

# The Obvious Choice

Value for money - Ease of use



# NAVIGATOR

3000-4000-5000-6000



NAVIGATOR



	Quality	Ease of use	Capacity	Value for money
<b>Tank:</b>	3000 - 4000 - 5000 - 6000 l			<b>Axle:</b> Adjustable 1.5 – 2.25 m
<b>Track:</b>	IntelliTrack, high performing and stable drawbar steering			<b>EAGLE booms:</b> Simple and strong booms from 18 to 30 m
<b>Controller:</b>	HC 5500, HC 6500, HC 8500, HC 9500 or ISOBUS			<b>DELTA booms:</b> 3-dimensional high-performing booms from 18 to 28 m
<b>TurboFiller:</b>	Efficient handling of liquid and powder			<b>FORCE booms:</b> Rugged booms with excellent performance from 24 to 36 m
<b>Liquid system:</b>	DynamicFluid4 for precise application in all conditions			

## The Obvious Choice

NAVIGATOR is synonymous with high quality and design which supports functionality. Properties which secure the value for the money and ease of use. In the HARDI trailer family, NAVIGATOR offers features from mid size to full spec solutions.

The large range of high quality features makes the NAVIGATOR the obvious choice.



### IntelliTrack

IntelliTrack is a high-end steering drawbar concept combining the advantages of an excellently designed chassis with the use of advanced electronics.

The tracking concept is easy to connect and operate, ensuring safe tracking even in difficult field conditions.

IntelliTrack has an integrated safety feature which prevents the cylinders from steering the drawbar when the driving speed is too high for the given track width.

## Concept

Demands for simple and reliable solutions, serviceability and high capacity are universal world-wide.

The product represents HARDI's experience as sprayer specialist.

The proven success for NAVIGATOR sprayers since the introduction has shown the value of this position.



### HC 8500 and HC 9500 with AutoSectionControl

"Touch the future" with integrated electronics.

The HC 8500 and HC 9500 controllers provide growers a powerful, full-featured precision farming tool. AutoSectionControl, guidance, data logging and Auto-Slant/AutoHeight are integrated in the ISOBUS terminal.

The colour display has an excellent readability, also in sunlight. All primary functions are controlled by the intuitive grip.



### DynamicFluid4

DynamicFluid4 secures a precise and fast control of the application rate. All challenges from fast driving speed and acceleration as well as use of GPS controlled section control are handled in the most superior way by DynamicFluid4.

The system also offers features like SoftStart so no pressure peak will overload the fluid system. Another feature is sensor backup, preventing faults on the electronics to stop the spray job.

## Chassis

The heavy-duty NAVIGATOR chassis and axles are designed for high-speed driving under the most demanding field and road conditions. The robust NAVIGATOR frame is made of high-tensile steel and is ready to meet the tough demands of the professional farmer.

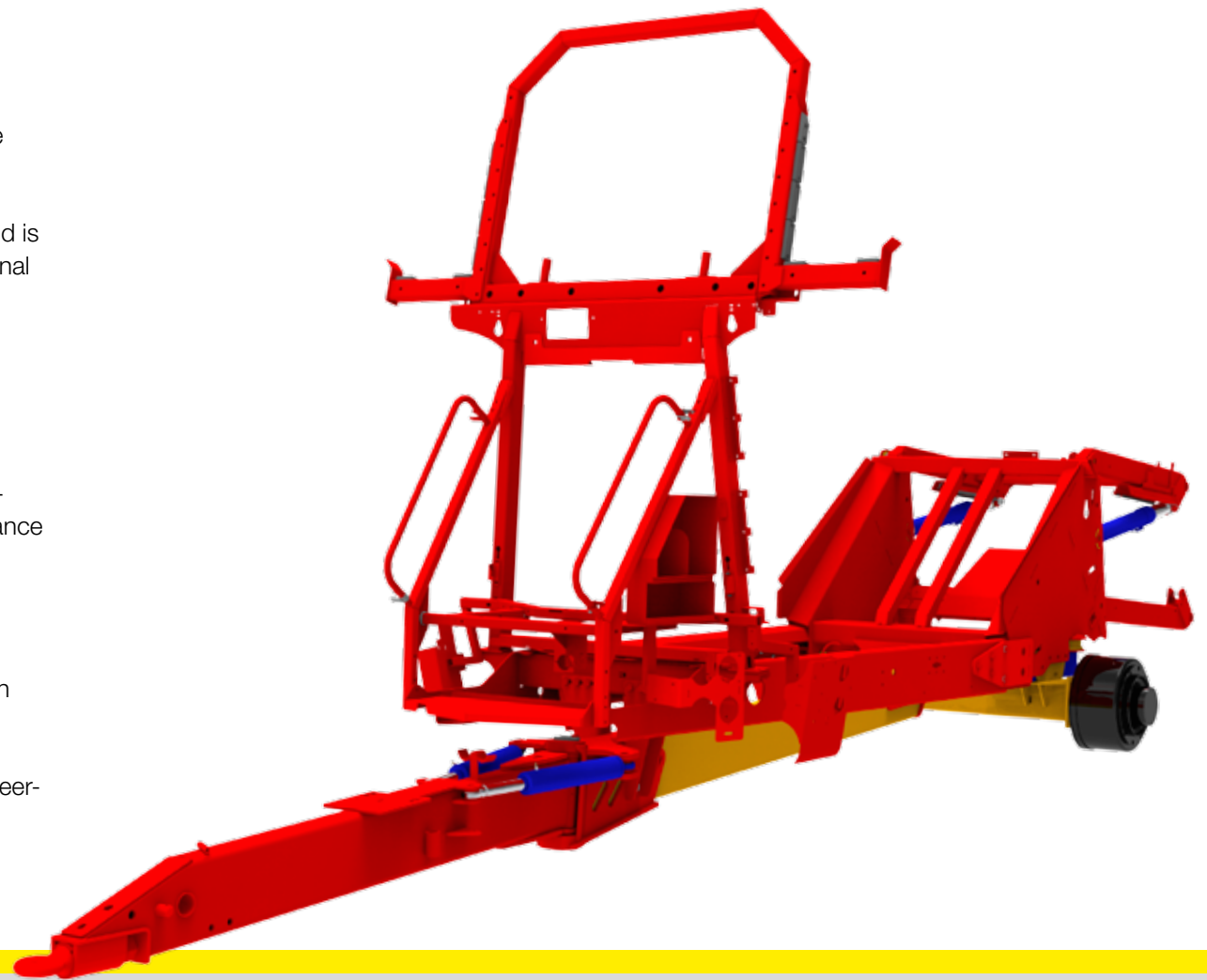
The concept gives the best compromise between excellent clearance and low centre of gravity.

### **Low centre of gravity**

The entire NAVIGATOR design has the lowest possible centre of gravity without compromising clearance under the sprayer.

### **Unique design with long drawbar**

The long drawbar is one straight line from the coupling point to the axle. Being bolted underneath the frame, it ensures good driving stability and absorbs the up-and-down forces at high-speed driving. The drawbar is available as fixed or as a steering drawbar and in a low or high-hitch version.



### **Perfect clearance**

The unique design of axle and frame ensures excellent crop clearance, reducing crop damages to the absolute minimum. No brake rods or steering components are lower than the axle.



### **SmoothRide**

The optional SmoothRide suspension system is uncomplicated, reliable and requires little or no service. The suspension provides a better ride of the sprayer, ensuring higher capacity and comfort.



### IntelliTrack

This high-end steering drawbar concept offers a tight turning radius. A combination of advanced electronics, proportional valve and two large hydraulic cylinders ensures a safe, accurate tracking with user-friendly operation.

### Dynamic Electronic Control (DEC) preventing tilt over

IntelliTrack has an integrated safety feature which prevents the cylinders from steering the drawbar when the driving speed is too high for the given turning radius.

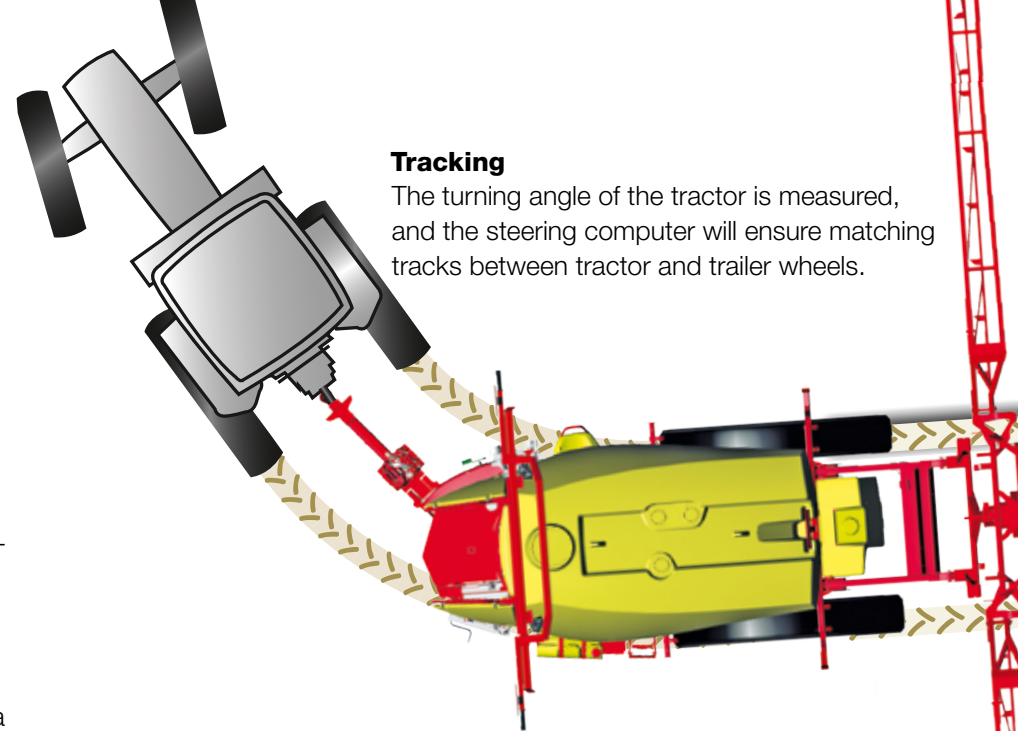
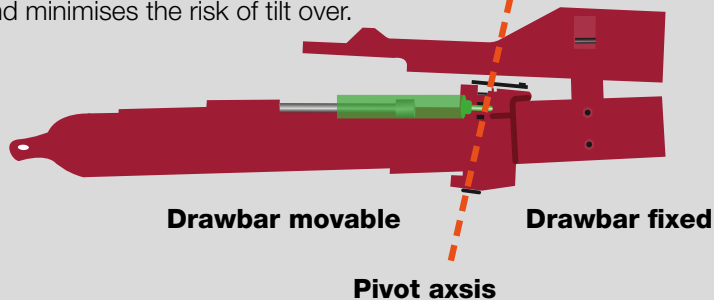


The controller will constantly monitor the forward speed and steering angle width to make sure that the tracking is not used when it is not safe. If the tractor driver attempts a 90° turn at e.g. 15 km/h, the IntelliTrack system automatically computes the data and straightens up the drawbar. These settings are user defined.

When the IntelliTrack has been calibrated, the operator only needs to attach 2 small chains to the tractor, before he can start spraying. Together with the brackets, the two connection chains build a trapeze which tolerates slack forced or drawbar torsion.

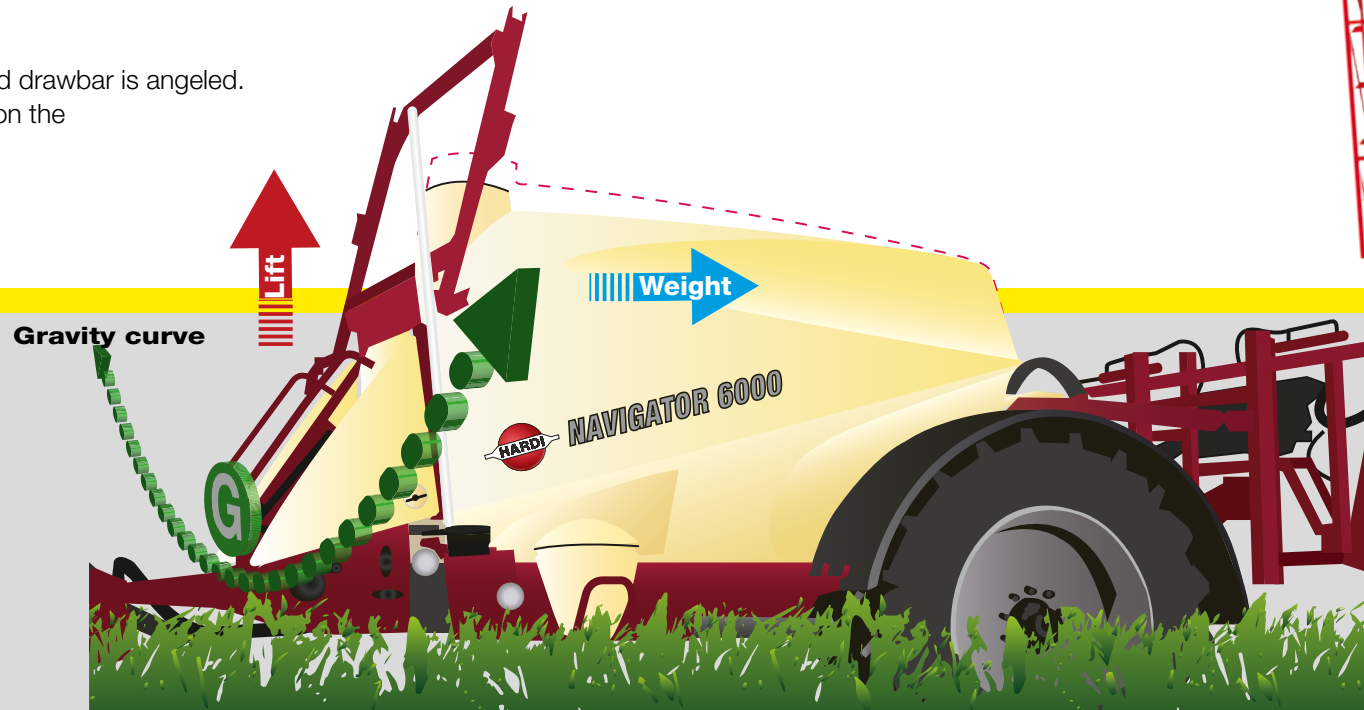
For a better stability when turning, the pivot point between trailer and drawbar is angled. This feature helps you minimizing the turning radius down to 6.0 m on the NAVIGATOR 3000 and 4000 and 8.5 m on 5000 and 6000.

The steering geometry and the angled pivot axis ensures that the centre of gravity of the trailer is following the gravity curve and minimises the risk of tilt over.



### Tracking

The turning angle of the tractor is measured, and the steering computer will ensure matching tracks between tractor and trailer wheels.

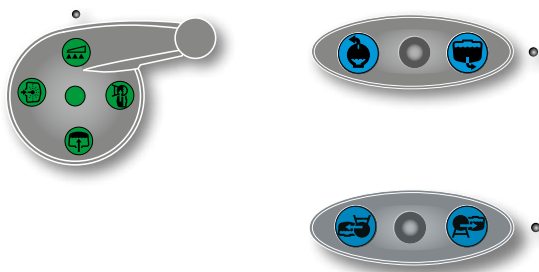


## Liquid system

To be able to handle large volumes of liquid with a minimum of pressure loss, the NAVIGATOR has large dimensions in all valves, tubes and filters.

### SmartValve

All primary functions needed for filling or cleaning the sprayer are built into two handles located in the centre of the working zone. The logically placed handles with easy-to-read icons make the system very intuitively to operate and greatly reduce the start-up and operation time of the sprayer.

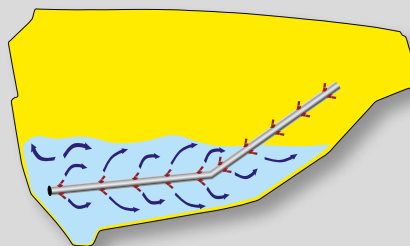


### Pump

The NAVIGATOR liquid system is driven by the robust grease-lubricated HARDI diaphragm pump. The diaphragms separate the liquid from the vital parts of the pump such as its bearings and crankshaft, ensuring reliable and durable operation.

HARDI diaphragm pump features:

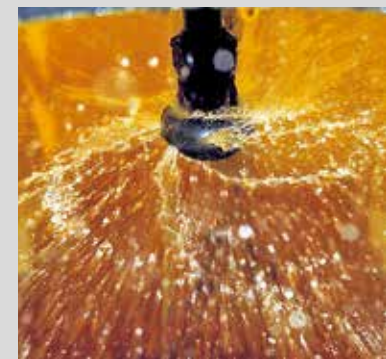
- Self-priming
- Able to run dry without damage
- Easy to service
- Grease-lubricated crankcase



### Improved agitation

Use of Venturi nozzles increases the input for agitation by approx. 4 times.

The nozzles are positioned so there are no blind spots in the tank. The agitation concept has proven to be extremely efficient for both liquid and powder.



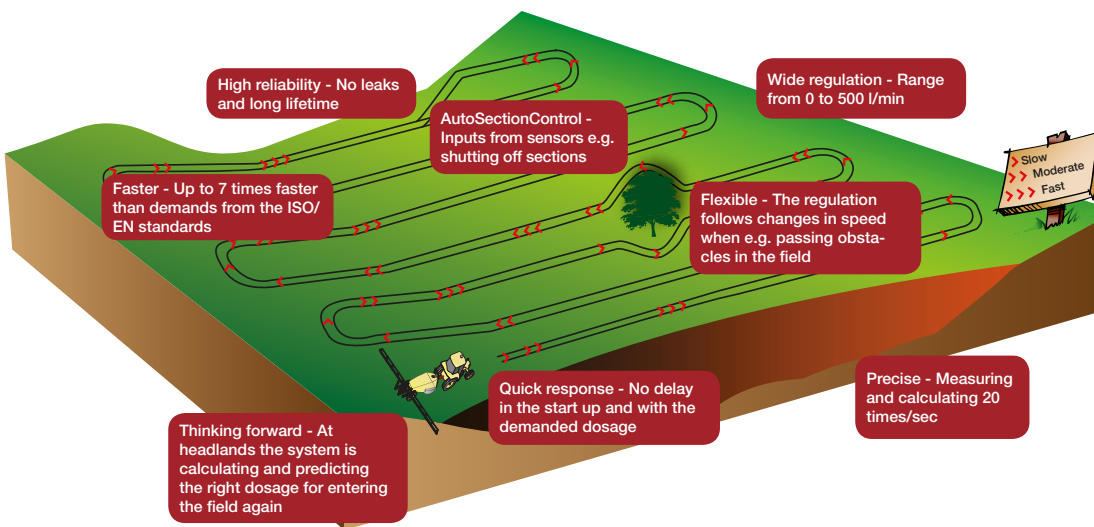


## DynamicFluid4

HARDI's DynamicFluid4 regulation system was introduced in November 2012 and since then, it has received 3 major awards at AGROMEK, TechAgro and SIMA exhibitions.

With its 4-sensor technology and no leakage design, DynamicFluid4 results in faster regulation with the highest possible accuracy and works with a fast "feed forward" regulation software to deal with all the challenges in modern spraying.

Also challenges forced by tractors with stepless transmissions the DynamicFluid4 is programmed to cope with at different driving behaviours and fast speed changes giving the crop the absolute right dosage.

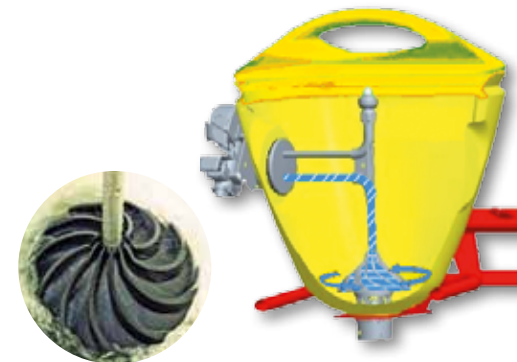


## TurboFiller

The HARDI TurboFiller is developed to handle large quantities of powders and liquids. Its high capacity is a result of high vacuum combined with rotation of the liquid forced by the TurboDeflector placed in the bottom of the hopper.

Changing from transport to the 95 cm high filling position is easily made by a spring-loaded bracket with automatic transport lock.

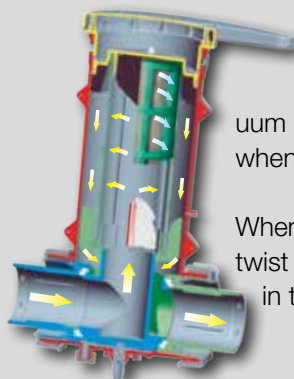
A multifunctional 3-valve operating unit and a cleaning pipe make the chemical filling easy and efficient. The cleaning of containers and the TurboFiller itself is managed by a rotating nozzle.



## DilutionKit

The HARDI NAVIGATOR can be equipped with a DilutionKit, allowing the operator to flush the liquid system from the driver's seat.

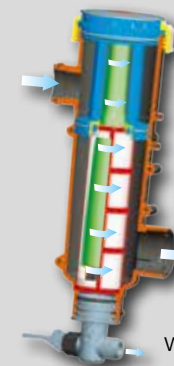
The operator can flush only the boom or rinse the tank with the flush nozzles. The need of rinse water is reduced due to the optimized liquid system. All return lines and agitation will be flushed when spraying out the diluted liquid from the main tank.



## EasyClean filter

The EasyClean filter is a high capacity suction filter. The condition of the filter can be constantly monitored via a SafeSpray vacuum gauge; this ensures that the filter is cleaned when needed and only when needed.

When cleaning the filter, all you have to do is to twist the lid 90°. This will close a main tank valve in the bottom of the filter and open the filter for inspection.



## CycloneFilter

The CycloneFilter at the pressure side is a unique self-cleaning filter with a high-speed cyclone action that increases the cleaning capability of the filter significantly.

In addition, the CycloneFilter has a unique boost function allowing the filter to be flushed when needed.

# ***NAVIGATOR*** 3000 - 4000 - 5000 - 6000







DynamicFluid4

Precise and fast control of the application rate



Tank

3000, 4000, 5000 and 6000 l



Boom

EAGLE booms, 18 - 30 m  
DELTA booms, 18 - 28 m  
FORCE booms, 24 - 36 m



AutoSectionControl

Automatic ON/OFF  
GPS controlled boom sections





Automated or manual track steering



Fast filling with high capacity



Fixed or adjustable axles, 1.5 – 2.25 m



Easy control of spray job



Agitation



HC 5500, HC 6500, HC 8500 or HC 9500 controllers



Simple operation of liquid system



Auto leveling of the booms



DilutionKit



Reliable, high capacity and easy to service





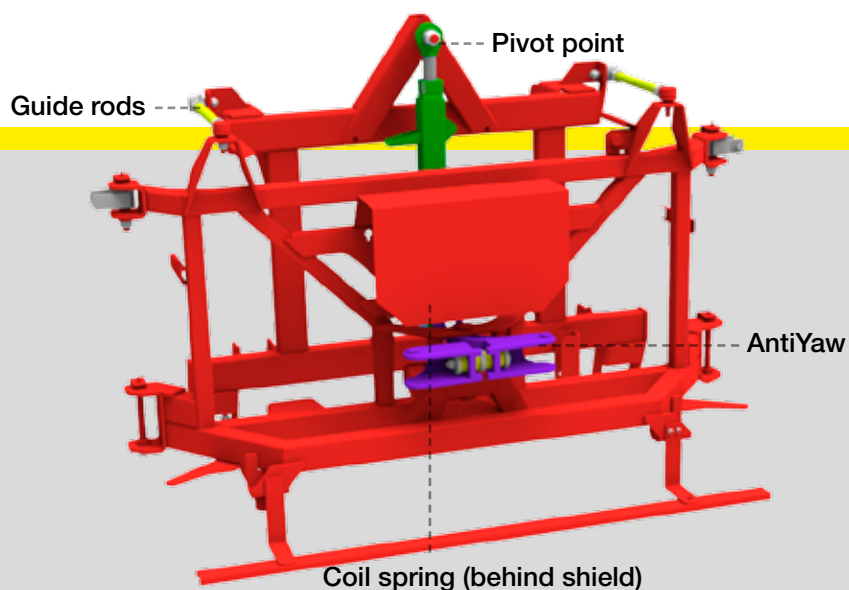
## Booms

### DELTA

The 18-28 m DELTA boom is a compact, high-performance boom built for the very demanding user. The boom has highly advanced suspension features, which in combination with the three-dimensional boom design ensures most accurate application.

The centre section with coil spring pendulum and telescopic dampers absorbs the movements caused by the tractor and the trailer. The hydraulically activated pendulum lock stabilizes the boom whilst folding or unfolding.

A unique anti-yaw system, dampens the forward and backward horizontal movements as well as any horizontal shock load.



### AutoSlant and AutoHeight

The HARDI AutoSlant and AutoHeight systems will automatically control the boom. This gives the driver a much easier work, and the result will be a better spray application.

The system is known for the following features:

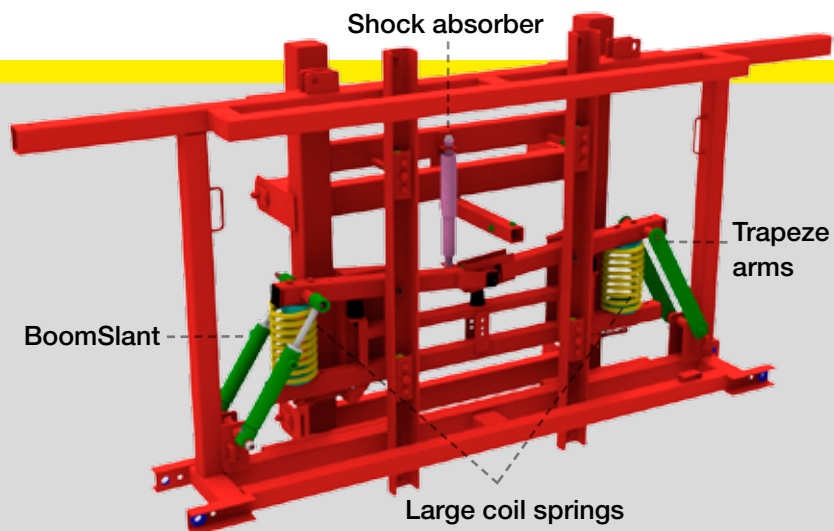
- Robust and precise ultrasonic sensors
- Option to choose between soil, crop or hybrid mode
- Proportional valve for smooth movements (AutoHeight)
- Slant, tilt and height correction (AutoHeight)
- Slant and height correction (AutoSlant)



## EAGLE

The 18-30 m EAGLE boom is designed for heavy-duty use under the most demanding conditions and minimum service. The boom is well-known around the world for its performance under the hardest conditions.

The EAGLE boom is suspended on two large coil springs with shock absorbers. The horizontal movements are controlled by a heavy-duty trapeze system that allows spraying and turning at very high working speeds.



### Two different setups

The EAGLE boom is available with two different hydraulic set-ups. Y-version gives an easy folding where left and right side of the boom are folded symmetrically. Z-version is electro-hydraulic and gives the possibility of individual tilt and single-side folding.

Boom slant is an option on both versions.





## FORCE

The strong FORCE boom is available in 24 to 36 m and is the perfect choice for large scale farmers and contractors looking for unmatched performance and dependability.

The rugged 3-dimensional structure guarantees unrivalled durability.

### Five exceptional dampening features

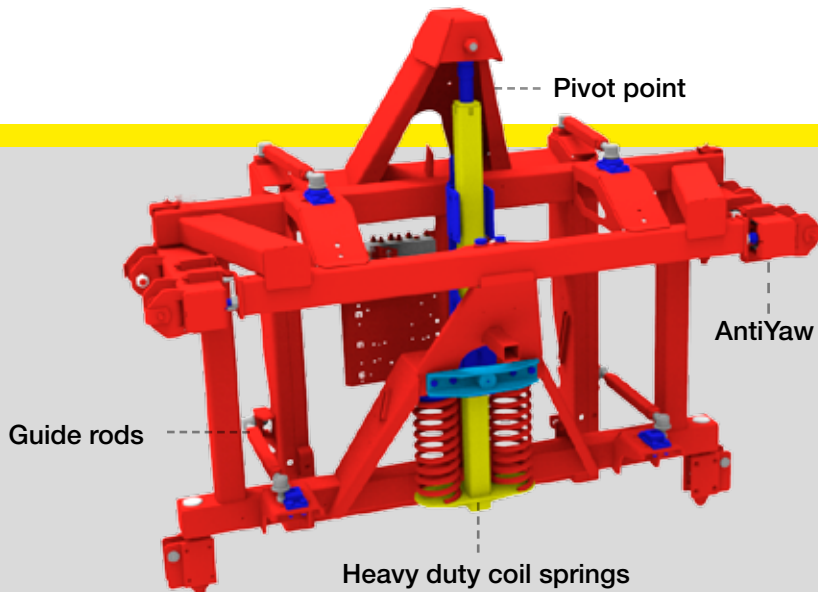
**Coil spring:** Two large coil springs dampen movements directly up and down from the field.

**Pendulum:** The Pendulum dampens fast side movements and keeps the boom horizontal.

**Pendulum dampening:** A hydraulic dampening cylinder that is fully adjustable dampens the pendulum.

**Guide rods:** The sensitivity of the pendulum can be adjusted by moving the guide rods, ensuring a perfect boom ride under all conditions.

**Anti-Yaw:** A unique anti-yaw system dampens the forward and backward horizontal movements as well as any horizontal shock load.



## BoomPrime

BoomPrime is a low-pressure circulation system for booms. The spray liquid can circulate to the nozzles before the actual spraying starts. It prevents sedimentation and permits flushing of the boom lines without spraying onto the ground. Every section has an even pressure valve, ensuring that the pressure in the sections is never higher than 0.7 bar, so that the non-drip valves will not open.

- No untreated areas at spray start.
- No pesticide sedimentation in the spray lines.
- Positive pressure-based system to ease trouble-shooting.



# Controllers

## HC 8500 and HC 9500

The complete integration of all important information on one work screen is an important criterion for most farmers. The HC 8500 and HC 9500 are multicolour HD touch screens that are very easy to operate while providing an optimal overview for maximum control of the spray job.

## Integrated electronics

On the working screen the driver can operate AutoHeight, AutoSectionControl, as well as guidance and dosing. The view can be switched between 2D and 3D, when guidance is active.

## Data management and data transfer

The HC 8500 and HC 9500 have an USB port as standard feature; via this port data can be exchanged. This simplifies application reporting, providing an easy way to generate detailed application reports for governmental record keeping. Reports provide location, product information, applied totals, field areas, as applied maps and field boundaries. The data can be transferred to different farm management software.

The HC 9500 automatically creates an application report in a pdf-format which can be saved, emailed or printed. For this no additional software is required. Basic information about weather, soil conditions, products, etc. can be added.

## Virtual Terminal

The HC 8500 and HC 9500 displays are designed to meet the ISO 11783 ISOBUS Virtual Terminal standard. So the sprayer could also operate as with a HC 6500 terminal.



Feature	HC 9500	HC 8500
Dimension	12.1" (30.7 cm)	8.4" (21.3 cm)
ISOBUS Virtual Terminal	•	•
USB port	•	•
AutoSectionControl	•	•
Guidance	•	•
Coverage Mapping	•	•
Data Logging	•	•
Variable Rate Application	•	•
Smart Report™	•	N/A
Boom Height Control	○	○
AutoSteer Control	○	○
OptRx® Crop Sensors	○	N/A
Camera Support	○	○

• Standard ○ Optional

Smart Report and OpTrx are not available on HC 8500

## ISOBUS terminal

The HARDI NAVIGATOR can be operated with a virtual ISOBUS terminal. The customer can order the NAVIGATOR and use the intelligent functions like AutoSectionControl direct from his own ISOBUS terminal if supported.

To make the complex sprayer operation easier, the proven HARDI JoyStick will be delivered with the NAVIGATOR sprayer.





## HC 6500

With its large colour display and HARDI JoyStick operation, the HC 6500 is in the top end of spray controllers. Together with a user-friendly menu, the HC 6500 will make the NAVIGATOR an even more obvious choice.

HC 6500 is designed only for spraying, which means that there is no compromise in functionality to meet the demand for other implements. The ergonomic optimal design supports the demands given by long working hours and easy operation.

All buttons are placed in a logical way which harmonizes with the corresponding function. As an example, all functions often used during the spray job are placed in the HARDI JoyStick, so these functions can be activated without lifting the arm from the seat's arm rest.

To make it as easy and simple as possible, the connection between sprayer and tractor is made with only one cable.



## HC 5500

The HC 5500 is a powerful computer making the spray features easier and safer to use and easily supplies more information when needed. It is the obvious choice where features like IntelliTrack and advanced farming tools are desired. The operator is instantly informed of the operation status and warned if vital parameters like pressure, speed, etc. are incorrect.

It is advanced farming, ready with up to 98 register and connection possibilities to a site-specific application map or a remote sensor.

Various optional extras like AutoSectionControl, TankGauge or 12-V printer are available.

The LogicMenu makes it easy to get vital information very quickly; when pressing pre-set keys, the information appears in the large-format area of the screen. They double up as short cut keys for the most used functions. Volume rate can be changed on the go as a percentage or as a volume value.

HC5500 is equipped with the new SprayBox III, which allows connection of spray management systems like SprayRover 570.

Controller	HC 6500	HC 5500
Number of registers	98+1	98+1
Maximum number of distribution valves	13	9
"GPS", data transfer and print	Yes	Yes
Clock (Time/Date/Alarm/Stop watch)	Yes	Yes
Alpha-numeric keyboard	Yes	No
Colour display	Yes	No
Help functions	Yes	No
Dilution kit	Yes	Yes
Foam marker	Yes	Yes

## SprayRover 570

The SprayRover 570 is a stand-alone AutoSectionControl which can work in combination with the well-known HC 5500 controller. The 5.7" (14.5 cm) colour touch screen display can be used in 2D or 3D graphic while offering guidance with five different guidance modes.

The HARDI SprayRover 570 is equipped with an antenna, which works with the free of charge EGNOS/WAAS signal, accurate and fine under normal field conditions. An optional higher quality antenna, the RXA-30, is available if running in hilly conditions.





## Optionals

- ① Tracking with 2 cylinders
- ② Manifold pressure valve
- ③ TurboFiller
- ④ FastFiller or PumpFiller
- ⑤ Manifold suction valve
- ⑥ RinseTank
- ⑦ Pressure Empty
- ⑧ SafetyLocker
- ⑨ Adjustable axle
- ⑩ SmoothRide suspension
- ⑪ Mudguards
- ⑫ Clean Water tap
- Controllers



In-Line Filter



ChemLocker



BoomFlush



External Cleaning Kit



EcoFill coupling



Hydraulic pump drive



HARDI AutoSlant/AutoHeight



Hoses for liquid fertilizer



BoomPrime



Night Spraying Light

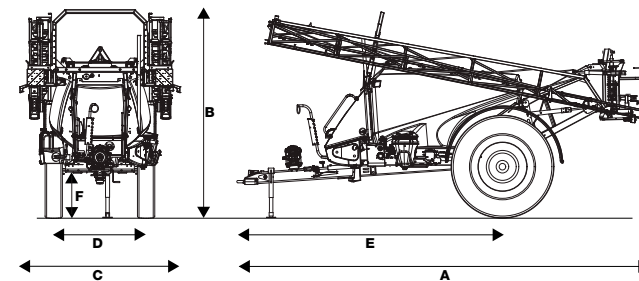


## Technical specifications

Tank, l	3000	4000	5000	6000
Pumps, type – l/min	363 -194 / 463 - 276 / 463H - 322			
Booms	EAGLE, DELTA	EAGLE, DELTA	EAGLE, DELTA, FORCE	EAGLE, DELTA, FORCE
Suspension	Optional	Optional	Optional	Optional
Tracking	Optional	Optional	Optional	Optional
Hydraulic outlets needed (Y models) **	1 single- + 1 double-acting	1 single- + 1 double-acting	1 single- + 1 double-acting	1 single- + 1 double-acting
Hydraulic outlets needed (Z models) **	1 double-acting	1 double-acting	1 double-acting	1 double-acting
Weight on drawbar (empty tank)*, kg	280	460	400	475
Weight axle (empty tank)*, kg	3,120	3,020	4,150	4,250
Weight total (empty tank)*, kg	3,400	3,480	4,550	4,725
Turning radius IntelliTrack, m	6.0	6.0	8.5	8.5
Total length, m	<b>A</b> 7.21	7.21	8.0 - 9.35	8.0 - 9.35
Total height, with EAGLE boom, m	<b>B</b> 3.80	3.80	3.94	3.94
Total height, with DELTA boom, m	<b>B</b> 3.80	3.80	3.80	3.80
Total height, with FORCE boom, m	<b>B</b> –	–	3.80	3.80
Width with EAGLE boom, m	<b>C</b> 3.00	3.00	3.00	3.00
Width with DELTA boom, m	<b>C</b> 2.55	2.55	2.55	2.55
Width with FORCE boom, m	<b>C</b> –	–	3.00	3.00
Track width fixed axle, m	<b>D</b> 1.80 / 2.00	1.80 / 2.00	–	–
Track width adjustable axle, m	<b>D</b> 1.50 - 2.25	1.50 - 2.25	1.80 - 2.25	1.80 - 2.25
Length draw to axle, m	<b>E</b> 4.61	4.61	5.45	5.45
Clearance, m	<b>F</b> 0.8 (13.6 × 48)	0.8 (13.6 × 48)	0.8 (13.6 × 48)	0.8 (13.6 × 48)
RinseTank, l	500	500	500	500
CleanWater tank, l	20	20	20	20

\* Weight 3000 l is with 24 m EAGLE boom, 4000 l with 28 m DELTA-Z boom, 5000 l is with 30 m EAGLE boom, 6000 l with 30 m FORCE boom

\*\* Minimum requirement. Extra function can require extra outlets.



### EAGLE 18 – 30 m

The EAGLE boom offers unequalled performance in rough conditions. The strong and well-proven two-dimensional EAGLE boom is the ideal choice for operators looking for durability and value.

### DELTA 18 – 28 m

The DELTA boom offers excellent performance and dependability. The rugged three-dimensional structure guarantees good durability. The design makes it compact in transport and storage.

### FORCE 24 – 36 m

The FORCE boom is developed for large scale farming and demanding field conditions. The FORCE boom will meet the tough demands from farmers worldwide.



*Høje Taastrup,  
Denmark*

*Nørre Alslev,  
Denmark*

*Savigny,  
France*

*Beaurainville,  
France*

*Davenport,  
USA*

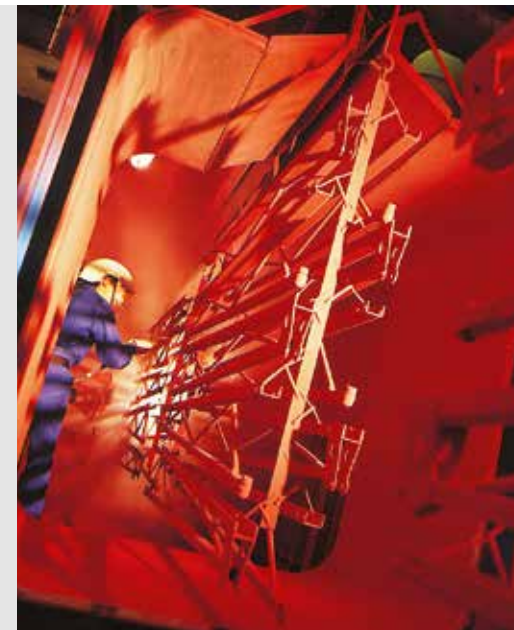
*Lleida,  
Spain*

*Adelaide,  
Australia*

## HARDI - The Sprayer

HARDI INTERNATIONAL A/S is an international group whose basic idea is to satisfy the user's requirements for quality products which ensure efficient, punctual and precise application of crop protection products. Our world-wide distribution and sales network comprise more than 100 countries where we are represented by importers, agents and sales subsidiaries. These are situated in Sweden, Norway, Denmark, UK, France, Spain, North America, Germany and Australia.

Since 1957 HARDI has committed to the ever-increasing demands for efficient and precise plant protection. HARDI is the trendsetter within application of crop protection products. To achieve this position continued developments and innovation are essential. HARDI is committed to the long term future of plant protection.



## Superb surface treatment

The high-technology surface treatment contains 13 treatments, including a pre-treatment and powder coat painting of all major components.

Together with the Delta/Magni treatment of nuts, bolts and other items, we supply high corrosion protection of our products.

## HARDI INTERNATIONAL A/S

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E-Mail: [hardi@hardi-international.com](mailto:hardi@hardi-international.com) • [www.hardi-international.com](http://www.hardi-international.com)



**The Sprayer**

## Testing procedures

Sprayers leaving HARDI INTERNATIONAL A/S are tested according to the strictest quality standards.

The staff of the assembly line is accredited to match the demands from both NSTS (National Sprayer Testing Scheme), UK and JKI (Julius Kühn Institut), Germany. This ensures that the highest quality sprayers are delivered to farmers.



Read more at [www.hardi-international.com](http://www.hardi-international.com)

*HARDI reserves the right to change the specifications without notice.  
Illustrations shown may include optional extras and accessories.*

