ZUNHAMMER
GÜLLE-TECHNIK

# PROFI-TANKER

Innovative technology for
the environment and growth

Sebastian Zunhammer jun., Sebastian Zunhammer sen., Hedwig Zunhammer, Rudi Zunhammer

Dear Customers and Clients,
As farmers, you in particular know that practical relevance and direct reference to the agricultural industry are an important success factor for efficient agricultural technology. As a manufacturer, it is important for us to provide you with the right slurry technology solution for your operation. Experts in the field work at Zunhammer. Many employees come from farms themselves or have a direct connection through family and friends. This helps us in the development and production of our diverse product range. At Zunhammer, suitable solutions for slurry tankers are developed for all farmers and contractors.

Many greetings,
**Sebastian Zunhammer jun.**


Zunhammer has been in business since 1956. Founded by barrel makers, the company evolved into a vehicle manufacturing business. The company‘s first slurry tanker with wooden barrel rolled off the lot in 1958. Time and again, the slurry equipment pioneers have managed to astound the professionals in the trade and pushed development to new heights. In 1985, the entire production was converted from wood to plastic, resulting in drastically reduced weight without any compromises to stability. At the same time, the tank gained an optimized shape as well.

Stricter rules in environmental protection have given rise to ever more sophisticated slurry application equipment. One example are the attached distributors that are used to spread the slurry today. At present, the family business from Upper Bavaria employs a staff of about 200 and boasts one of the most modern production sites for the manufacture of GRP tanks.

# THE SPECIALIST FOR SLURRY TECHNOLOGY

# TECHNOLOGY, THAT DRIVES AHEAD.

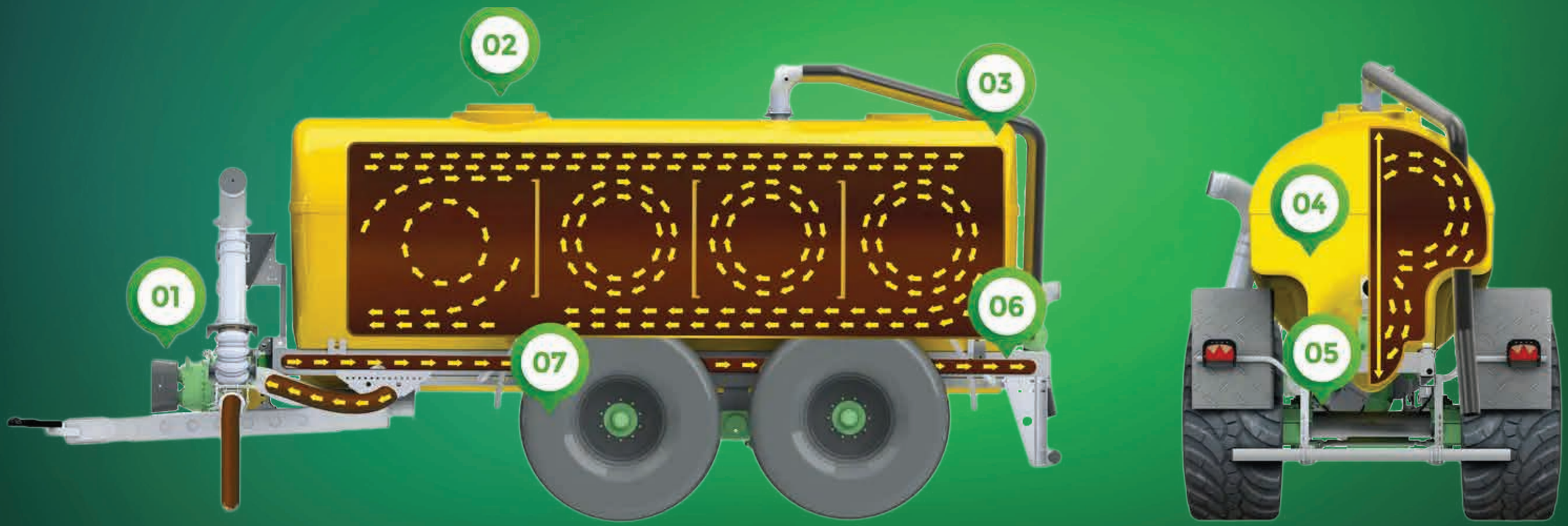
FROM TRANSPORTATION TO DISTRIBUTION




## Innovative slurry technology with system.

Whether as a single-axle tanker for narrow field paths, as a tridem for large areas or with an integrated HANDY suction arm - at ZUNHAMMER, farmers and contractors will find well-designed machines for tough everyday use. And all with a focus on lightweight construction, stability and maximum environmental compatibility. In addition to slurry tankers, our portfolio also includes feeder technology, chassis solutions, electronic systems and a wide range of accessories. One thing always takes centre stage: maximum practicality with minimum effort. Because we don‘t develop for theory - we develop for people who get down to work.

# PUMP TANKERS




## Uniquely better!

Targeted and efficient nutrient application is close to the hearts of our developers, but that‘s not the only reason why Zunhammer slurry tankers have the distinctive heartshaped tank: In combination with the agitator line, there are no solid deposits in the tank. These pump tankers are unique. Uniquely different - Uniquely better! With a wide range of accessories and diverse equipment options, the pump tankers can be supplied to suit your needs.

### 01. POWER IS EVERYTHING:

Powerful, easy to maintain
and compact

### 02. FLEXIBILITY? NO PROBLEM:

External filling possible at any time

### 03. YOUR PERFECT TANKER:

Flexible modular system

### 04. THE ATTENTION TO DETAIL:

The hearts-shaped tank with agitator
line avoids solid deposits

### 05. SAFETY FIRST:

Low center of gravity and safe handling
even in slopes

### 06. ALWAYS IN BALANCE:

Support load adjustment through axle
shifting by means of grid rail system

### 07. WE LIKE TO WEIGH IN:

Special ECO design for optimum weight reduction

# TYPE OVERVIEW

Zunhammer offers five different barrel series: AKE, K, MKE, SKE, PKE and LSKE. All feature ECO design, compact heart-shaped tank shapes and low weight. Powerful pumps shorten filling times, while the low centre of gravity ensures driving stability.

New addition: PKE — the long GRP tank in the tandem segment for high payloads, heavy rear equipment and smooth running. A maximum external width of 3.00 m for all Zunhammer booms ensures additional safety in road traffic.

**MORE AT:**
WWW.ZUNHAMMER.DE/EN/PUMP-TANKER

| TYPE | TANK LENGTH | TANK SIZES | NUMBER OF AXES | OUTSTANDING FEATURE |
|---|---|---|---|---|
| AKE | 3 600 mm | from 6.000 L to 9.000 L | Single axle Tandem | Move safely on slopes with the shortest and most compact tank |
| K | 4 750 mm | from 10 000 L to 15 500 L | Single axle Tandem | The tanker for when things get tight: Maximum maneuverability due to very short design in tandem sector |
| MKE | 5 000 mm | from 10 000 L to 15 500 L | Tandem | This tanker combines all the advantages of the K series and the SKE series: Higher transport capacity with shorter tank length |
| SKE | 6 000 mm 7 000 mm | from 15 500 L to 27 000 L | Tandem Tridem | The entry into the big class: Maximizing transport capacity while making full use of length, width, height and volume |
| PKE | 6 800 mm | from 20 000 L to 22 000 L | Tandem | Long GRP tank (6,80 m) in ECO design; high transport capacity and reserve weight distribution for heavy rear attachments — stable running, no negative drawbar load. |
| LSKE | 9 000 mm | from 27 000 L to 30 000 L | Tridem | The giants: Longest tank shape for tridem units and highest possible transport volume |



## **AKE** SERIES (page 12)

Move safely on slopes with the shortest and most compact tank.


## **K** SERIES (page 14)

The tanker for when things get tight: Maximum maneuverability due to very short design in tandem sector.


## **MKE** SERIES (page 16)

This tanker combines all the advantages of the K series and the SKE series: Higher transport capacity with shorter tank lenght.


## **SKE** SERIES (page 18)

The entry into the big class: Maximizing transport capacity while making full use of length, width, height and volume.


## **PKE** SERIES (page 20)

The professional in the maxi tandem class: Longest GRP tank 6.80 m (20/22 m³) for high payload and heavy rear equipment. Balanced weight architecture, ready for large booms.


## **LSKE** SERIES (page 22)

The giants: Longest tank shape for tridem units and highest possible transport volume.

# THE **AKE** SERIES

## UNBEATABLE ON SLOPES

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The small, compact tankers of the AKE series are particularly suitable for use on slopes. With their lightweight construction and compact shape, inclines and declines are no problem. To make full use of the working time, a very fast, complete filling of the tanker is possible thanks to the integrated suction line.

The slurry flows on the pressure side through the frame to the three-way valve of the tanker, which allows switching between suction, agitation and spreading. There is no need for periodic pressure testing because the plastic tank is pressureless.

| Axis | Type | Tank size | Length [mm] | Width [mm] | Height [mm] | Tank length [mm] | Empty weight [kg] | Track [mm] |
|---|---|---|---|---|---|---|---|---|
| Single-axis | AKE 6 PUE | 6.000 L | 5700 | 2450 | 2350 | 3600 | 3290* | 1900 |
| | AKE 7 PUE | 7.000 L | 5700 | 2450 | 2400 | 3600 | 3315* | 1900 |
| | AKE 8 PUE | 8.000 L | 5700 | 2450 | 2550 | 3600 | 3340* | 1900 |
| | AKE 9 PUE | 9.000 L | 5700 | 2450 | 2700 | 3600 | 3365* | 1900 |
| Tandem | AKE 6 PU | 6.000 L | 5760 | 2500 | 2350 | 3600 | 3530* | 1950 |
| | AKE 7 PU | 7.000 L | 5760 | 2500 | 2400 | 3600 | 3555* | 1950 |
| | AKE 8 PU | 8.000 L | 5760 | 2500 | 2440 | 3600 | 3580* | 1950 |
| | AKE 9 PU | 9.000 L | 5760 | 2500 | 2600 | 3600 | 3605* | 1950 |

*Note: All external dimensions and weights may vary from the table values due to different tyre models and detailed equipment.


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# THE **K** SERIES

## COMPACT AND LIGHTWEIGHT

The K series also features a low center of gravity with a compact tank and lightweight construction. In the K series, the slurry flows on the pressure side through a separated line to the three-way valve at the rear of the tanker and is completely filled in the shortest possible time through the suction line.

| Axis | Type | Tank size | Length [mm] | Width [mm] | Height [mm] | Tank lenght [mm] | Empty weight [kg] | Track [mm] |
|---|---|---|---|---|---|---|---|---|
| Single-axis | K 10 PUE | 10.000 L | 6700 | 2820 | 2700 | 4900 | 3236* | 2100 |
| | K 11 PUE | 11.000 L | 6700 | 2820 | 2800 | 4900 | 3266* | 2100 |
| Tandem | K 10 PU | 10.000 L | 6700 | 2550 | 2550 | 4900 | 3380* | 2000 |
| | K 11 PU | 11.000 L | 6700 | 2550 | 2650 | 4900 | 3410* | 2000 |
| | K 12,5 PU | 12.500 L | 6700 | 2550 | 2800 | 4900 | 3440* | 2000 |
| | K 14 PU | 14.000 L | 6700 | 2550 | 2950 | 4900 | 3470* | 2000 |
| | K 15,5 PU | 15.500 L | 6700 | 2550 | 3100 | 4900 | 3500* | 2000 |

*Note: All external dimensions and weights may vary from the table values due to different tyre models and detailed equipment.

DISCOVER ONLINE




# THE **MKE** SERIES

## SOIL-FRIENDLY ON VELVET PAWS

Owing to its short tank, the ultra-compact design is characteristic of the MKE series. This is complemented by large-volume tires with a low center of gravity and low dead weight. The automatic filling stop and the standard bottom hitch provide the optimum technology on difficult terrain or pressuresensitive soils.

| Axis | Type | Tank size | Length [mm] | Width [mm] | Height [mm] | Tank length [mm] | Empty weight [kg] | Track [mm] |
|---|---|---|---|---|---|---|---|---|
| Single-axis | MKE 10 PUE | 10.000 L | 7500 | 3000 | 3100 | 5000 | 3950* | 2150 |
| | MKE 11 PUE | 11.000 L | 7500 | 3000 | 3200 | 5000 | 3980* | 2150 |
| Tandem | MKE 11 PU | 11.000 L | 7500 | 2910 | 3270 | 5000 | 4602* | 2200 |
| | MKE 12,5 PU | 12.500 L | 7500 | 2910 | 3420 | 5000 | 4632* | 2200 |
| | MKE 14 PU | 14.000 L | 7500 | 2920 | 3650 | 5000 | 5070* | 2210 |
| | MKE 15,5 PU | 15.500 L | 7500 | 2920 | 3800 | 5000 | 5100* | 2210 |

*Note: All external dimensions and weights may vary from the table values due to different tyre models and detailed equipment.


DISCOVER ONLINE




# THE **SKE** SERIES

## A LOT FITS IN HERE

The SKE series is characterized by particularly low net weight, low center of gravity and high stability. The drums have large-volume tanks with a high payload at the same time. The slurry lines run in the frame so that the slurry can flow more easily. The larger cross-section of the frame reduces back pressure and saves power on the drive side, thus reducing pump wear.

| Axis | Type | Tank size | Length [mm] | Width [mm] | Height [mm] | Tank length [mm] | Empty weight [kg] | Track [mm] |
|---|---|---|---|---|---|---|---|---|
| Tandem | SKE 15,5 PU | 15.500 L | 9600 | 3000 | 3560 | 6054 | 5450* | 2210 |
| | SKE 17 PU | 17.000 L | 9600 | 3000 | 3680 | 6054 | 5490* | 2210 |
| | SKE 18,5 PU | 18.500 L | 9600 | 3000 | 3800 | 6054 | 5530* | 2210 |
| Tridem | SKE 21 PUTR | 21.000 L | 10600 | 3000 | 3450 | 7686 | 8400* | 2225 |
| | SKE 24 PUTR | 24.000 L | 10600 | 3000 | 3650 | 7686 | 8525* | 2225 |
| | SKE 27 PUTR | 27.000 L | 10600 | 3000 | 3850 | 7686 | 8650* | 2225 |

*Note: All external dimensions and weights may vary from the table values due to different tyre models and detailed equipment.

# PROFI-Tanker PKE — Precision that makes area

ZUNHAMMER

Homogeneous from the start, reproducible right up to the headland. RotaCut, Hydrostatic drive, ECO-Duo and ISOBUS combine performance with true precision. The PKE controls the flow from the very first metre, dispenses continuously and automatically implements map values. Clearly documented, neatly on the map.

## (NEW) RotaCut® at the front

— short distances, three docking sides

This is where the flow begins. The RotaCut 12,000 is located at the front and centre. Docking on the left, right or front. This keeps the inlets ultra-short. The cutting baskets shred impurities, separate fibre balls and calm the flow. The pump and sensors are protected, and the dosage remains stable. Material that cannot be shredded can be safely emptied via the lower service slide. The medium is homogeneous from the very first metre.

## Dual - Hydrostat

— stepless dosing, double the efficiency

Two independent hydrostatic drives power the rotary pumps on the left and right precisely to the set value. The PTO shaft provides the power, which the hydrostatic drives convert into application capacity in a continuously variable manner. Sensitive when starting up, powerful when needed, stable at the headland. Set value changes are implemented without delay. This results in smooth flow, constant throughput and low pressure peaks.

## LENA-TWIN

— smart steering, stable suspension

The gyroscope-based forced steering system continuously measures yaw and steering angles and automatically controls both axles. In field mode, the front and rear axles steer proportionally, turning circles are small, shear forces at the headland are reduced and traction is distributed evenly. When driving on the road, the system centres itself automatically, relieves the front axle and ensures smooth straight-line running. When reversing, the automatic system assists with safe counter-steering, enabling controlled maneuvering. LENA-TWIN operates without a rigid linkage to the tractor, varies the intensity with speed and reduces tyre wear. TÜV-approved, with safety and emergency running mechanism as standard.


## Longer GRP tank (NEW)

— 6,80 m / 20/22 m³

The newly designed GRP tank, measuring 6.80 m in length and with a capacity of 20 to 22 m³, combines lightweight construction with increased stability. The new weight architecture with axle offset and front-mounted units allows operation with heavy-duty three-point linkage without negative hitch load, even when empty. The structure can carry large distributors or cultivators weighing up to around six tonnes while remaining lightweight and smooth-running.

## ECO-Duo Vario

— regulate separately, distribute precisely

Two separate control circuits control the pumps on the left and right via ISOBUS precisely to the set point. The ECO-Duo Vario system reacts automatically to map values and slope compensation. Each side dispenses according to nutrient requirements. Distribution remains homogeneous even when conditions change.

## Service & Maintenance (NEW)

— reimagined, practically implemented

All service blocks are grouped together on the left at handle height. The assemblies are neatly separated and easily accessible, daily visual checks are quick, and maintenance steps are short. Included are the hydraulic block with proportional valves, filter, ISOBUS control unit, fuse/relay box, tyre pressure control components (TerraCare) and the LENA-TWIN gyroscope. The result: less searching, faster diagnosis, better overview.

## HYTRA-Axle (NEW)

— true to track, small radii

Hydraulic suspension and digital control. HYTRA dampens pitching and rolling movements and keeps the tank firmly on track. The steering trapezoid enables small turning circles and smooth straight-line running on roads and fields. More on page 30.

**More area per day, fewer corrections:**

RotaCut homogenises from the start, the double hydrostatic drives dispenses stepless, LENA-TWIN and HYTRA stabilise the combination, the new GRP tank creates payload; service blocks on the left, ECO-Duo and ISOBUS implement map specifications.

DISCOVER ONLINE

# THE **LSKE** SERIES

## SIMPLY GIGANTIC

The LSKE series tanks are the giants among Zunhammer‘s pump tankers with a tank capacity of up to 30,000 liters. This means that even large feeders can be emptied at once. With these tankers, even the largest boom widths are no problem and can be mounted safely and stably.

| Axis | Type | Tank size | Length [mm] | Width [mm] | Height [mm] | Tank length | Empty weight [kg] | Track [mm] |
|---|---|---|---|---|---|---|---|---|
| Tridem | LSKE 30 PUTR | 30.000 L | 12000 | 3000 | 3850 | 9030 | 9500* | 2225 |
| | LSKE 30 PUTRD | 30.000 L | 12000 | 3000 | 3850 | 9030 | 9600* | 2225 |

*Note: All external dimensions and weights may vary from the table values due to different tyre models and detailed equipment.


DISCOVER ONLINE

# THE **ECO** SYSTEM

## EFFICIENT. BETTER. LIGHTER.

Zunhammer employs practitioners, so it makes sense to combine high payloads, low fuel consumption and compact design in a slurry tanker. With the Zunhammer ECO system, the slurry flows directly through the frame, saving weight and space. The larger cross-section optimises the flow, and the pump and frame form a powerful unit.

The ECO system is not only a hit from an ecological point of view, but also from an economic point of view! In addition to weight reduction and lower ground pressure, it also optimises payload, reduces fuel consumption and protects the slurry pump. The ECO Mono system is installed as standard in all slurry tankers in the AKE, MKE, SKE, PKE and LSKE series.



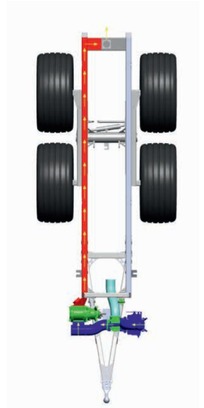
### ADVANTAGES:

- Weight reduction and payload optimization
- Low fuel consumption
- Reduction of pump wear
- Best driving stability due to low center of gravity
- Ecologically valuable: Lower ground pressure
- Stepless quantity control via speed
- space optimisation with low centre of gravity
- Ample space for axles and chassis under the tank

### SIMPLE AND EFFICIENT: THE ECO-MONO SYSTEM

The ECO-Mono system is installed as standard in most equipment lines. The simple and efficient system is based on a pump and an optimised frame.

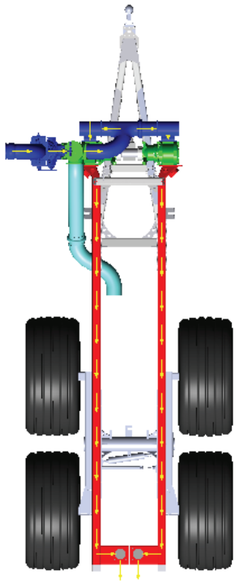
The favourable flow pattern reduces power consumption and pump wear. A low centre of gravity provides additional slope stability and driving safety.



### THE HIGHLIGHT OF THE PROFITANKER SERIES: THE ECO-DUO SYSTEM

The ECO-Duo System is one of the highlights of the Profitanker series and combines all the advantages of the ECO-Mono System with the concept of a double pump in transverse installation, two three-way valves and two pressure lines. The two separately switching valves at the rear of the slurry tanker supply the distribution heads on the left and right from their own separate pumps. Distribution can be switched on or off individually on the left or right, for example to fertilise wedgeshaped fields more effectively.

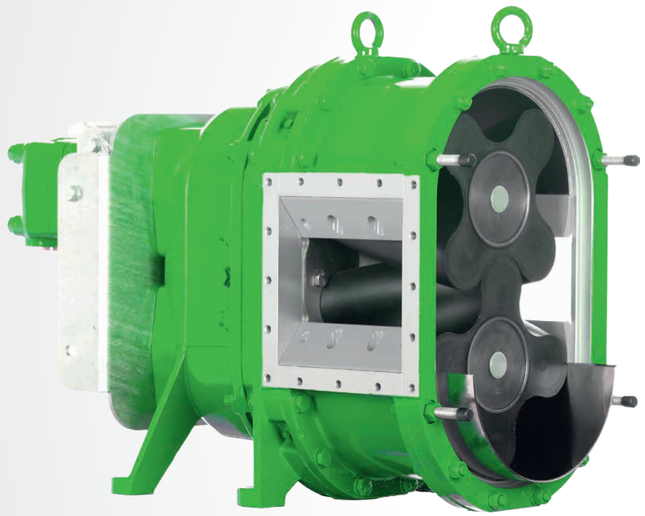
- Double suction and pressure performance with up to 12.000 L/min
- Halving filling times
- Optimised lateral distribution on slopes

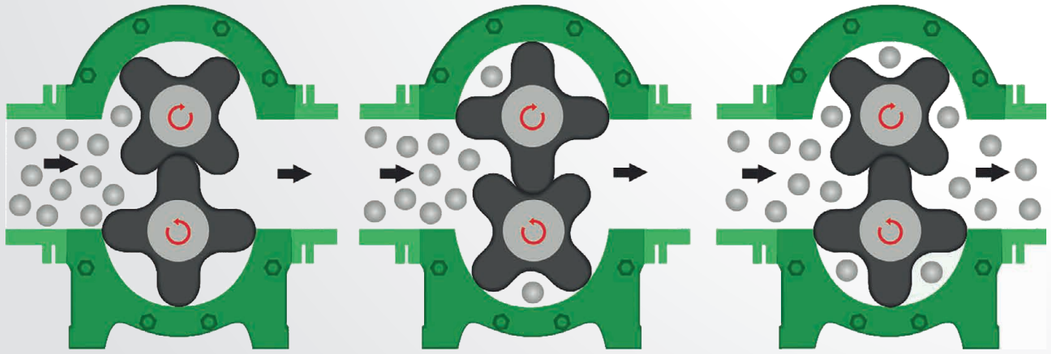


# ROTARY LOBE PUMPS

The rotary lobe pump is a positive displacement pump. The rotating lobe encloses the medium on the suction side in a chamber between the housing and the lobe. It conveys it at the top and bottom of the pump chamber through the pump to the discharge side.

- Operating principle similar to a two-stroke engine
- Good suction and dry-running behavior
- Easy accessibility of the conveying elements
- Compact design
- Gentle conveying
- light weight





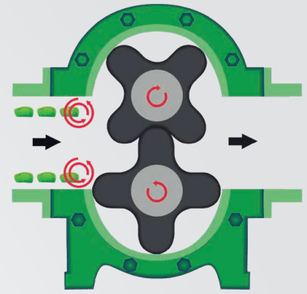
Operating principle rotary lobe pump

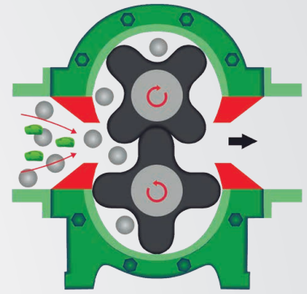


## INJECTION SYSTEM

Zunhammer uses the modular injection system, which can be easily retrofitted with the injection half-shell. This significantly extends the service life of the pump.

- Optimal forwarding of foreign objects in and through the pump to prevent damage to the pump chamber and lobe tips
- Injecting foreign objects into the opening conveyor chambers
- Improvement of the internal sealing of the pump
- Increased efficiency and suction power
- Lower operating costs, significantly increased usage phases (2.5 times)





## BEASTLY PUMPS: THE HIFLO LOBE CONCEPT

In conventional pumps, straight rotary lobe are used as the pumping element because they are simpler and cheaper to manufacture. However, straight rotary lobe generate several pressure surges with each rotation. The resulting pulsation severely limits the performance of rotary lobe pumps.

The HiFlo lobe, whose wings are twisted along the axis by a defined angle, eliminates the causes of these pressure surges and runs **pulsation-free**.

| VX186 series | Conveying capacity m3/h | Flow rate l/min | Max. speed |
|---|---|---|---|
| 184 (x 2)* | 256 (512)* | 4.272 (8.544)* | 600 |
| 260 (x 2)* | 362 (724)* | 6.036 (12.072)* | 600 |
| 368 | 513 | 8.550 | 600 |

*The ECO-Duo system is equipped with two pumps.

**Powered by Vogelsang**


# HYDROSTATIC PUMP DRIVE

Zunhammer offers its slurry tankers with optional hydrostatic pump drive. The purpose of this technology is to use liquid agricultural fertilizers on arable land and grassland in an even more targeted and efficient manner.

On the tractor side, a hydraulic pump on the slurry tanker is driven via a conventional cardan shaft . This converts the mechanical energy of the cardan shaft into hydraulic energy and feeds it into an electronically controlled high-pressure circuit.

By means of a hydraulic motor, the hydraulic energy is converted back into mechanical energy to drive the installed rotary lobe slurry pump at a corresponding set speed.

This results in an infinitely variable transmission ratio between the tractor PTO and the rotary lobe pump of the slurry tanker.
The correct pump speed is automatically calculated from input parameters such as driving speed, working width and nutrient content (measured via VAN Control-Dual) depending on the operating situation in order to achieve the area-related dosage rate as a target value.

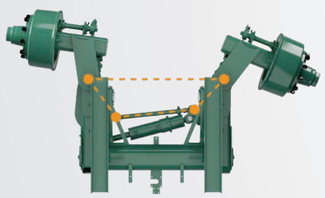
Taking into account a previous needs assessment or using application maps, the hydrostatic pump drive thus makes a major contribution to nutrients-based, environmentally friendly and resource-saving plant care.

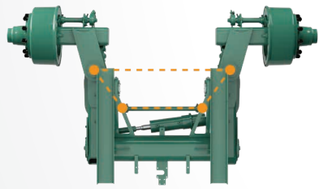
**YOUR ADVANTAGES AT A GLANCE:**

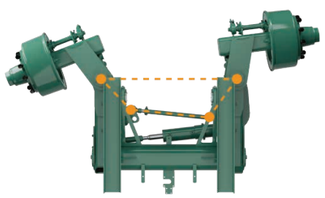
- Consistent dosage rate per hectare even when starting slowly or driving around obstacles.
- Changing the tractor speed when driving on difficult terrain or uphill without changing the dosage rate.
- Simple and automated regulation of the dosage rate according to the specifications in the land use planning index.
- Fuel savings through adapted engine speed, matching the environment and tractive effort requirements.
- User-friendly and simple application.
- Also suitable for inexperienced drivers due to elimination of constant speed monitoring.
- Automatic regulation of the dosage rate with Section Control as a result of a working width variation.
- Excellent operating smoothness combined with high pumping performance.

# THE CHASSIS

## WE KEEP YOU ON TRACK







## HYTRA-AXLE (HYDRAULIC SUSPENDED/TRAPEZOIDAL AXLE)

- Hydraulically sprung, digitally controlled; keeps the vehicle on track even at speed.
- Steering trapezoid reduces the turning circle and ensures smooth straight-line running.
- Even wheel load distribution; less slippage, cleaner turf, less tire wear.
- Dampens pitching and rolling movements of the superstructure.
- Forced steering axles; compatible with LENA-TWIN (plug-and-play) intuitive driving modes for road/field/manoeuvring for safe reversing and narrow driveways.
- Compatible with TerraCare tyre pressure control system left/right slope compensation supports track guidance.
- Reinforced bearings and pivot points, designed for full load and high working intensity.



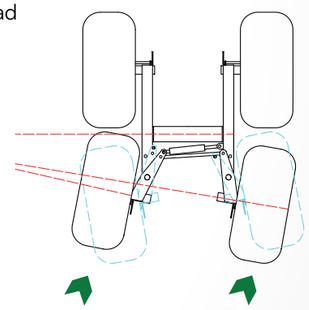
## SINGLE-AXLE

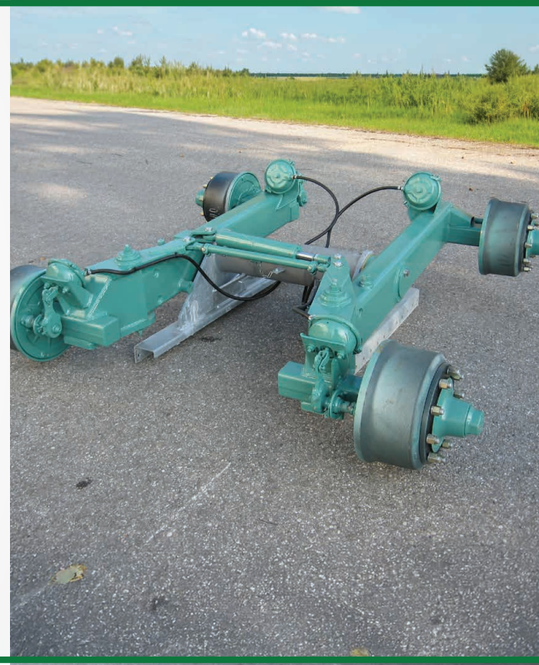
Single-axle undercarriages are suitable for small vehicles with small volume. They are usually unsprung in combination with low-pressure tires.

- Wide tires possible
- Single rolling over of the arable land
- Usually lighter than the tandem unit
- Cost-effective solution

## PETRA-AXLE (OSCILLATING AXIS)

- This oscillating axle is stable on all slopes.
- Minimizes swing movement on the distributor.
- Steers more sharply on the inside than on the outside: like all cars and tractors
- Reduces tire wear on the road
- Reduces damage in the grass
- Trailing steering or electric power steering.
- Equal load weight on all wheels even with large differences in height.
- Reduction of tractive effort requirements and tire wear.



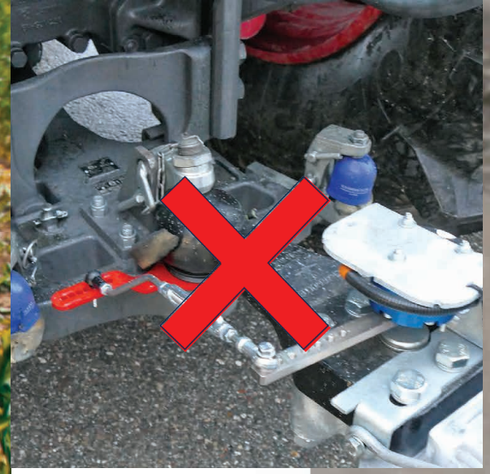


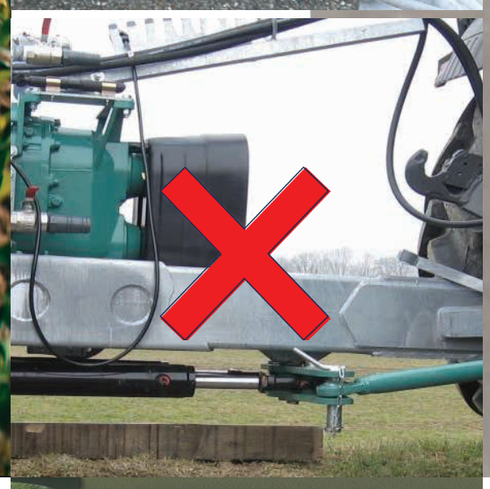
## PNEUMATIC SUSPENSION

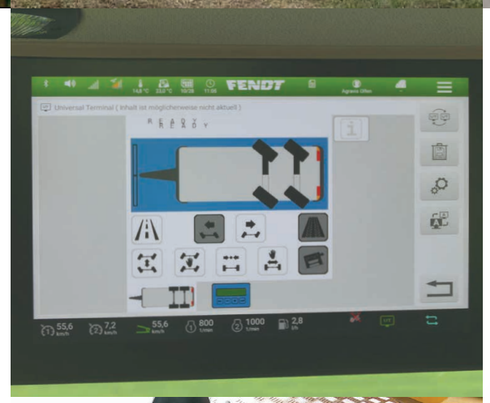
- High level of comfort with good damping properties combined with high driving stability on level ground.
- Safe, smooth and true-to-track driving behavior even with partial filling.
- High driving stability
- Possibility for lift axle and traction assistance through short-term hitch load increase in the field.
- Good boom guidance due to constant distance to the ground.

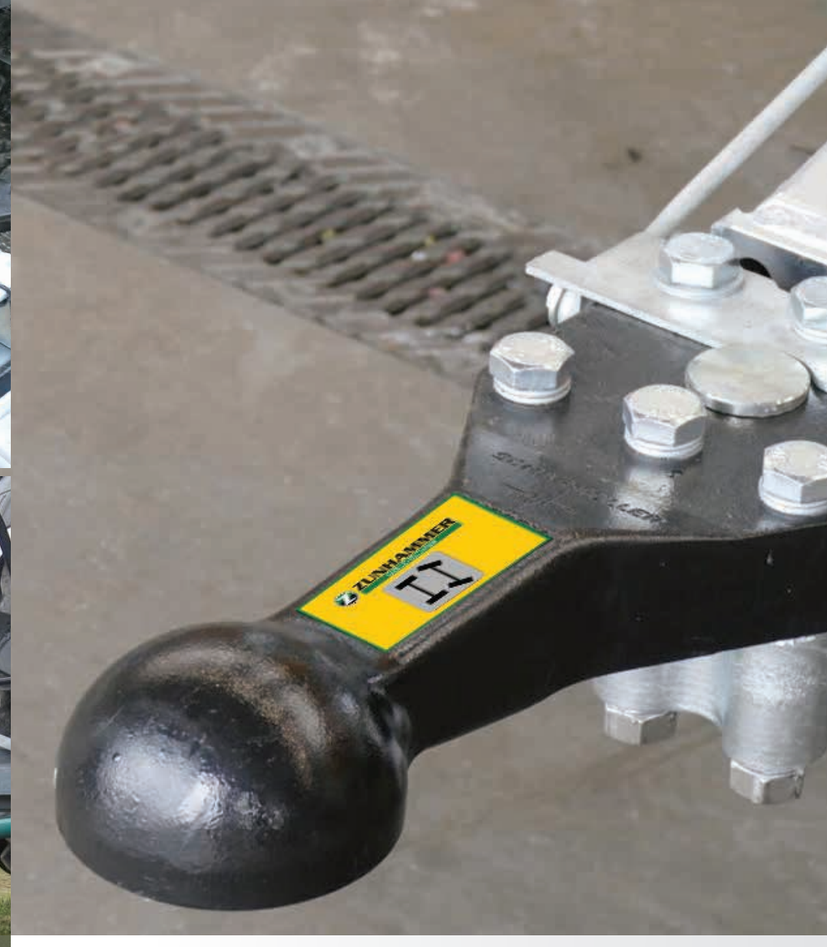
# LENA AUTOMATIC STEERING

DISCOVER ONLINE








Zunhammer improved the electrically controlled forced steering with LENA. All previously necessary installed levers have been completely eliminated. This makes coupling much easier and faster, as only the K80 ball, the electric lighting and the hydraulic load-sensing system need to be connected. Connecting levers can no longer be damaged.

## STRUCTURE:

A gyroscope sensor installed on the tanker determines the steering angle for the steered axles without contact. Their user interface is fully integrated into the joystick or the ISOBUS control system. This prevents operating errors and ensures safe driving on the road.

## ALL ADVANTAGES AT A GLANCE:

- No connecting levers to the tractor
- Precise steering forwards and backwards
- Stable tracking at any speed
- Automatic steering block at 40 km/h
- Optimum turning circle
- Convenient operation via ISOBUS

All new single-axle and tandem vehicles can now be optional, tridem vehicles even as standard, equipped with this new steering system.



## LENA-TWIN

With LENA-TWIN, both axles of a tandem vehicle are each controlled by a LENA. Both electric forced steering systems can be operated separately with the ISOBUS control system. This means that even a large tanker can be precisely manoeuvred at small angles. Sideways corrections are possible on slopes.

## ALL ADVANTAGES AT A GLANCE:

- Two automatic steering axles at Tandem
- Steerable front and rear axle
- Four special steering programms
- Correction of drift on slopes


# A WIDE SELECTION

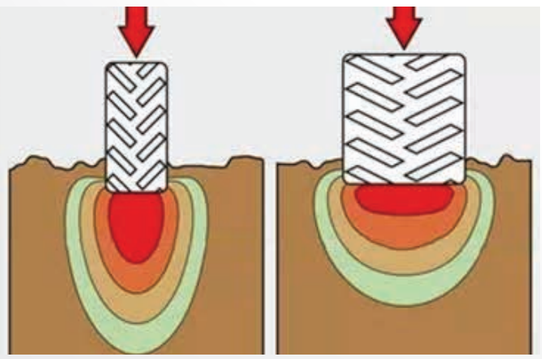
**AS INDIVIDUAL AS YOUR FARM AND YOUR SLURRY TANKER.**

Modern agriculture also means conserving resources and the environment. In order to protect our most important resource, the soil, Zunhammer offers a wide range of tires and thus an individual solution for every application.

Choosing the right tire for the slurry tanker is an important decision. Here, the permissible total weight, the existing soil structures and cultivation methods (farm orientation) on the farm and the ratio of road and field travel must be taken into account. Slim tires are optional, depending on the application.

Your sales representative will be happy to advise you in more detail.


Aluminium fender

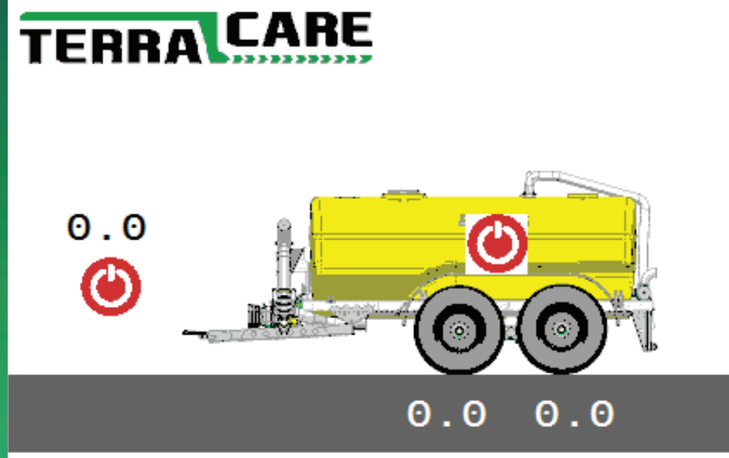



# TIRE PRESSURE CONTROL SYSTEM

- POWERED BY TERRA CARE

**TERRA CARE:**

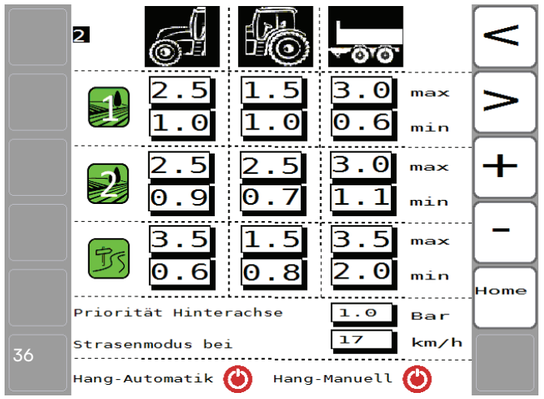
The functional operation is based on the principle of the 1-circuit system, but here several control valves are installed and thus not all four wheels are connected with each other. The release and refilling of the air works via a line. Each wheel hangs on an electrically controlled valve that must give the go for filling or draining. It is possible to set the pressures by axis or by page.




Terminalanzeige Reifendruckregelanlage

A technical trick is the tire pressure control system. For optimized ground pressure and traction, the tire pressure can be adjusted to the ground surface. In the field, a soil protecting 1 bar is set. The increased contact area reduces ground pressure and prevents deep ruts. On the road, the tires are then inflated to 2-3.5 bar, rolling resistance decreases, fuel consumption and tire wear are minimized.

To ensure air pressure, a screw compressor or a piston compressor are available. The systems can be ordered as 1-circuit or 2-circuit systems. The control takes place via Joy-Stick, the Touch-Box or in the ISOBUS. The required pressures can be read and set via a dedicated terminal or by means of the ISOBUS.




# FEEDING TECHNOLOGY

DISCOVER ONLINE

Many slurry tankers are not legally allowed to participate in road traffic when fully loaded. In order not to lose impact power on the field, tankers barrels are used. The Zunhammer feeders are characterized by the high payload with low dead weight and supply the spreading tankers and self-propelled vehicles in agricultural areas with slurry on the road.

In addition to the ultra-light tankers, Zunhammer also designs many other series as feeder tankers. Due to the low centers of gravity, the tankers have high driving stability. They impress in road traffic with their good handling, maneuverability, ease of pulling and clarity.




DISCOVER ONLINE

# SLURRY TECHNOLOGY ACCESSORIES

In addition to slurry tankers in various sizes and with a wide range of equipment options, Zunhammer also offers a wide range of slurry technology accessories. In the separate accessories brochure or on the homepage you will find more detailed information on the hopper systems, the docking stations for low silos, high silos and stations with cyclone separator, the PROFI-FANT front docking system and different suction systems.

Zunhammer offers suitable solutions for all operations.

**TRISTA**

**ZASTA**

**THREE-LEGGED FUNNEL**

**PUSTA**

**GUNY-SWING**

**DOCKING FUNNEL**

**HANDY WITH TELESCOPING**

**PROFI-FANT WITH TOP-CUT**

**TORNADO - SUCTION ARM**

**DINO - SUCTION ARM**

DISCOVER ONLINE

# DISTRIBUTION TECHNOLOGY

Applicating slurry on the ground and prompt injection of slurry in the ground reduces emissions and thus ammonia losses. That is why Zunhammer complements the product portfolio with dribble bars, trailing shoe booms and liquid manure injection equipment.

Further information can be found in the special brochure on distribution technology and accessories or on the homepage.



## GLIDEFIX

Workwidth: 12 m to 24 m

Proven and technically sophisticated trailing shoe booms in many working widths.

## ALPEN-GLIDEFIX

Workwidth: 9 m to 12 m

Excellent ground adaptation on slopes thanks to standard slope compensation.

## DUPLO-NOZZLE AS EQUIPMENT OPTION

Reduction of line spacing and slurry quantity per nozzle to prevent feed contamination.

## KUSGU / KUSGU TRAIL

| | |
|---|---|
| Workwidth: | 3 m to 6,5 m / 5 m to 6,5 m |
| Attached machine: | 4 point, excellent mixing of the soil |
| Pulled machine: | Chassis, ideal seedbed preparation even in large working widths |


DISCOVER ONLINE

# PRESICION FARMING

Precision farming is the demand-driven management of agricultural land. The goal is to maximize yields while conserving resources through precisely planned nutrient application. Zunhammer is a pioneer in the field of smart farming and, together with KRONE, is introducing a new generation of nutrient measurement, the VAN Control dual. In addition to nutrient measurement, the company offers options for documentation and networking, ISOBUS solutions and a wide variety of control modules.

Further information can be found in the special brochure on Smart Farming Solutions or on our homepage.

## MACHINE CONTROL

**JOYSTICK**
The simplest control option for the slurry tanker for tractors without ISOBUS.

**TOUCHBOX**
Control of all electric, hydraulic and pneumatic functions for all tractors without ISOBUS.

**ISOBUS**
Control of the machine via ISOBUS terminals and/or ISOBUS joystick.

## SOFTWARE AND ELECTRONIC ACCESSORIES

**VARIABLE RATE APPLICATION**
Maximising profitability.

**SECTION CONTROL**
Precise connecting tracks without overlaps.

**APPLICATION MAPS**
Targeted nutrient application using GPS data via ISOBUS.

**AGRIROUTER**
Easy exchange of data between machine and agricultural software.

**TANK-O-NUM**
Electronic counter with daily and total counter.

**REAR VIEW CAMERA**
For a generous overview when reversing and in narrow places.

## NUTRIENT MEASUREMENT

**VAN CONTROL DUAL**
Precise content measurement of different types of slurry and mixed slurry with only one calibration curve.

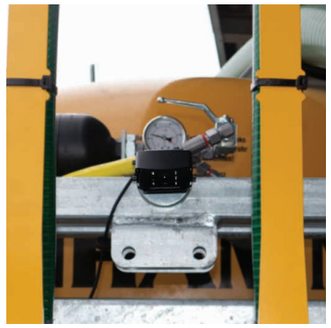
**DUAL-USE**
Use of the sensor also on the KRONE forage harvester to analyze the ingredients of chopped grass and maize.

**DOKUSTAR AND DOKUSTAR E-MINI**
Nutrient measurement of the slurry during pumping into the final storage or into different tanks.

JOYSTICK

TOUCHBOX


TANK-O-NUM



REAR VIEW CAMERA

CCI A3 JOYSTICK


CCI TERMINALS


VAN CONTROL DUAL

DOKUSTAR


DOKUSTAR E-MINI


DISCOVER THE CATALOGUE

# MY DATA PLANT — Site-specific fertilisation

**Apply fertiliser in a targeted and precise manner!**
Especially in times of increasingly stringent environmental regulations, MyDataPlant supports you in using fertiliser more efficiently and sustainably.
With MyDataPlant application maps and Zunhammer technology, application rates can be adjusted more precisely than ever acording to the nutrient requirements of individual plants. By continuously determining the exact nutrient content of slurry using Zunhammer VanControl Dual, needs-based fertiliser planning can achieve more homogeneous crops and reduce costs, while yields remain stable.

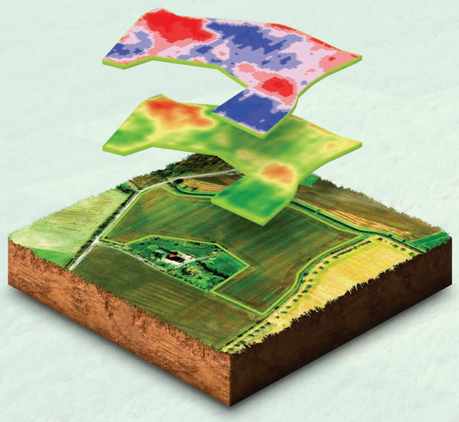
## ADVANTAGES OF SITE-SPECIFIC SLURRY FERTILISATION

- Different crops require different amounts of fertiliser
- Each zone can be supplied according to its needs
- The crops develop homogeneous
- Simultaneous ripening of crops
- Targeted fertilisation of weaker zones is possible
- Slurry as a multi-nutrient fertiliser is particularly profitable for site-specific fertilisation

MyDataPlant®

## APPLICATION MAPS

With MyDataPlant, creating application maps for sowing, fertilisation, plant protection and soil sampling is child's play. The application maps are created based on biomass data from your field. You can choose between the long-term yield potential of the area and daily updated biomass images as a basis. Any external data layers can also be used as a basis.



155 kg N/ha

160 kg N/ha

155 kg N/ha

150 kg N/ha

150 kg N/ha

## MyDataPlant PORTAL

Create your individual maps for site-specific management in the portal with just one click and in a matter of minutes. Book your fields and modules exactly as needed and then benefit from 365 days of unlimited application map user experience.

# SELF-PROPELLED MACHINES

DISCOVER ONLINE


With equipment for self-propelled machines, Zunhammer completes its product range. Increasing transport distances, a shortened application time and improved soil protection represent reasons for the use of self-propelled machines.

Holmer offers farmers two different vehicles with the TerraVariant. These range from a power class of 435 hp with a 16.000 L tank to the top model with 652 hp and 21.000 L tank.

CLAAS offers the Xerion 4200 as the ZUNI X-Trac. With a 16.000 L tank and 458 hp, the Xerion is ideally equipped for manure season.

Further information can be found in the special brochures on the Xerion and Holmer models or on our homepage.

**HOLMER TERRA VARIANT 650**

**HOLMER TERRA VARIANT 435**


**ZUNI-X-TRAC FÜR CLAAS XERION 4200 SADDLE-TRAC**

| Type | Engine | Displace-ment | Rated power | Tank volume | Gearbox | Landing gear |
|---|---|---|---|---|---|---|
| Holmer TV 650 | Mercedes Benz OM 473 LA Tier V | 15 600 $cm^3$ | 480 kW 652 hp | 21.000 L | Power split Kessler LV 3000 | All-wheel steering, rigid steering, gentle drive left/right |
| Holmer TV 435 | Mercedes Benz OM 470 LA Stage IV | 10 700 $cm^2$ | 320 kW 435 hp | 16.000 L | Hydrostatic travel drive with single-axis drives | All-wheel steering, rigid steering, gentle drive left/right |
| CLAAS Xerion 4200 | Mercedes Benz | 10 700 $cm^2$ | 337 kW 458 hp | 16.000 L | hydrostatic-mechanical power split CMATIC transmission | All-wheel and front axle steering, dynamic STEERING, all-wheel steering, single crab steering, slow gear, large crab steering |

## 1956

Sebastian Zunhammer senior, a tireless tinkerer and visionary, founds a Barrelmaker's shop for wooden barrel and silo construction in Traunwalchen, Upper Bavaria.

## 1972

The future is shaping up - the first vehicles with fiberglass-reinforced polyester tanks are being built.

## 1978


3-axle tanker with 18 cubic metres is being built for the first time.

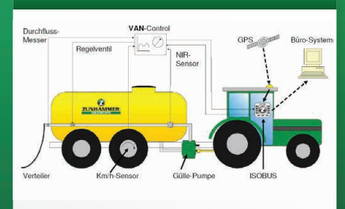
## 1985

The wooden pump tanker was manufactured until 1985.

## 2005


ISOBUS-presentation at AGRITECHNICA 2005.

## 2007




Zunhammer presents VAN Control at AGRITECHNICA 2007 and wins a silver medal.

## 2015


Zunhammer wins silver medal at AGRITECHNICA 2015 with frameless ULTRA-LIGHT tanker.

## 2017

The ZUNI-Swan was presented at the AGRITECHNICA.

## 2017


The DLG certification for VAN Control 2.0 is here: the revised Fertilizer Ordinance gives further impetus to electronics, among other things through verification requirements.

## 2018

After a further three years of testing and development, the 10,000th slurry tanker equipped with the GlideFix 15 m was delivered.

## 2022


VAN Control dual
The nutrient measurement system is presented and receives DLG approval.

## 2023

Zunhammer wins silver medal at AGRITECHNICA 2023 for ECO-Duo Vario

DISCOVER ONLINE

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GÜLLE-TECHNIK

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01/2026