



STRONG.



PRECISE.



INNOVATIVE.



PRESS KIT

AGRITECHNICA 2023



HERBERT DAMMANN GmbH

Technical innovation with precision - For people and the environment



As much as necessary and as little as possible - that is the motto of HERBERT DAMMANN GmbH, developed for man and the environment. HERBERT DAMMANN GmbH was founded on March 15, 1979 by Herbert Dammann as a mechanical engineering company. As a passionate farmer, Herbert Dammann was always interested in improving the existing agricultural technology and adapting it to his needs. This motivation formed the basis for HERBERT DAMMANN GmbH, which today is successful worldwide.

Nadine Dammann, the daughter of Herbert Dammann, is now managing the company in the second generation. Nadine Dammann, educated as industrial mechanic and mechanical engineer has design and development in her bones. Employing 145 people, the family business offers a steadily growing portfolio of products worldwide.

In the beginning, it was the idea to develop innovative and high-class plant protection equipment that is a step ahead of current technology. At the same time, it is precisely tailored to the individual needs of the customers.

Today, this idea and the visions have long since become reality and are part of the philosophy of the medium-sized family business. Since its foundation, HERBERT DAMMANN GmbH has been developing, producing and selling crop protection equipment for the agricultural sector. De-icing equipment for the municipal sector and for airports are also part of the portfolio.

An important year in the company's history was 2006: Due to the increasing demand and the ever-growing equipment, the new production facility

in the industrial park Buxtehude-Hedendorf was put into operation. All factory processes are combined in the 10,000 square metre facility. In 2014, the factory was expanded by another 3,000 sqm to better meet the demand of DAMMANN-tracs.

The trailed and mounted sprayers are adaptable and stable. All units can be combined in many ways. They offer maximum robustness, stability, reliability and long service life. The units guarantee exact distribution of the liquid and high area outputs are achieved. Long durability and high value retention are the hallmarks of DAMMANN products.



FACTS

- 145 employees
- 7 apprentices
- 13.000 sqm production hall
- Own test track
- Unimog service partner
- Represented in over 30 countries

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Row-specific nozzle positioning (RSD)

Precisely guided above the row



As little as possible, as much as necessary: With the „row-specific nozzle positioning RSD“ HERBERT DAMMANN GmbH offers its customers another innovation. As band spraying, this innovation offers an environmentally friendly and economical consumption of crop protection agents.

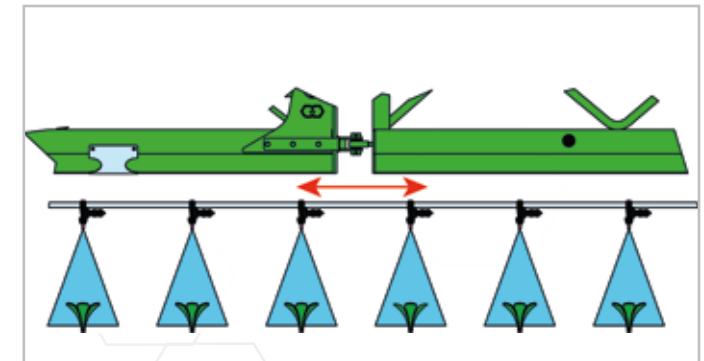
With row-specific nozzle positioning, the nozzle is guided precisely over the row by active control using a camera. The crop protection agent is only applied to part of the area. The amount of drift is automatically reduced due to the precise application, which complies with legal requirements.

The system is suitable for row crops, such as vegetables, sugar beet and maize. The nozzles are

simply positioned above the rows. For this positioning the movable boom uses cameras.

Advantage compared to GPS: The control of the individual nozzle line sections is camera-guided to the working widths and compensates variances with +/- 15 centimetres. This ensures precise distribution of the crop protection agents.

RSD is integrated in the ISOBUS and the user interface has been adapted to the special requirements. The camera-guided system enables band treatment in row crops with large working widths. This offers an ideal addition to mechanical weed control between the rows.



Flexible booms combined with cameras allows the nozzle line to be moved above the row



MACHINE DATA	
	Nozzles
	45 cm
	20 cm

MACHINE DATA	
Setpoint mode	
<input type="checkbox"/>	105 l/ha
<input checked="" type="checkbox"/>	236 l/ha
Volume Field	
	1600 l
	6.77 ha
	15.24 ha



Profi-Class Tridem - Trailed Sprayer

Higher output due to more tank capacity



The Profi-Class Tridem trailed sprayer, designed to generate even more output, sets new standards in terms of productivity and with a tank capacity of 20,000l realizes efficient work.

The Tridem sprayer impresses with six tires, three air-sprung axles, hydraulic drawbar suspension and a boom width of 36 to 48 meters. The first and third axles are steered via the mechanical-hydraulic forced steering system. In this way, the tridem ensures controlled curves and drives with optimum stability on the road.

In addition to the good driving characteristics, a unique drum volume of 20,000l, proven DAMMANN innovations are used here. For example, the RRW „rotating agitator and cleaning unit“. This, in combination with the uniform tank, ensures an absolutely homogeneous spray liquid even with the 20,000l version. At the same time, the RRW still ensures unique internal cleaning, which is all the more important with this size of tank.

The tridem saves working time and also machinery when used optimally. In times of shortage of manpower, this was an important aspect for

HERBERT DAMMANN GmbH to focus the further development on a truly „large“ treatment machine for crop management.



Tank capacity	20.000 l
Fresh water tank	500 l
Working widths	36 - 48 m
Pump capacity	500 l/min
Track widths	2,15 - 2,25 m
Speed	50 km/h





Green Smart-Spraying

The intelligent camera system for precise plant detection



Green Smart Spraying provides farmers with a complete solution for effective weed management. The system identifies reliably weeds and only applies herbicides where they are really needed. This reduces costs while maintaining high harvests, protects the soil and the environment.

DAMMANN's Green Smart Spraying is a camera system for plant identification. The plants are recorded directly by several cameras across the entire working width of the machine. The system makes it possible to treat individual weeds with pinpoint precision. For comfortable operation, the system is integrated into the machine's user interface.

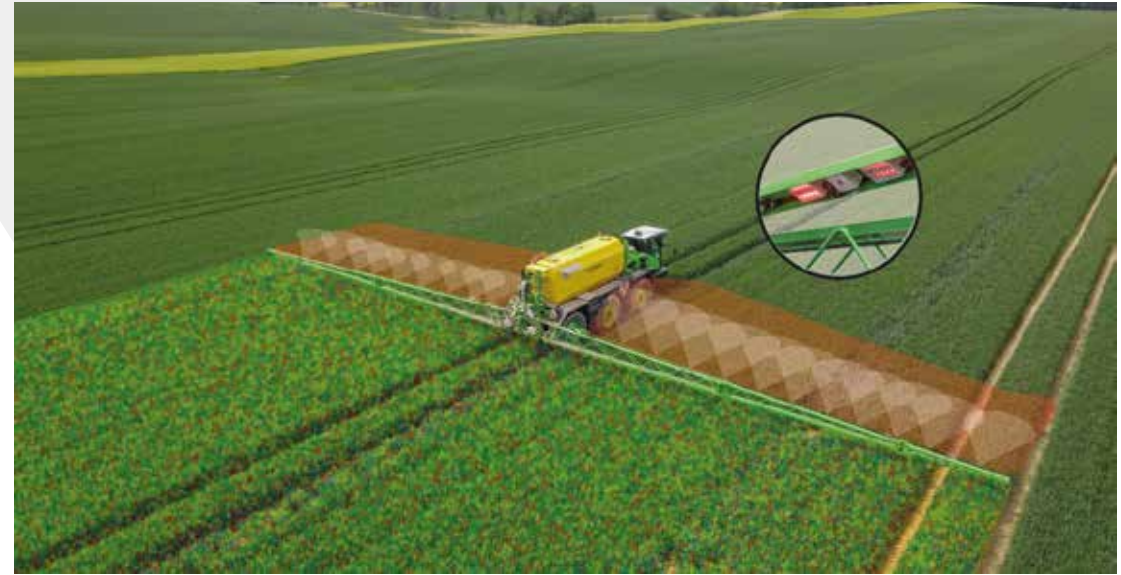
This technology was developed by ONE SMART SPRAY, the joint venture between Bosch and BASF, and is perfectly integrated into the DAMMANN-tracs.



The intelligent system is able to identify even very small weeds (6 mm x 6 mm) before and after sowing („green on brown“ as well as „green on green“), separate them from cultivated plants and decide on the ideal placement in real time. The system can be used no matter if day or night thanks to integrated light modules.

The camera units are fitted to the boom at a distance of one metre. Each camera unit detects two nozzles independently of the boom sections.

Each camera unit has two LEDs that illuminate the ground. These are mounted to the left and right of the camera at a distance of 250 mm. Various control units and a modem process, control and transmit the data.





NEXAT with modular integrated DAMMANN top-mounted sprayer

Winner from Innovation Award 2022



The DLG (German Agricultural Society) honoured the world's first interchangeable carrier vehicle with a price. For the first time, all work steps from soil cultivation to crop protection to harvesting can be carried out on fixed tracks. The vehicle was awarded the gold medal.

The company Kalverkamp Innovation GmbH carried out the product development of the vehicle for Nexat and HERBERT DAMMANN GmbH was entrusted with the development and production for the crop protection sprayer module. Working with the NEXAT achieves not only high soil and environmental protection, but also a significantly higher effectiveness, which can be used all over the year. The 14m track width version allows the user to

achieve an absolute minimisation of the tramlines in the field. Effectiveness, which can be used all year round.

With the sprayer module developed by HERBERT DAMMANN GmbH, it was possible to create and manufacture the largest known crop sprayer with a volume of 22,000 l, due to the dimensions of the carrier vehicle. The sprayer is equipped with the proven high-tech Profi-Class technology, designed by HERBERT DAMMANN GmbH.

The crop sprayer can be individually configured for each farm on request. This sprayer is equipped with HD-Night-LUX, automatic boom control and CCA. CCA (Curves-Control-Application) calculates

the different application rates in curves. Sensors determine the radius of the curve.

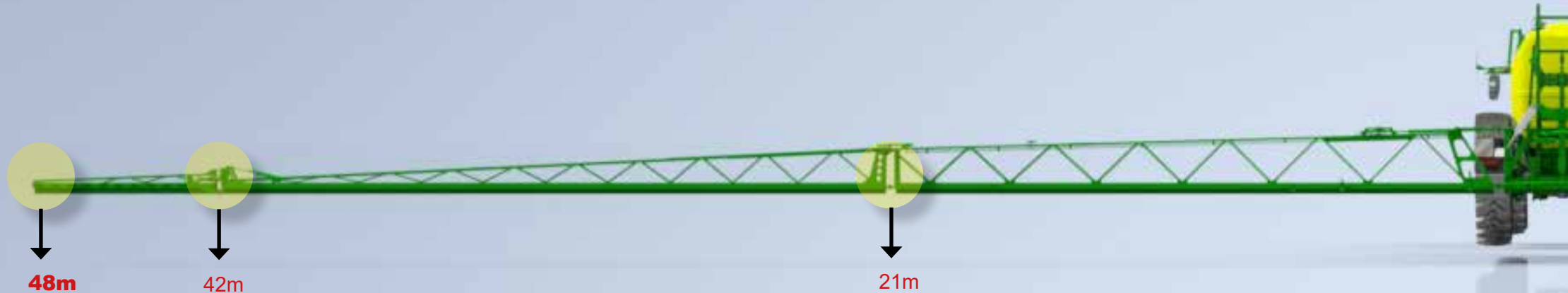
The working width can be selected from 20m - 70m. There is also a choice of different tank volumes from 18 - 22,000 litres, which enable an enormously high impact force.





DAMMANN 48 meter boom

DAMMANN complies with request for wider working width



The request for larger working widths is constantly growing. HERBERT DAMMANN GmbH has followed this demand and developed a spray boom with a working width of 48m.

This spray boom with hydraulic folding and special G-shape design is created for stability and protection of the nozzles. The 48m version has an additional boom section on both the left and right. With the folding points at 21m and 42m, the flexible boom can also be used in reduced working widths. A stable position of this boom is ensured despite cornering or acceleration.

With a working width of 48m, the fields are used effectively due to less tracks and the efficiency is increased accordingly. Like the other DAMMANN boom versions, the new 48 metre boom is characterised by the following features:

- Slope control as standard
- Stable pendulum suspension for smooth boom guidance
- Outer booms made of aluminum for weight reduction with collision protection
- Spring-loaded, horizontal and vertical damped boom suspension
- Stable lift mast with stepless height adjustment without weight shifting.

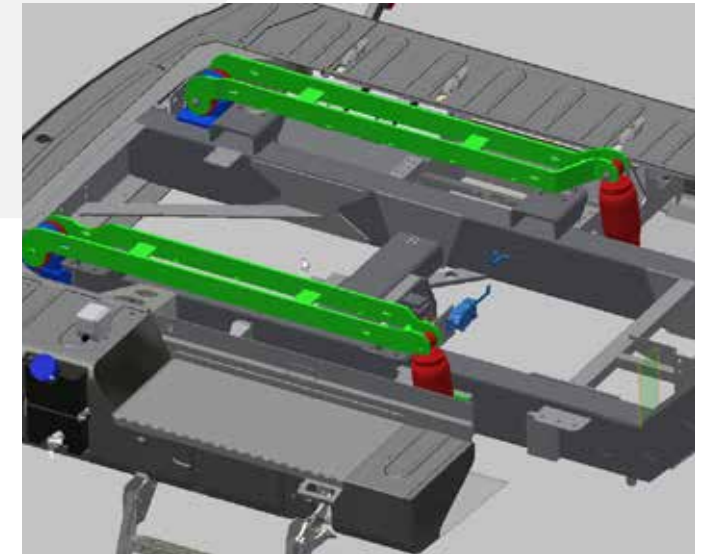
The 48 meter boom is available for the **Profi-Class Tandem**, **Profi Class Tridem** and for the **Dammann-trac DT 3500 H**





Air-suspension for DAMMANN cabin

Work healthier in the three-axle DAMMANN-trac with an air-suspension cab



HERBERT DAMMANN GmbH has developed an optional air-suspension driver's cab for its three-axle vehicle, which automatically adjusts to the number of persons and the interior load. In case of oscillations and vibrations, the cabin is decoupled from the vehicle, thus increasing driving comfort.

Anyone who spends a lot of time behind the wheel of an agricultural vehicle knows the problem: back pain. A published study by the Robert Koch Institute* states that 63.1 percent of adult respondents have suffered from it. To remedy this, HERBERT DAMMANN GmbH has taken action and developed a user-friendly, air-suspension driver's cab.

In addition to the vehicle's already fully suspended chassis, the back-friendly cab is mounted on four points of the chassis frame consisting of pneumatic spring dampers and rubber bearings. A valve balances the pressure in the suspension. The pressure changes and adapts ideally to the weight/number of people inside the cabin. In case of oscillations and vibrations, the cabin is released from the rest of the vehicle, thus increasing driving comfort.

In addition to the back-friendly driving comfort, there is also less noise for the user, which permits less stressful, less tiring and therefore healthier work.



*Prevalence of back and neck pain in Germany. Results of the Burden of Disease Study BURDEN 2020- Journal of Health Monitoring S3/2021, www.rki.de



Section-Rate-Control (SRC)

Section-Rate-Control allows percentage adjustment of the application rate during the crop protection measure

percentage adjustments...

...on the basis of the sections

SRC - Section-Rate-Control enables an adjustment of the application rate l/ha of the sprayer, by manually entering percentage adjustments based on the section. Until now, the application rate l/ha of the sprayer was set by the driver for the entire working width.

Only by using application cards or sensors could a different application rate be used on smaller working widths. The application maps were

created on the basis of variously collected basic data with a defined grid and then followed by the crop protection sprayer.

With the SRC, adjustments are possible in both positive and negative directions. The requirement is a suitable nozzle combination on a multi-nozzle carrier.

To simplify the input, sections can also be combined. The change made can be deactivated and reactivated by a simple switchover.



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