

# Leeb GS

# HORSCH

*Farming with passion*

## INTELLIGENT SPRAYING TECHNOLOGY



# LEEB GS: ENGINEERING FOR PROFESSIONALS



## The basis

- Solidly designed frame made of quality steel
- Optional: air-suspended axles with level compensation
- Solid drawbar connection for large clearance with standard lower linkage in a trailer hitch ball

## 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

## Extremely low centre of gravity

- Due to the special frame design the tank reaches down below the frame height – high stability at high operational speeds and on slopes
- Minimum residual quantities of chemicals

## 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

## Stainless steel tank

- No compromises – high-quality and durable stainless steel tank
- Easy cleaning and residue-free inside walls
- No spraying mixture residues on the absolutely smooth inside wall
- Welded from inside and outside

- Three baffle walls keep the machine steady, even in hilly terrain and during fast road travel
- Round tank for low sloshing forces
- 500 litre fresh water tank: enough water for one complete inside cleaning. This quantity is enough due to the low quantity of residues in the system.

## 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 (1 000 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
- Oil-driven (LoadSensing) centrifugal pump (1 000 l/min)
- External control terminal
- Automatic switch-off if the residual quantity in the mixture tank falls below 150 liter.



## Theodor Leeb:

“The development of the GS line is based on the combination of the requirements of our customers with regard to practice-oriented equipment lines and our well-proven stainless steel tank and the powerful boom control system. Efficient plant protection, reliability and efficiency are the basis for our development.”



# Leeb GS

## DETAILS

### Leeb GS details

- Tank capacities: 6 000, 7 000 and 8 000 litre
- Low gravity centre of the spraying barrel
- Stainless steel tank welded from inside and outside
- 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



# OUR STANDARD: NO HOSE IS THE BEST HOSE.

### Distribution system

- The distributor for the pressure side is mounted at the front below the platform
- Optimal supply of boom, induction tank, 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

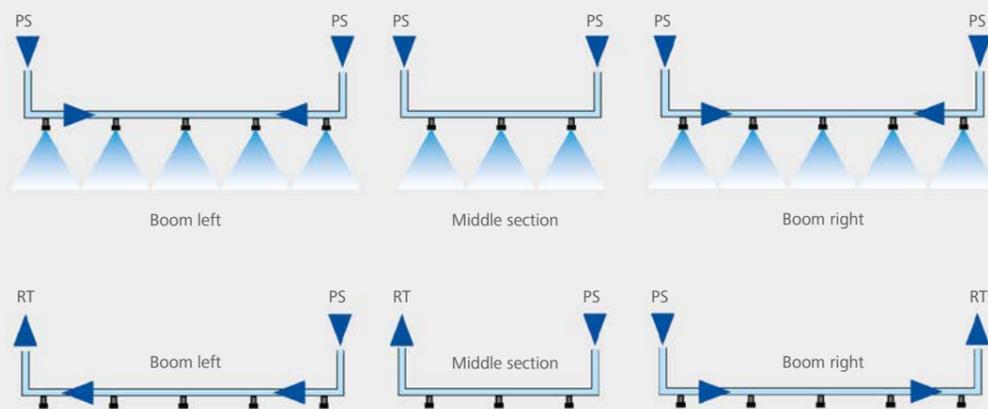
### Induction tank

- Slewable induction tank with gas pressure damper
- Toolbar with coloured control levers
- Upper and lower rinsing nozzles guarantee a vortex-like circulation, thus guaranteeing a quicker jetting of salts and granules.
- Cleaning nozzle
- Optional: induction tank pot made of stainless steel with more capacity and additional shock 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
- Enables simple cleaning: The suction side of the pump is set to fresh water – the nozzle line is thus flushed with clear water – then keep spraying for about 3 seconds to clean all nozzles.

### Circulation system



### Sprayers

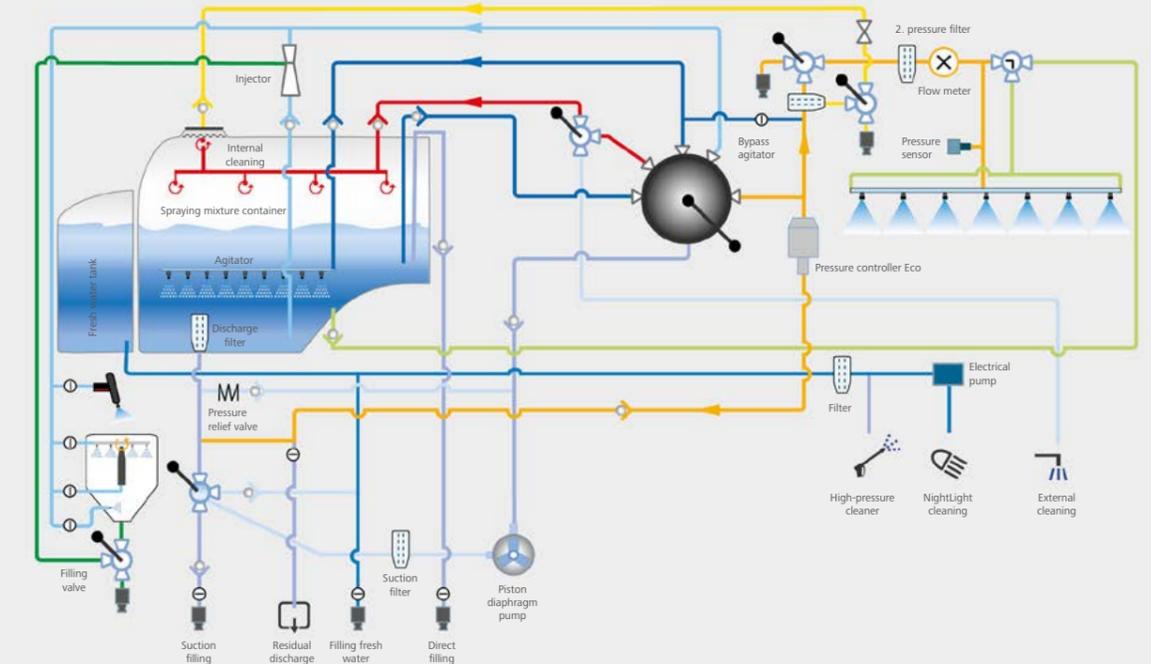
PS = Pressure Supply

### Circulation

PS = Pressure Supply, RT = Return flow tank

# LEEB GS EQUIPMENT LINES ECO/CCS/CCS PRO

### Eco



### Water system Eco

- Piston diaphragm pump with 400 l/min
- 3" filling connection and 3" fittings
- 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

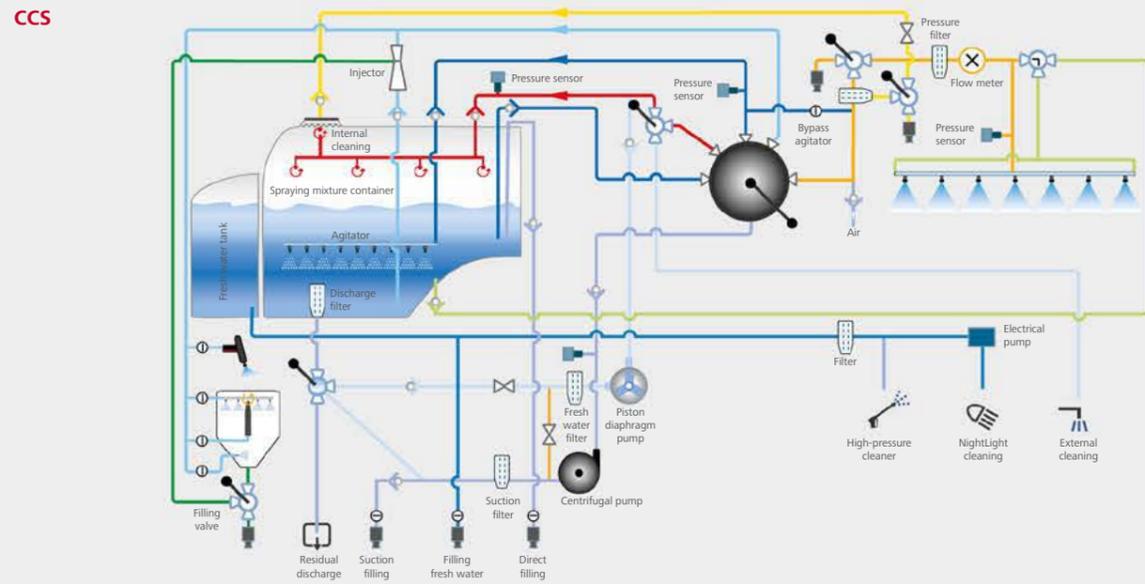


# LEEB GS EQUIPMENT LINES

## 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

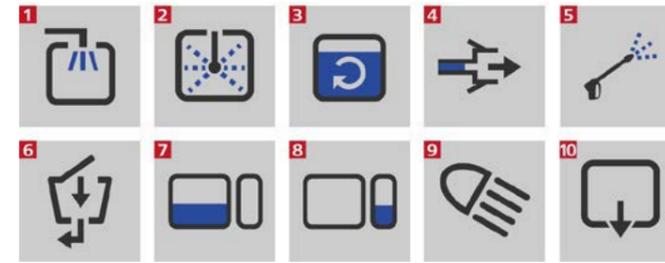


### Water system CCS

- Centrifugal pump with 1 000 l/min.
- CCS piston diaphragm pump
- 3" filling connection and 3" fittings
- Pressure sensors for pump and boom
- Suction and pressure can be operated manually
- Electronic level indicator at the mixture tank with automatic shutoff
- Continuous inside cleaning system CCS, can be operated in the cabin

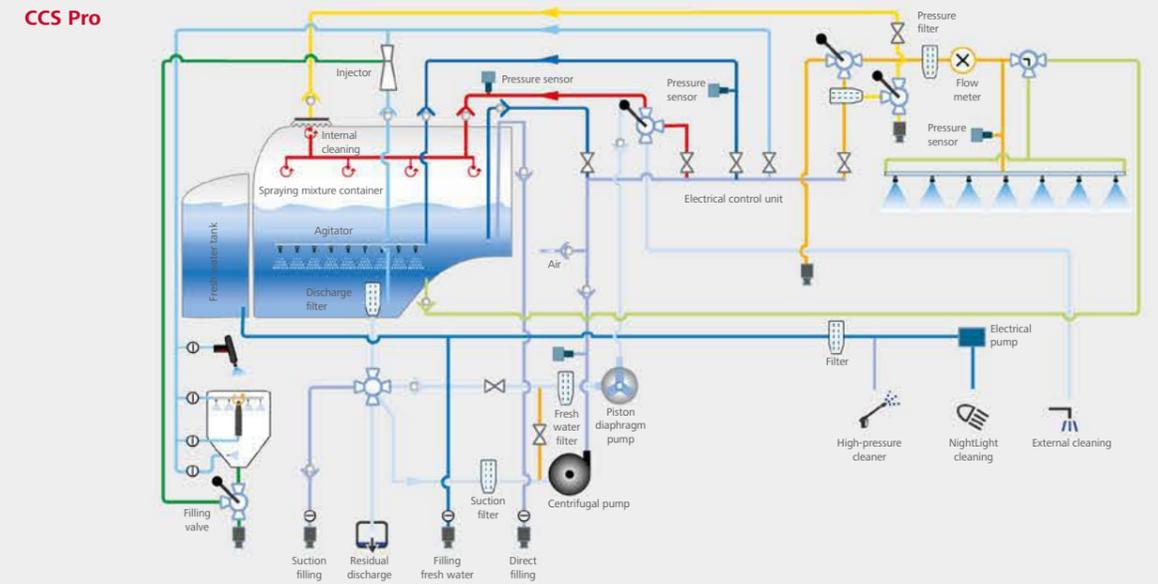
### External control terminal

#### 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 Clear water tank
- 9 Lighting induction centre
- 10 Residual discharge

- Advanced external control terminal for all relevant functions when filling
- User-friendly above the induction tank
- More functionality and ease of use due to a monitor in the range of the induction tank
- Even more comfort: Essential functions can be controlled via the external or the tractor terminal while filling.



### Water system CCS Pro

- Centrifugal pump with 1 000 l/min.
- CCS piston diaphragm pump
- 3" filling connection and 3" fittings
- 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



# MAXIMUM POWER DUE TO WELL-KNOWN OPERATING CONCEPT



## Terminal versions with ISOBUS system:

### Touch 800-Terminal

- Latest Touch technology – 800 x 600 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 agents of up to 3 % can be achieved.
- Section shut-off up to 42 sections is possible.



Touch 800-Terminal



Touch 1200-Terminal



Multifunction joystick



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

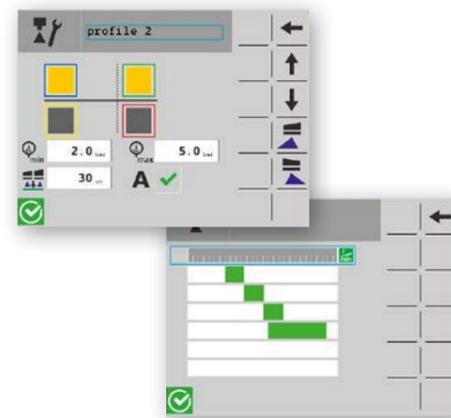
# MAXIMUM POWER DUE TO INTELLIGENT APPLICATION TECHNOLOGY

## Power by diversity

- Variable nozzle spacing
- 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, one 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

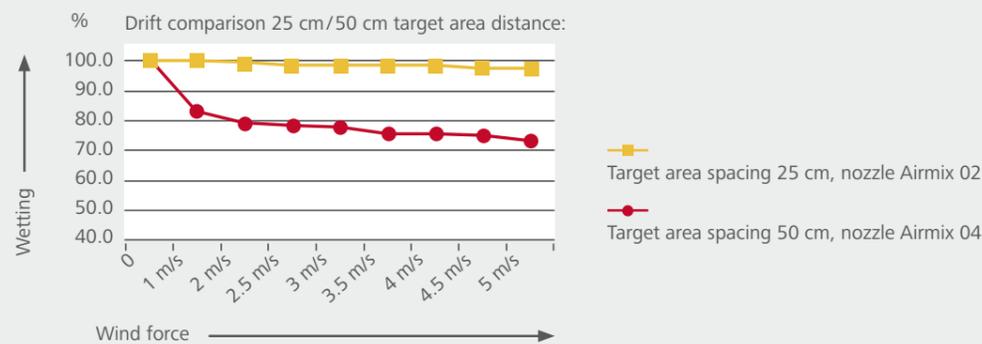
## AutoSelect system

- Various possible combinations
- Switchable from the tractor cab
- Always setting the optimal pressure range and the matching nozzle size without having to interrupt work
- Manual control: targeted switching on or off of individual nozzles or nozzle combinations
- Fully automated Auto-Select-control (optional): Control of nozzle size and nozzle combination while matching the spraying quantity at the same time
- Optimal distance specification management along waters and terrestrial structures
- Wide offer of nozzles from different manufacturers



AutoSelect menu in the terminal

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



# THE LEEB BOOM: MATURED TECHNOLOGY, WELL THOUGHT OUT DOWN TO THE SMALLEST DETAIL



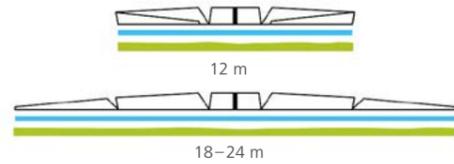
### Boom variants

- Basic boom variants in working widths ranging from 18 to 42 meters
- Different folding variants enable individual solutions with respect to working widths

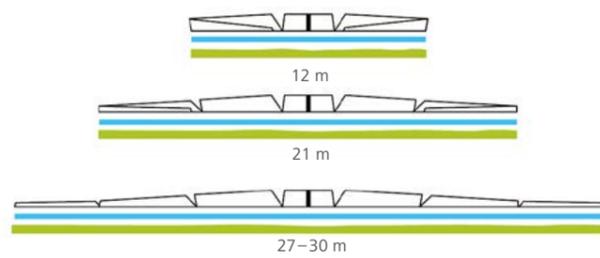
### Optimal transport position by folding of boom wings

- 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 – 3.60 m, depending on the tyres

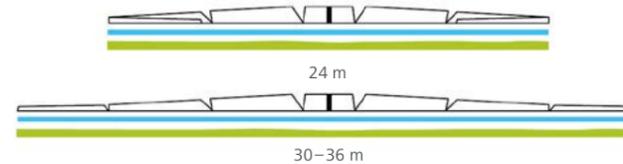
Boom: 5 sect. with reduced working width 12 m



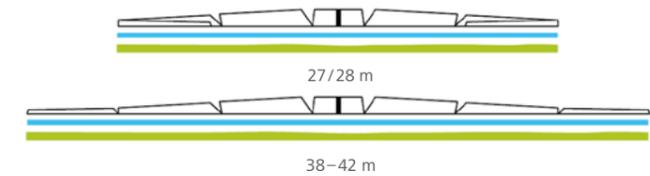
Boom: 7 sect. with reduced working width 12 m and 21 m



Boom: 7 sect. with reduced working width 24 m



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



### Folding of the machine



## NightLight: OPTIMAL SPRAYING CONTROL DURING THE NIGHT

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

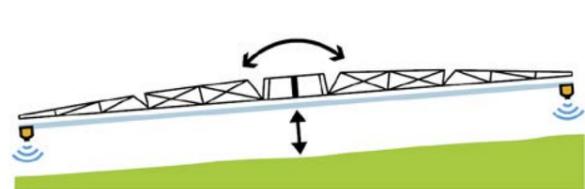
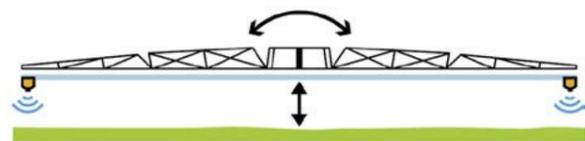


# AUTOMATIC BOOM CONTROL



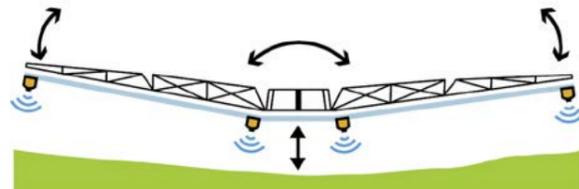
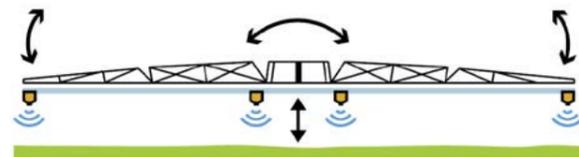
## BoomControl Eco

- Automatic boom control to maintain an exact, lowest possible working height even at high operational speeds in flat or slightly hilly terrain
- Safe and stable boom control 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 by 2 sensors. Can be extended by 2 sensors for row crops and to increase the field of view.

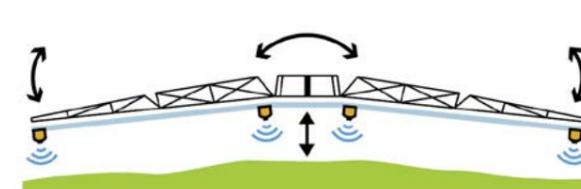
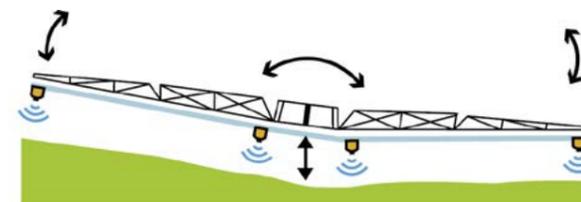


## BoomControl Pro

- Automatic boom control to maintain the exact, lowest possible working height even at a high operational speed and in very hilly terrain.
- Safe and stable boom control below a target area height of 40 cm
- Prerequisite for minimum drift
- Boom is completely decoupled from the vehicle

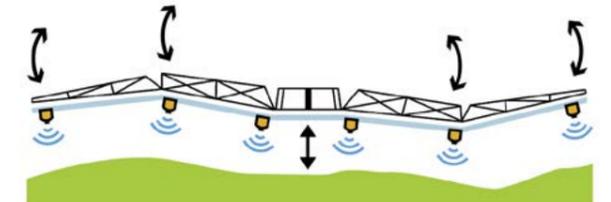


- No compromise between damped and freely suspended boom
- Active adaption of the boom via the height control of the middle section
- Adaption to the terrain due to parallel bending of the boom arms combined with a turning of the central part (controlled by 4 sensors). Can be extended by 2 sensors for row crops and to increase the field of view.



## BoomControl ProPlus

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



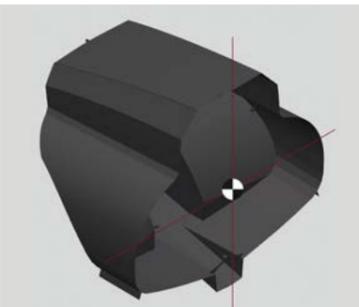
Due to the sensitive responding behaviour of the proportionate control with 6 sensors the individual boom sections adapt "smoothly" to the contours of the terrain.

# STRONG, CONVINCING ARGUMENTS

- Less drift and high working speeds due to automatic boom control due to low target area distance
- High working speeds due to hydro-pneumatic boom damping
- Continuous ground clearance
- Crop protecting, smooth underfloor design
- Large tyres up to  $\varnothing$  2.05 m possible
- Frame design optimised with regard to gravity centre (low centre of gravity)
- Novel operating concept
- Central arrangement of control units
- Pumping capacity up to 1 000 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
- Second pressure filter at the rear in the parallelogram



Filling dome



Tank shape is optimised with regard to the centre of gravity



High clearance and smooth underbody with spring-loaded axle, optional: pneumatic suspension



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)
- Boundary nozzle control
- Pneumatic spring-loaded axle
- Hose drum or high-pressure cleaner for outside cleaning
- Extension by 2 sensors for ridge cultures
- Camera system for the area behind the machine
- Drag hose system
- Wind meter

# TECHNICAL SPECIFICATIONS



HORSCH Leeb GS	6 GS	7 GS	8 GS
<b>Measures and weights</b>			
Curb weight (kg)	5 610–6 890 (6 370*)	5 650–6 920 (6 400*)	5 680–6 950 (6 430*)
Tongue load empty (kg)	680–980 (960*)	690–990 (970*)	700–1 000 (980*)
Max. permissible vertical load (kg)	3 500	4 000	4 000
Axle load empty (kg)	4 930–5 910 (5 410*)	4 960–5 930 (5 430*)	4 980–5 950 (5 450*)
Max. permissible axle load (kg)	10 000	10 000	10 000
Overall 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 (3.60*)	3.40–3.60 (3.60*)	3.40–3.60 (3.60*)
Track widths (m)	1.80**/2.00/2.25	2.00/2.25	2.00/2.25
Ground clearance axle (m)*	0.85*	0.85*	0.85*
<b>Tank</b>			
Mixture tank nominal capacity (l)	6 000	7 000	8 000
Mixture tank actual capacity (l)	6 400	7 400	8 400
Fresh water tank (l)	500	500	500
Hand wash tank (l)	15	15	15

\* Data with 12/24/36 boom, 7 sections and 520/85 R 46 tyres

\*\* Only possible for Leeb 6 GS track width 1.80 m

Indications may vary depending on the equipment.

HORSCH Leeb GS	6 GS	7 GS	8 GS
<b>Spraying boom</b>			
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.
	28/21/12 7 sect.	28/21/12 7 sect.	28/21/12 7 sect.
	30/21/12 7 sect.	30/21/12 7 sect.	30/21/12 7 sect.
	30/24/(12) 7 sect.	30/24/(12) 7 sect.	30/21/(12) 7 sect.
	32/24/(12) 7 sect.	32/24/(12) 7 sect.	32/24/(12) 7 sect.
	33/24/(12) 7 sect.	33/24/(12) 7 sect.	33/24/(12) 7 sect.
	36/24/(12) 7 sect.	36/24/(12) 7 sect.	36/24/(12) 7 sect.
	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)	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)	1 000	1 000	1 000
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





[horsch.com](https://www.horsch.com)

Your distributor:

# HORSCH

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