

Leeb LT



INTELLIGENT SPRAYING TECHNOLOGY



Leeb LT

Engineering for professionals with perfect application accuracy and high ease of use

- Less drift and high operational speeds due to active boom control system and low target area spacing
- High operational speeds due to hydropneumatic boom damping and reduction of the target height down to 30 cm.
- Complete circulation in stainless steel circulation tubes to the nozzle
- High continuous clearance of up to 85 cm and a maximum steering angle of 28°



Depending on the requirements and applications the HORSCH Leeb LT is to cover, it can be adapted very individually. Due to the three different tank capacities of 4 000 l, 5 000 l or 6 000 l, the Leeb LT provides sufficient capacity for large fields or high application rates. Due to the very deep tank and as it is tapered towards the top, the centre of gravity is transferred far towards the bottom and there still is a clearance of up to 85 cm. This is mainly due to the innovative way of the production of the tank. The tank is rotated in one piece and there are no seams or joints in the tank - the inside of the tank completely smooth. The smooth inside walls of the tank considerably help the cleaning as the cleaning fluid drains off in an optimum way. Due to the continuous inside cleaning system, only a push of the button is required. Depending on the equipment, the farmer can even choose between several washing programs. Individual components, such as the boom or the filters, can be cleaned separately. This makes sense especially in the evening or when the spraying process is interrupted.

The farmer also has a lot of options to choose from with regard to track width and tyres. With regard to the track widths, he can choose between 1.80 m and 2.25 m, whereas special track widths are possible for special requirements. To protect the soil, the tyre also plays a very important role. The larger the diameter of the tyre, the larger the contact area. This actively prevents excessive compaction. In combination with the IF and VF tyres, the air pressure can even be lowered. We particularly benefit from this advantage for plant protection sprayers with the automatic tyre pressure control system ATP Control (Adapted Tyre Pressure Control). Together with the steering angle of max. 28°, the LT is not only a very flexible crop care sprayer, but also very sophisticated in every detail.



High clearance and smooth underbody



Maximum crop protection and exact following in the tracks

CONDITIONS OF USE



- The steering angle of up to 28° ensures a small turning radius and optimum manoeuvrability. The automatic locking and centring of the steering axle as of 16 km/h guarantees a safe and comfortable road transport - not least due to the spring-loaded axle arm with level compensation.
- The continuous inside cleaning system guarantees a reliable cleaning when changing chemicals.
- Due to the nozzle layout of 25 cm combined with the active boom control system BoomControl, drift can be prevented and the application quality is increased.

- High filling rates due to a low-wear 600 l/min rotary pump with variable drive for an optimum control of the application rate.
- Due to numerous equipment options like Adapted Tyre Pressure Control, booms up to a working width of 45 m and tank capacities of up to 6 000 l, the Leeb LT can be adapted to almost all customer requirements.



Theodor Leeb

With regard to the development of our Leeb LT, the focus is on utmost precision combined with optimum 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.

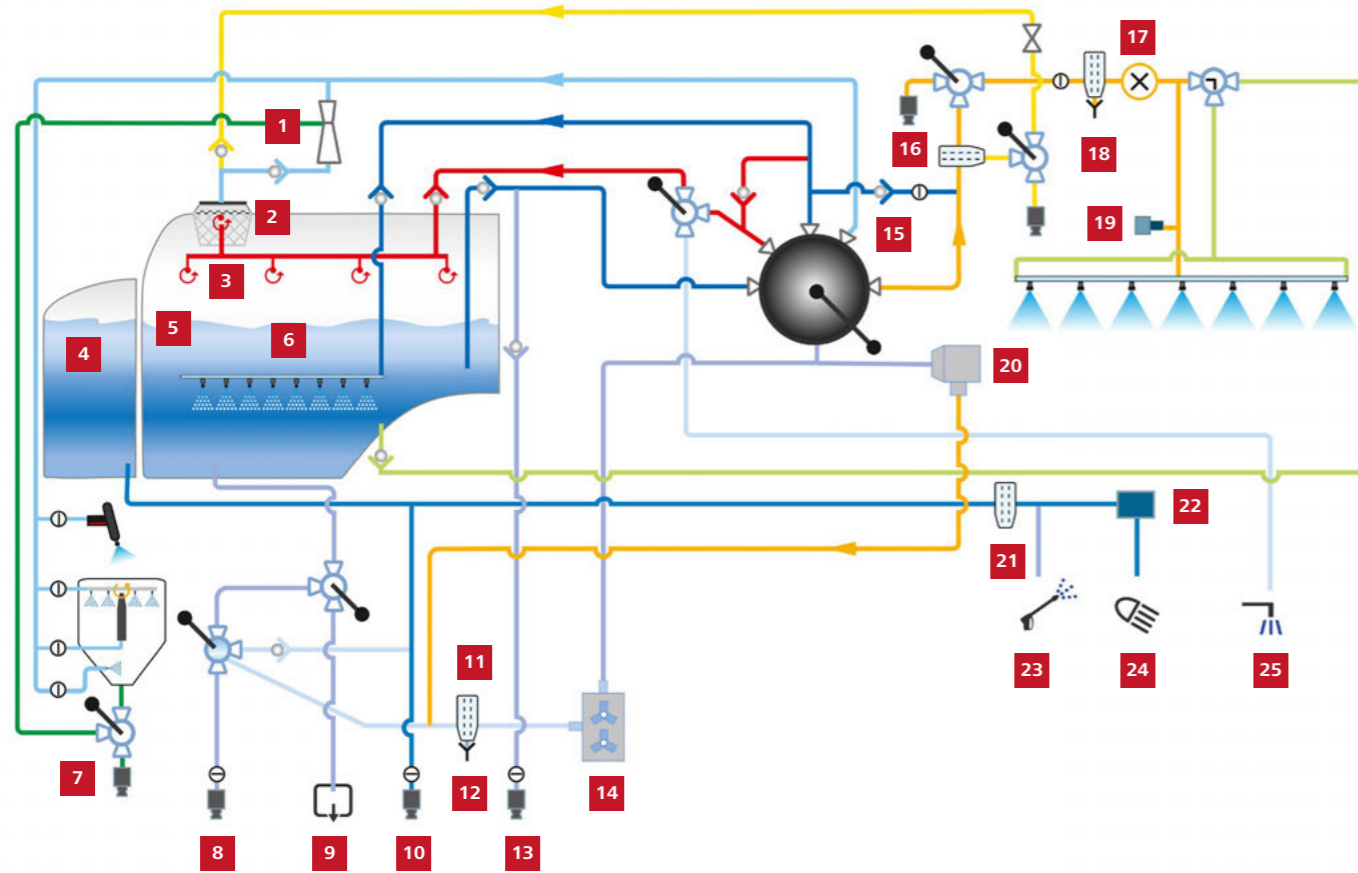
The pressure control in the system is carried out via the pump speed. The pump only conveys the amount of liquid that is required for spraying plus the defined quantity for the agitator and thus used especially energy-saving. Fresh water as well as mixture tank are equipped with an electric level indicator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



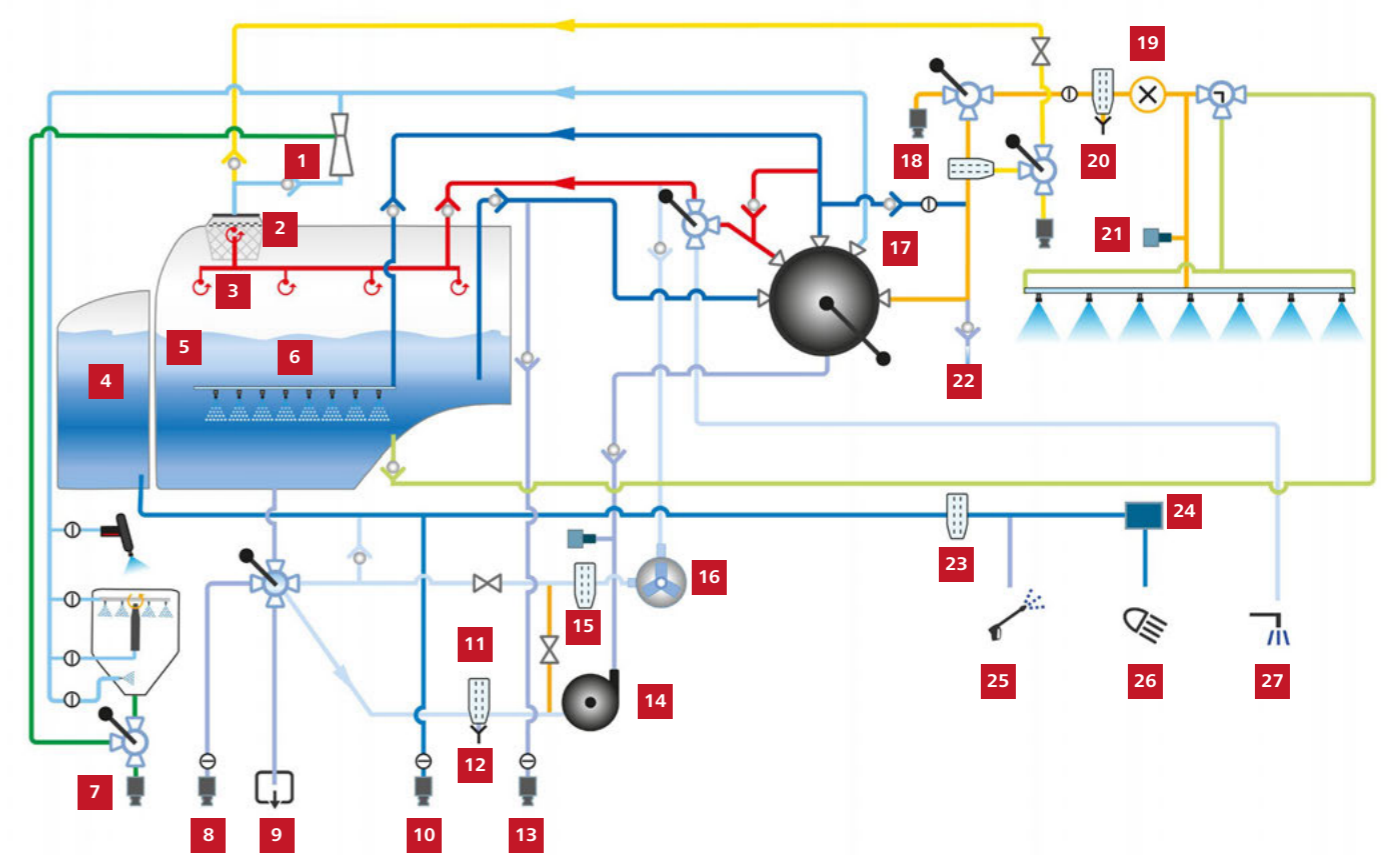
External control terminal CCS Pro

Water system – Basic – Leeb LT

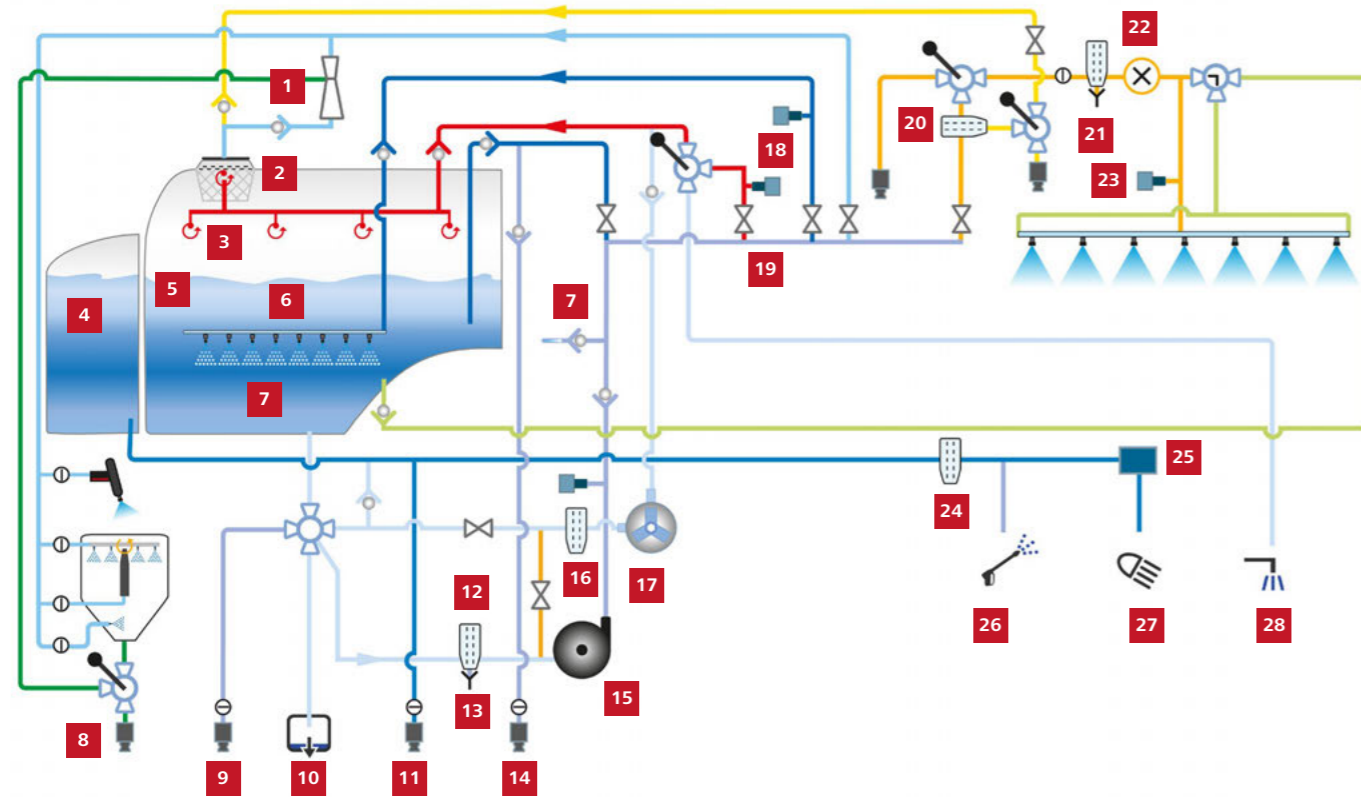


- | | | |
|--------------------------------|--|-------------------------------------|
| 1 Injector | 11 Suction filter | 19 Pressure sensor |
| 2 Dome sieve | 12 Discharge valve | 20 Pressure controller Basic |
| 3 Inside cleaning | 13 Direct filling | 21 Filter |
| 4 Fresh water tank | 14 Piston diaphragm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

Water system – CCS – Leeb LT



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



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

Distribution system and induction hopper

No hose is the best hose

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.

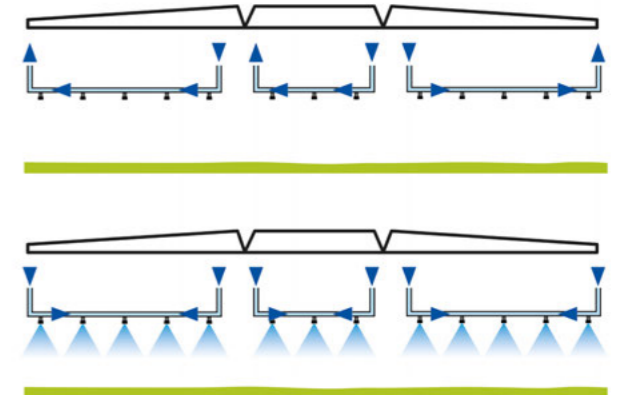
The swivelling induction hopper with a gas pressure absorber and a durable stainless steel labelling is equipped with an efficient injector filling. Upper and lower rinsing nozzles create a whirl-like circulation for quickly flushing-in liquids and are also suitable for granulate. Moreover, the induction 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.



52 l stainless steel induction hopper incl. additional shock nozzle

- 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).

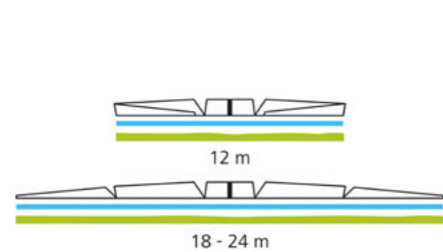
Boom options

Precise technology – sophisticated to the last detail

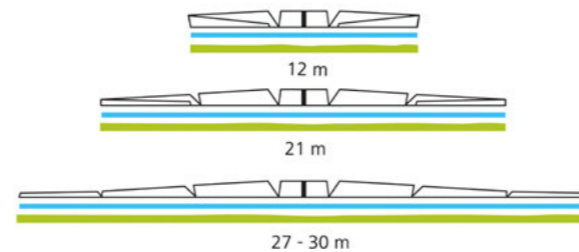
With regard to the boom, we rely on the well-proven system consisting of parallelogram suspension and the well-proven boom control system BoomControl that guarantees an extremely smooth boom position even in very uneven terrain and with high operational speeds. The patented suspension with active control 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 adaptation 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.



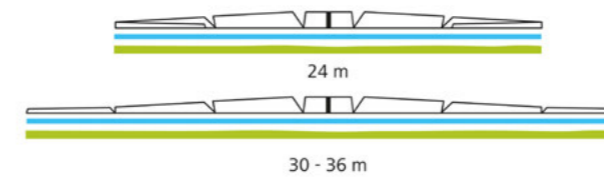
- Parallelogram suspension with BoomControl for smooth boom operation in all situations
- Basic boom options in working widths ranging from 18 to 45 m
- Transport width 2.55 m, transport height 3.40 to 3.55 m (depending on tyres and track)



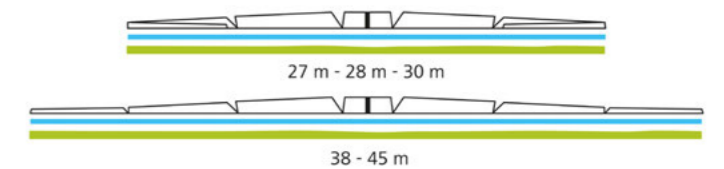
BoomControl – 5-part with reduced working width 12 m



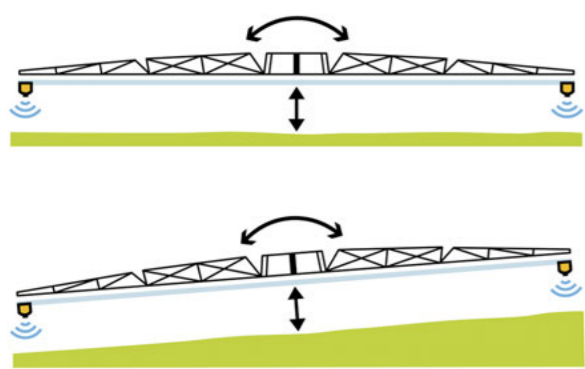
BoomControl – 7-part with reduced working width 12 m and 21 m



BoomControl – 7-part with reduced working width 24 m



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

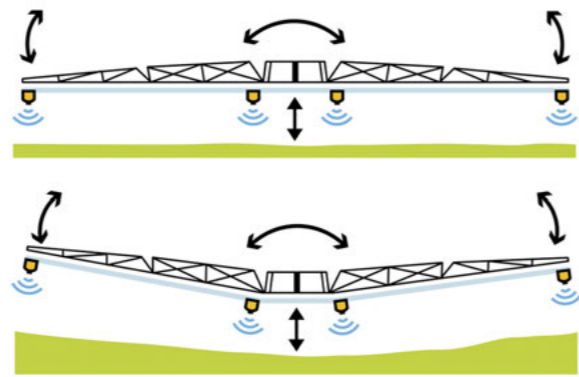


BoomControl – active adaption of the boom to the terrain due to two sensors

BoomControl

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

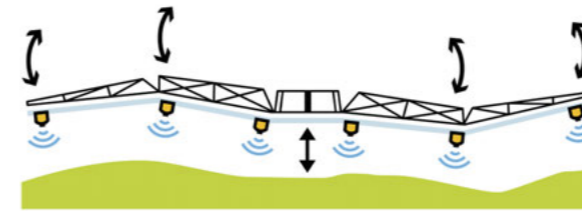


BoomControl Pro – active adaption of the boom to the terrain by means of four sensors

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

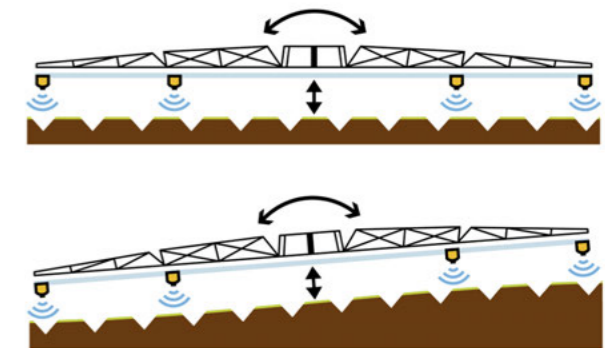


BoomControl Pro Plus

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



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

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

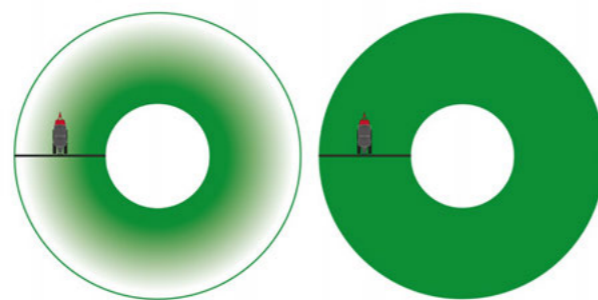
Pulse width modulation – state-of-the-art application technology



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

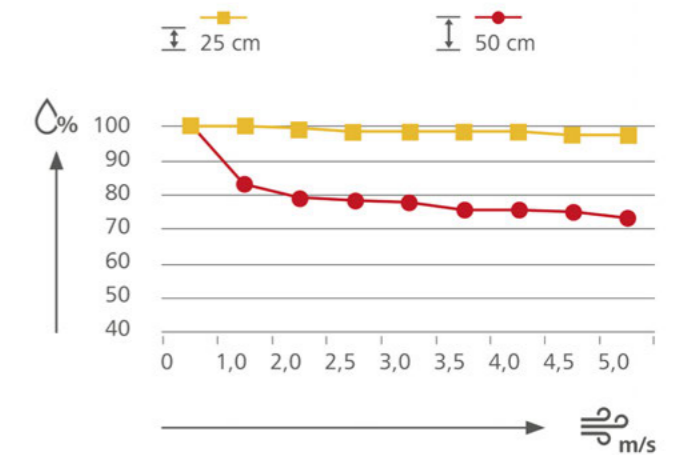
Performance due to diversity

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

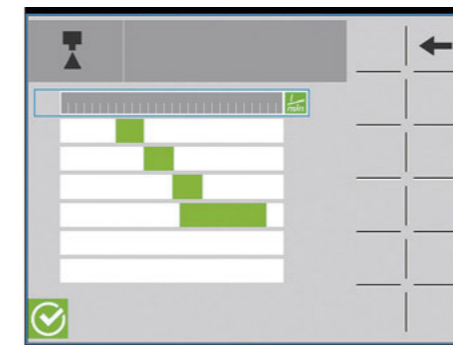
AutoSelect

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

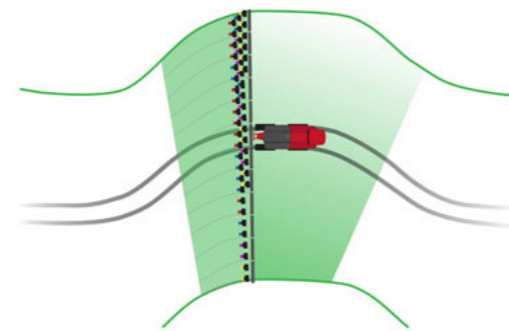


AutoSelect nozzle overlap

- 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.

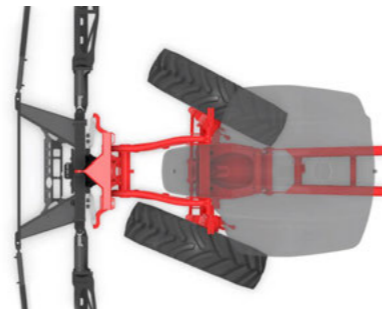
- Kingpin steering for an exact following of the tractor tracks prevents track damages in the crop
- Maximum manoeuvrability and stability in uneven terrain, steering angle up to 28°
- Can be overridden with the joystick in the cabin
- Gyroscope directly on the axle: no calibration required



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



Maximum crop protection and exact following in the tracks



Due to the waisted frame design, a steering angle of up to 28° is possible even with large tyres

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

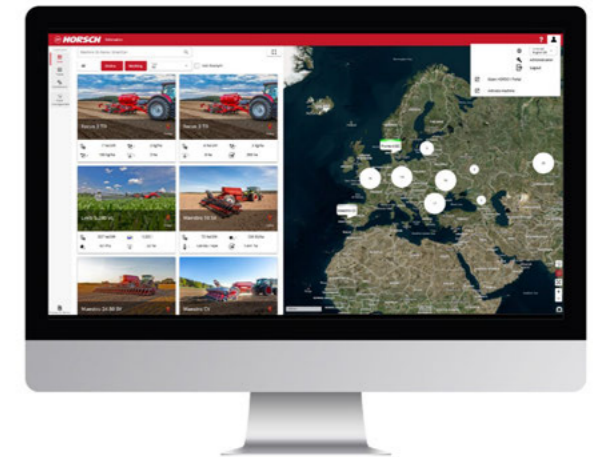


Due to the flexible holder, the eosT10 can be perfectly integrated in every cabin

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



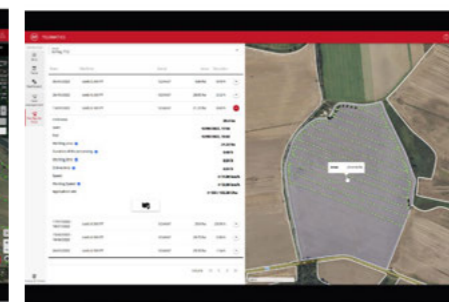
With HorschConnect telemetry solutions can be found in the sowing and plant protection sector – exactly where they make sense



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



Boom apron lighting



Second pressure filter in the middle frame of the boom



Container rack



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 LT	4 LT	5 LT	6 LT
Empty weight (kg)	4250 - 6400	4250 - 6400	4250 - 6400
Vertical load empty (kg)	450 - 800	450 - 800	450 - 800
Max. permissible vertical load (kg)	3000	3000	3000
Axle load empty (kg)	3800 - 5600	3800 - 5600	3800 - 5600
Max. permissible axle load (kg)	10000	10000	10000
Total length max. (transport position / m)	7.70	7.70	7.70
Transport width (transport position / m)	2.55	2.55	2.55
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	1.80 / 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)	4000	5000	6000
Mixture tank actual capacity (l)	4400	5300	6400
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. (Piece)	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)	600	600	600
Pump output Basic (l/min)	400	400	400
Max. (Bar)	8	8	8
Operational speed (km/h)	4 - 20	4 - 20	4 - 20





HORSCH



Your distributor

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

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