

# TRAILED FIELD SPRAYERS **VEGA 12**





**The innovative trailed field sprayer for professional crop protection**





As a specialist in crop protection, LEMKEN offers farmers the newly developed, innovative Vega trailed field sprayer to deliver application technology that is synonymous with contemporary, uncompromising crop protection. The Vega field sprayer supports farmers in producing stable, high yields year after year.

The frame and carriage of the Vega are designed for large ground clearance and generously dimensioned tyres, yet deliver a low centre of gravity far to the rear of the implement for optimal stability when driving on fields and roads. The drawbar steering with rearward pivot point and a large steering angle ensure that the sprayer consistently follows the tractor tracks with great precision. A suspended axle allows the Vega to be approved for an unparalleled road speed of 60 km/h, making it a highly economical crop protection implement even while it is being transported on the road.

The fluid system in the Vega is designed for maximal operating comfort and minimal residue. The electrically switched valves are directly integrated into the hoses; they are controlled via the operating terminal at the inductor using function-driven menus.

The rear-folding SEH boom with integrated true circulation line and single-nozzle control reliably delivers high-precision application of crop protection products at all times.

Crop production is a race against time – now more than ever. The continuously increasing demand for agricultural commodities, food and energy must be met by continuous increases in productivity of the various cultivation practices, with crop protection playing an ever more important role. Ensuring that economical and ef-

fective crop protection is carried out according to best professional practice presents farmers with considerable challenges. Crops need to be treated in a timely manner, with a great deal of sensitivity and above all flexibility, taking into account more and more unpredictable weather patterns and a demanding legislative environment.

# The Vega



## Concept

Every detail of the Vega's design has been carefully developed to meet even the most challenging demands in crop protection:

- SEH aluminium boom with true circulation line without inactive pipe sections and optional Eltec Pro single-nozzle control for outstanding precision of application
- Compact design due to rear-folding boom, resulting in excellent road handling and a clear view
- Low centre of gravity yet large ground clearance
- Excellent agility even with large tyres
- Partially automated operating concept
- Fluid system with minimal technical residue



## Drawbar

The drawbar is available in various versions.

- Top or bottom attachment, optionally with 40 mm drawbar eye, ring drawbar eye or K 80 ball coupling
- Sophisticated hydraulic drawbar adjustment with integrated stand
- Optional drawbar suspension for high driving comfort, vibration absorption and steady boom ride
- Drawbar steering with maintenance-free rearward pivot point bearing for reliable, precise true track following under any conditions
- Automatic drawbar deactivation from 15 km/h for maximum transport safety





## Carriage

The robust Vega carriage is designed for maximum stability.

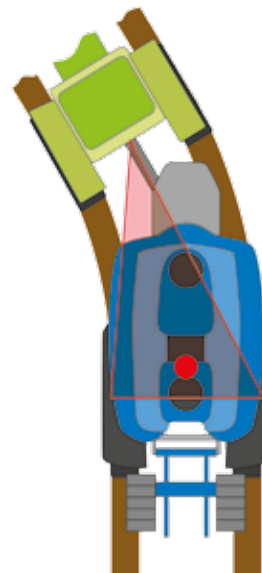
- The tank and carriage form a functional unit.
- Uniform carriage concept with three axle variations:
  - rigid
  - mechanically suspended
  - pneumatically suspended with load-dependent brake and level control
- The suspended versions can be approved for road speeds of up to 60 km/h.
- Track widths of 1.5 m to 2.25 m are implemented via the rim offset.



## Tank

The sophisticated, perfectly smooth PE tank is UV-resistant and designed for maximum stability.

- The tank design features a deep sump to ensure complete drainage.
- The unique tank geometry minimises surge forces.
- The centre of gravity remains low at all times, regardless of the fill level.
- Both the upper and lower injector nozzle agitator can be controlled independently in terms of fill level and intensity.
- Four cleaning nozzles at the tank ceiling ensure intensive, thorough cleaning.
- Cleaning can be controlled easily from the tractor cabin via the MegaSpray control.
- The clean water tank integrated in the mudguards ensures that weight is always distributed evenly across the implement.
- The tank shape permits the use of large tyres of up to 520/85 R 46.





# Clear and easy operating concept



**Filling**



**Induction**



**Cleaning**



**Spraying**

The Vega comes with a newly developed, partially automated, function-driven operating concept:

- Full sprayer operation is possible from the tractor cabin via an ISO-BUS terminal.
- Functions can be controlled directly and intuitively via clear icons.
- As the electrical valves are self-adjusting, the function-driven menu control offers maximal user and process safety.
- A digital fill level indicator with integrated fill stop comes as standard.
- The robust, dust-proof and water-tight operating unit can also be operated with gloved hands via hardkeys and a rotary encoder.







The Vega inductor has a volume of 45 litres and is ideally equipped for applying all types of crop protection products.

- The infinitely variable height adjustment allows even large containers of crop protection products to be handled easily and safely.
- The inductor's cylindrical internal design and edge moistening promote quick and easy induction.
- The high extraction capacity of 120 l/min and the Proflow nozzle, which is included as standard, ensure rapid, disruption-free purging from the inductor.
- The high-intensity agitator nozzle provides thorough mixing and dissolves even powders and granules reliably.
- The inductor nozzle is perfectly integrated into the modern tank design and is therefore optimally protected against soiling.
- The folding cover plate provides additional protection for the inductor area.



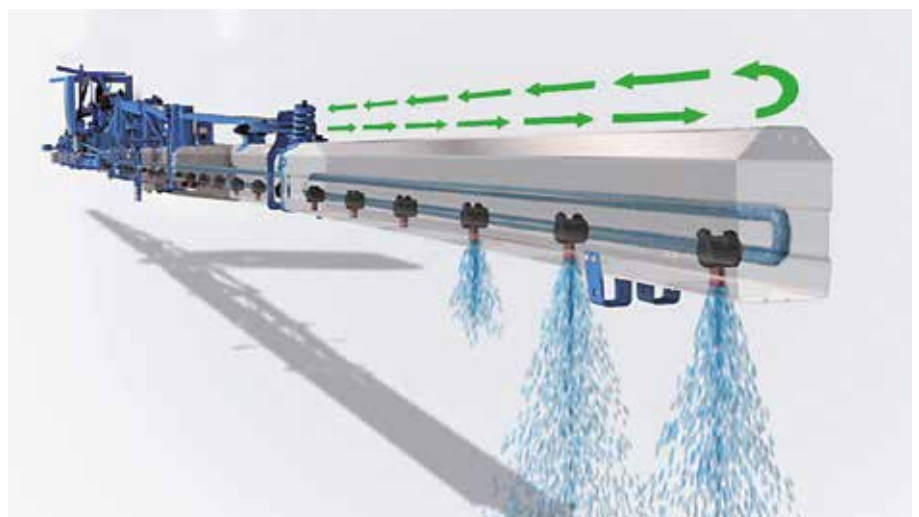
# Fluid system



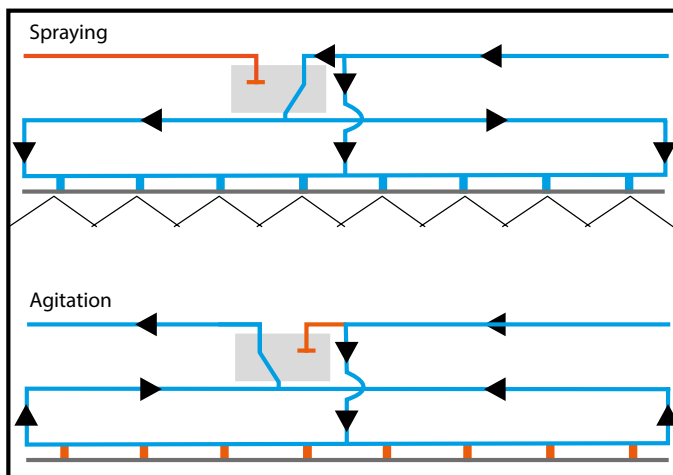
## Minimal residue

Electrical valves directly integrated into the pipes and a true circulation line without inactive pipe sections ensure that the Vega's fluid system is systematically designed for minimal technical residue.

- Two boxer pumps with a capacity of up to 260 l/min each deliver a total filling capacity of 520 l/min.
- The pumps are integrated into the drawbar, where they are easily accessible for maintenance.
- The high-flow injector principle allows external containers to be fully drained and permits fluid intake via long hoses.
- The boxer principle ensures that the pumps run extremely smoothly with an even flow of delivery.
- Optional high-flow pumps increase the filling capacity to 625 l/min.
- The pump fluid circuits are divided into an agitator circuit and a working circuit, which can be controlled independently.
- The reliable pumps are dry-run protected and suitable for liquid fertiliser.







### Circulation line

The standard circulation line in the Vega's SEH boom ensures ultimate precision of application.

- Simultaneous switching on and off across the full working width
- The true circulation line ensures that the spray fluid displaces any water in the lines and is therefore immediately available as soon as the nozzles are switched on.
- Quadrilateral nozzle pipe feed ensures reliably even transverse distribution across the full working width.
- Even pressure and volume flow for high application precision and homogeneous spraying across the full working width
- High circulation pressure prevents crop protection product residue from being deposited in the lines and allows thorough cleaning all the way through to the nozzle sets.



### Eltec nozzle control

The SEH boom has separately controlled electrical single-nozzle valves for extremely speedy response times and high flexibility.

- In the baseline version with Eltec, the nozzles are combined in part width sections of up to 13 nozzle groups, depending on boom width.
- The part width section distribution can be freely assigned and saved in three different configurations.
- The nozzles are controlled electrically directly at the nozzle holder.
- A 3-way nozzle body is standard; a 5-way nozzle body is available as an option.
- Eltec Pro combined with MegaSpray machine control provides true single-nozzle control.
- The Eltec Pro single-nozzle control reduces overlap to a minimum when spraying wedge-shaped fields or other part sections.

# Electronic system



**CCI-200**



**A 10 joystick box**



**A 20 part width section box**



**Multi-function lever**

## MegaSpray with CCI-200 terminal

LEMKEN co-developed the CCI-200 terminal, and optimum integration with LEMKEN systems technology is therefore already provided.

- The CCI-200 terminal can be operated both via a touch-screen and via hardkeys and a rotary encoder.
- The user interface for the MegaSpray control can be freely configured for up to three drivers.
- The AEF-certified CCI-200 ISOBUS terminal can also be used for controlling other ISOBUS-capable machines.
- Automatic part width section control with CCI.Command
- Individual headlands creation
- Job management with CCI.Control
- Precise pass alignment under any conditions with CCI.Command PT parallel tracking assistance
- User-friendly communication with the farmpilot online organisation portal for farmers and contract farmers

## Auxiliaries for increased comfort

A number of Aux-N auxiliaries such as joysticks and switch boxes can be used with the universal terminal for optimum operator comfort.

- Commonly used processes can be performed more comfortably by using Aux-N control elements.
- ISOBUS-compatible control elements on the tractor can be used for control.
- LEMKEN offers ISOBUS joystick boxes or ISOBUS part width section boxes as useful additions.
- Various functions can be freely assigned to auxiliary controls.



# ISOBUS connectivity



As MegaSpray is fully ISOBUS-compatible, farmers benefit from all functionalities provided by ISOBUS terminals when working with a Vega.

## Task Controller compatibility

The LEMKEN MegaSpray control gives control via other ISOBUS-compatible SectionControl applications.

MegaSpray permits full field sprayer integration into a farm's documentati-

on and job management processes and is compatible with the leading task control systems, including CCI.Control.

MegaSpray provides data for exchange with field management systems. When using a GPS-compatible task controller, location-specific data is also collected, enabling location-specific job planning. Location data can similarly be used for part width section-specific treatment of areas.

Data is exchanged in ISO XML data format, either by USB stick or via mobile networks, if the terminal features a mobile module. This allows jobs to be easily imported into the task controller and/or completed documentation to be exported after job completion.

# SEH boom



## Boom functions

The SEH boom combines a range of important functionalities, including:

- Horizontal folding of the boom package for quick and safe folding at low height
- Maximum flexibility
- The SEH boom provides the ability to fold all segments individually, both on the left and right sides, up to 24 m working width, allowing the boom to be reduced independently on both sides.
- Hydraulic height adjustment with headlands management function and position indication at the terminal
- Hydraulic tilt adjustment with automatic centring and mirroring function
- Single-sided arm tilt control for adaptation to hilly terrain
- Optional control of hydraulic functions via load sensing or oil circulation

## Folding







## BoomCommand

MegaSpray can also be combined with the BoomCommand automatic boom height control developed by LEMKEN.

- The distance to target surfaces is determined via two ultrasound sensors on the right and left boom.
- The system is controlled via the lift mast and slope compensation.
- BoomCommand ensures even spray quality and minimises drift by reliably maintaining a consistent distance to the target surface.
- BoomCommand is integrated with the MegaSpray control to reduce driver strain.



## Boom guidance

The parasol boom suspension allows the boom to swivel freely and thus delivers a steady boom ride for precise transverse and longitudinal distribution.

- Damping elements between the boom arms reduce yawing.
- A double spring pack provides vertical boom damping with retracted lift mast cylinder.
- Cables and hoses are routed securely in an energy chain.
- The boom pendulum behaviour can be adjusted via a bolt in the parasol boom suspension.
- The boom height guidance is located inside the lift mast to ensure that the distance to the rear axle remains consistent; a small leverage effect reduces the transfer of vibrations to the boom.
- Boom lifting range between 0.4 m and 2.90 m (depending on carriage)

## Profile



The SEH boom of the Vega permits application widths of up to 24 metres. The large cross section and rectangular profile provide great boom stability and durability.

- The aluminium profile is light, dimensionally stable and resistant to corrosive crop protection products.

- Nozzles, pipes and electronics are routed and well protected inside the aluminum profiles. They are at the same time easy to access for adjustment and maintenance.

- The aluminium profiles provide sufficient space even for quintuple nozzle bodies.

# Technical data

Vega			
Model	3000	4000	5000
Nominal volume (l)	3,000	4,000	5,000
Clean water (l)	525	525	525
Empty weight (kg) with SEH24 boom	4,320	4,470	4,530
Boom widths (m)	15-24	15-24	15-24
Part width sections	13	13	13
Height* (m)	3.72	3.72	3.72
Length (m)	6.95	6.95	6.95
Width (m)	2.50	2.50	2.50

\* with 520/85R46 tyres

## Vega 12 standard equipment:

LEMKEN MegaSpray ready for operation with any ISOBUS terminal, 13 freely configurable part width sections; Premium SEH ISOBUS boom operation; piston diaphragm pump (delivery rate 2 x 200 l/min); 340/85 R 48 tyres for Vega 12/3000 and 12/4000, 380/90 R 46 tyres for Vega 12/5000; dual-line air pressure brake system; height-adjustable drawbar, upper attachment at the trailer coupling; height-adjustable drawbar eye, Ø 40 mm; 3" Kamlock suction connection; electronic control of selection and distribution valves via 4.6" colour display with scroll wheel control; TankPilot fill level indicator; automatic fill stop; main tank with baffle; 4 nozzles for internal tank cleaning; injector agitator with fill level-dependent deactivation; electrical agitator control; 550 l clean water tank integrated in mudguards; direct clean water tank fill level indicator; height-adjustable inductor with circulation nozzles, ProFlow, agitator nozzle and canister cleaning nozzle; cardan shaft; platform with handrail and folding ladder; storage compartment and utility compartment; stand





# Service decides



When you have bought a machine from LEMKEN, the well-known, almost proverbial LEMKEN service starts. 18 customer-oriented factory branches and outdoor storage areas in Germany as well as our own sales companies and importers in more than 40 countries, and a strong dealer network, ensure that machines and spare parts are supplied quickly.

If a part is not in stock, it can be delivered to the customer within 24 hours via the LEMKEN logistics centre which is manned round-the-clock 365 days a year.

## **Knowledge from the LEMKEN specialist**

Well trained customer service technicians are available to farmers, contrac-

tors and trade, who are using machinery for the first time, as well as for professional maintenance and repairs. Thanks to regular training courses, LEMKEN customer service is always up to date with the latest LEMKEN technology.

## Original spare parts from LEMKEN

LEMKEN wearing parts are designed for a maximum service life. High-quality materials, the latest production methods, and an intensive quality control ensure a long service life. Therefore, all original spare parts bear a unique identification with the registered LEMKEN trademark. Original spare parts can be ordered at any time online on the Internet via the LEMKEN information and ordering system.



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