

PRECISION DISTRIBUTION TECHNOLOGY

Vogelsang precision distributors
for accurate liquid manure spreading

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 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.

THE HEART OF ALL SPREADING SYSTEMS

**Precision distributors
for efficient work**

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

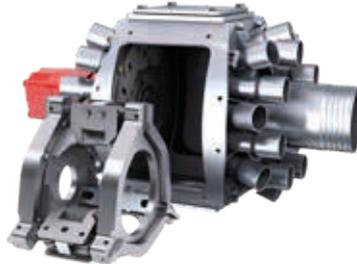


DosiMat DMX

- High precision
- Flexible spreading capacity
- Constant high distribution precision irrespective of the flow rate
- Easy to maintain

ExaCut ECL

- Self-sharpening cutting blades
- Best selling distributor worldwide
- Very smooth running
- Heavy material separator



ExaCut ECQ

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

ExaCut ECC

- Innovative rotor concept without air suction
- Excellent distribution accuracy
- Tried-and-tested cutting principle
- Proven RotaCut shredding technology

ExaCut ECM

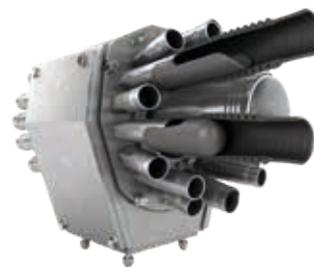
- 30 percent space and weight saving due to compact housing
- Enormous cutting power due to innovative rotor concept
- Universal for all applications
- No air suction required

Ergänzende Ausstattungstechnik



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

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

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

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

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



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

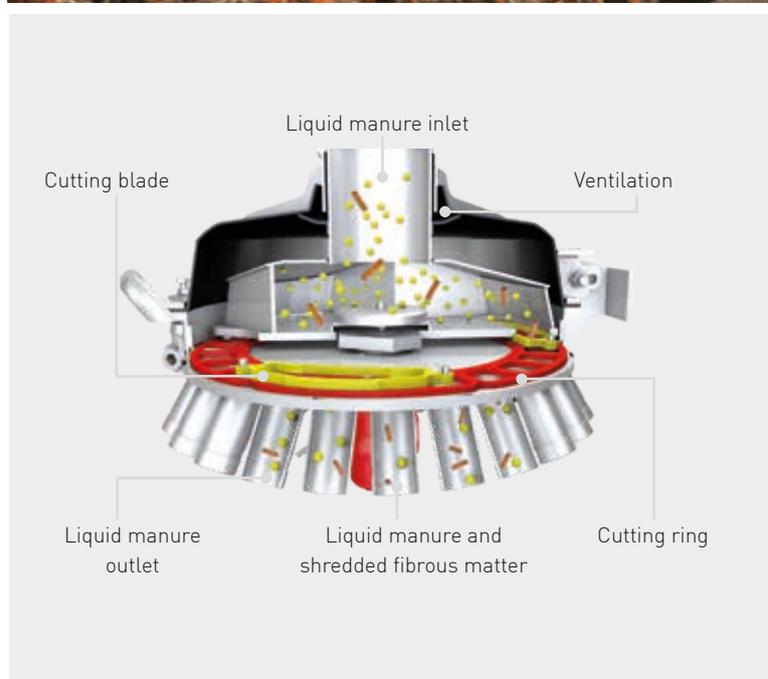
- Reliable shredding and homogenization of the liquid manure thanks to optimized cutting contours

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

Number of outlets	8 - 60
Hose diameter	40 DN 50 DN 60 DN

COMPACT HOUSING WITH MAXIMUM DISTRIBUTION ACCURACY

**ExaCut for optimum cutting
results with maximum reliability**

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

The **ExaCut ECL** distributes the liquid manure centrally 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 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.

The **ExaCut ECC** is based on an innovative rotor concept that reaches an absolutely high distribution accuracy without air suction.

The **ExaCut ECM** is as accurate as ever, but more compact than ever. The distributor's compact housing saves up to 30 percent in space and weight. Thanks to the innovative rotor concept, it has cutting power without the need for air suction.





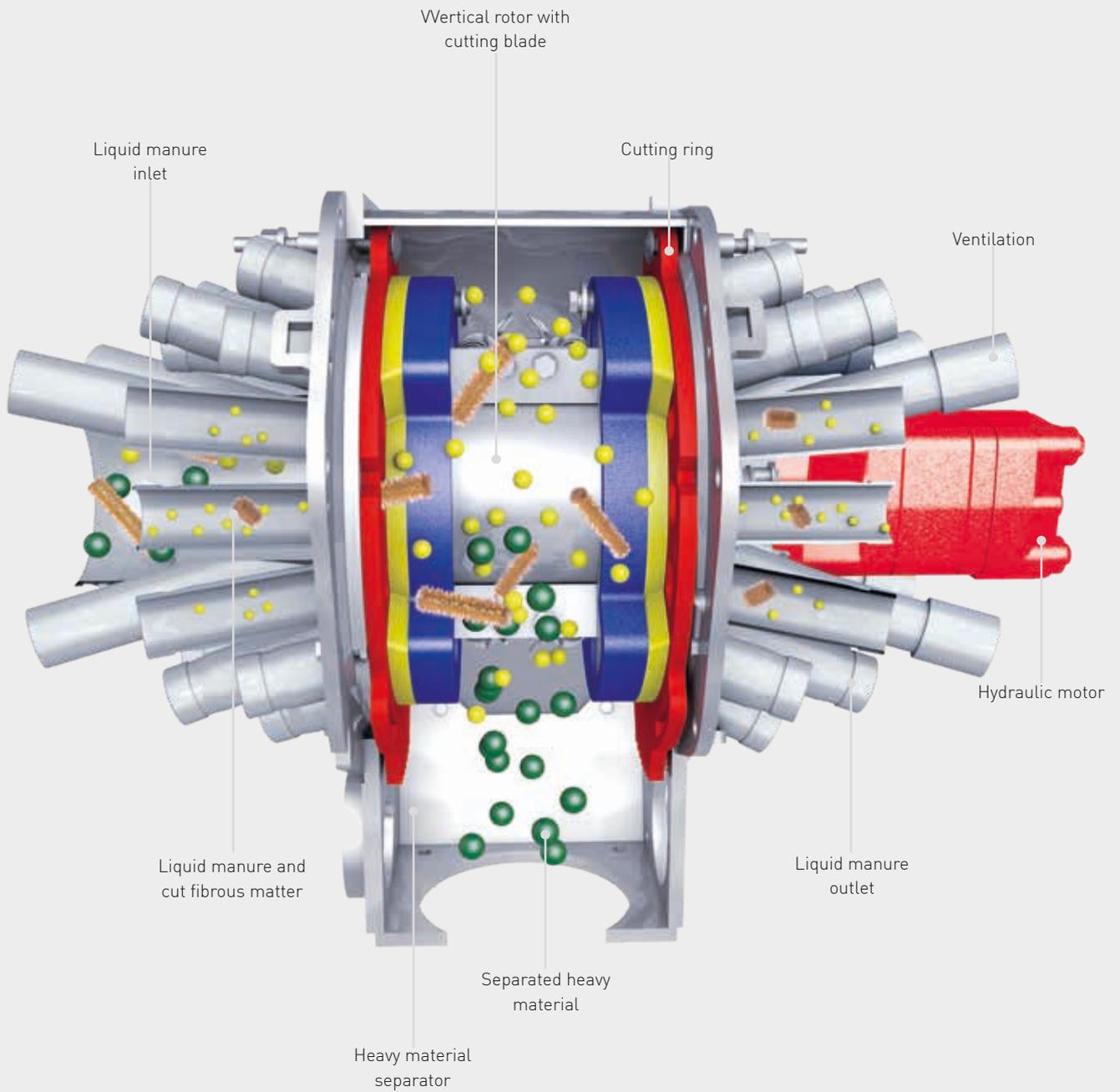
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Innenansicht ExaCut ECL



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.

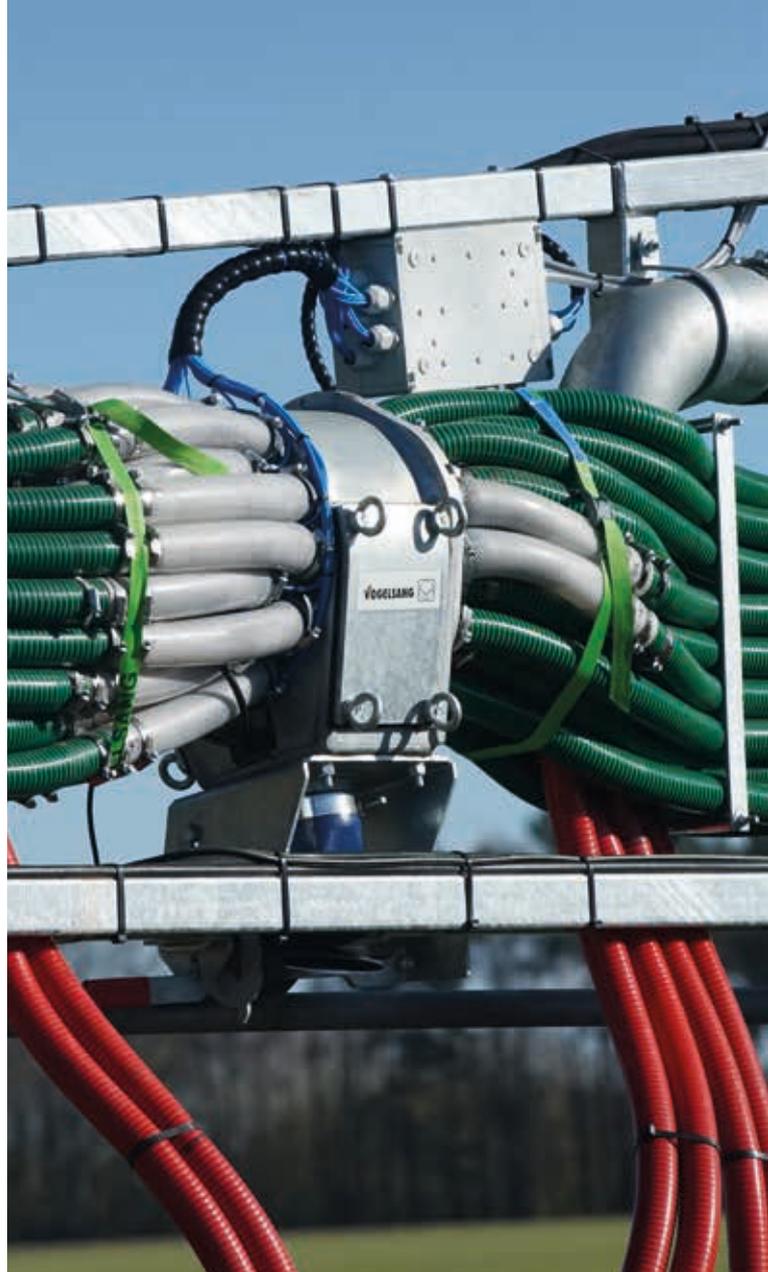
Inlet adapter

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-Variety

ExaCut ECL is available in numerous configurations:

- 14 models with 18 to 48 outlets
- Hose diameters from 40 DN to 60 DN, depending on the model
- Cutting rings and rotors are configured according to the application



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

Number of outlets	18 20 24 30 40 48
Hose diameter	40 DN 50 DN 60 DN

PERFECTLY

The

Self-sharpening cutting unit

Consistent level of sharpness over the entire life cycle due to easy change of direction

Two-piece cutting elements

Minimal material usage thanks to modular design for maximum cost-effectiveness

Ventilation

Performance-oriented air outlet for high distribution accuracy



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

COORDINATED CUTTING UNIT

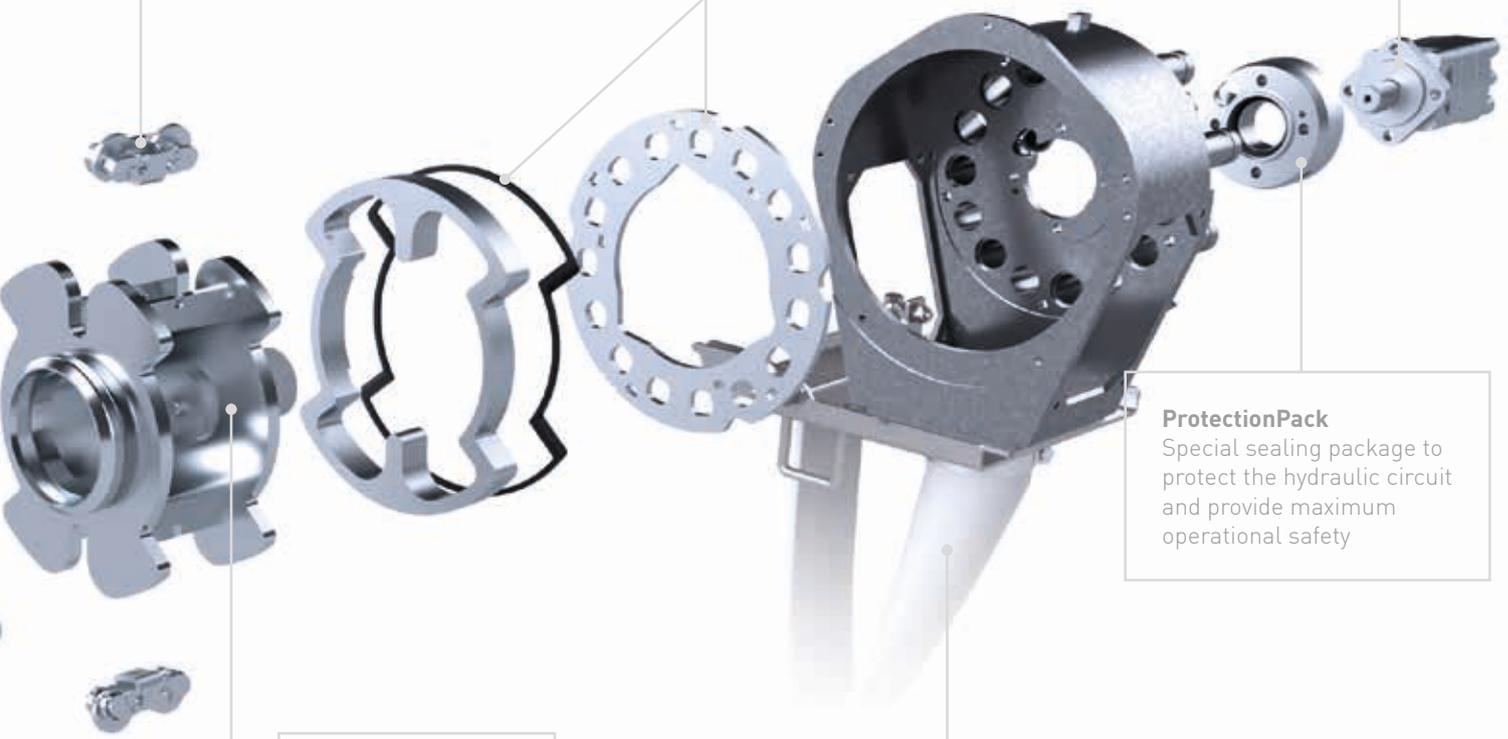
core piece of the ExaCut

Eccentric adjuster
Optimum contact pressure for efficient & uniform cutting performance over the entire cutting path

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

Premium brand manufacturer
for drive technology



Rotor technology
for smooth running

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

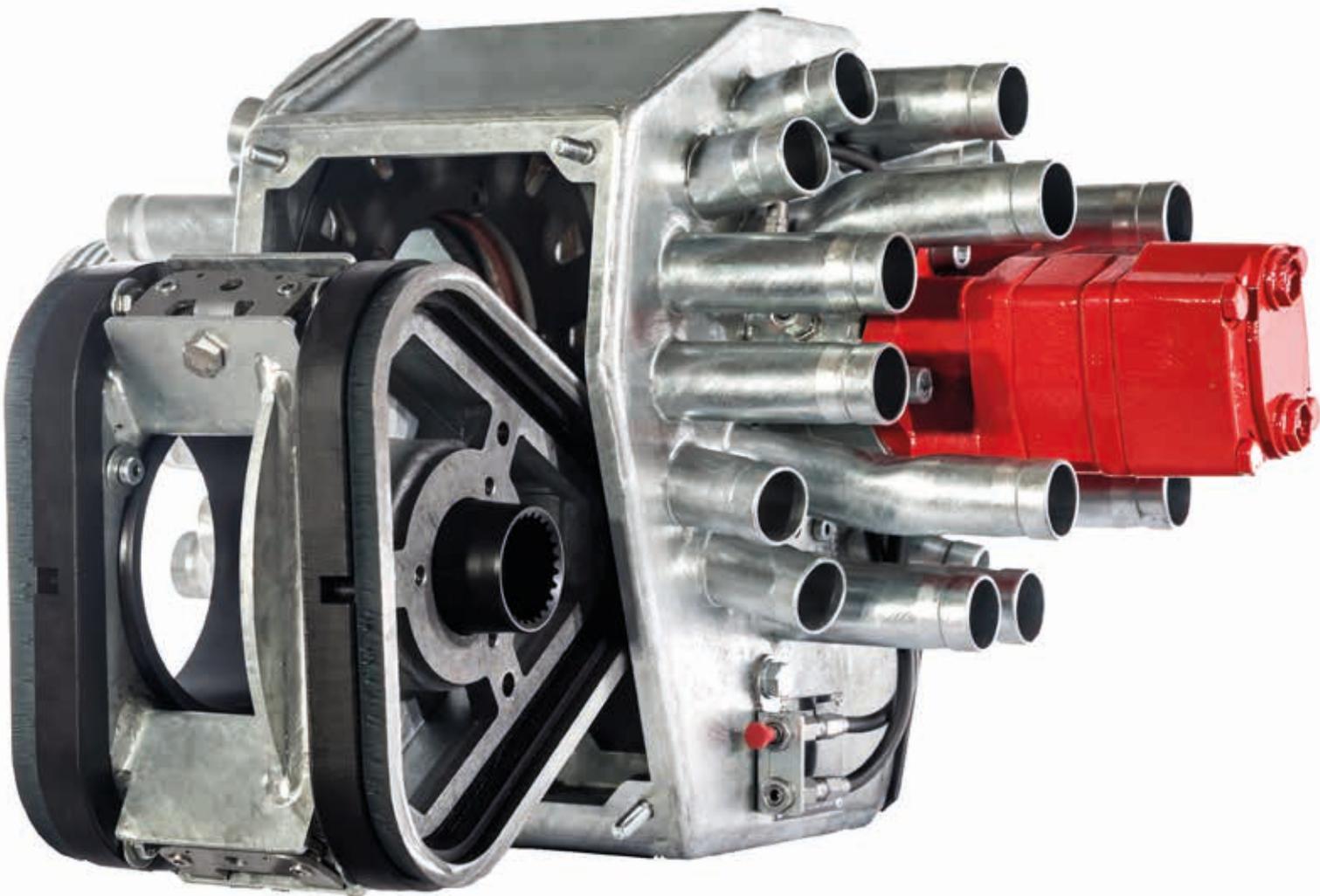
ProtectionPack
Special sealing package to protect the hydraulic circuit and provide maximum operational safety

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

Compact housing with low weight

MORE STAYING POWER, LESS WORK

Expect the best:
The ExaCut ECQ distributor
from Vogelsang



50 % less power requirement and 3 times longer service life of up to 150,000m³. The completely revised design shortens the time required for maintenance work. Thanks to the completely new service concept of the ExaCut ECQ, wearing parts are easier to access - even the eccentric adjuster can be clamped without any assembly work.

Maintenance is faster, easier and less complicated than ever before!

As with all Vogelsang machines, the design of the distributor pays considerable attention to ensuring the easiest possible maintenance. The quick service principle of the ExaCut ECQ impresses with a large maintenance flap. It enables direct access to all relevant internal parts. Hoses do not have to be dismantled for maintenance work - not even to tighten the eccentric adjuster.

Three times longer service life

The optimized ExaCut rotor technology with tri-lobe design reduces the speed and the internal pressure in the distributor, reducing the strain on the cutting blades. This has extended the service life of the cutting elements by three times, while simultaneously improving cutting performance and average distribution.

The nutrients are distributed even more precisely

Flow simulations and tests led to a modification of the rotor and housing. Larger cross-sections and flow guide plates calm the flow and ensure unprecedented distribution precision.

Power requirements reduced by up to 50 %

The rotor design and reduced speeds naturally use less energy and oil. A smaller contact surface results in less friction resistance and reduces the hydraulic pressure. The design also has a positive impact on the pump's power consumption. The more open design with larger crosssections creates an easier liquid manure inflow and thus prevents unnecessary pressure loss.

Advantages of the ExaCut ECQ

Faster, easier and less complicated maintenance than ever before!

Vogelsang's well-known QuickService principle:

- Easy maintenance of the distributor thanks to removal of the cutting blade and rotor unit through the generously dimensioned maintenance port
- No need to dismount the precision distributor or the cover
- Eccentric adjuster clamping without disassembly or special tools

Nutrients are distributed even more precisely

Better distribution precision due to flow optimization:

- Rotor and housing optimized based on simulation and tests
- Flow guide plates for better distribution precision
- Flow calming due to generous cross-sections

Three times longer service life of cutting elements

Optimierte ExaCut-Rotortechnik:

- Tri-lobe rotor design allows reduced speed with the same cutting performance and spreading swath
- Longer cutter service life
- Reduced effect of the internal distributor pressure on blade wear: 50% less force due to internal pressure

Resistant to dry running

- Low frictional heat-up even with dry running
- Very little wear

Only 35 l/min oil flow rate

New technology saves fuel and oil:

- Lower speeds result in reduced oil requirement without impairing cutting performance
- Reduced areas exposed to internal pressure reduce frictional resistance and thus hydraulic pressure

Large cross-sections for less pressure loss

Open design improves pump performance:

- Wider inlets and orifice diameters reduce pressure loss
- The pressure at the feeder pump drops
- Power consumption and wear on the pump are reduced

SPECIFICATIONS

Number of outlets	24 30 36 42 48
Hose diameter	40 DN 50 DN
Side inlet diameter	100 DN 125 DN 150 DN
Inlet positioning	Side top

THE EXACUT ECQ PRECISION DISTRIBUTOR

Exactly what a precision distributor should look like

Number 1 for maintenance

Simple and completed in an unparalleled time of up to 20 minutes, without disassembly of the precision distributor

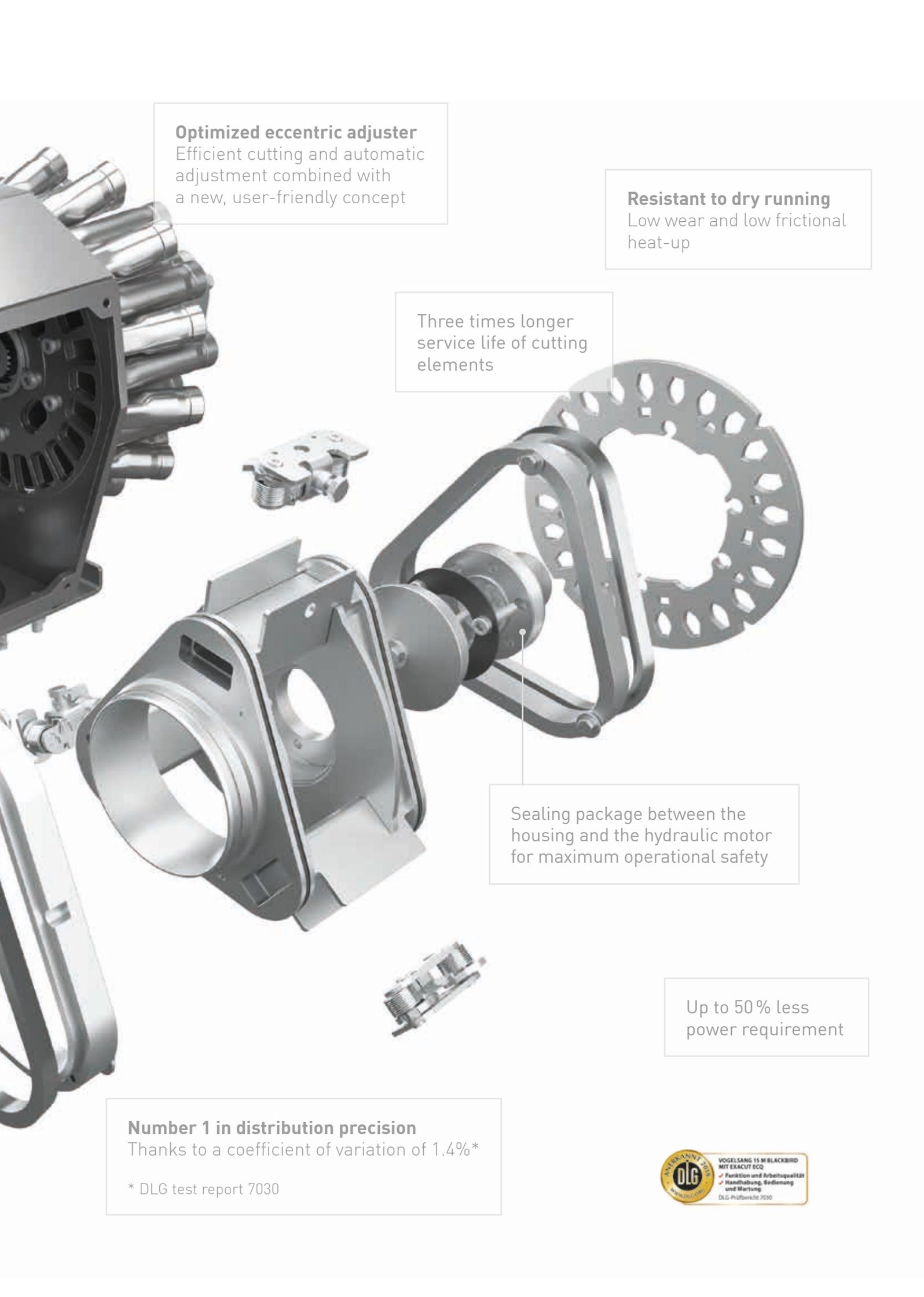
Self-sharpening cutter

Rotation direction changes maintain a constant degree of sharpness over the entire lifetime

Generous cross sections for maximum effectiveness

Reduced pressure losses, reduced power consumption for the components in the liquid manure system, spreading capacity increased (by almost 30 %)





Optimized eccentric adjuster

Efficient cutting and automatic adjustment combined with a new, user-friendly concept

Resistant to dry running

Low wear and low frictional heat-up

Three times longer service life of cutting elements

Sealing package between the housing and the hydraulic motor for maximum operational safety

Up to 50 % less power requirement

Number 1 in distribution precision

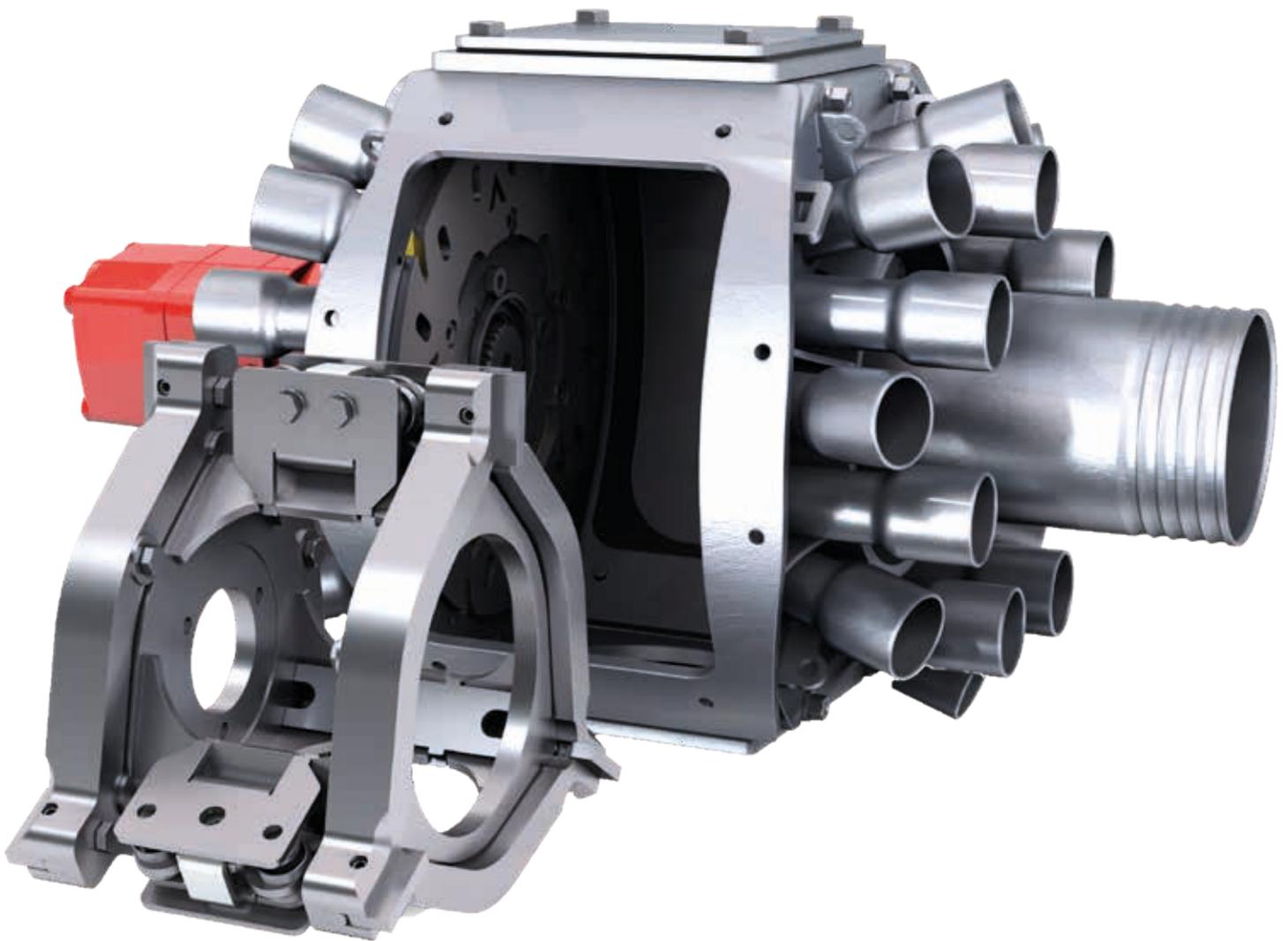
Thanks to a coefficient of variation of 1.4%*

* DLG test report 7030



RUNS EASILY WITHOUT AIR

The powerful ExaCut ECC
precision distributor with innovative
rotor technology



Until recently, all precision distributors on the market were equipped with ventilation hoses and air suction to guarantee even flow of the liquid manure into the discharge lines.

Vogelsang has now succeeded in becoming the first agricultural technology developer in the world to design a precision distributor that does not require air suction. The ExaCut ECC has an innovative rotor concept, which prevents the formation of negative pressure. Extremely even feeding of the liquid manure into the hose outlets ensures an even smoother distribution process. Generous cross sections contribute to the superior smooth running of the ExaCut ECC. The fact that these improvements actually serve to reduce power and oil requirements is certainly a welcome side effect.

Of course, Vogelsang quality features, such as selfsharpening cutting blades and the especially high cutting force, are retained, as is the tried-and-tested quick service principle. The rotor can be serviced in just 20 minutes without releasing a single hose.

Equipment and options:

- Several variants are available for the liquid manure inlet (diameter: 100 mm, 125 mm, 150 mm)
- Partial width management with Comfort Flow Control
- TopInlet: additional liquid manure inlet at the top of the distributor for central positioning of the spreading equipment
- Individual configuration options for cutting rings and blades
- Speed sensor
- User-friendly heavy material separator

SPECIFICATIONS

Number of outlets	30 40 48
Hose diameter	40 DN 50 DN
Inlet diameter	100 DN 125 DN 150 DN



Advantages of the ExaCut ECC

- Innovative rotor concept without air suction
- Excellent distribution accuracy
- Tried-and-tested cutting principle
- QuickService maintenance concept: easy and quick

THE PRECISION DISTRIBUTOR EXACUT ECC

Distributes without air suction

Innovative rotor concept

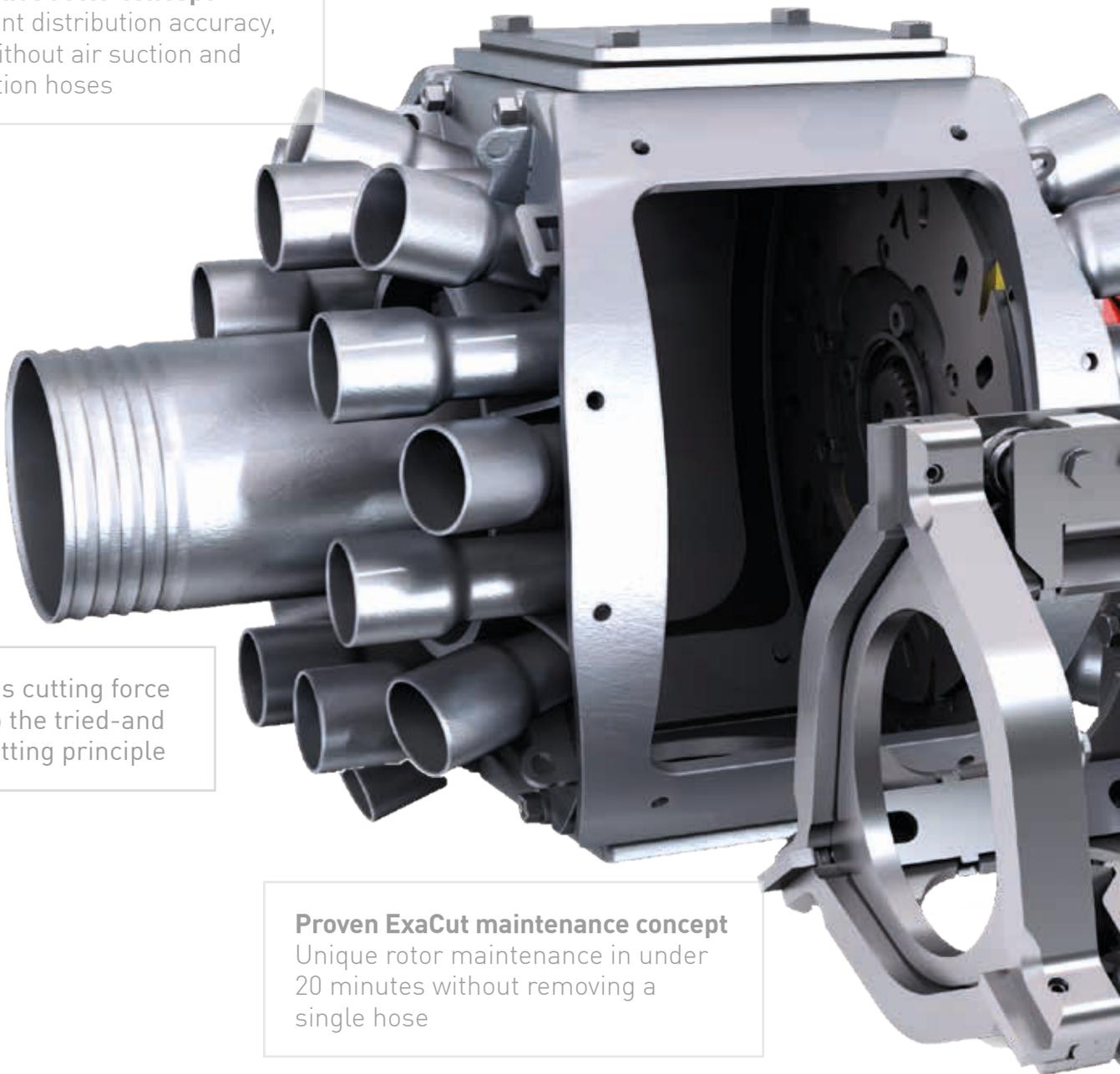
Excellent distribution accuracy,
even without air suction and
ventilation hoses

Enormous cutting force
thanks to the tried-and-
tested cutting principle

Proven ExaCut maintenance concept

Unique rotor maintenance in under
20 minutes without removing a
single hose

Very smooth distribution
without pulsation of the hoses



Generous cross sections up to 150 DN for maximum effectiveness

Reduced pressure losses and power consumption of the components in the liquid manure system

Continuous, optimal degree of sharpness ensured by reversing direction

Lower drive power
35 l oil per minute



Developed for use on slot machines, however applications extend beyond grassland

Sealing package between the housing and hydraulic motor for maximum operational reliability

User-friendly eccentric activation due to central clamping screw



PRECISE AS ALWAYS COMPACT LIKE NEVER

The ExaCut ECM precision distributor
without air suction





Similar to its big brother, the ExaCut ECC, the ECM does not require air intake. However, there has never been a distributor as compact as the ExaCut ECM. This enables a cutting principle similar to the one of the RotaCut. A rotor design that never completely closes individual holes in the cutting screen results in a smooth, pulsation-free flow of media.

We have succeeded in developing a precise distributor that has optimum cutting lines and is also 30 % lighter and more compact with the same inlet and outlet size. The proven reversal of the direction of rotation ensures that the knives remain sharp at all times. In addition, the ECM has an exceptionally low drive power requirement of only 20l/min oil flow.

The trend towards larger barrel diameters with the same transport dimensions is forcing manufacturers of manure attachments to optimise the installation space as much as possible. The ExaCut ECM's compact dimensions minimise the space required for the distributor and the design of the hose package.

Whether it is a sophisticated manure injector folded into the transport position or a professional 30 m trailing shoe, the ECM delivers powerful, precise distribution in a minimum of space.

Advantages of the ExaCut ECM

- 30 % space and weight savings due to compact housing
- Enormous cutting power due to innovative rotor concept
- Universal for all applications
- No air suction required
- Only 20l oil quantity required

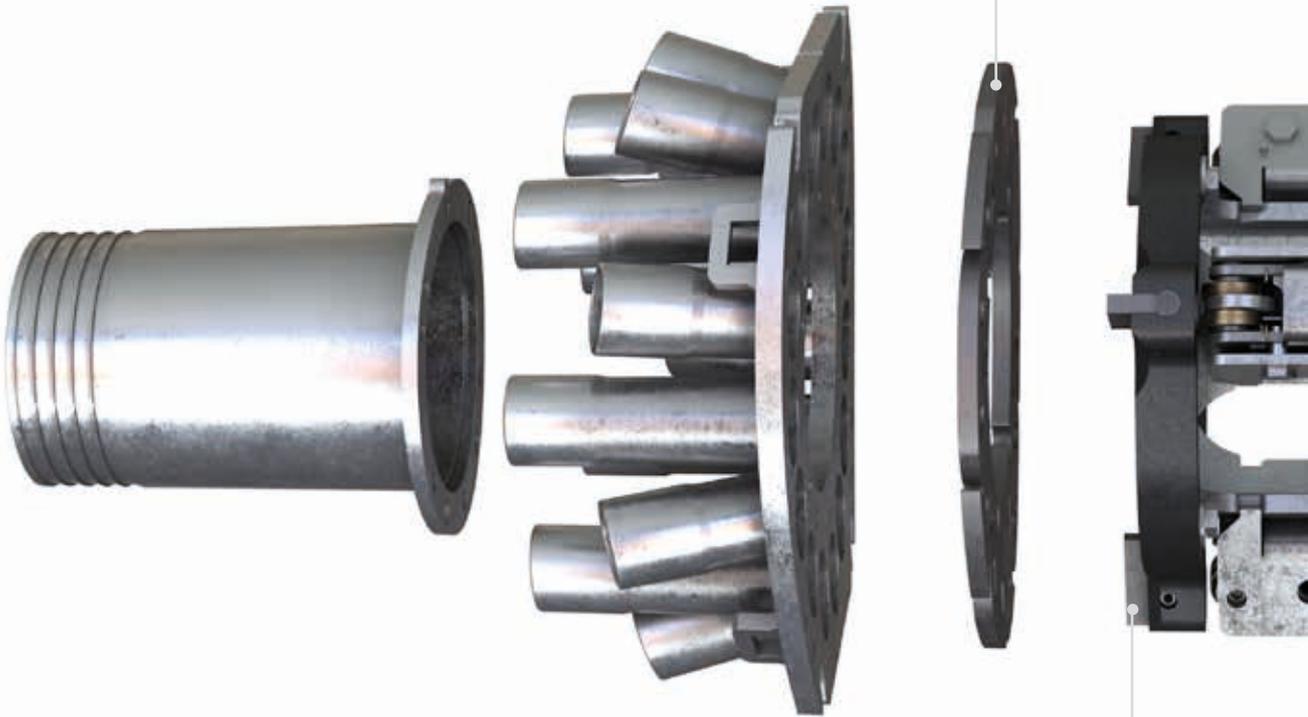
SPECIFICATIONS

Number of outlets	18 24 30 36
Hose diameter	DN 40 DN 50
Inlet-Ø lateral (top)	DN 100 DN 125 (DN 150)

THE PRECISION DISTRIBUOR EXACUT ECM

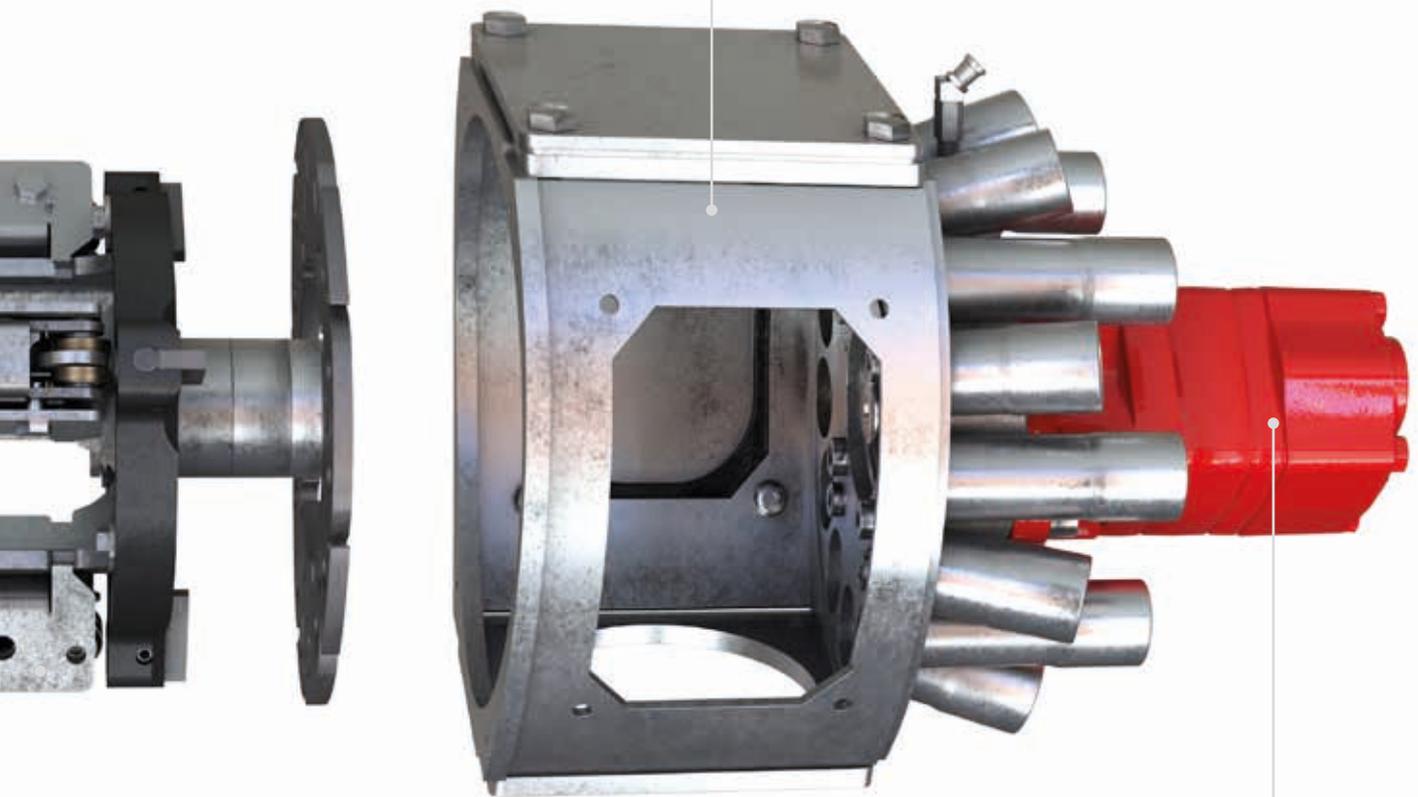
The compact ExaCut ECM precision distributor
for precise distribution in a small space

Conical shape of the sieve holes
prevents clogging and increases
the cutting performance



Compact knives never cover
the cutting sieves completely,
which achieves an optimal
distribution

Compact housing for a wide range of applications and maximum flexibility



Only 20l/min
Oil volume flow

DIRECT LIQUID MANURE INCORPORATION FOR EFFICIENT NURIENT 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 and Lemken.

Advantages of the SynCult

- Direct incorporation of liquid manure for optimum use of nutrients
- Hassle-free compliance with training periods
- Combines several work steps in one to save on time and costs
- Ingenious upgrade concept, including assembly instructions
- Quick and easy installation
- Full guarantee on the tillage unit

Equipment and options

- Working widths of 4 – 12 meters
[*depending on the manufacturer]
- DosiMat DMX precision distributor for working widths of up to 7 meters, ExaCut precision distributor for working widths of 8 meters and above
- The distributor is fasted to the tillage unit using a specially designed, hot-dip galvanized adapter
- Hose diameter 50 DN



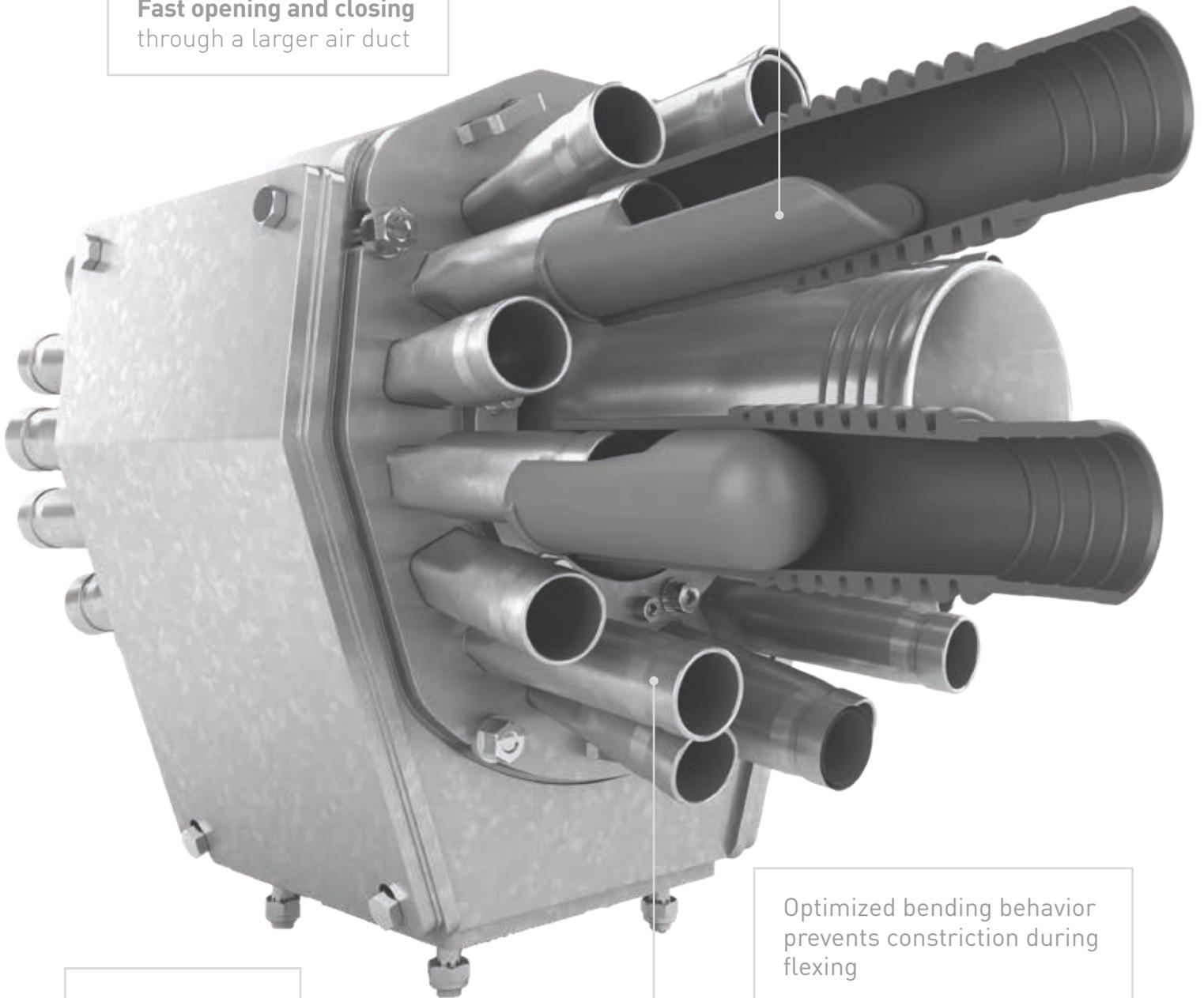
Manufacturer partner for SynCult



High weather resistance
thanks to the EPDM rubber used

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

Fast opening and closing
through a larger air duct



Optimized bending behavior
prevents constriction during
flexing

CFC activated:
The outlet is
securely closed

Very simple assembly

GREATER CONVENIENCE, MORE OPTIONS

Comfort Flow Control for optimal flow control and use of specific hose groups

Comfort Flow Control (CFC®)

To spread liquid manure individually via specific sections of a dribble bar linkage, an easy-to-operate flow control system is required. The Vogelsang Comfort Flow Control (CFC) offers a surprisingly simple solution for part-width section cut-offs, tramline switching or switching off selected hose groups on the spreading system.

Practical, flexible and precise

The way the patented CFC works is uniquely simple and clever: It primarily consists of a type of balloon and small compressed-air line. It is correspondingly economical and robust. CFC is installed in the hose outlets of the spreader device immediately downstream of the respective distributor. Then each individual hose or the individual hose groups can be activated and deactivated electro-pneumatically from the cab at the touch of a button.



Switching off the tramline



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

ACCURATELY COMBINED FOR COMPLETE OPERATION

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 21 to 30 m



SwingMax36

- Working width 36 m

Trailing shoe systems for tankers



SwingMax Slide

- Working widths from 21 to 30 m



BlackBird®

- Working widths from 12 to 24 m



UniSpread

- Working widths from 6 to 10.5 m

Dribble bar systems for self-propelled vehicles



Compax

- Working widths from 12 to 18 m



BackPac

- Working widths from 21 to 32 m



UniSpread Hosing

- Working widths from 6 to 10.5 m

Strip tillage technology



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

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