systems.

Highest precision
The main requirement for the optimal use of liquid manure is even spreading. Vogelsang precision distributors cut and distribute liquid manure with extreme precision and an excellent variation coefficient of less than 5 percent. This makes the spreading process reliable and safe.

Compatible and universal
The versatile Vogelsang precision distributors can be used in all types of spreading systems, including dribble bar and trailing shoe systems, injection systems, cultivators and short disk harrows.
Overview of Vogelsang distribution technology

Precision distributors

DosiMat DMX
• Maximum precision
• Flexible spreading capacity
• Constant high distribution precision irrespective of the flow rate
• Easy to maintain

ExaCut ECL
• Self-sharpening cutting blades
• Compact housing
• Very smooth running
• Heavy material separator

ExaCut ETX
• Very good cutting performance
• Low wear
• Low power requirements
• Large range of spreading capacities

Additional equipment

SynCult
• Complete set for equipping soil cultivation units for efficient liquid manure spreading
• Quick-and-easy installation

Comfort Flow Control
• System for deactivating individually defined hose groups
• Suitable for part-width section cut-offs and tramline switching
FLEXIBLE AND PRECISE SPREADING CAPACITY

The DosiMat DMX Precision Distributor

With spreading technology, users not only have to consider the economic efficiency of a machine, but are now also confronted with the stricter legal requirements of the German fertilizer regulations. The new design of the DosiMat DMX precision distributor allows both. There is also a flow-optimized rotor, which provides outstanding distribution precision. Irrespective of whether the DosiMat DMX is distributing small or large spreading capacities, the precision distributor can be used flexibly without reconstruction measures, and shreds and distributes the liquid manure precisely at all times. The DosiMat DMX’s easy-to-service design proves just as practical. There are fewer hex-head screw plugs, the housing can be opened quickly and the rotor is easier to access.
Patented membrane for uniform airflow

Suitable for variable spreading capacities

High distribution precision regardless of the spreading capacity

Up to 15 kg less weight thanks to the use of new materials

Easy to maintain: easy access to all relevant elements when the cover is open

Optimized cutting performance thanks to new blade contour and torsionally stiff housing

Adapted rotor contour for the most variable spreading capacity combined with the highest distribution accuracy

DosiMat DMX
PERMISSION TO PUMP UP THE VOLUME

Perfectly built for more flexibility at a steady performance

Advantages of the DosiMat DMX

Plastic housing cover
• Dimensionally stable and slightly curved for more air volume and improved distribution precision
• Reduces the weight of the DosiMat DMX by up to 15 kg

Ventilation
• Automatic regulation of the airflow thanks to a patented membrane
• Ensures uniform flow of the liquid manure into the discharge hoses

Bar or star rotors
• Processing of various spreading capacities without reconstruction measures
• Higher maximum spreading capacity compared with similar models
• Constant high distribution precision irrespective of the flow rate

Cutting blade
• Reliable shredding and homogenization of the liquid manure thanks to optimized cutting contours

Sealing package
• Prevents mixing of hydraulic oil and the medium
• Simple identification of leaks via leakage checks

Ease of service
• Easy-to-service design for simple maintenance of all relevant elements

SPECIFICATIONS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of outlets</td>
<td>8 – 60</td>
</tr>
<tr>
<td>Hose diameter</td>
<td>DN 40/DN 50/DN 60</td>
</tr>
</tbody>
</table>
COMPACT HOUSING WITH MAXIMUM DISTRIBUTION ACCURACY

ExaCut for optimum cutting results with maximum reliability

The ExaCut is the compact precision distributor by Vogelsang. Two different models of this distributor are available:

The **ExaCut ECL** distributes the liquid manure centrically with the rotor technology. The high speed of the rotor distributes the liquid manure to the individual Outlets. ExaCut ECL optimizes variety and a flexible range of applications.

The **ExaCut ETX** distributes the liquid manure eccentrically with a directed flow. The installed counterweight in the rotor ensures highly smooth running. The ExaCut ETX optimizes the cutting effect with low-wear operation.
Internal view of the ExaCut ECL

- Liquid manure inlet
- Liquid manure and cut fibrous matter
- Separated heavy material
- Heavy material separator
- Hydraulic motor
- Ventilation
- Liquid manure outlet
- Cutting ring
- Vertical rotor with cutting blade
COMPACT AND RELIABLE

The ExaCut ECL for efficient cutting and distribution

Distribution technology with rotors
The Vogelsang ExaCut ECL, equipped with a vertical rotor with cutting blades, cuts and distributes precisely in a single process. Thanks to the compact design, this precision distributor can be used as a central or decentralized distributor in the booms of the spreading system. That means working widths of up to 36 meters and systems with up to 120 outlets are now possible. Also, all ExaCut ECL units are equipped with a heavy material separator, to make removing stones or metal parts easy.

Inlet adapter
Many variants are available for the liquid manure inlet on the ExaCut ECL. This allows the ExaCut to be customized to the spreading machine.

ExaCut ECL versatility
ExaCut ECL is available in numerous configurations:
• 14 models with 18 to 60 outlets
• Hose diameters from DN 40 to DN 60, depending on the model
• Cutting rings and rotors are configured according to the application

ExaCut Vario: The ExaCut ECL with the adjustable cutting ring
In the special “Vario” version of the ExaCut ECL, a setscrew can be used to adjust the size of the openings in the cutting ring to different liquid manure types and quantities simply and easily.

Unnecessary cutting ring changes are avoided. This saves time and allows different types and quantities of liquid manure to be spread by a single system.

The ExaCut Vario is available with 30 to 60 outlets.

Advantages of the ExaCut ECL
• Self-sharpening cutting blades
• Compact housing
• Very smooth running
• Heavy material separator
• Wide variety – flexible use
• Special sealing package protects the hydraulic circuit against the liquid manure

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Number of outlets</th>
<th>18/20/24/30/40/48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hose diameter</td>
<td>DN 40/DN 50/DN 60</td>
</tr>
</tbody>
</table>
**PRECISION DISTRIBUTOR**

**ExaCut ECL**

Optimal cutting results, maximum reliability

- **Accurate distribution** (according to DLG test criteria)
  - Optimal distribution accuracy for even supply of nutrient

- **Maximum flexibility**
  - Universal application customization: Adjustment of the throughput volume, outlet numbers, hose diameter and inlet variants

- **Self-sharpening cutting unit**
  - Consistent level of sharpness over the entire life cycle due to easy change of direction

- **Ventilation**
  - Performance-oriented air outlet for high distribution accuracy

- **Two-piece cutting elements**
  - Minimal material usage thanks to modular design for maximum cost-effectiveness
Coordinated cutting unit
The core piece of the ExaCut

**Eccentric adjuster**
Optimal contact pressure for efficient cutting performance and best material utilization

**Rotor technology**
for smooth running

**Coordinated geometry of cutting ring and knife**
Proven scissor effect: Perfected cutting angles for maximum cutting performance

**Combination of material pairing**
Matched degrees of hardness for cutting ring and knife provide durability

**Heavy material separator**
Separation of foreign matter to protect the entire application unit

**ProtectionPack**
Special sealing package to protect the hydraulic circuit and provide maximum operational safety

**Compact housing with low weight**

**Service friendly**
Easy change of parts within a short time and without disassembling

**Premium brand manufacturer**
for drive technology
Internal view of the ExaCut ETX
OPTIMAL DISTRIBUTION ACCURACY

The ExaCut ETX with eccentric technology and optimized flow guidance system with minimum operating costs

Precision distributor with eccentric cutting principle
In the ExaCut ETX, the cutting blade moves eccentrically on the cutting ring. This cutting principle is characterized by particularly low power requirements, significantly extending the service life. In addition, this precision distributor operates with a guided flow made possible by an oscillator and a flow linkage. This guided flow allows different liquid manure quantities to be spread with just one ring. The constant ventilation and the routing of the cutting blade ensure even distribution.

Smooth and kind to your system
While conventional eccentric-based precision distributors are inherently unsteady, the ExaCut ETX features a sophisticated system of counterweights for alignment. This system ensures that the machine runs with minimal vibration. The result for users: far lower wear on vehicles and spreading systems (e.g., dribble hose or cultivator).

High serviceability
The three eccentric adjusters in the ExaCut ETX ensure that the cutting blade is pressed continuously against the cutting ring. If necessary, the adjusters can be replaced in no time, minimizing downtime. The ETX is also equipped with a heavy material separator for easy removal of stones, etc.

Advantages of the ExaCut ETX
• Very good cutting performance
• Low wear
• Low power requirements
• Large range of spreading capacities
• Counterweights for very smooth running
• High serviceability
• Optimal economy for liquid manure spreading
• Special sealing package protects the hydraulic circuit against the liquid manure

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Number of outlets</th>
<th>30 / 40 / 48</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hose diameter</td>
<td>DN 40</td>
</tr>
</tbody>
</table>
PRECISION DISTRIBUTOR
ExaCut ETX

Optimal results for liquid manure spreading

Accurate distribution
(according to DLG test criteria)
Optimal distribution accuracy for even supply of nutrient

Self-sharpening cutting unit
Permanently sharp blade system over the entire life cycle due to its unique oscillating movement

Two-piece cutting elements
Minimal material usage thanks to modular design for maximum cost-effectiveness

Ventilation
Performance-oriented air outlet for high distribution accuracy

BalanceUnit
Integrated counterweight for smooth running

Perfectly Coordinated Cutting Unit
The core piece of the ExaCut 18 ExaCut ETX
COordinated Cutting Unit

The core piece of the ExaCut

**Eccentric adjuster**
Optimal contact pressure for efficient cutting performance and best material utilization

**Coordinated geometry of cutting ring and knife**
Proven scissor effect: Perfected cutting angles for maximum cutting performance

**Combination of material pairing**
Matched degrees of hardness for cutting ring and knife provide durability

**Stream Guard System**
Flow-optimized guidance system for extremely variable spreading capacities with consistent accurate distribution

**Combination Oscillator with eccentric technology**
Maximum cutting force and high torque with low energy consumption

**Heavy material separator**
Separation of foreign matter to protect the entire application unit

**ProtectionPack**
Special sealing package to protect the hydraulic circuit and provide maximum operational safety

**Compact housing with low weight**

**Service friendly**
Easy change of parts within a short time and without disassembling

**Premium brand manufacturer**
for drive technology
DIRECT LIQUID MANURE INCORPORATION FOR EFFICIENT NUTRIENT USE

The SynCult retrofitting set for tillage equipment

Incorporating liquid manure and digestates directly into the soil using tillage equipment saves you time and money and reduces the number of crossings. Direct liquid manure incorporation prevents nutrient losses.

Our SynCult is an upgrade kit consisting of an adapter frame, a liquid manure precision distributor, discharge hoses and appropriate brackets. The fastening points for the precision distributor and the liquid manure outlet are predetermined, guaranteeing good work results and a long lifetime. As the SynCult was developed in partnership with tillage equipment manufacturers, the guarantee on the tillage equipment remains fully valid even after installation of the SynCult.

Current manufacturing partners for SynCult are Amazone, Horsch, Köckerling, Pöttinger, Farmet and Väderstad. We also offer you individual kits for retrofitting your tillage equipment.

Effectively equipped
• Includes hot-dip galvanized ExaCut ECQ, ExaCut ECL or ExaCut ETX precision distributor
• Distributor is fastened to the tillage unit with a specific hot-dip galvanized adapter
• Includes complete set of hoses – optimal hose layout guarantees trouble-free liquid manure spreading
• When the device is folded for transport the hoses are not bent
• The liquid manure is deposited by the liquid manure outlet pipe directly in front of the disk so that few emissions are produced during liquid manure spreading
• Various working widths possible
• Stainless steel liquid manure outlet
• Hoses in DN 50 diameter
• Comfort Flow Control (CFC) available

Quick and simple to install
• Assembly instructions including hose layout diagram
• Trouble-free attachment of the liquid manure attachment to tillage units
• Set mounting points with complete fastening material
• No welding work is required
• The manufacturer guarantee remains valid in full
Advantages of the SynCult

- Full manufacturer guarantee of the tillage equipment
- Safe hose layout, including in transport position
- Quick-and-easy installation
- Individual adjustment to the tillage equipment
ExaCut with Comfort Flow Control

**CFC deactivated:**
Free flow without edges on which fibrous matter could accumulate.

**CFC activated:**
The outlet is securely closed.
Advantages of the Comfort Flow Control

• Easy to install
• Quick operation by pressing a button in the cab
• Reliable hose switch-off for partial width sections, tramlines, switch-off of individual groups
• Hose switch-off customized to individual requirements
• Economical spreading for all field shapes
• Can be retrofitted to any system
Efficient and effective spreading technology from Vogelsang

Both the treatment of liquid manure and spreading technology makes the precision distributor ideal for successful cultivation. Vogelsang offers intelligently designed dribble bar systems with different working widths for every type of vehicle, in order to distribute valuable liquid manure in an economic and environmentally friendly way. The dribble bar and trailing shoe system both meet the current stricter fertilizer regulations for close to the soil, strip spreading of organic fertilizer. Depending on the area of application and soil characteristics, the use of an XTill from Vogelsang is recommended. Work processes such as plowing, tilling or seed bed conditioning can easily be combined with liquid manure incorporation, in particular for row crops.
Dribble bar systems for tankers

SwingUp
- Working widths from 7.5 to 18 m

SwingMax
- Working widths from 18 to 33 m

SwingMax36
- Working width 36 m

Dribble bar systems for self-propelled vehicles

Compax
- Working widths from 12 to 18 m

BackPack
- Working widths from 12 to 30 m

Trailing shoe systems for tankers

SwingUp Slide
- Working widths from 12 to 18 m

SwingMax Slide
- Working widths from 18 to 30 m

Strip tillage technology

XTill® ProTerra
- Rugged technology for successful tillage

XTill® VarioCrop
- Variable adjustable for all row crops
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.

Since its establishment in 1929, Vogelsang has become an internationally recognized mechanical engineering company with numerous branches, sales centers and subsidiaries.
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