

Leeb VL



FLEXIBILITY AND EFFICIENCY



Leeb VL

VARIABLE TRACK WIDTH AND HEIGHT ADJUSTMENT

- Optimum boom position even at high operational speeds due to individual wheel suspension and parallel suspension of the boom
- Practical control terminals and an ergonomic joystick for an intuitive operation, perfectly adapted to the application requirements
- Continuous inside cleaning CCS Pro with electrical valves and external control terminal, spraying and cleaning functions can be controlled in the cabin
- Highest clearance of up to 2.00 m in field mode



With the HORSCH Leeb VL we respond to the requirements for more clearance and flexible track widths. Depending on the crop and season the machine can flexibly adapt to the operational conditions and the challenges to guarantee our customers and their crops utmost efficiency. The Leeb VL has especially been developed for crops that require a very high clearance. Especially in sunflowers and maize the clearance of up to 2.00 m helps to protect the crops and to allow for a on-time plant protection. To be able to react to different row widths, the track can be adjusted continuously from 2.60 m to 3.50 m or from 3.00 m to 4.00 m.

Depending on the conditions of use and the farm structure, the farmer can choose between a 5 000 l, 6 000 l or a 8 000 l tank – optionally made of polyethylene or stainless steel. A stainless steel tank is recommended especially when a high quantity of liquid fertiliser or aggressive mixtures are used. The result is an optimum cleaning result in combination with the continuous inside cleaning.

Due to the option to adapt the control terminal in the cabin to the requirements of the operator – depending on the requirement and preferences, easy operation is possible. The joystick, developed especially for a self-propelled crop care sprayer, shows all necessary functions clearly and also allows the driver to freely assign the buttons to be able to adapt the machine even more individually. All these solutions help to provide the driver with a comfortable working environment thus increasing efficiency and performance. The well-known components that make a HORSCH Leeb sprayer unique remain the same. The powerful rotary pump with 1 000 l/min ensures highest suction rates and short filling times. Due to the active BoomControl control system, the liquid is then placed without drift and precisely on the target.



Comfortable and large cabin Pro with control lever, mobile phone holder and cupholder



Variable clearance from 1.60 m to 2.40 m

CONDITIONS OF USE



- Variable clearance: The clearance of the Leeb VL is 1.60 m in standard mode. Due to the hydraulic or mechanical height adjustment, the VL can be adjusted comfortably in the cabin to a clearance of up to 2.00 m.
- Variable track: The track width can also be adjusted comfortably in the cabin between 2.60 m and 3.50 m or between 3.00 m and 4.00 m.
- The pneumatic chassis in combination with the comfortable cabin guarantees a driving experience comparable to a car.

- Efficiency: Due to the active boom control system BoomControl, operational speeds up to 32 km/h can be achieved with an optimum wetting and drift reduction. In combination with the 25 cm nozzle spacing the result is a powerful self-propelled sprayer.
- Innovations like the pulse width modulation system PrecisionSpray for more possibilities in the plant protection sector.



THEODOR LEEB

Highest clearance and flexible track widths, unrivaled with regard to driving comfort and stability – these were the parameters for the development of the Leeb VL. Due to the modular design of the chassis, the farmer can decide which equipments suit his requirements best. The result is a self-propelled sprayer that can be adapted individually to the requirements of the farm.

Basic

Water system Basic

The equipment line Basic the HORSCH Leeb VN and VL are equipped with a 1 000 l/min rotary pump (filling connection 3" through 5-way valve, 2" lines on the suction side). Suction and pressure 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. A digital level indicator is available as an option in the terminal.

- Rotary pump with a capacity of 1 000 l/min
- Filling connection 3" through 5-way valve, 2" 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



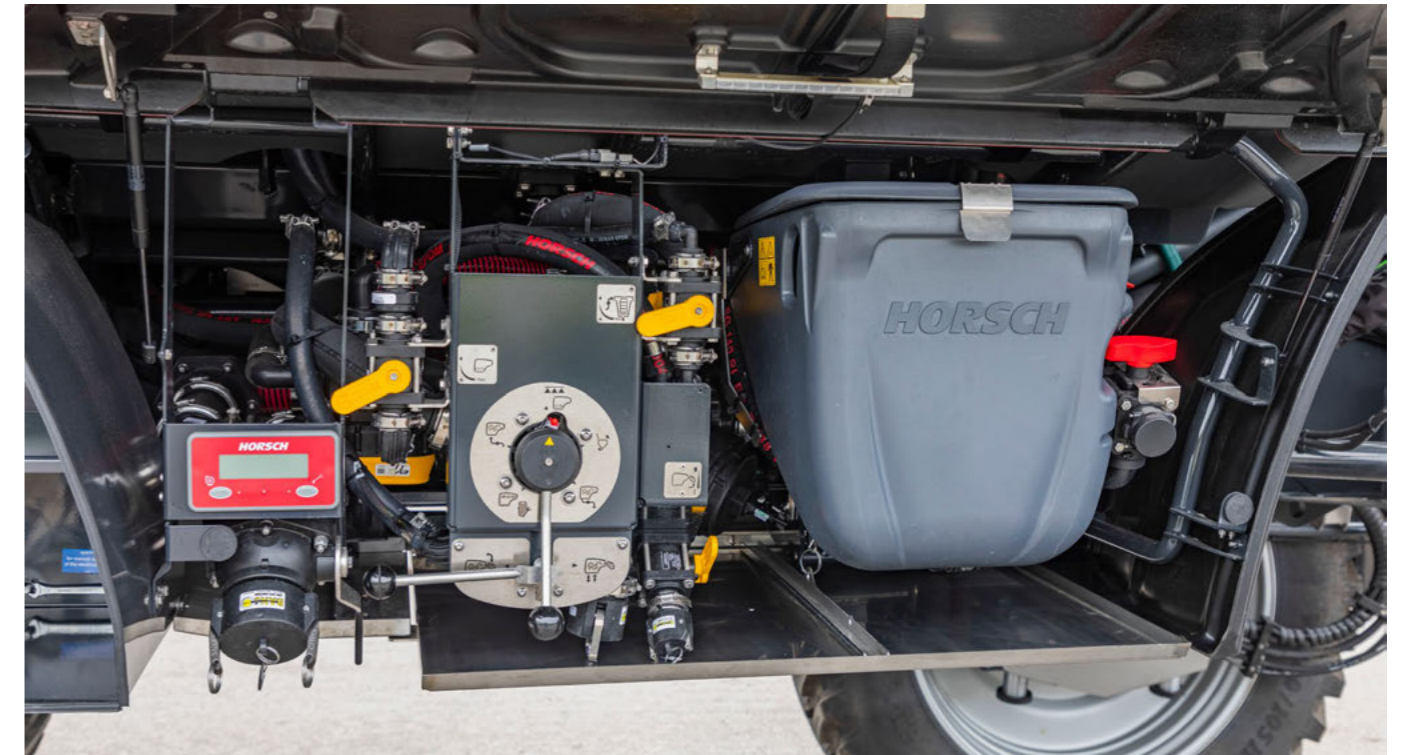
Water system Basic

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

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

- 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



Water system CCS

CCS Pro

ContinuousCleaningSystem Pro



- 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

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: flushes 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: recommended for an extra thorough cleaning, e.g. in case of changing between different crops
4. Boom cleaning: automatic rinsing of the boom, e. g. if working has been interrupted for several hours
5. Background cleaning: intelligent, continuous inside cleaning that cleans the inside wall of the barrel 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.



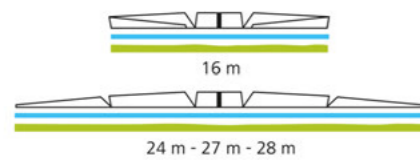
ContinuousCleaningSystem Pro (CCS Pro)

Boom options

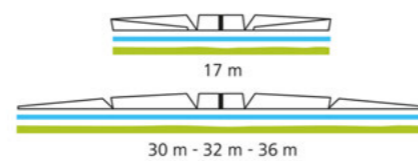
PRECISE TECHNOLOGY – SOPHISTICATED TO THE LAST DETAIL

With regard to the boom we rely on the well-proven system consisting of parallelogram suspension and the well-proven boom control system BoomControl in working widths from 24 to 45 m ensures an extremely smooth boom ride even in very uneven terrain and at high operational speeds. The patented suspension with active, pneumatic control of the middle section avoids boom dipping down when cornering

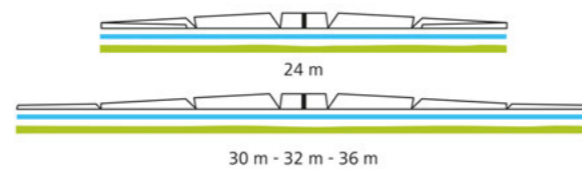
and on the headlands. The wings of the folding boom are equipped with an overload protection to guarantee safe operation at any time. The weight-optimised design made of durable aluminium profiles protects nozzles, nozzle bodies and spray lines against damage. Different folding options allow for individual solutions for every farm.



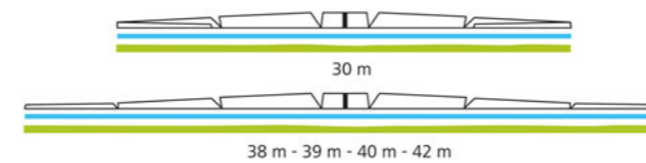
BoomControl – 5-part boom with reduced working width 16 m



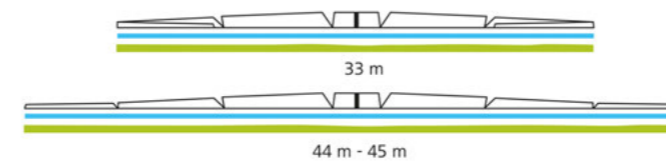
BoomControl – 5-part boom with reduced working width 17 m



BoomControl – 7-part boom with reduced working width 24 m

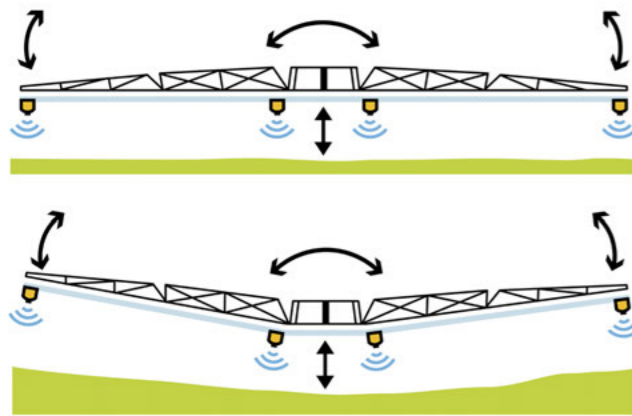


BoomControl – 7-part boom with reduced working width 30 m

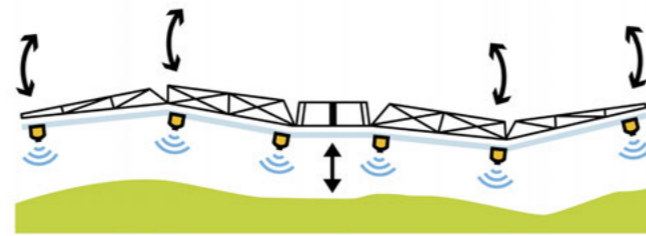


BoomControl – 7-part boom with reduced working width 33 m

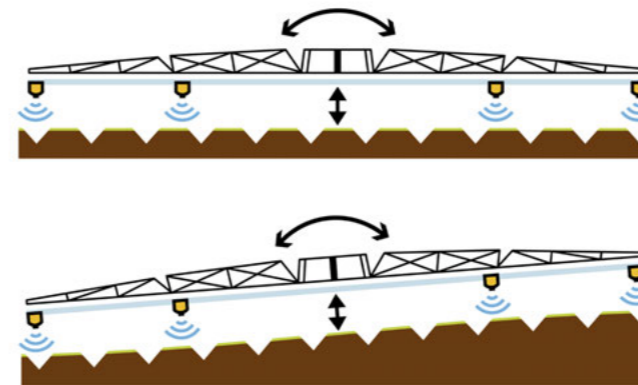
- Parallelogram suspension with BoomControl for smooth boom operation in all situations
- Patented suspension with active, pneumatic control of the middle section
- 25 Boom options with working widths from 24 to 45 m
- Stable aluminium profile for safe protection of the nozzles, nozzle bodies and spray lines against damage
- Collision protection due to overload protection and damping of the wings
- Overload protection of the outside wings towards the rear, damping of the inside wings to the front and rear



BoomControl Pro – due to 4 sensors boom actively follows the terrain



BoomControl Pro Plus



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

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

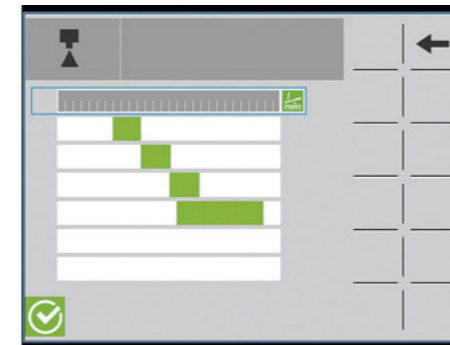
AutoSelect

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: Control of nozzle size or combination while at the same time adjusting 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

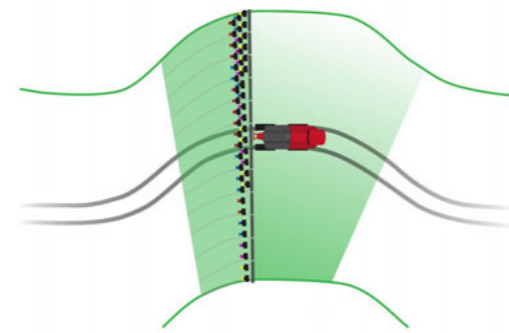


AutoSelect nozzle overlap

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

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



Band spraying is also no problem for a 25 cm spacing



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



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

NightLight

OPTIMAL SPRAYING CONTROL AT NIGHT



Innovative and powerful LED headlights 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 switches off the headlights on the headlands to avoid blinding e.g., passers-by.

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: Lighting strip at the induction centre and boom apron lighting



NightLight incl. cleaning



NightLight nozzle cone lighting

PRECISIONSPRAY

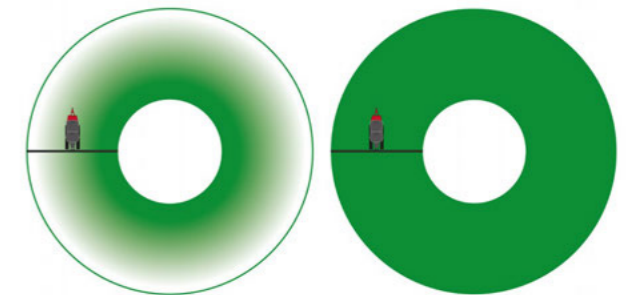
PULSE WIDTH MODULATION –
STATE-OF-THE-ART APPLICATION TECHNOLOGY



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: Curve compensation and the use of application maps can actively avoid over and under applying. 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
- Large nozzle bodies that are less prone to cloggings



Avoid over and under applying due to curve compensation

Cabin Basic

FRONT CABIN WITH OPTIMUM OVERVIEW AND EXCELLENT VISIBILITY



Cabin with large glass areas for an optimum visibility

Numerous features are already installed in the standard equipment of the new cabin. There now is a mobile phone holder with an induction charging function, a footrest, numerous storage compartments and a cooling compartment. For a long working days, there is an automatic air-conditioning with heating and the operation of the air-conditioning

function and the lighting is integrated into the roof strip. The new control lever offers several configurable keys and an ergonomic cork handle shell. To protect the user, the pre-fitting for the automatic Cat. IV filtersystem is completely integrated in the cabin roof.

Cabin Basic

In addition to the basic equipment of the cabin, the equipment option Basic comes with a fabric seat with various adjustment options and a passenger fabric seat. A double cup holder is integrated for a long working day. Sunblinds are mounted on the front and rear window.

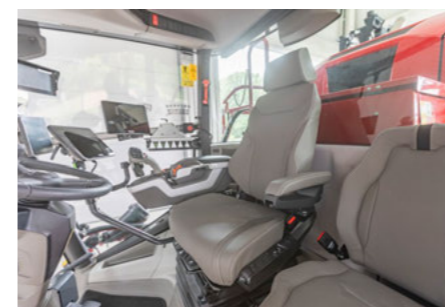
- Fabric seat with various adjustment options
- Double cup holder for long working days
- Sunblinds at the front and rear window
- Mobile phone holder with inductive charging function, footrest, numerous storage compartments and cooling compartment
- Automatic air-conditioning/heating, operation of the air-conditioning function and lighting integrated in the roof strip
- Control lever with multi-configurable keys integrated in an ergonomic control armrest
- Pre-fitting for automatic Cat. IV cabin filtration system (automatic control, completely integrated in the cabin roof)

Cabin Pro

In addition to the basic equipment of the cabin, the equipment option Pro comes with a swivelling comfort leather seat with seat heating and ventilation as well as a passenger leather seat.

A triple cup holder is mounted for long working days. Sunblinds are mounted on the front, rear and side windows. In addition, there is a floor mat and a terminal attachment bar

- Swivelling comfort leather seat with seat heating and ventilation
- Triple cup holder for long working days
- Sun blinds at the front, rear and side window
- In addition, there is a floor mat and a terminal attachment bar
- Mobile phone holder with inductive charging function, footrest, numerous storage compartments and cooling compartment
- Automatic air-conditioning/heating, operation of the air-conditioning function and lighting integrated in the roof strip
- Control lever with multi-configurable keys integrated in an ergonomic control armrest
- Pre-fitting for automatic Cat. IV cabin filtration system (automatic control, completely integrated in the cabin roof)



Cabin Pro with comfort leather seat and leather passenger seat



Large cooling compartment as standard



Footrest as standard

PowerGear wheel drive

WHEEL GEAR INTELLIGENT DRIVE

The PowerGear standard drive allows for optimum performance in the field and on the road. Equipped with standard anti-slip control (ASR) and all-wheel drive, the machine easily manages any terrain. The degree of efficiency that has been optimised for the use in the crop care sector with larger wheel motors at the rear axle and the corresponding higher driving power distributes drive torques in the speed range 0 – 50 km/h powerfully and efficiently.

- Degree of efficiency in the main working range has been specially optimised for the use in the crop care sector
- Selective traction control for every wheel
- Powerful drive even in steep terrain and at slopes
- Infinitely variable drive from 0 – 50 km/h

HighPowerGear wheel drive

INTELLIGENT ALL-WHEEL DRIVE FOR HIGHEST REQUIREMENTS

For farmers who want to or have to push the limits, we offer the HighPowerGear drive: more driving power when starting, more reserves in wet conditions and more torque in the low speed range for highest requirements in the field. HighPowerGear shows its strength especially with low operational speed and extreme slopes of up to 50 %. When driving slowly below 8 km/h or if the machine is on the verge of getting stuck, HighPowerGear provides the required power reserves to manage the most difficult situations.

- Can cope with slopes up to 50 %
- Maximum torque at the wheel for highest requirements in the field
- Selective traction control for every wheel
- Degree of efficiency in the main working range has been specially optimised for the use in the crop care sector
- Infinitely variable drive from 0 – 50 km/h



The HighPowerGear wheel drive provides the required power reserves to manage the most difficult situations

TrackControl

ADAPTING THE TRACK WIDTH IN THE CABIN

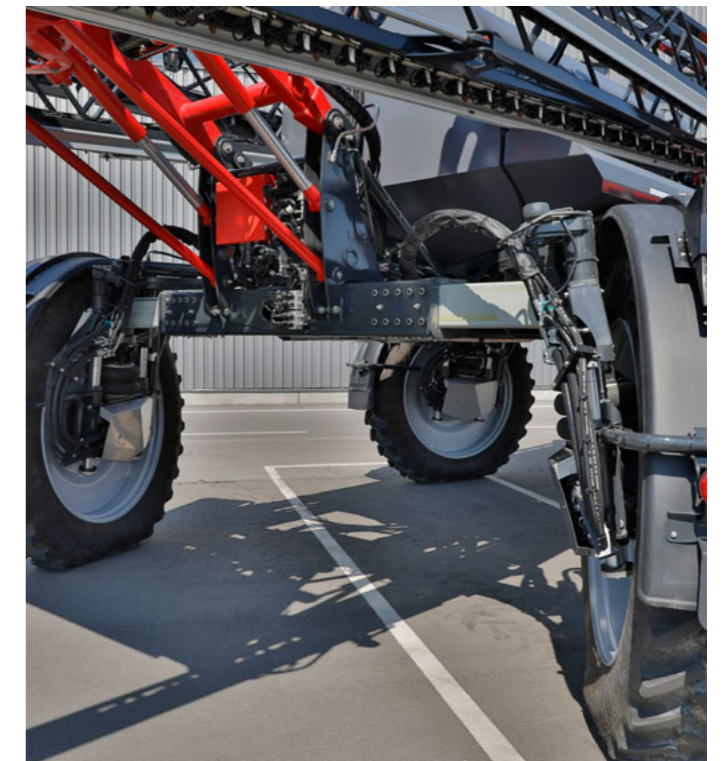


Description: TrackControl for comfortable adaption of the track width

The hydraulic flange adjustment TrackControl allows for a reliable and comfortable adjustment of the track width of the self-propelled sprayer HORSCH Leeb VL.

The track width can be adjusted infinitely between 2.60 and 3.50 m resp. between 3.00 and 4.00 m to react to any crop and row width. Tramlines can be avoided and stability and driving characteristics improve while spraying.

- Hydraulic adjustment of the track width in the cabin
- Adaption to different crops and row widths
- Track width 2.60 to 3.50 m resp. 3.00 to 4.00 m



TrackControl for maximum track widths

ClearanceControl

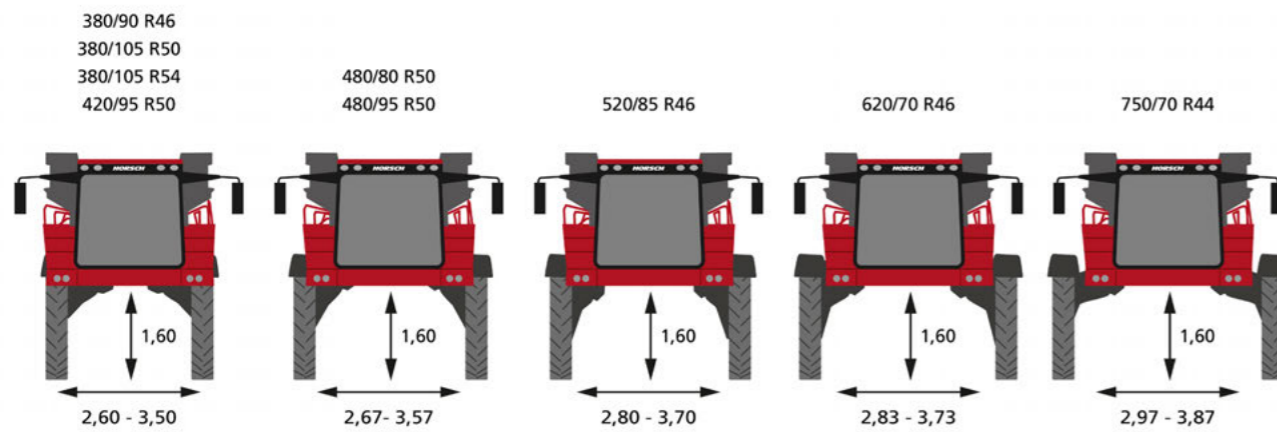
HYDRAULIC HEIGHT ADJUSTMENT ClearanceControl

With ClearanceControl the clearance can be adjusted hydraulically and gradually to keep up the optimum spraying distance and to protect the crops during operation. The clearance can be adjusted comfortably from 1.60 m to 2.00 m directly in the cabin. The sprayer can be adapted quickly and efficiently to changing crop and growth heights or can be adjusted in an optimum way for road transport.

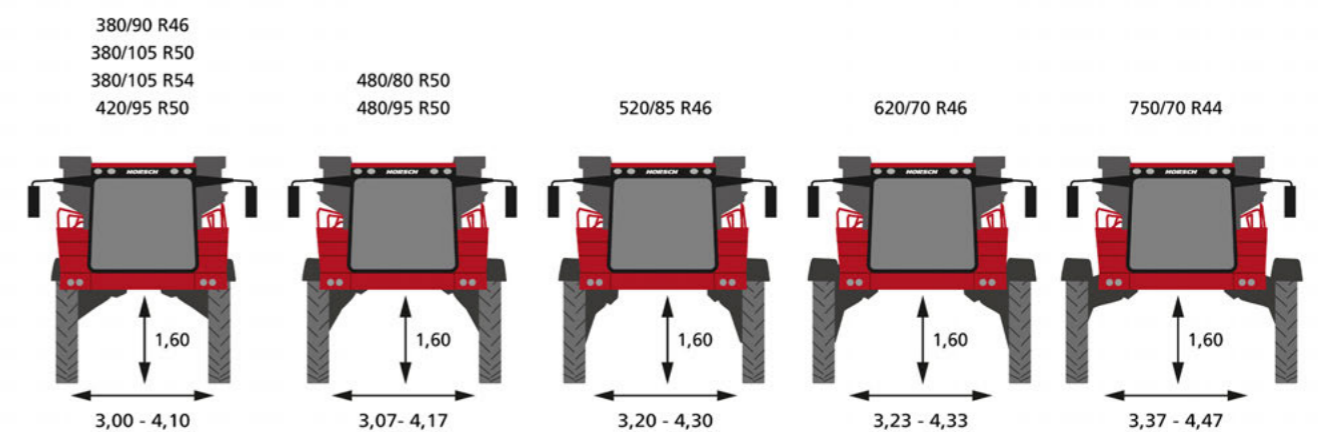
- Infinitely variable adaption of the clearance
- Can be operated in the cabin comfortably, quickly and efficiently
- Clearance can be adapted from 1.60 to 2.00 m
- Highest clearance in the market



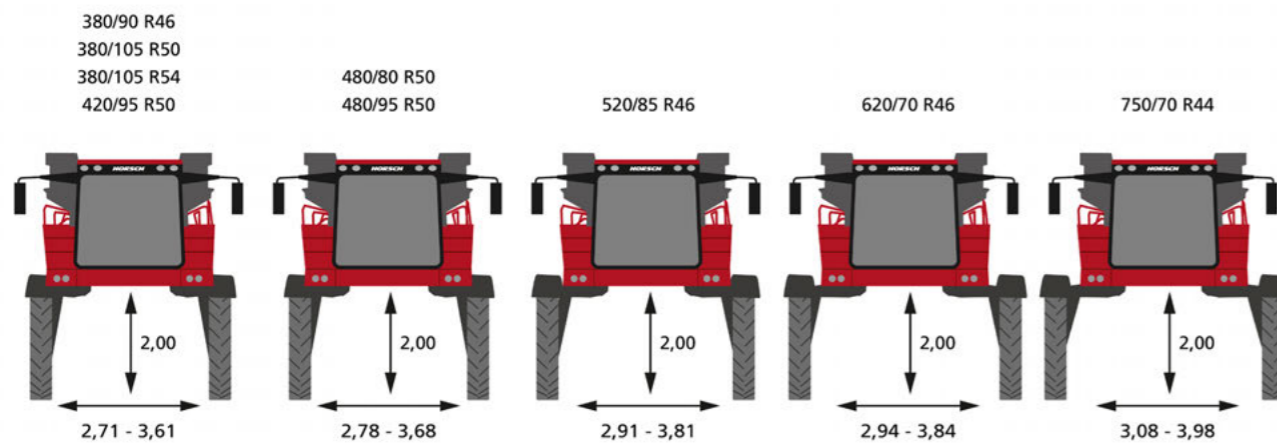
Hydraulic height adjustment ClearanceControl



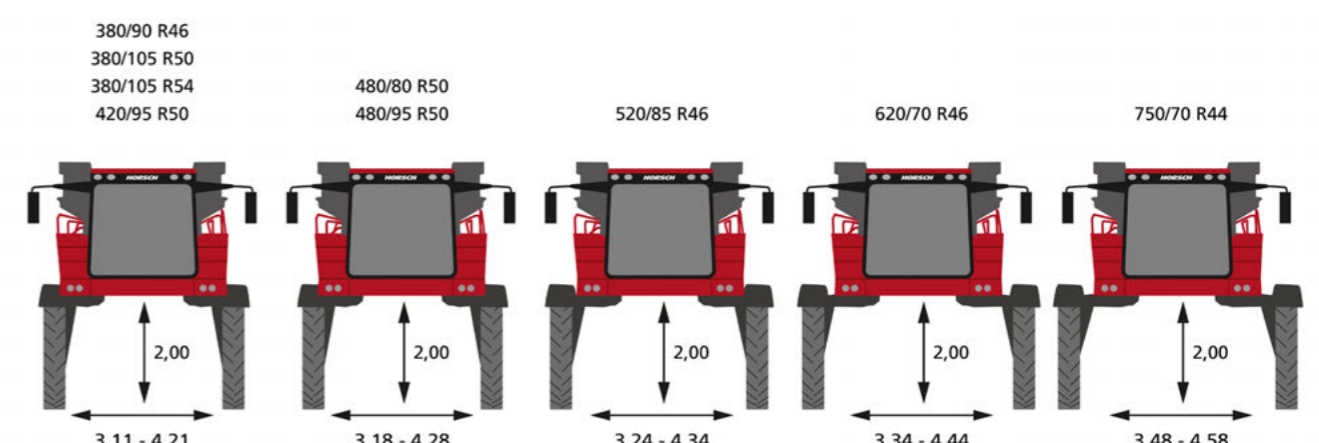
Track widths from 2.60 to 3.87 m in the bottom position



Track widths from 3.00 to 4.47 m in the bottom position



Track widths from 2.71 to 3.98 m in the top position



Track widths from 3.11 to 4.58 m in the top position

PowerFill filling pump

FILLING CONNECTION 3" with POWERFILL FILLING PUMP



Filling in the field with unfolded boom

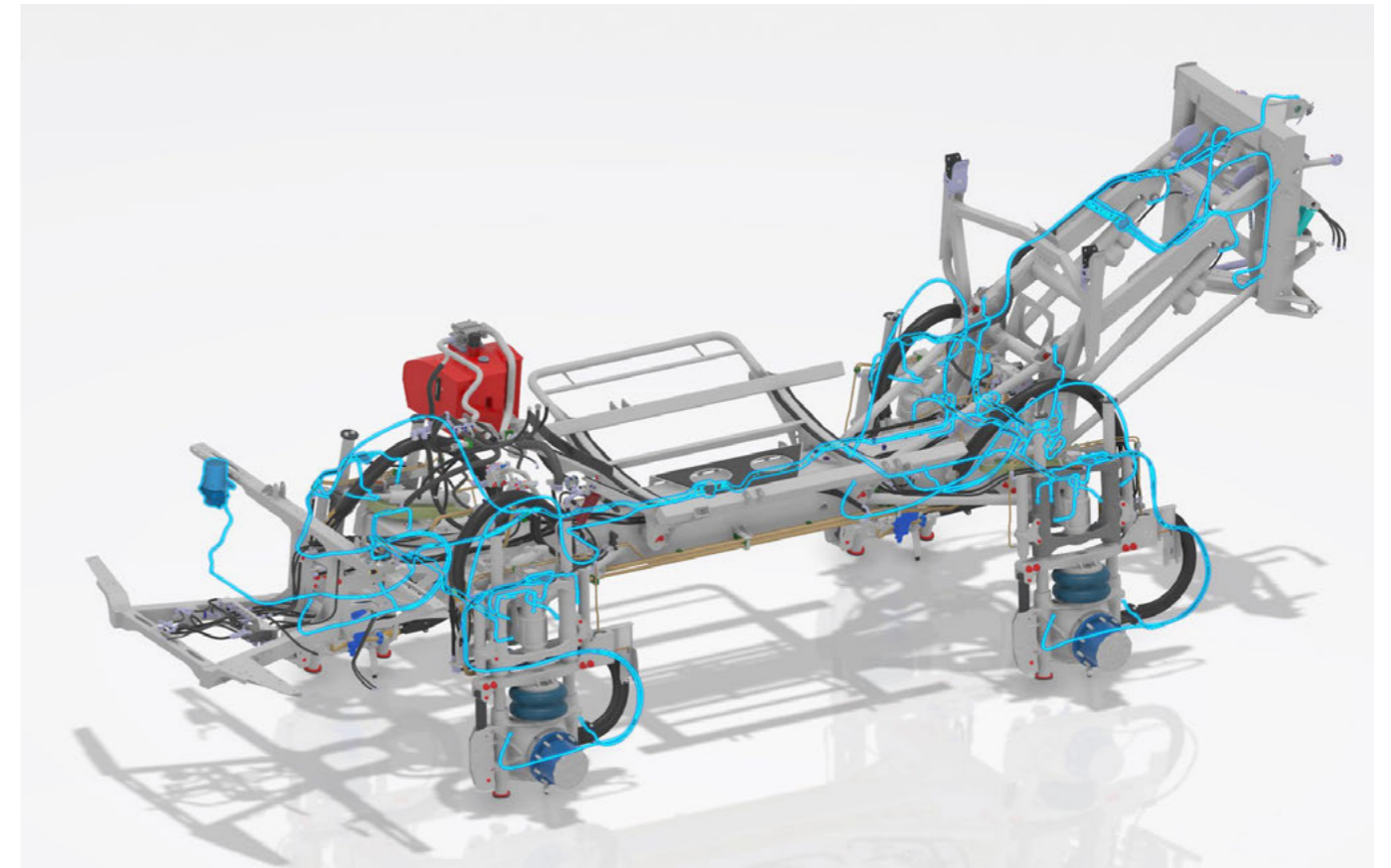
With the PowerFill filling pump, the sprayer can be filled directly in the field with unfolded boom within a very short time. The mixture that has already been mixed is pumped directly from a mixer tank to the mixture tank with up to 1000 l/min and filling times are minimised.

- Reduces journey, idle and filling times
- Powerful pump with a filling rate of up to 1000 l/min
- Filling in the field with the unfolded boom is possible
- 3" filling connection for pre-mixed mixture



PowerFill filling pump with 1000 l/min output – 3" Camlock filling connection front right

Central lubrication unit



Central lubrication unit for the axles and the parallelogram

The central lubrication unit facilitates and automates the maintenance and care of the chassis, the telescopic axles and the parallelogram. This reduces maintenance requirements and idle times.

- Reduces the maintenance requirements and maximises the ease of use
- Lower idle time
- Optimum lubrication

DIGITAL SERVICES

Terminal technology & steering system

Tractor terminal 1060 or 1260 with steering system

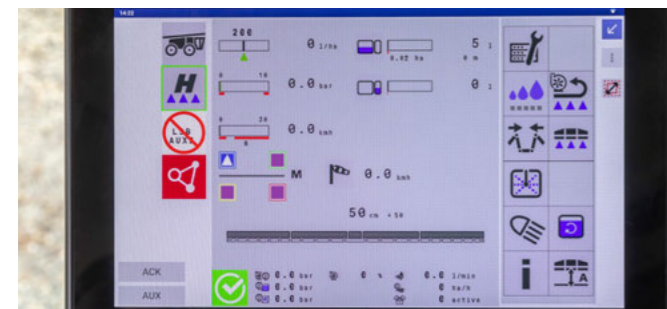
The new terminal generation Trimble 1060 or 1260 allows for controlling the machine at top level. Due to the high resolution and the sophisticated user navigation, complex machine functions can be operated comfortably. The high efficiency and the large (working) memory allow for a smooth handling of large data quantities or application maps. Thus, it becomes the perfect all-rounder for machine operation.

Combined with a completely integrated steering system with receiver, the application of your self-propelled crop care sprayer becomes even more precise and the driving comfort is maintained even on long working days. The activation VariableRate completes the precision solutions when working with application maps.



Powerful terminal TME1260 with large screen

- Intuitive machine operation via the high-resolution Trimble Terminal 1060 or 1260
- Optional extension by a second terminal or optional control via different approved external terminals
- Fully integrated steering system with receiver Trimble Nav 900
- Additional activation of VariableRate for site-specific variable application by means of application maps



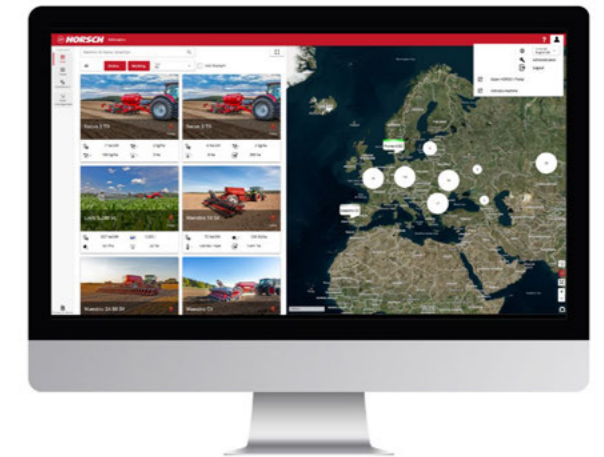
Powerful terminal TME1260 with large screen



Receiver Trimble Nav 900

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.

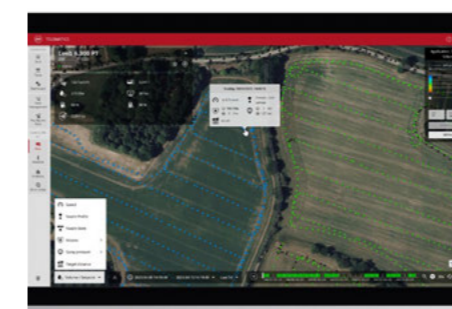


With HorschConnect telemetry solutions can be found in the sowing and plant protection sector – exactly where they make sense

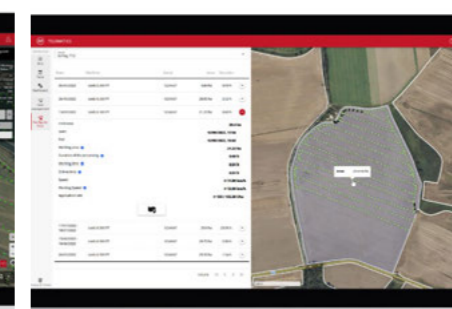
- Digital solutions exactly where they make sense
- Straightforward out-of-the-box solution with integrated SIM card, WLAN modem and other interfaces
- HorschConnect Telematics: automated documentation of application quantity, nozzle profile, nozzle status, pressure and target area spacing
- Targeted and proactive service due to remote access of the error messages
- Control of machine functions via smartphone app MobileControl: e.g. the nozzle test is carried out for individual sections.



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 quantity, 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



Hydraulically driven high-pressure cleaner



Wheel housings for sensitive crops, e.g., sunflowers



Hose reel for outside cleaning

TECHNICAL DATA

Leeb VL	5.300 VL	6.300 VL	8.300 VL
Mixture tank nominal volume (l)	5000	6000	8000
Water-cooled engine	FPT (Fiat Powertrain Technologies) N67	FPT (Fiat Powertrain Technologies) N67	FPT (Fiat Powertrain Technologies) N67
Nominal power (for rpm) (kW/hp)	212 / 288 (2200)	212 / 288 (2200)	212 / 288 (2200)
Maximum power (for rpm) (kW/hp)	230 / 313 (2000)	230 / 313 (2000)	230 / 313 (2000)
Cylinder number/cooling	6 / water / turbo with intercooler	6 / water / turbo with intercooler	6 / water / turbo with intercooler
Cylinder capacity (cm ³)	6700	6700	6700
Max. torque (Nm/Speed)	1160 / 1500	1160 / 1500	1160 / 1500
Control	Elektronic EMR	Elektronic EMR	Elektronic EMR
Tank capacity diesel/AdBlue (l)	approx. 450 / 45	approx. 450 / 45	approx. 450 / 45
Emission standard	Tier 5	Tier 5	Tier 5
Working widths (m)	24 - 48	24 - 48	24 - 48





HORSCH

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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