

Leeb GS



INTELLIGENT SPRAYING TECHNOLOGY FOR HIGH WORK RATES



Leeb GS

Where highest requirements are made on technology and material, the Leeb GS is in its element.

- High operational speed due to the active boom control system BoomControl
- Optimised centre of gravity and waisted frame design for large steering angles
- Complete circulation in stainless steel circulation tubes to the nozzle
- Pump capacity up to 1 000 l/min



The HORSCH Leeb GS is the specialist for all applications with high requirements on the application rate, tank mixtures, capacity as well as on manoeuvrability or cleaning. The powerful 1 000 l/min rotary pump ensures very high filling outputs. This saves time and increases efficiency in the field – especially with high application rates, e.g. for special crops, but also with large distances between farm and field. In combination with the pneumatic axle suspension combined with the load-dependent control, driving comfort and safety also play a major role.

Due to the standard stainless steel tank, the GS offers further advantages with regard to complex tank mixtures, aggressive liquids or high requirements on cleaning and cleanliness of the tank. Due to the stainless steel tank that is welded from inside and outside, you can achieve perfect cleaning for years. These requirements are specified by farms that cultivate special crops or by customers that frequently change the tank mixture. This is mainly the case with legume farms.

A lot of farms also appreciate the HORSCH Leeb GS due to its high tank capacity as well as the low centre of gravity and its excellent manoeuvrability. With a tank capacity of up to 8 000 l, larger farm-field distances or high application rates can be managed efficiently. To keep the centre of gravity low, the Leeb GS has a long frame to be able to make optimum use of the assembly space. In combination with the steering axle with pneumatic suspension, the result is a very manoeuvrable trailed sprayer. Other contributing features: the waisted frame and the steering angle of up to 28° to protect the crops and to avoid compaction even on the headlands. In short, the HORSCH Leeb GS is a crop care sprayer that meets highest requirements and at the same time shows its strength in special applications and conditions.



Compact folding of the 7-part boom



Smooth machine underbody, gentle to the population

CONDITIONS OF USE



- Stainless steel tank with a capacity of up to 8 000 l and continuous inside cleaning for minimum deposits and residues even after years. This is an advantage especially when agents are changed frequently and in case of difficult spraying mixture mixtures with a lot of components.
- The kingpin steering with a steering angle of up to 28° allows for minimum turning radii and optimum manoeuvrability in the population. Due to the automatic blocking and centring as of 16 km/h, road transport is very comfortable due to the spring-loaded axle rocker.

- Due to the active boom control system BoomControl combined with a 25 cm nozzle spacing, drift can be minimised effectively even in difficult terrain.
- Powerful 1 000 l/min rotary pump for high application rates, fast filling times and maximum performance in the field.
- Due to a wide range of equipment options, like Adapted Tyre Pressure Control, booms up to 45 m and a capacity of up to 8 000 l, every customer can always be provided with an optimum solution.



Theodor Leeb

With regard to the further development of the GS line, we combine the requirements of our customers on practice-oriented equipment lines with our well-proven stainless steel tank and the well-known powerful boom control system. Our developments are based on efficient crop care, reliability and efficiency.

Basic

Water system Basic

In the equipment line Basic, the HORSCH Leeb LT and the HORSCH Leeb GS are equipped with a drive shaft driven piston diaphragm pump with an output of 400 l/min (filling connection 3" from 5-way valve, 3" lines on the suction side) and Load Sensing connections. Suction and pressure

- Piston diaphragm pump with an output of 400 l/min with PTO-shaft drive
- 3" filling connections and 3" lines at the suction side
- Pressure sensor for monitoring the spraying pressure and pressure controller to adapt the flow
- Suction and pressure side can be operated manually
- Electronic level indicator at the mixture tank



Water system Basic

side are operated via manual multi-way valves. The spraying pressure is monitored with a pressure sensor and a pressure controller adapts the flow rate. The tank is equipped with an electronic level indicator.

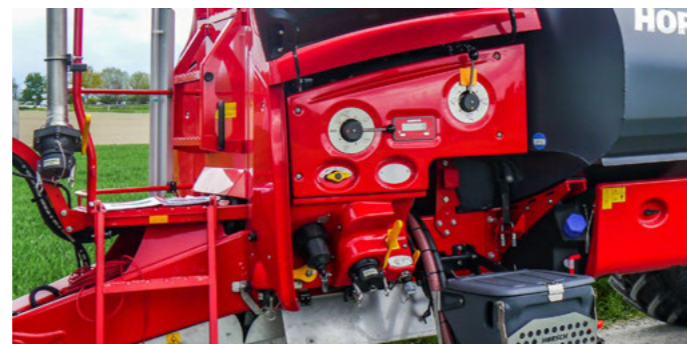
CCS

ContinuousCleaningSystem

The CCS water system guarantees a continuous inside cleaning of tank, lines and boom. The additional CCS piston diaphragm pump for cleaning pumps clean water into the spray lines, the spraying pump removes the residual mixture from nozzles and the spray lines instead of diluting it. This allows the system to be cleaned quickly, thoroughly and

- Safe and quick cleaning by displacing the mixture from the lines
- Quick cleaning process of the sprayer without having to get off
- Complete control of the cleaning process in the cabin
- Electronic level indicator at the mixture tank with automatic switch-off
- Quick and thorough cleaning with optimised water use

with an optimised water consumption – without having to get off the machine directly from the cabin – and the sprayer is completely cleaned when leaving the field. To fill the machine, a powerful rotary pump with Load Sensing is used with manual operation for the suction and pressure side.



ContinuousCleaningSystem

CCS Pro

ContinuousCleaningSystem Pro



ContinuousCleaningSystem Pro (CCS Pro)

In addition to the characteristics of the CCS system, for the CCS Pro version several cleaning programs can be started easily and comfortably at the push of a button in the cabin

1. Complete cleaning: rinses injector line – via the filter to the boom – completely with fresh water and then continues with the continuous inside cleaning (CCS) for mixture tank and boom.
2. Dilution: dilute the spraying mixture in the desired ratio with just a few simple steps
3. Intensive washing program: recommended for an extra thorough cleaning, e.g. when changing between crops.
4. Boom cleaning: automatic rinsing of the boom, e.g. if the work is interrupted for several hours
5. Background cleaning: intelligent, continuous inside cleaning that cleans the inside wall of the tank with fresh water while spraying. This prevents deposits on the tank wall.

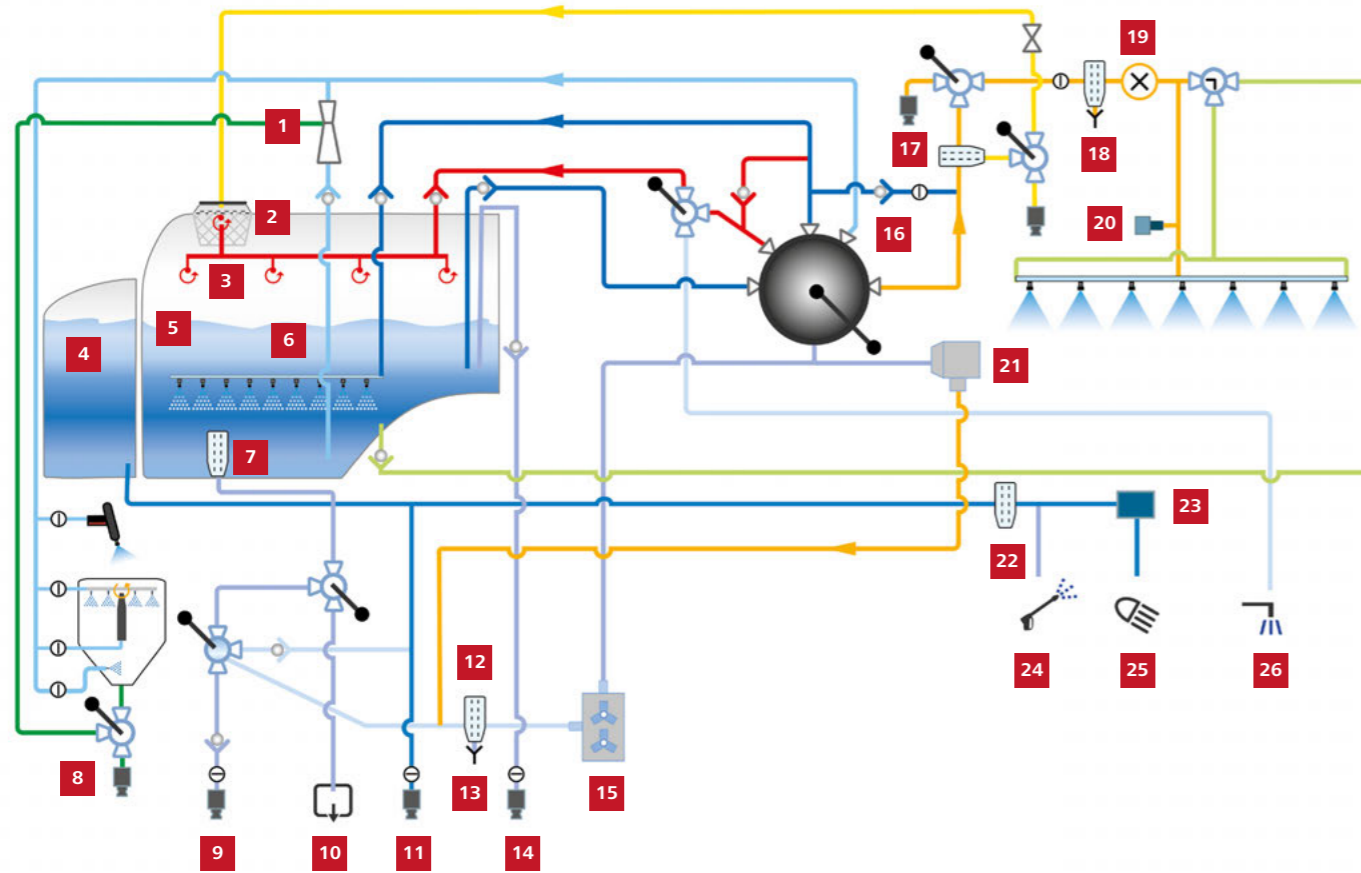
The pressure control in the system is carried out via the pump speed. The pump only conveys the amount of liquid that is required for spraying plus the defined quantity for the agitator and thus used especially energy-saving. Fresh water as well as mixture tank are equipped with an electric level indicator for automatic washing programs and an automatic switchoff.

- Continuous inside cleaning with several cleaning and rinsing programs, can be operated comfortably in the cabin
- Pressure sensors for pump, agitator, inside cleaning and boom, suction and pressure side electrically controlled
- Operation with a large external terminal with all important induction functions
- Quick cleaning process of the sprayer without having to get off
- Relaxed filling process due to the standard automatic two filling limits
- Automatic filling level dependent agitator performance and switch-off



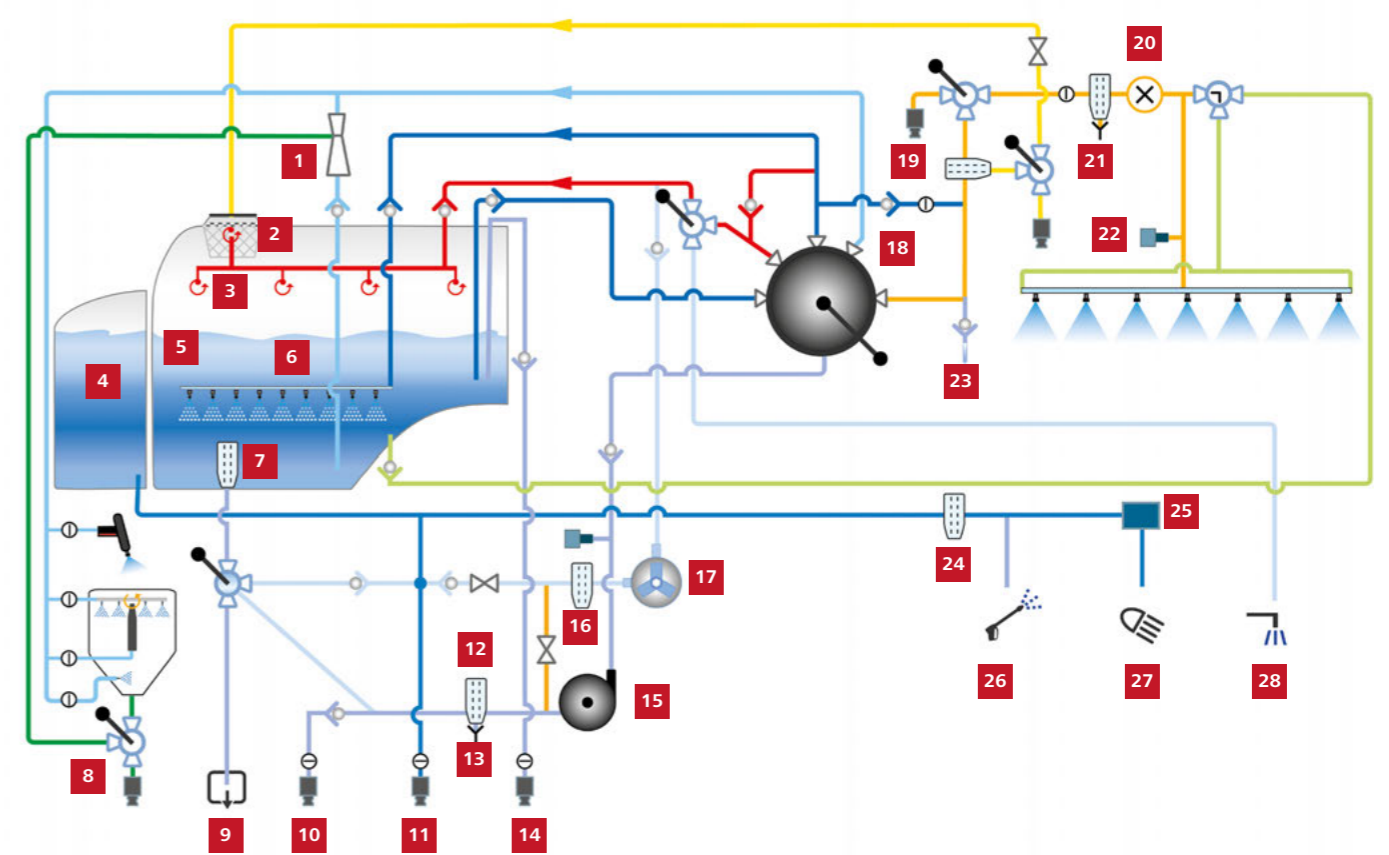
External control terminal CCS Pro

Water system – Basic – Leeb GS



- | | | |
|--------------------------------|--|-------------------------------------|
| 1 Injector | 11 Filling fresh water | 19 Flow meter |
| 2 Dome sieve | 12 Suction filter | 20 Pressure sensor |
| 3 Inside cleaning | 13 Discharge valve | 21 Pressure controller Basic |
| 4 Fresh water tank | 14 Direct filling | 22 Filter |
| 5 Spraying mixture tank | 15 Piston diaphragm pump
6 cylinders | 23 Electric pump |
| 6 Agitator | 16 Bypass agitator | 24 High-pressure cleaner |
| 7 Discharge filter | 17 1. pressure filter | 25 NightLight cleaning |
| 8 Filling sluice | 18 2. pressure filter with
discharge valve | 26 Outside cleaning |
| 9 Suction filling | | |
| 10 Residual discharge | | |

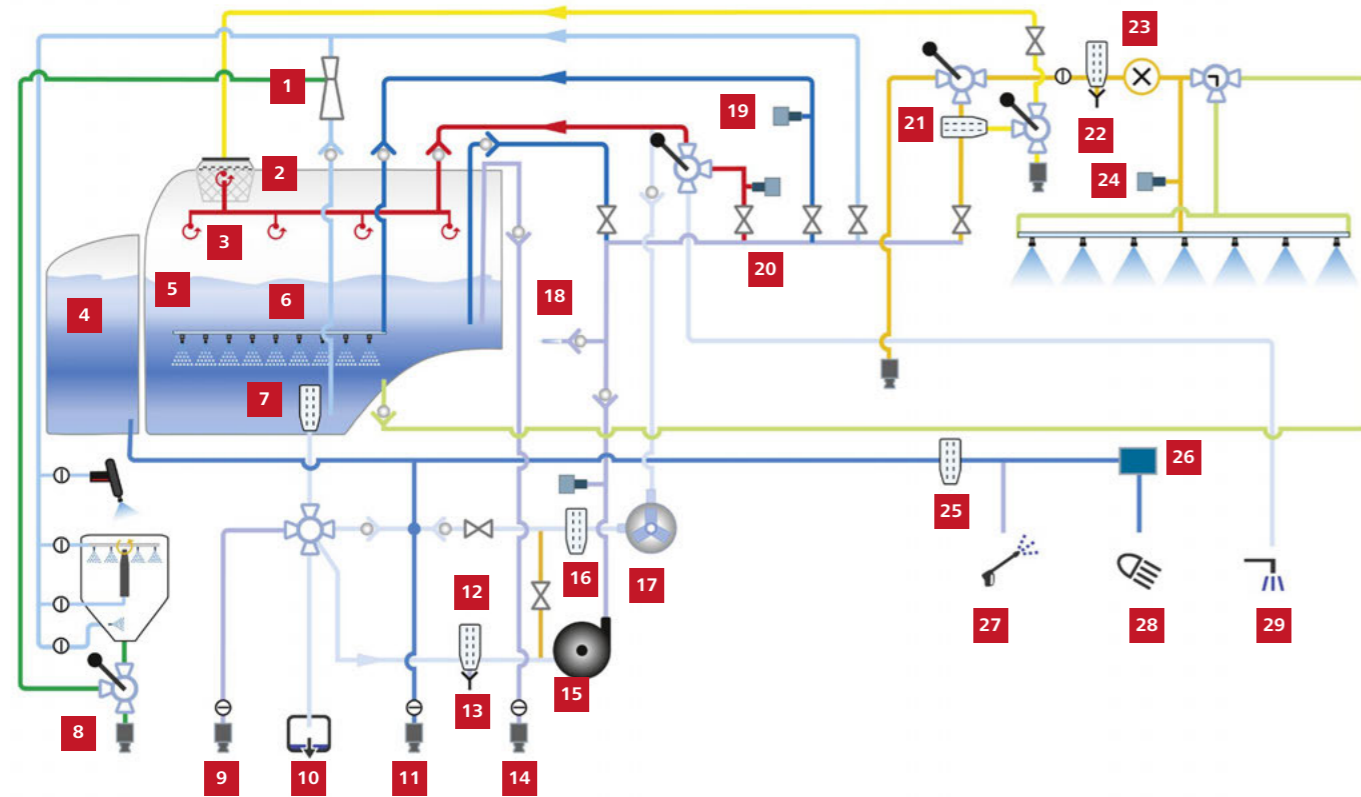
Water system – CCS – Leeb GS



- | | | |
|--------------------------------|---------------------------------|--|
| 1 Injector | 11 Filling fresh water | 21 2. pressure filter with
discharge valve |
| 2 Dome sieve | 12 Suction filter | 22 Pressure sensor |
| 3 Inside cleaning | 13 Discharge valve | 23 Exhaust function |
| 4 Fresh water tank | 14 Direct filling | 24 Filter |
| 5 Spraying mixture tank | 15 Rotary pump | 25 Electric pump |
| 6 Agitator | 16 Fresh water filter | 26 High-pressure cleaner |
| 7 Discharge filter | 17 Piston diaphragm pump | 27 NightLight cleaning |
| 8 Filling sluice | 18 Bypass agitator | 28 Outside cleaning |
| 9 Residual discharge | 19 1. pressure filter | |
| 10 Suction filling | 20 Flow meter | |

Distribution system and induction hopper

No hose is the best hose



- | | | |
|--------------------------------|---------------------------------|---|
| 1 Injector | 11 Filling fresh water | 21 1. pressure filter |
| 2 Dome sieve | 12 Suction filter | 22 2. pressure filter with discharge valve |
| 3 Inside cleaning | 13 Discharge valve | 23 Flow meter |
| 4 Fresh water tank | 14 Direct filling | 24 Pressure sensor |
| 5 Spraying mixture tank | 15 Rotary pump | 25 Filter |
| 6 Agitator | 16 Fresh water filter | 26 Electric pump |
| 7 Discharge filter | 17 Piston diaphragm pump | 27 High-pressure cleaner |
| 8 Filling sluice | 18 Exhaust function | 28 NightLight cleaning |
| 9 Suction filling | 19 Pressure sensors | 29 Outside cleaning |
| 10 Residual discharge | 20 Electric switch unit | |

The sophisticated distribution system ensures an optimum supply of boom, intensive agitator, inside tank cleaning and induction hopper. Only one hose and one return flow hose are required for the circulation of the spraying mixture across the entire boom width, thus minimising deposits and facilitating cleaning.

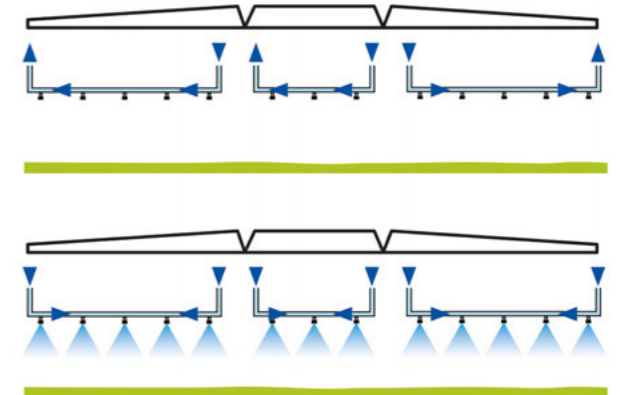
The swivelling induction hopper with a gas pressure absorber and a durable stainless steel labelling is equipped with an efficient injector filling. Upper and lower rinsing nozzles create a whirl-like circulation for quickly flushing-in liquids and are also suitable for granulate. Moreover, the induction hopper is equipped with an additional canister cleaning nozzle as well as a symbol bar with coloured control levers.

As an option, the stainless steel induction hopper pot is available with a capacity of 52 l and the additional shock nozzle.



ContinuousCleaningSystem Pro (CCS Pro)

- Permanent circulation of the active ingredient solution
- Large tube and line cross sections for optimum circulation, no deposits and blockages
- Permanent spraying fluid at the nozzle, exact switching on and off
- Powerful induction hopper with convincing functions
- Safe cleaning: displacement of the mixture with fresh water



When the pump is running, a mixture circulates continuously in the boom (top) so that it is immediately available at the nozzle when spraying (bottom).

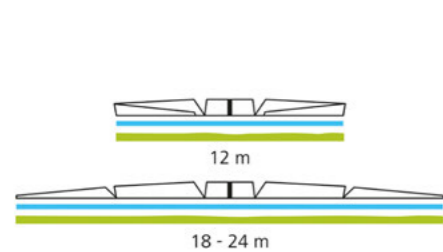
Boom options

Precise technology – sophisticated to the last detail

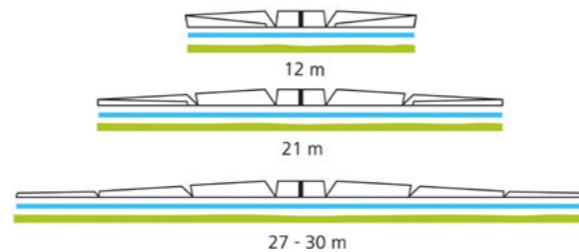
With regard to the boom, we rely on the well-proven system consisting of parallelogram suspension and the well-proven boom control system BoomControl that guarantees an extremely smooth boom position even in very uneven terrain and with high operational speeds. The patented suspension with active control of the middle section prevents immersion during cornering and on the headlands. Basic boom options are available in widths ranging from 18 to 45 m. Different folding options allow for an individual adaption of the working width. The sophisticated boom folding allows for an optimum and compact transport position: the boom does not come up to the tractor cabin. This prevents damage to the cabin roof and prevents spraying mixture from splashing on the rear area of the tractor.



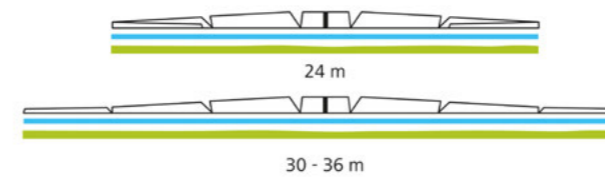
- Parallelogram suspension with BoomControl for smooth boom operation in all situations
- Basic boom options in working widths ranging from 18 to 45 m
- Transport width 2.55 m, transport height 3.40 to 3.55 m (depending on tyres and track)



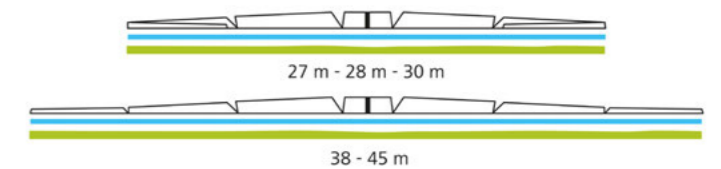
BoomControl – 5-part with reduced working width 12 m



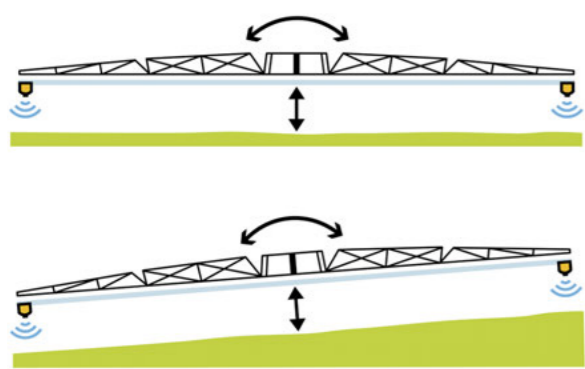
BoomControl – 7-part with reduced working width 12 m and 21 m



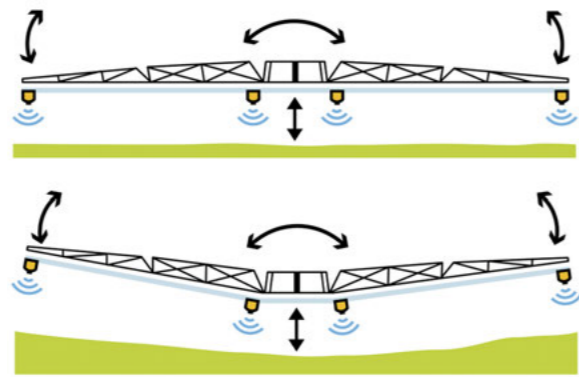
BoomControl – 7-part with reduced working width 24 m



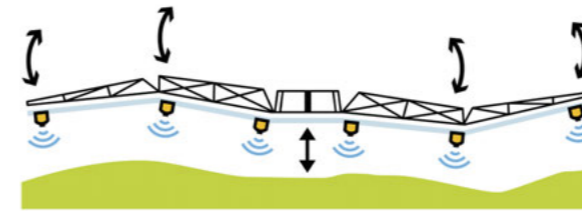
BoomControl – 7-part with reduced working width 27, 28 and 30 m



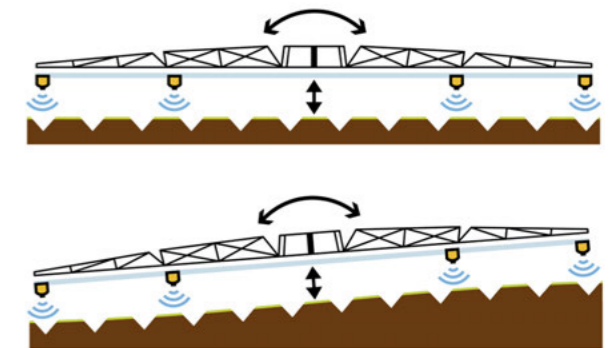
BoomControl – active adaption of the boom to the terrain due to two sensors



BoomControl Pro – active adaption of the boom to the terrain by means of four sensors



BoomControl Pro Plus



BoomControl/BoomControl Pro extension – extension of the field of vision is ideal for ridge and row crops

BoomControl

Active boom control system
BoomControl

- The precise, lowest possible working height is maintained due to automatic boom control system
- Boom control system with a target height below 40 cm ensures minimum drift
- Active adaption of the boom to the terrain due to two sensors

BoomControl Pro

Active boom control system
BoomControl Pro

- Independent angling of the boom section and the middle section to follow the terrain
- Active adaption of the boom to the terrain due to 4 sensors
- The precise, lowest possible working height is maintained due to automatic boom control system
- Boom control system with a target height below 40 cm ensures minimum drift
- Boom is completely independent from the machine

BoomControl Pro Plus

Active boom control system
BoomControl Pro Plus

- Independent angling of the boom section and the middle section to follow the terrain
- Angling (lifting and lowering) of both outside wings
- Due to six sensors, the boom actively follows the terrain
- The precise, lowest possible working height is maintained due to automatic boom control system
- Boom control system with a target height below 40 cm ensures minimum drift

Extension

BoomControl/BoomControl Pro

- Due to 2 additional sensors, the boom actively follows the terrain
- To increase the field of vision
- Ideal for ridge and row crops or for reduced working widths

PRECISIONSPRAY

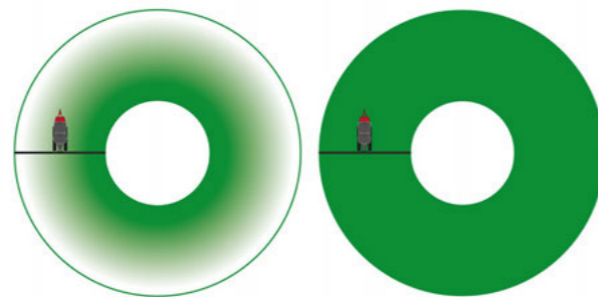
Pulse width modulation – state-of-the-art application technology



PrecisionSpray is a pulse nozzle system that triggers the nozzles with a frequency of 20 Hertz. The application rate can thus be adjusted infinitely via the duty cycle – with constant pressure and drop size with variable speed and while maintaining the spraying characteristics. This allows for using larger nozzles which are more resistant to cloggings and the number of necessary nozzle sizes is minimised. The nozzles are switched on and off for an optimum longitudinal

and transverse distribution. The system is completely integrated in ISOBUS and the HORSCH sprayer software: due to curve compensation and the use of application maps, overmetering and undermetering can be avoided actively. Active resistance management and even crop population with reduced mixture use make the sprayer the optimum tool Precision Farming.

- Infinitely variable adaption of the volume flow with constant pressure and drop size
- Constant drop spectrum when using one nozzle
- Lower number of different nozzle sizes required
- Adaption of the application rate without changing the spraying characteristics
- Curve compensation and VariableRate per section
- Large nozzle bodies that are less prone to cloggings



Avoid over and under applying due to curve compensation

Pneumatic nozzle and section control

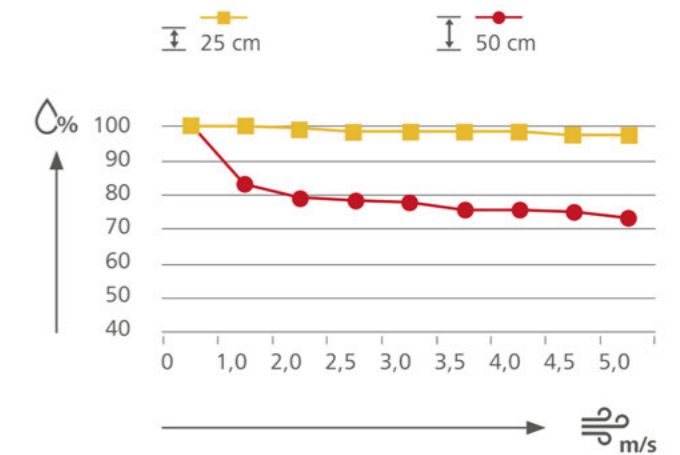
Performance due to diversity

Due to the pneumatic nozzle control and the pneumatic section control, it is possible to precisely switch off nozzles and sections with compressed air. Nozzle spacings of 25 cm and 50 cm are available.

Individual and intelligent application technologies allow for an optimum penetration and wetting of the population. Variable nozzle body combinations (pneumatically switchable) can also be used. All nozzles are controlled individually and are pneumatically combined in sections. This also

facilitates maintenance and the easy detection and repair of errors and blockings at the nozzles. As standard, all nozzle body configurations are equipped with nozzle holders for edge nozzles. Comprehensive tests in our wind tunnel show considerable advantages with regard to the drift behaviour depending on the target height.

- Individually controlled nozzles, combined pneumatically in sections
- 6 to 42 possible sections (standard sections or individual configuration options)
- Excellent penetration and wetting of the population
- Optimum target area spacing with a nozzle spacing of 25 cm
- Allows for individual and intelligent application technologies



Drift comparison: wetting (in %) depending on the wind force (m/s) at a target area spacing of 25 and 50 cm



Band spraying is also no problem for a 25 cm spacing



25 cm nozzle layout: more nozzles more possibilities e.g. 3D application



Pneumatic nozzle and section control e.g. 3D application

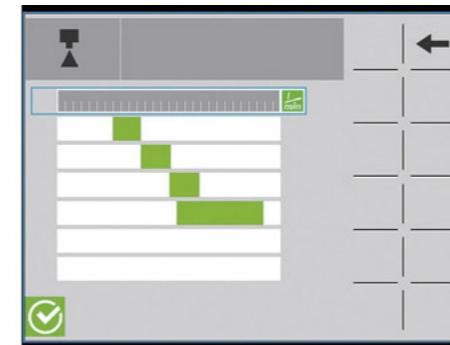
AutoSelect

Various combination options with up to 16 different nozzle profiles can be saved – each profile can be switched on or off in the cabin. If the work is not interrupted, the optimum pressure range can be adjusted in the terminal and the corresponding nozzle size are controlled automatically continuously. Automatic adaption of the boom height depending on the chosen nozzle profiles and automatic switching between the nozzle levels. The nozzle spacings stored in the nozzle profiles serve as a basis. With more nozzles the farmer has more options to choose from.

Fully automatic AutoSelect control: controls the nozzle size or combination while at the same time adapting the application rate and the operational speed. High comfort and safety for an optimum management of the distance along waters and structures.



AutoSelect menu in the terminal

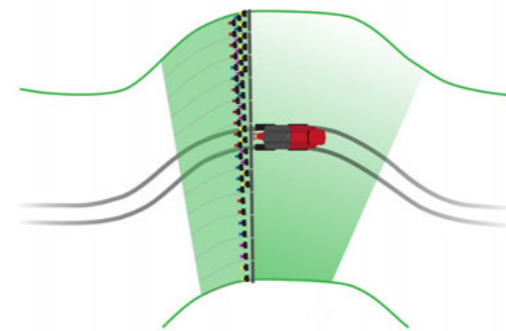


AutoSelect nozzle overlap

- Control of the nozzle size in combination with the application rate means the operational speed is adapted
- Possibility to adjust the target height in addition to the pressure range to keep up the distance required
- Optimum distance stipulation control along waters and structures
- Automatic adaption of the boom height depending on the defined nozzle profiles
- Can be switched on or off comfortably in the cabin

AutoSelect Pro

AutoSelect Pro takes the HORSCH nozzle control system to the next level. Due to the separate activation of the curve compensation, it is possible to combine profiles and thus increase the application rate on the outside of the curves in a targeted way when cornering. At the same time, the application rate is reduced by switching to a smaller nozzle size on the inside of the curve.



AutoSelect Pro: curve compensation

- All functions of AutoSelect
- Additional: activation for curve compensation for the pneumatic nozzle control
- Rate adjustment when cornering due to combination of the profiles
- Reduction of over and under applying.

NightLight

Optimal spraying control at night



Innovative and powerful LED lights ensure an optimum illumination with their heavily focused light which penetrates all spraying cones. Thus, the lighting system guarantees more safety and efficiency while spraying around the clock. A strong LED spotlight is installed per boom side to ensure optimum spraying control at twilight and at night as well as an overview of the nozzle function – also in section mode. The automatic light function deactivates the headlights on the headlands to prevent that for example passers-by are blinded.

Optionally, NightLight can be combined with an automatic washing system that automatically cleans the lights and prevents dust from settling on the lights. Moreover, LED light strip at the induction centre as well as a LED apron lighting are available.

- Innovative LED technology ensures optimum illumination
- Highly focused light penetrates all spraying cones
- Optimum spraying control at twilight and at night
- 100 % control of the nozzle function – also for section control
- More safety and efficiency while spraying around the clock
- Optional: NightLight with cleaning
- Optional: light bars at the induction centre and boom apron lighting



NightLight incl. cleaning



NightLight nozzle cone lighting

Steered axle

Kingpin steering – less track damage



The kingpin steering on the axle guarantees a smooth boom position and a high stability at the same time. It ensures an exact following of the sprayer in the tractor tracks and thus reduces track damages considerably. Due to the tapered frame design, very large steering angles (up to 28°) are possible despite the soil-saving tyres with a 2.05 m diameter that make the sprayer very manoeuvrable and track-stable even in uneven terrain. While steering is automatically locked in road mode or is deactivated at speeds above 16 km/h, it can be overridden manually with the joystick in the cabin while reversing or working in the field. When driving in one direction, steering is automatically centred again. The design with the gyroscope on the axle that does not require any sensor – and thus no calibration – is unique and a benchmark in the trailed sprayer sector.

- Kingpin steering for an exact following of the tractor tracks prevents track damages in the crop
- Maximum manoeuvrability and stability in uneven terrain, steering angle up to 28°
- Can be overridden with the joystick in the cabin
- Gyroscope directly on the axle: no calibration required



Steering axle with a steering angle of up to 28° even with large tyres



Maximum crop protection and exact following in the tracks

Adapted Tyre Pressure Control

Fully software integrated, automatic regulation of the internal tyre pressure



ATP Control – smooth running with a tyre pressure of 2.3 bar



ATP Control – increased contact area at 1.0 bar tyre pressure

On time plant protection in optimum weather conditions sometimes takes place in unfavourable soil conditions. To achieve top performance with large tank capacities and working widths while at the same time protecting the top-soil and avoiding compaction, the automatic tyre pressure adjustment Adapted Tyre Pressure Control (ATP) provides a fully integrated automatic control of the internal tyre

pressure in the ISOBUS software of the sprayer. Depending on the level of the mixture tank, the optimum pressure of the tyre is always generated for road transport or in field mode to avoid having to compromise between stability and soil protection. The possibilities of state-of-the-art tyre technologies are used in an optimum way.

- Automatic regulation of the internal tyre pressure
- Completely integrated in the ISOBUS software of the sprayer
- No compromises between tank capacity, working width and soil protection
- Always optimum contact area of the tyre in the field and on the road



Efficient on the road and gentle in the field with ATP Control

INTELLIGENCE

eosT10 (Pro)

With the new terminal generation eosT10 you can experience machine control at top level. Due to the high resolution and the sophisticated user guide, even complex machine functions can be operated comfortably. The high efficiency and the large (working) memory allow for a smooth handling of large data quantities or application maps. The terminal, thus, is the perfect all-rounder for the operation of the machine

- High-resolution 10" terminal for controlling all ISOBUS devices according to ISO 11783
- Reliable and powerful: a high-performance hardware combined with an intuitive, user-friendly operation in daytime or night mode
- Straightforward transfer of application maps with the wireless Task Data Exchange
- Various layout options allow for a simultaneous display of several applications – for an optimum overview
- eosT10 and eosT10 Pro – one hardware, completed by two licence kits. Precision is always standard for us.



By displaying up to 3 widgets in addition to the main working screen, the user can keep track of several applications at the same time

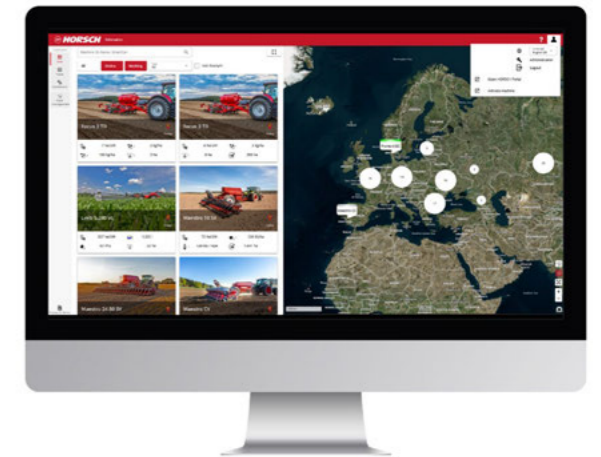


Due to the flexible holder, the eosT10 can be perfectly integrated in every cabin

HorschConnect

Prepare today for tomorrow. Control different machine functions quite easily via the MobileControl app – your smartphone replaces the terminal! In addition, gain complete, transparent insight in all aspects of work performance and working quality with HorschConnect Telematics.

- Digital solutions exactly where they make sense
- Straightforward out-of-the-box solution with integrated SIM card, WLAN modem and other interfaces
- HorschConnect Telematics: automated documentation of application rate, nozzle profile, nozzle status, pressure and target area spacing
- Control of machine functions via the smartphone app MobileControl
- Control of machine functions via smartphone app MobileControl: e.g. nozzle test for individual sections



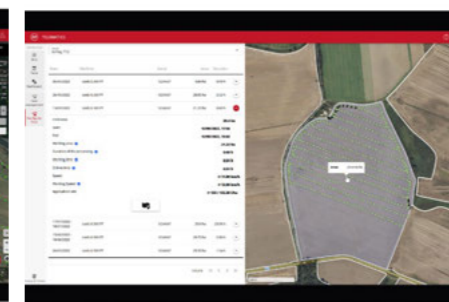
With HorschConnect telemetry solutions can be found in the sowing and plant protection sector – exactly where they make sense



The MobileControl app allows for controlling individual machine functions – completely comfortably from the smartphone



Success factor transparency: position-specific data of all relevant information like error messages, application rate, nozzle status or target area spacing



With the field boundaries import all data can be analysed over the season – even in a site-specific way



HorschConnect

ADDITIONAL EQUIPMENT



52 l stainless steel induction hopper incl. additional shock nozzle



Easy cleaning, residue-free inside walls with baffles



Tyres with Ø 2.07 m for maximum clearance and contact area



Optional: container rack below the right fairing flap



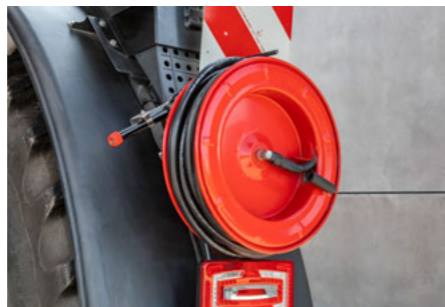
Connect & Fold system – for commercial droplegs



Systems for under leaf spraying, e.g. droplegs



MotionControl to smooth the horizontal movements in the boom wings



Hose drum for outside cleaning



Hydraulically driven high-pressure cleaner

TECHNICAL DATA

Leeb GS	6 GS	7 GS	8 GS
Empty weight (kg)	4950 - 7200	4950 - 7200	4950 - 7200
Vertical load empty (kg)	700 - 1200	700 - 1200	700 - 1200
Max. permissible vertical load (kg)	4000	4000	4000
Axle load empty (kg)	4250 - 6000	4250 - 6000	4250 - 6000
Max. permissible axle load (kg)	10000	10000	10000
Total length max. (transport position / m)	8.30	8.30	8.30
Transport width (transport position / m)	2.55 - 3.00	2.55 - 3.00	2.55 - 3.00
Transport height (m)	3.40 - 3.60	3.40 - 3.60	3.40 - 3.60
Track widths (m)	1.80 / 2.00 / 2.10 / 2.25	2.00 / 2.10 / 2.25	2.00 / 2.10 / 2.25
Clearance (m)	0.85	0.85	0.85
Mixture tank nominal volume (l)	6000	7000	8000
Mixture tank actual capacity (l)	6400	7400	8400
Fresh water tank (l)	500	500	500
Hand wash tank (l)	15	15	15
Working widths (m)	18 - 45	18 - 45	18 - 45
Sections min./max. (PCE)	6 - 42	6 - 42	6 - 42
Working height (m)	0.3 - 2.5	0.3 - 2.5	0.3 - 2.5
Pump output CCS and CCS Pro (l/min)	1000	1000	1000
Pump output Basic (l/min)	400	400	400
Max. (Bar)	8	8	8
Operational speed (km/h)	4 - 20	4 - 20	4 - 20





Your distributor

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Paper: 120g/qm Maxi Offset. The paper is certified according to the EU Ecolabel. This label is only granted for products and services whose environmental consequences are considerably lower than those of comparable products. For more details see www.eu-ecolabel.de. Printing ink: Printing ink QUICKFAST COFREE. Free from mineral oil and cobalt. Moreover, it is certified and recommended for printing according to the „Cradle-to-Cradle“ principle (quasi “from the origin back to the origin) – an approach that deals with the spreading of continuous and consequent recycling management. For more details see www.c2c-ev.de.

All specifications and diagrams are approximate and not binding. Technical features and design are subject to change.

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