

Leeb LT Light/ Leeb LT

HORSCH
Farming with passion

INTELLIGENT SPRAYING
TECHNOLOGY



The Leeb LT: ENGINEERING FOR PROFESSIONALS



The basis

- Solidly designed frame made of quality steel
- Optional: air-suspended axle with level compensation
- Solid drawbar connection for large clearance, top or bottom connection, depending on the vertical load

Steering axle – less tramline damage (optional)

- Steering axle for stable positioning of the boom with high stability and exact tracking to avoid tramline damage
- Optimal, even in uneven terrain
- Large steering angle due to a taper-cut frame design

Large tyres – less ground pressure

- Wheels with diameter of up to 2.05 m
- Maximum ground contact area with perfectly adapted air pressure
- Adapted Tyre Pressure Control – automatic tyre pressure regulation that is completely integrated in the software

Extremely low centre of gravity

- Tank shape is optimised with regard to the surging force

Taking care of the crop

- Smooth machine underbody
- No edges and corners on the underside of the machine
- Hydraulically foldable and fully covered support leg

Modern plastic tank

- Conical geometries for low surge forces
- 500 litre fresh water tank: enough water for a complete inside cleaning as only very little residual quantities remain in the system.
- Large radii, absolutely smooth surfaces and no back tapers for easy cleaning.
- Deep sump area for complete discharge and minimum residual quantities even on slopes.

Three equipment versions

Eco

- Manual operation for the suction and pressure side
- Piston diaphragm pump (400 l/min) driven by pto-shaft
- Hydraulic agitator

CCS

- Manual operation for the suction and pressure side
- Additional piston diaphragm pump for the continuous inside cleaning system CCS
- Continuous inside cleaning can be operated in the cabin
- Oil-driven (Load Sensing) centrifugal pump (600 l/min)
- Hydraulic agitator

CCS Pro

- Electronic operation on pressure and suction side for complete control from the cabin
- Additional piston diaphragm pump for the continuous inside cleaning system CCS with automatic washing programs, e. g. intensive washing program, boom rinsing
- Centrifugal pump driven via oil (Load Sensing) (600 l/min)
- External control terminal
- Hydraulic agitator, is controlled electronically via terminal and external control unit. Automatic switch-off if the residual quantity in the mixture tank falls below 150 liter.



Theodor Leeb

“When we developed the Leeb LT, the focus was on highest precision in plant protection combined with utmost efficiency.”



Leeb LT

DETAILS

Leeb LT details

- Tank capacity: 4 000, 5 000 and 6 000 litre
- Top or bottom linkage selectable
- Low gravity centre of the spraying tank
- Tank made of polyethylene (PE)
- Optimised tank shape for transport and cleaning
- Optimised hose laying reduces hose lengths to a minimum
- Boom suspension is designed as a parallelogram – hydr. spring-loaded and damped.
- Soft and smooth boom rest even in hilly terrain and at high operational speeds.
- The geometry of the parallelogram has been designed in such a way that the boom is kept close to the axle. The suspension is extremely torsion-resistant and thus perfectly suitable for the automatic boom control system Leeb BoomControl.
- Nozzle protection against mechanical damage of the nozzles and wind protection during the development of the spraying fan



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



OUR STANDARD: NO HOSE IS THE BEST HOSE.

Distribution system

- Optimal supply of boom, induction hopper, intensive agitator and inside tank cleaning
- Only one hose for the entire boom width and one return flow hose for wash circulation in the boom
- No deposits and easy cleaning

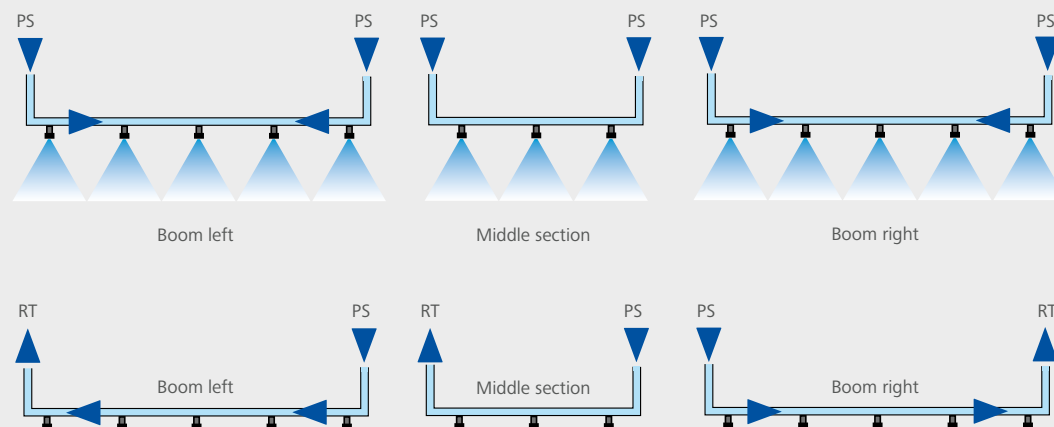
Induction hopper

- Powerful injector filling
- Pivoting induction hopper with gas pressure damper
- Toolbar with coloured control levers
- Upper and lower rinsing nozzles guarantee a whirl-like circulation for quick flushing-in of liquids. Also suitable for granulate.
- Canister cleaning nozzle
- Optional: Induction hopper lining is made of stainless steel with more capacity and additional impact nozzle

Circulation system + nozzle cleaning

- Circulation of the chemical solution through the complete nozzle tube as soon as the spraying pump is switched on.
- Spraying fluid therefore is always at the nozzle, even with the spraying apparatus switched off
- When switching on a section or the entire spraying line for the first time, the chemical solution is directly and in a well-mixed way available in the partial system or in the entire spraying system.
- Prevents deposits and blockages
- Allows for simple cleaning: The suction side of the pump is set to fresh water – the nozzle line is flushed with clear water – then keep spraying for a few seconds to clean all nozzles.

Circulation system

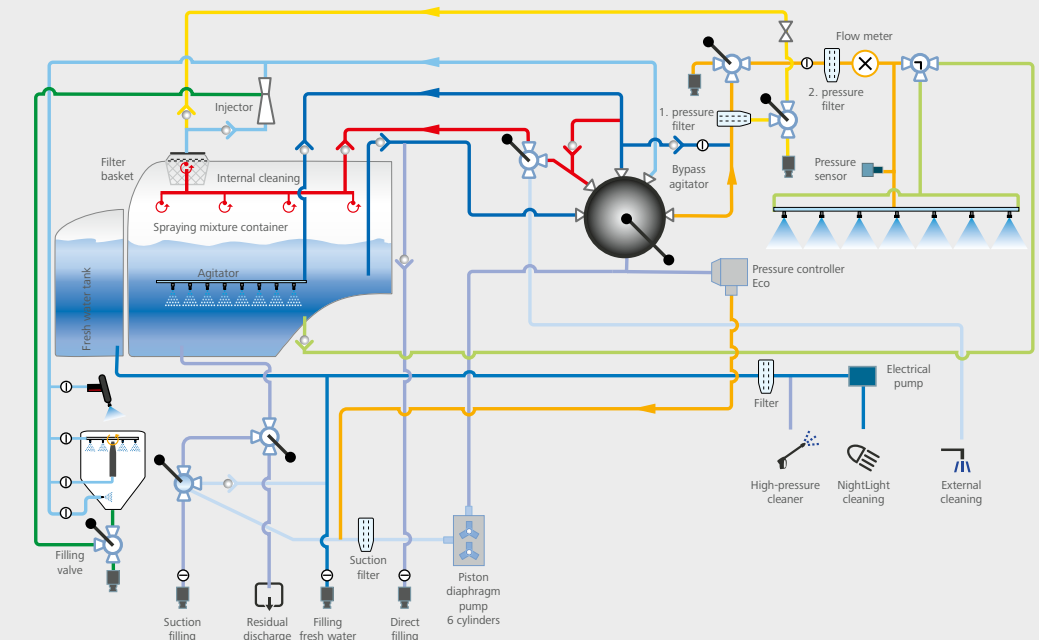


Spraying
PS = Pressure Supply

Circulation
PS = Pressure Supply,
RT = Return flow tank

LEEB LT EQUIPMENT VERSIONS ECO/CCS/CCS PRO

Eco



Water system Eco

- Piston diaphragm pump with 400 l/min
- Filling connection 3", from the 5-way valve 2" lines on the suction side
- Pressure sensor to control the spraying pressure and pressure controller to adapt the flow rate
- Suction and pressure can be operated manually
- Electronic level indicator at the mixture tank



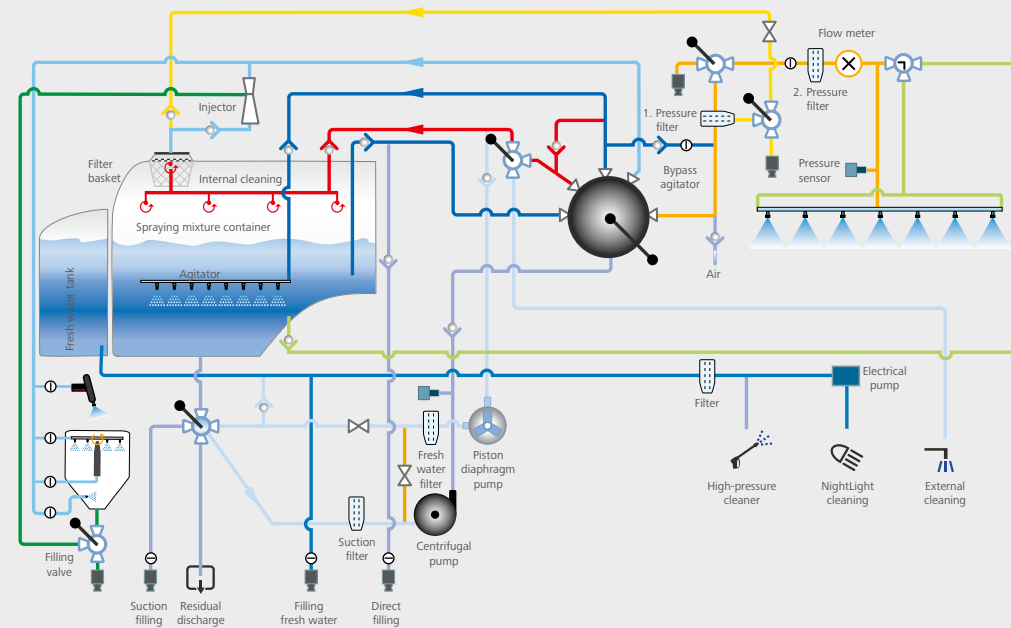
LEEB LT EQUIPMENT VERSIONS

ECO/CCS/CCS PRO

Continuous inside cleaning ContinuousCleaningSystem CCS and CCS Pro

- Quick sprayer cleaning process without having to get off the machine
- Complete control of the cleaning process from the cabin
- Function: Displacement instead of dilution
- An additional cleaning pump feeds clear water into the pipeline system. The spraying pump sucks this water in and uses it to force the spraying mixture residue through the nozzles out of the pipeline system.
- Quick, thorough and water consumption optimized cleaning

CCS



Water system CCS

- Centrifugal pump with 600 l/min
- CCS piston diaphragm pump
- Filling connection 3", from the 5-way valve 2" lines on the suction side
- Pressure sensors for pump and boom
- Suction and pressure can be operated manually
- Electronic level indicator at the mixture tank with automatic switch-off
- Continuous inside cleaning system CCS, can be operated in the cabin

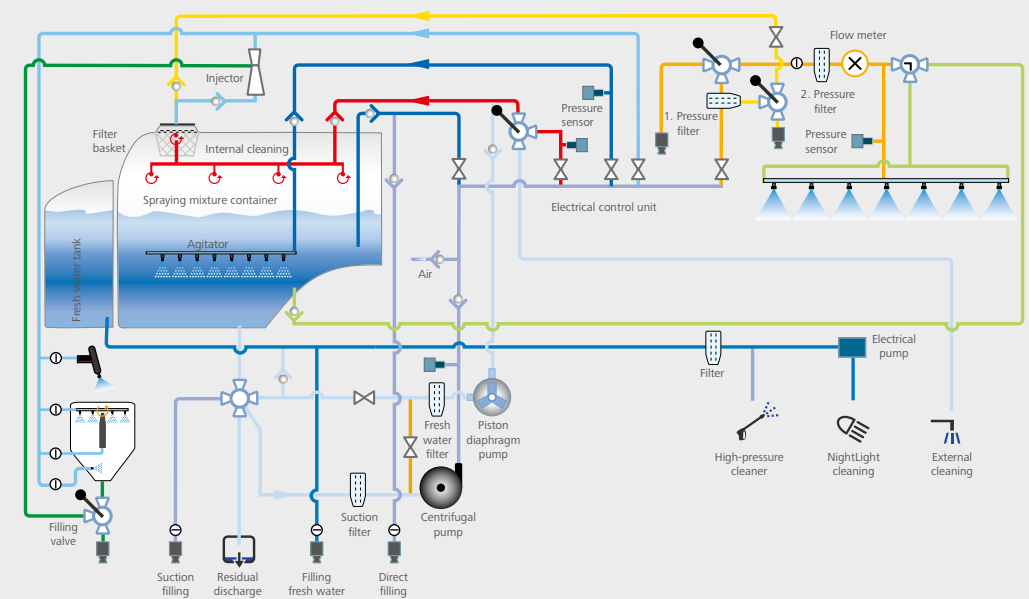
CCS Pro cleaning programs

- Several selectable cleaning programs can be started simply and comfortably by pressing 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 without much effort
 - 3. Intensive washing program:** For a particularly thorough cleaning – recommended for example when changing between critical crops.
 - 4. Boom cleaning:** Automatic rinsing of the boom – e. g. when 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 at the barrel wall.

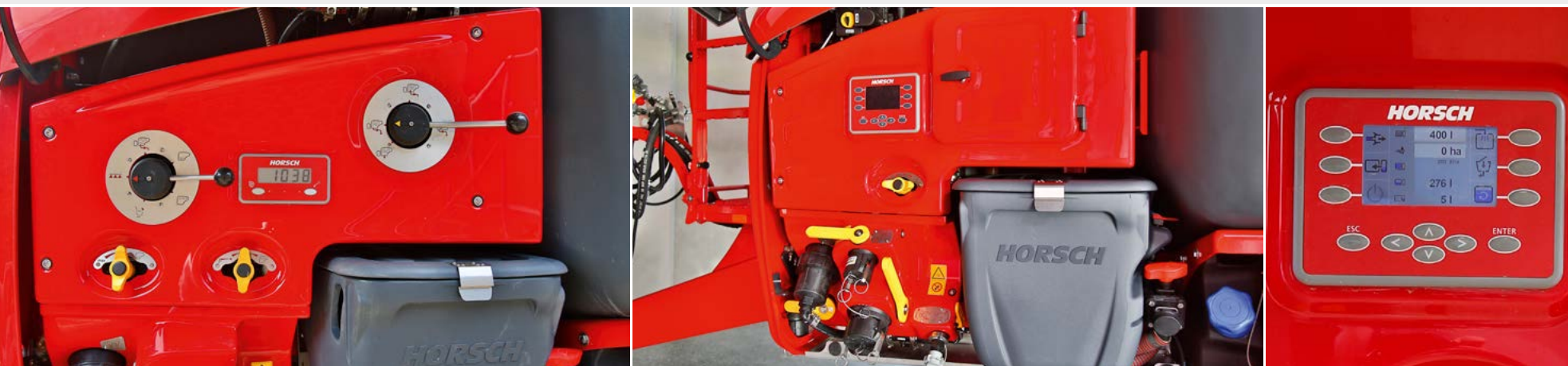
- Due to the standard automatic two filling limits the filling procedure is rather relaxed
- Agitator works and switches off automatically depending on the filling level

CCS Pro

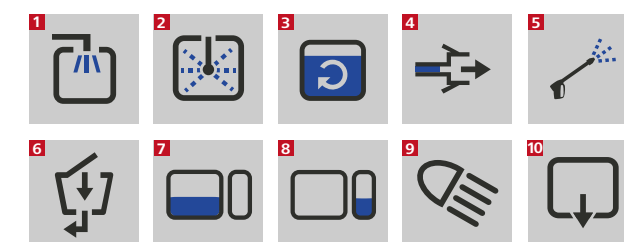


Water system CCS Pro

- Centrifugal pump with 600 l/min
- CCS piston diaphragm pump
- Filling connection 3", from the 5-way valve 2" lines on the suction side
- Pressure sensors for pump, agitator, inside cleaning and boom
- Suction and pressure side are controlled electrically
- Various cleaning and rinsing programs are automated
- Continuous inside cleaning CCS with various cleaning and rinsing programs, can be controlled from the tractor cabin.
- Operation via a large external terminal with all important functions for induction
- Electronic level indicator in the fresh water and mixture tank for automatic washing programs and with automatic switch-off



External control terminal Symbols external terminal CCS Pro



- 1 Filling process
- 2 Internal cleaning
- 3 Pressure agitator
- 4 Suction
- 5 Outside cleaning
- 6 Injector of easy stowing induction tank
- 7 Wash container
- 8 Clean water tank
- 9 Lighting induction centre
- 10 Draining of residues

MAXIMUM POWER DUE TO WELL-KNOWN OPERATING CONCEPT



Terminal versions with ISOBUS system

Touch 800 Terminal

- Latest Touch technology – 800x600 pixel TFT-Dualtouch-colour display
- Individually extendable due to APP&GO®
- 1 camera connection
- USB connection

Touch 1200 Terminal

- 12.1" Touchscreen display with glass surface
- USB connection for transmitting order data
- 2 camera connections
- Due to the layout manager can be used in portrait and landscape format
- Landscape format: display of an application in normal view and up to 4 other applications in reduced view
- Portrait format: Simultaneous handling of two applications in normal view.

Multifunction joystick

- Comfortable handling via joystick. All important boom functions as well as the section control can simply be selected via the multifunction joystick.

Parallel Tracking

- Uses corrected GPS signals
- Identifies position of the machine and shows this information on the display
- By means of an AB line a track system is laid that supports the driver with regard to finding the track
- Recommended for pre-emergence treatments without track markings

GPS-controlled section control

- Possible savings: as overlappings on the headlands are reduced, savings on chemical or mixture instead of agents of up to 3 % can be achieved.
- Up to 42 individual sections is possible

Order management

- Order management and the use of application maps via ISO XML files are possible



Touch 800 Terminal Touch 1200 Terminal



Multifunction joystick



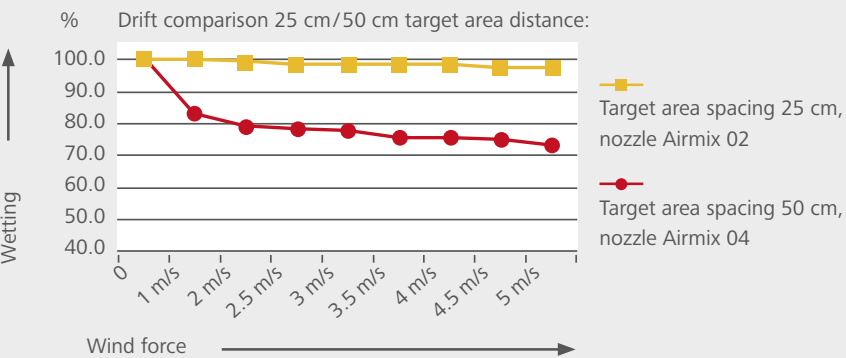
The Leeb LT can be controlled via various external terminals and joystick or the multifunction controller of the tractor.

MAXIMUM POWER DUE TO INTELLIGENT APPLICATION TECHNOLOGY

Power by diversity

- Efficiency by variety – nozzle spacings of 25 and 50 cm are available
- With a 25 cm nozzle spacing the target area distance is reduced to an optimum
- Pneumatic individual nozzle control enables individual and intelligent application technologies
- Outstanding penetration and wetting of the crop
- Variable nozzle body combinations (pneumatically switchable):
 - 1-0 one single nozzle body every 50 cm
 - 1-0 (3M) one manual triple nozzle body every 50 cm
 - 1-1 one single nozzle body every 25 cm
 - 1-1 (3M) one manual triple nozzle body every 25 cm
 - 2-0 one dual nozzle body every 50 cm
 - 2-0 (4M) one manual quadruple nozzle body every 50 cm
 - 2-1 one dual nozzle body every 50 cm, 1 single nozzle body as intermediate nozzle
 - 2-2 one dual nozzle body every 25 cm
 - 2-2 (4M) one manual quadruple nozzle body every 25 cm
 - 4-0 one quadruple nozzle body every 50 cm
 - 4-1 one quadruple nozzle body every 50 cm one single nozzle body as intermediate nozzle
 - 4-2 one quadruple nozzle body every 50 cm one double nozzle body as intermediate nozzle
- As a standard, all nozzle body combinations are equipped with nozzle holders for edge/border nozzles.

Comprehensive tests in our wind tunnel show the differences in the drift behaviour depending on the target area spacing

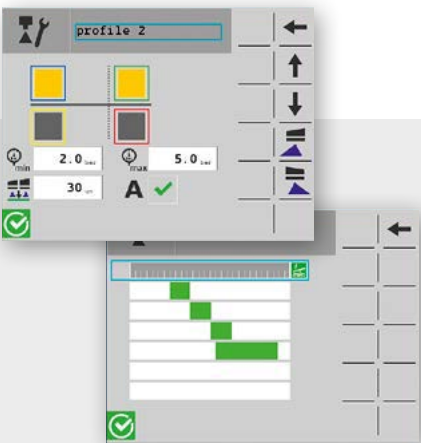


AutoSelect System

- Various combination possibilities with up to 16 different nozzle profiles that can be saved
- Switchable from the tractor cab
- If the work is not interrupted, the optimum pressure range and the corresponding nozzle size are controlled automatically continuously.
- Automatic adaption of the boom height depending on the defined nozzle profiles based on the nozzle spacings that are defined in the nozzles profiles. Thus, with more nozzles the farmer has a wide range of options.
- Fully automatic AutoSelect control: Control of nozzle size and nozzle combination while matching the spraying quantity at the same time
- High comfort and safety for an optimum management of the distance requirements along waters and terrestrial structures

Connect & Fold System – suitable for commercial droplegs

- Wide range of nozzles from different manufacturers
- Systems for underleaf spraying, e. g. droplegs, are also possible: With “Connect & Fold” for an easy mounting of usual market systems, the folding of the accessories by means of a special folding mechanism is completely integrated



AutoSelect menu in the terminal



THE LEEB BOOM:

MATURED TECHNOLOGY, WELL THOUGHT OUT DOWN TO THE SMALLEST DETAIL



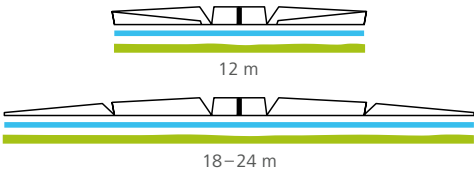
Boom variants

- Basic boom variants in working widths ranging from 18 to 45 meters
- Different folding variants enable individual solutions with respect to working widths

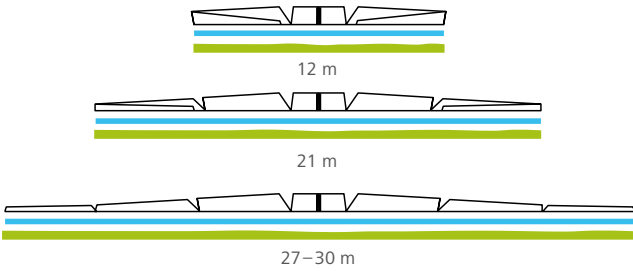
Optimal transport position by folding of boom wings

- Boom does not reach to the front towards the tractor cabin
- No damage to the cab roof
- No dripping spraying mixture at the rear of the tractor
- Transport width 2.55 m depending on tyres and track
- Transport height 3.40 m–3.55 m, depending on the tyres

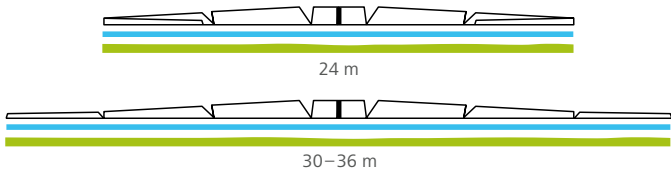
Boom: 5 sect. with reduced working width 12 m



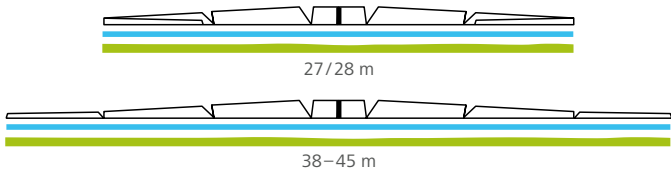
Boom: 7 sect. with reduced working width 12 m and 21 m



Boom: 7 sect. with reduced working width 24 m



Boom: 7 sect. with reduced working width 27/28 m



Folding of the machine



ATP Control: AUTOMATIC REGULA- TION OF THE INSIDE PRESSURE OF THE TYRE

Adapted Tyre Pressure Control

- On time plant protection in optimum weather conditions sometimes takes place in unfavourable soil conditons.
- Efficient plant protection is mainly marked by large barrel capacities and working widths.
- To guarantee the combination of soil protection, efficient and on time plant protection, the automatic tyre pressure adaption system **ADAPTED TYRE PRESSURE CONTROL** (abbr.: ATP Control) provides an automatic regulation of the inside pressure of the tyre that is fully integrated in the ISOBUS software of the sprayer.
- Depending on the level of the mixture tank and the mode road transport or field mode the optimum contact area of the tyre is always generated to avoid having to compromise between stability and soil protection.
- It is not only possible to use state-of-the-art tyre technologies in an optimum way, but the plant protection measures – a key factor in farming – can be carried out on time and efficiently.

LED lighting: OPTIMAL SPRAYING CONTROL DURING THE NIGHT

NightLight

- Innovative LED technology ensures optimal illumination
- Highly focused light penetrates all spraying cones
- Optimal spraying control also during dusk and night
- One strong LED spotlight per boom side
- 100 % control of nozzle function – also in section mode
- More safety and efficiency during spraying work around the clock
- No extensive maintenance and cleaning work
- Automatic cleaning with a washing system
- Automatic light function: Deactivation of NightLight on the headlands to avoid blinding for example passers-by

Additional lighting

- LED light strip at the induction centre
- LED apron lighting



520/85 R 46 on the road
2.4 bar



520/85 R 46 in the field
0.8 bar

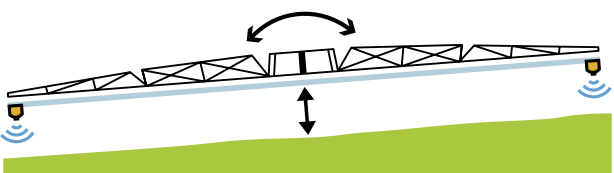
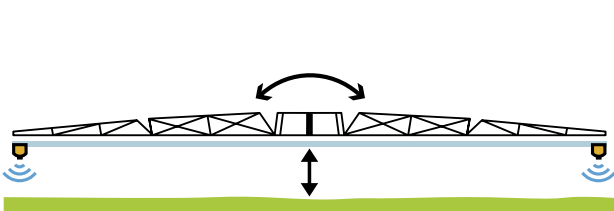


AUTOMATIC BOOMCONTROL



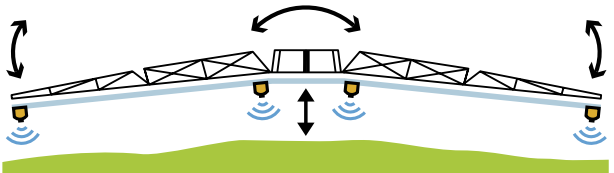
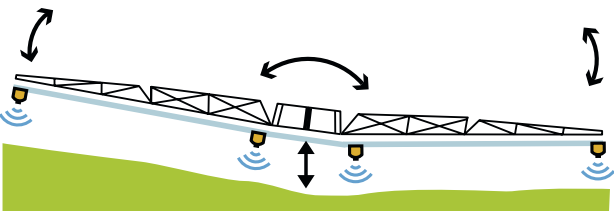
BoomControl Eco

- Automatic BoomControl to maintain an exact, lowest possible working height even at high operational speeds in flat or slightly hilly terrain
- Safe and stable BoomControl below a target area height of 40 cm
- Prerequisite for minimum drift
- Boom is completely decoupled from the vehicle
- No compromise between damped and freely suspended boom
- Active adaption of the boom to the terrain due to two sensors



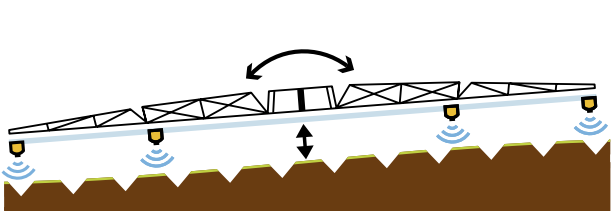
BoomControl Pro

- Automatic BoomControl to maintain the exact, lowest possible working height even at a high operational speed and in very hilly terrain.
- Safe and stable BoomControl below a target area height of 40 cm
- Prerequisite for minimum drift
- Boom is completely decoupled from the vehicle
- No compromise between damped and freely suspended boom
- Active adaption of the boom via the height control of the middle section
- Adaption to the terrain by the parallel angling of the boom arms in combination with the rotation of the middle section (control via four sensors).



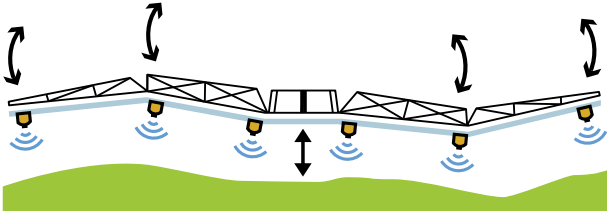
BoomControl extension

- Active adaption of the boom to the terrain due to two additional sensors
- To increase the field of vision, also ideal for row and ridge crops



BoomControl ProPlus

- Active adaption of the boom via the height control of the middle section
- Safe and stable BoomControl below a target area height of 40 cm
- Independent movement of both boom sections
- Additional independent movement (lifting and lowering) of both outside sections



Due to the sensitive responding behaviour of the proportionate control with 6 sensors the individual boom sections adapt "smoothly" to the contours of the terrain.

STRONG, CONVINCING ARGUMENTS

- Less drift and high working speeds due to automatic BoomControl due to low target area distance
- High working speeds due to hydro-pneumatic boom damping
- Complete circulation in stainless steel circulator tubes to the nozzle
- Continuous ground clearance
- Crop protecting, smooth underfloor design
- Large tyres up to \varnothing 2.05 m possible
- Gravity-optimised and waisted frame design for large steering angles
- Novel operating concept
- Central arrangement of control units
- Pumping capacity up to 600 l/min
- Efficient induction hopper made of PE
- Compact external dimensions in transport position
- No parts protruding towards the tractor
- Continuous inside cleaning (CCS and CCS Pro)
- Spring-loaded axle
- Integrated overload protection in the boom



Boom middle section for working width ranging from 18 to 30 metre, optionally available with pivoted frame.

Three suspension versions are available: non-suspended, elastomer buffer and pneumatic suspension

Large clearance, high comfort and a smooth underbody.

Boom does not reach to the front towards the tractor cabin

Option

- Fully integrated axle steering (when reversing automatic centring of the steering axle)
- Induction hopper made of stainless steel
- NightLight: powerful LED spraying cone lighting with washing device
- Pre-field lighting: 2 LED headlights
- Lighting in the working range of the induction hopper
- SectionControl (automatic section control)
- Pneumatic spring-loaded axle
- Hose drum or high-pressure cleaner for outside cleaning
- BoomControl expansion with 2 sensors
- Camera system for the area behind the machine
- Spacious container deposit facility below the right side cover
- Individual section layout according to the customer's requirements
- Second pressure filter in the rear of the parallelogram ATP Control for automatic regulation of the tyre pressure
- AutoSelect, automatic switching between the nozzle levels
- Connect & Fold system to integrate underleaf spraying systems

TECHNICAL SPECIFICATIONS



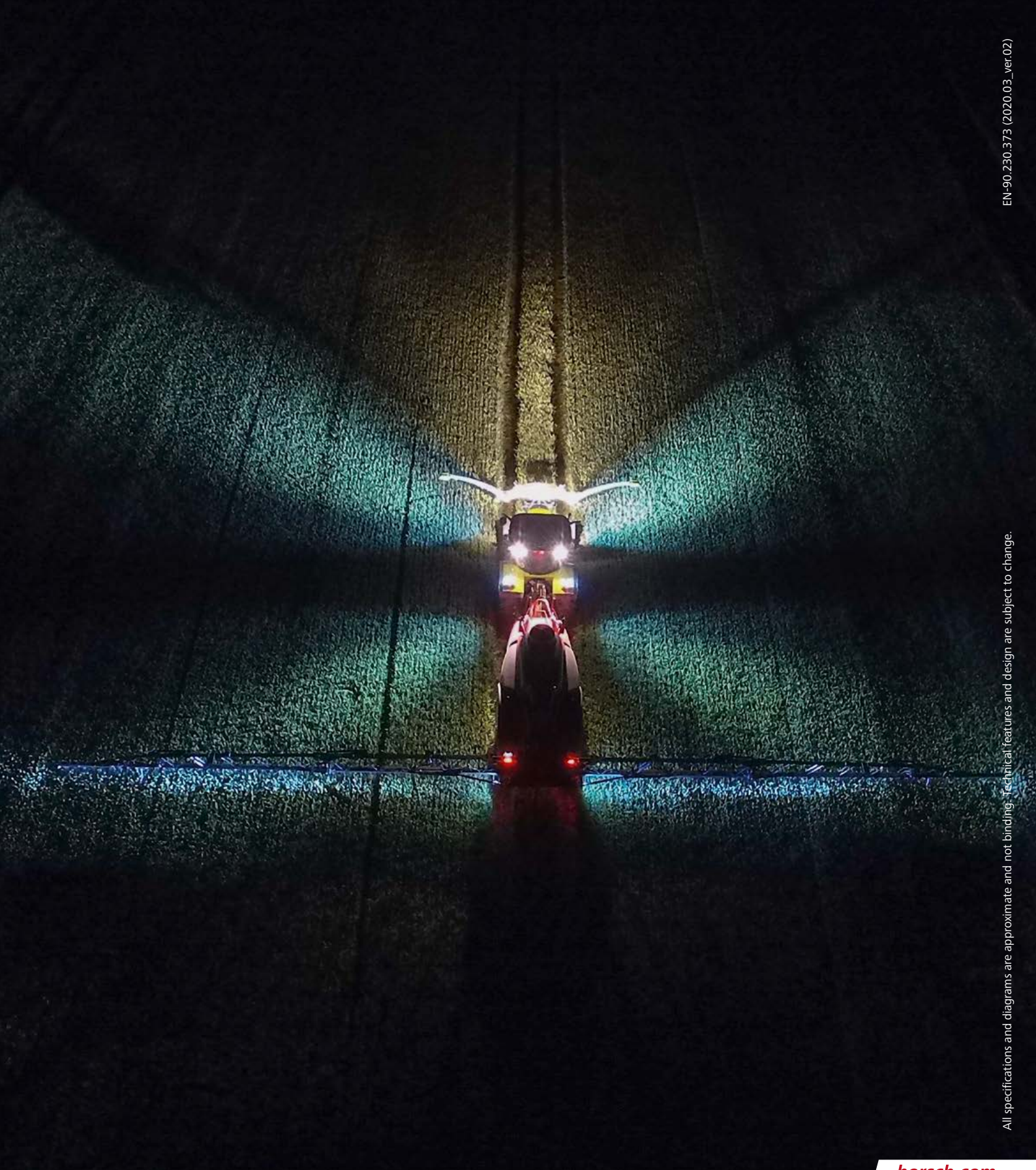
HORSCH Leeb LT Light	4 LT Light	5 LT Light
Measures and weights		
Unladen weight (kg)	4 150–5 150	4 200–5 200
Tongue load empty (kg)	480–780	500–800
Max. permissible vertical load (kg)	2 500	2 500
Axle load empty (kg)	3 670–4 370	3 700–4 400
Max. permissible axle load (kg)	8 250	8 250
Overall length max. (transport position) (m)	7.70	7.70
Transport width (transport position) (m)	2.55	2.55
Transport height (m)	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
Ground clearance axle (m)	0.75	0.75
Tank		
Mixture tank nominal capacity (l)	4 000	5 000
Mixture tank actual capacity (l)	4 400	5 300
Fresh water tank (l)	500	500
Hand wash tank (l)	15	15
Spraying boom		
Working widths	18/12 5 sect.	18/12 5 sect.
	21/12 5 sect.	21/12 5 sect.
	24/12 5 sect.	24/12 5 sect.
	27/21/12 7 sect.	27/21/12 7 sect.
	28/21/12 7 sect.	28/21/12 7 sect.
	30/21/12 7 sect.	30/21/12 7 sect.
Sections, min. max. (pieces)	6–42	6–42
Working height (m)	0.3–2.5	0.3–2.5
Pump output CCS and CCS Pro (l/min)	600	600
Pump output Eco (l/min)	400	400
Working pressure, max. (bar)	8	8
Working speed (km/h)	4–20	4–20

HORSCH Leeb LT	4 LT	5 LT	6 LT
Measures and weights			
Unladen weight (kg)	4 850–5 850 (5 420*)	4 900–5 900 (5 470*)	4 930–5 930 (5 500*)
Tongue load empty (kg)	530–830 (660*)	550–850 (680*)	570–870 (700*)
Max. permissible vertical load (kg)	3 000	3 000	3 000
Axle load empty (kg)	4 330–5 020 (4 760*)	4 350–5 050 (4 790*)	4 360–5 060 (4 800*)
Max. permissible axle load (kg)	10 000	10 000	10 000
Overall 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 (3.60*)	3.40–3.60 (3.60*)	3.40–3.60 (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
Ground clearance axle (m)*	0.85*	0.85*	0.85*
Tank			
Mixture tank nominal capacity (l)	4 000	5 000	6 000
Mixture tank actual capacity (l)	4 400	5 300	6 400
Fresh water tank (l)	500	500	500
Hand wash tank (l)	15	15	15
Spraying boom			
Working widths	18/12 5 sect.	18/12 5 sect.	18/12 5 sect.
	21/12 5 sect.	21/12 5 sect.	21/12 5 sect.
	24/12 5 sect.	24/12 5 sect.	24/12 5 sect.
	27/21/12 7 sect.	27/21/12 7 sect.	27/21/12 7 sect.
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	38/27/(14) 7 sect.	38/27/(14) 7 sect.	38/27/(14) 7 sect.
	39/27/(14) 7 sect.	39/27/(14) 7 sect.	39/27/(14) 7 sect.
	40/27/(14) 7 sect.	40/27/(14) 7 sect.	40/27/(14) 7 sect.
	40/28/(14) 7 sect.	40/28/(14) 7 sect.	40/28/(14) 7 sect.
	42/28/(14) 7 sect.	42/28/(14) 7 sect.	42/28/(14) 7 sect.
Sections, min. max. (pieces)	44/30/(14) 7 sect.	44/30/(14) 7 sect.	44/30/(14) 7 sect.
	45/30/(14) 7 sect.	45/30/(14) 7 sect.	45/30/(14) 7 sect.
	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 Eco (l/min)	400	400	400
Working pressure, max. (bar)	8	8	8
Working speed (km/h)	4–20	4–20	4–20

* Data with boom 12/21/27, 7-sect. and tyres 520/85 R 46

Indications may vary depending on the equipment.





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