

M A D E I N F R A N C E

# HERACLES

/// 2600L /// 3000L /// 3100L /// 3500L /// **/// DARK**  
BY BERTHOUD



**/// DARK**  
BY BERTHOUD

# BERTHOUD

# HERACLES EVO

a wealth of solutions for the protection of your crops



## HERACLES FOR AN INTENSIVE AND MODERN USE

- **Volume for increased productivity and autonomy**
- **Compact design for good balance and great manoeuvrability**

- High overall versatility for the most demanding applications
- Tanks with an innovative design for an optimal load ratio and increased visibility
- New ALSR boom: proven stability and sturdiness.
- New spraying control with the SecurMix interface
- New redesigned chemical funnel and implementation
- Ultimate application accuracy: Spraytronic system and optional nozzle-by-nozzle shut-off
- Nominal volume from 2600 L to 3500 L

	HERACLES	Front tank	
		1000 L	1500 L
HERMES 2 DARK	1600 L	2600 L	3100 L
	2000 L	3000 L	3500 L

# HERACLES

a combination of front & rear tanks but above all a multi-purpose tractor that can be used for other tasks



## FRONT TANK

- Retractable storage wheels : easy to handle and prepare to hitch
- Standard 3-point hitch on the front
- Hydraulic connection (2 P (pressure) + T (free return) hoses)
- Electrical connection (controls) and (lights)
- "Camlock 2" connection for the 2 transfer pipes (1 isolation valve)



## REAR TANK

- Automatic and ergonomic hitch/storage feet
- Hydraulic connection for solenoid valve control of the boom
- Electrical connection (controls) and (lights)
- "Camlock 2" connection for the 2 transfer pipes with electric isolation valves

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## Rear tank

Robust, stable quick and easy

## SAFETY & ACCESSIBILITY



## BERTHOUD PATENT



- ➔ The kinematics provide to have space for preparing the hitch and the connections: peace of mind, speed and safety
- ➔ Final locking of the hitch performed from the tractor: ergonomic and safe for the operator
- ➔ Optimised locking and blocking for perfect 'monobloc' behaviour with the tractor: control and stability in all conditions
- ➔ Unhitching: reverse procedure. Unlocking is done from the driver's seat of the tractor, with the sprayer resting on the ground.

### ERGONOMIC

ensures complete safety  
for the operator

### QUICK

makes the tractor  
versatile for  
other work

# Preparation for the application

## Comfort & cleanliness

A well-designed control station for **the safety of the operator** and the environment and for a precise preparation of the spray mixture

Control station: a new efficient, built-in chemical funnel



Incorporation requires preparation, peace of mind and precision. The new Berthoud chemical funnel meets all user expectations:

- Waterproof in the closed position and totally integrated into the design of the sprayer
- Ergonomic and at standard height in working position
- 35-litre **hopper** to handle increasingly high product volumes
- Design for easier flow and a circuit that creates a significant vacuum for quick incorporation of liquids, powders and granules
- Avoids any possible splashing and thus protects the operator
- Peripheral flow boom
- Hopper and container rinsing equipment
- Use with clear water and in a closed circuit

## ← A STRATEGIC SPACE

Control station completely protected from any splashing to ensure comfort of use and eliminate the risk of dust and other splashes in the chemical funnel

## CLEANLINESS

A clean space allows you to work peacefully and improves safety

## SAFETY

Protecting the chemical funnel from all dirt limits the risk of clogging and ensures uniform, continuous spraying.



# ERGONOMICS

# SecurMix®

for complete,  
safe and precise implementation



SecurMix: external auxiliary. Genuine assistant to the implementation communicating with the in-cab terminal

**SecurMix** assists the operator in the logic of implementation and allows a safe control of all functions from the control station:

- Filling
- Filling programming with automatic stop
- Incorporation
- Front/rear homogenisation
- Front/rear transfer and maintenance of levels
- Adjustable mixing
- Spraying
- Boom-only rinsing
- Rinsing of tanks
- Sequential dilutions
- Auto sequential rinsing
- External discharge
- ...



Operators can **configure use** and spraying cycles according to their practices to reuse them later like a real assistant



# SecurMix®

The easy-to-use and secure implementation of HERACLES

- 1 SecurMix allows Heracles to control the volumes in the tanks as soon as they are filled.
- 2 No matter how the sprayer is filled, SecurMix automatically balances the filling of both tanks.
- 3 The mixing intensity is proportional to the volume in the tanks, automatic Control and management
- 4 SecurMix balances the load of both tanks and homogenises the spray mixture
- 5 Securmix ensures the safety of the operator and the sprayer by avoiding any risk of wrong manoeuvre



## → Rinsing

The rinsing phase is very important and must remain simple. It must be perfect to avoid any subsequent phytotoxicity on the following crop.

At Berthoud, in addition to keeping the harvest safe, we have relieved the user of this burden. **SecurMix** controls all the rinsing directly from the cab. You can launch a boom-only rinsing (without return to the tank) as well as a complete rinsing program.



*The automatic rinsing program takes care of diluting the residual liquid in the front and rear tanks at the same rate. The 3 dilution cycles are carried out without any operator intervention.*



*This keeps the sprayer in perfect balance, constantly homogenises the spray mixture and ensures impeccable dilution and cleaning in all the pipes.*

### THE COMPLETE CYCLE!

SecurMix, a valuable assistant. Depending on the chosen program, SecurMix offers spraying functions sequentially and automatically. Each completed stage is validated by the operator



# High-Tech

**ALSR boom**  
Sturdy and quick!

Quick  
but always  
**safe**



**UNFOLDING IN  
45 SECONDS  
FOR A 30-METRE  
BOOM!!**

- ➔ Unfolding or folding in 45 seconds: speed combined with flexibility and fluidity.
- ➔ Folding and unfolding can be managed automatically or manually by the user.
- ➔ All unfolding actions are automatic: from positioning the height of the frame to unlocking its safety device. Once the boom is deployed, everything is controlled by simply pressing a button.
- ➔ For each boom movement (folding or unfolding), the frame safety device engages and disengages automatically. There is no risk of swinging even one-sidedly!



# ALSR boom

## 20 m to 30 m

The new ALSR boom covers widths from 20 m to 30 m of 3, 4 or 5 arms versions depending on width and configuration.

Saving time for the user was a determining factor in the design of this boom. Its synchronised unfolding and folding system makes it very fast and smooth for the sprayer.

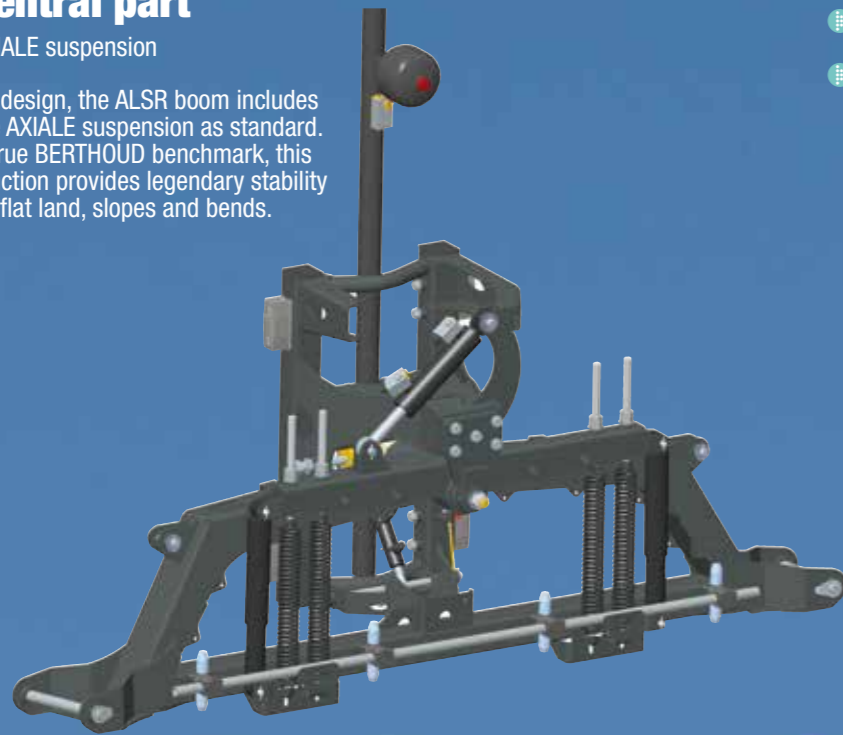
### → Central part

• AXIALE suspension

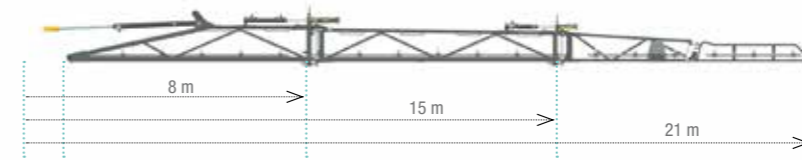
• By design, the ALSR boom includes the AXIALE suspension as standard. A true BERTHOUD benchmark, this function provides legendary stability on flat land, slopes and bends.

### → Special features

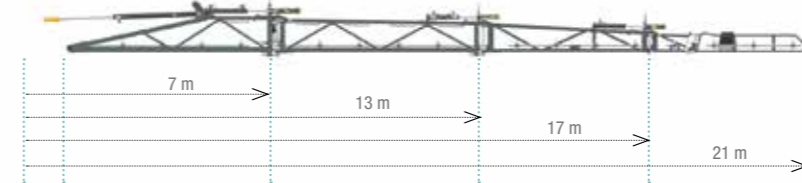
- Unfolding and folding in record time
- Quadrix nozzle holders inside the structure
- Sturdy articulation between the arms with a mechanical automatic locking device



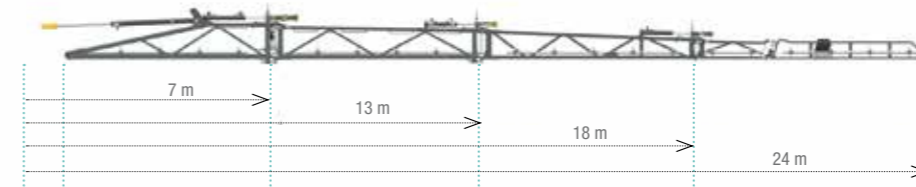
→ ALSR 20 - 21 m - 3 arms 5 sections  
(20m = 8-8-8-8-8)  
(21m = 9-8-8-8-9)



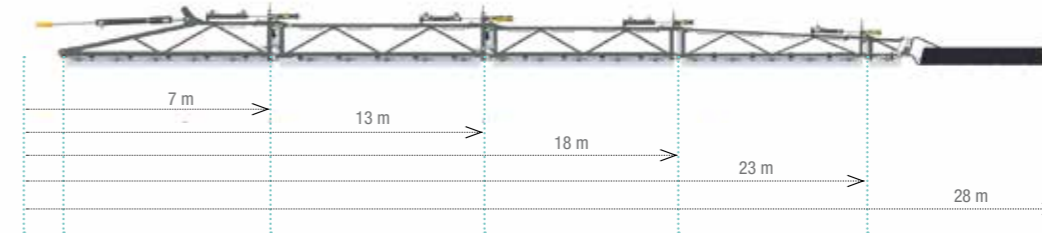
→ ALSR 20 - 21 m - 4 arms 5 sections  
(20m = 8-8-8-8-8)  
(21m = 9-8-8-8-9)



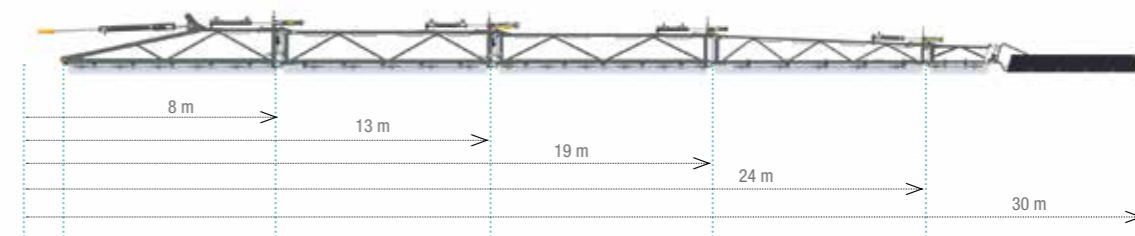
→ ALSR 24 m - 4 arms 6 sections  
(24m = 8-8-8-8-8-8)



→ ALSR 28 m - 5 arms 7 sections (28m = 8-8-8-8-8-8-8) option: 27 m: 7 sections (27 m = 7-8-8-8-8-7)



→ ALSR 30 m - 5 arms 9 sections (30 m = 6-7-7-7-6-7-7-6)



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- Inner arms 1 & 2: "Axial" type structure
- Robust frame to withstand all stresses
- Outer arms 3 & 4: "L" shaped structure to lighten the ends
- to reduce stress and inertia.

# ALSR boom

## 2 optional boom control solutions

### ➔ The ultimate height control

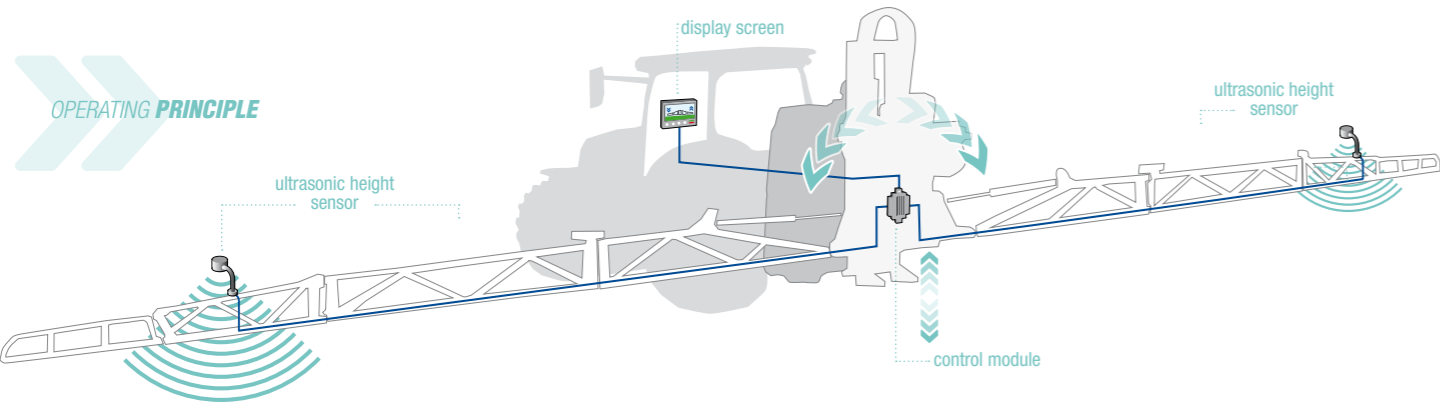
#### Version

## ACTIVE SLANT

The ACTIVE SLANT version controls the boom height and slant automatically.

This ACTIVE SLANT version is designed for:

- 🌿 sprayers operating in relatively flat ground
- 🌿 sprayers not fitted with variable geometry



# Front tank



The new front tank is an integral part of HERACLES. Directly linked to the rear tank, it is equipped with a BP 105/20 pump driven hydraulically, and a dedicated rinsing tank. SecurMix controls the continuous flow transfers so that there is an optimal distribution of the weights. Mixing and rinsing are managed in the same way.

**Two tanks, but only one sprayer.**



### ➔ Quick and accurate ground monitoring

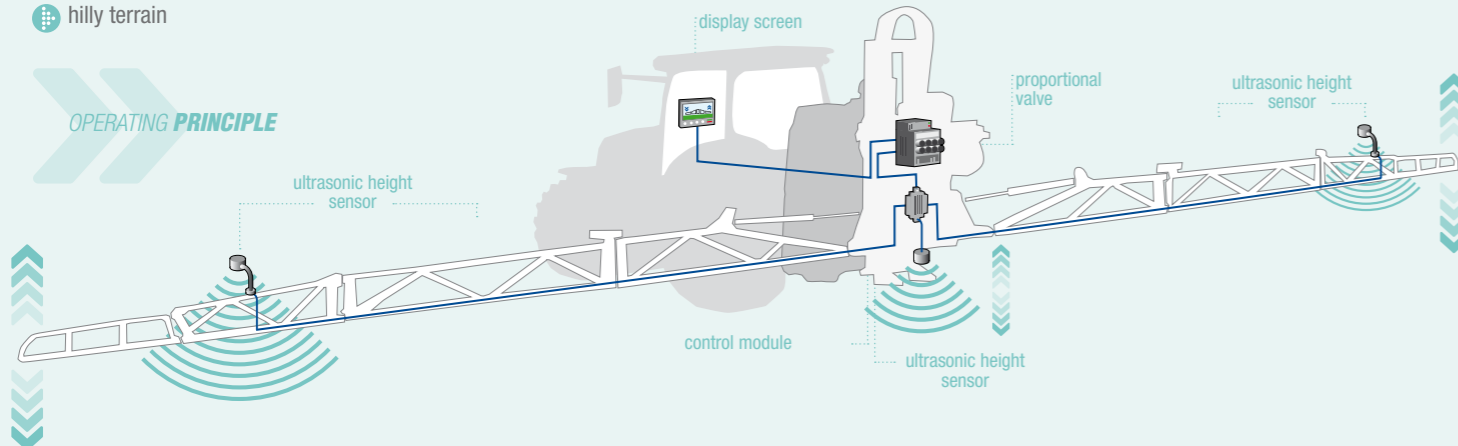
#### Version

## TOTAL CONTROL

The TOTAL CONTROL version controls the boom height and variable geometries.

This BOOM CONTROL version is designed for:

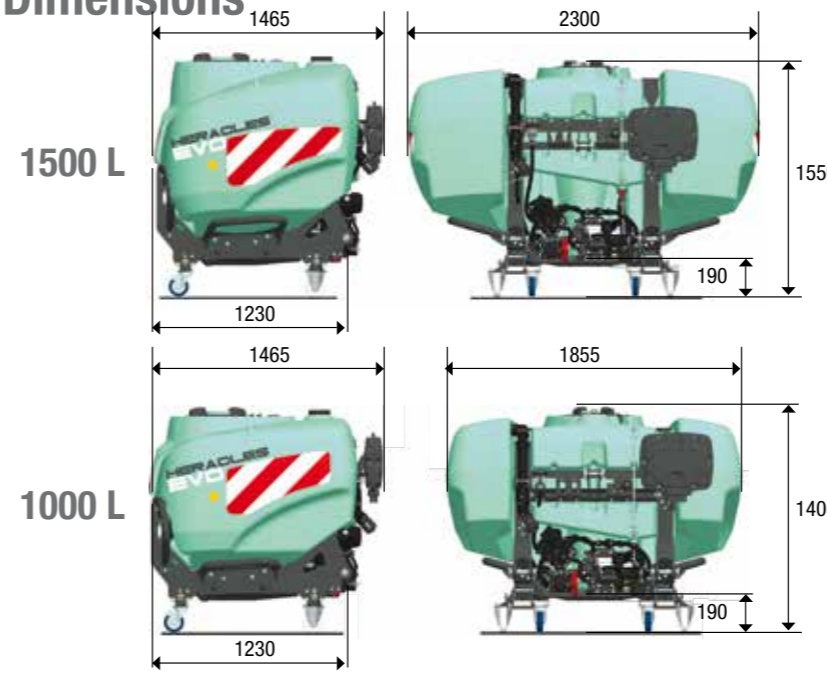
- 🌿 booms fitted with variable geometries
- 🌿 hilly terrain



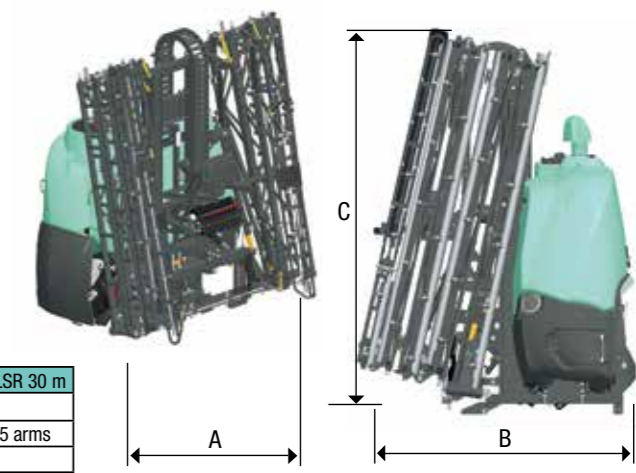
### ➔ BENEFITS

**OUTSTANDING RESPONSIVENESS AND STABILITY**

### Dimensions



	HERACLES 1000 L front tank	HERACLES 1500 L front tank
Width A	1,86 M	2,30 M
Height B	1,40 M	1,55 M
Length C	1,47 M	1,47 M
Weight (EVO version)	335 kg	375 Kg



Boom width (meter)	ALSR 20 m	ALSR 21 m	ALSR 24 m	ALSR 27 m	ALSR 28 m	ALSR 30 m
Nominal capacity (litre)	1600/2000	1600/2000	1600/2000	1600/2000	1600/2000	1600/2000
Number of arms per side	3 arms	4 arms	3 arms	4 arms	4 arms	5 arms
A - length (meter)	1,90	2,05	1,90	2,05	2,05	2,20
B - height (meter)	3,40	3,05	3,40	3,05	3,10	3,15
C - width (meter)	2,50					
Weight (kg)	1480 kg	1500 kg	1650 kg	1800 kg	1800 kg	1890 kg

The data provided may vary depending on the equipment used

# Flow of spray mixture

Make your choice

## → DISCONTINUOUS CIRCULATION

**A FUNDAMENTAL FEATURE**  
The spray mixture flows in the sections only when spraying, no return to the tank at the end of the section.



### RTS (READY TO SPRAY)

Allows boom priming after rinsing, wintering, etc. As soon as the sections open, all the nozzles open at the same time and at the correct pressure.

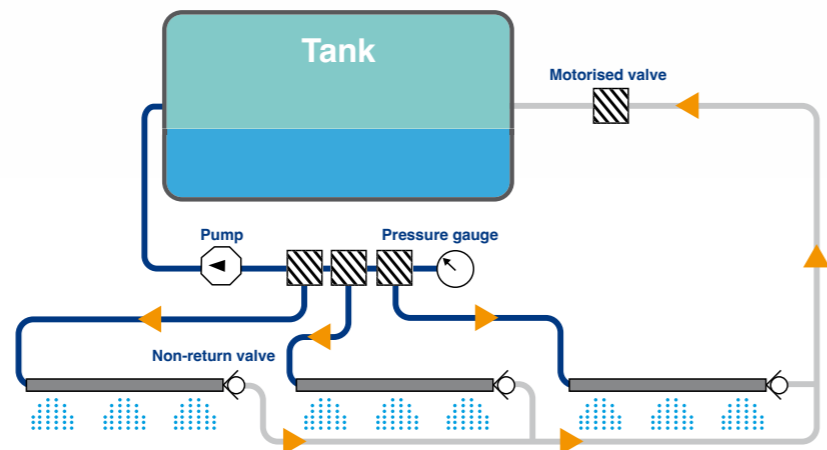
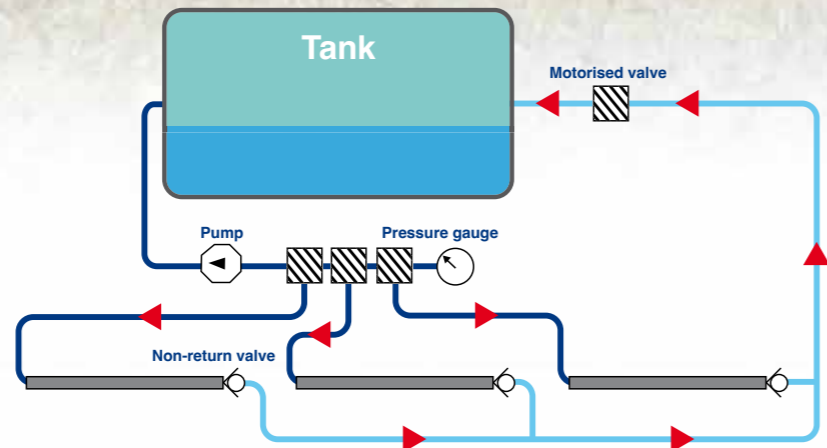
#### Operation:

Boom opening (it is recommended to use this "open boom" function, especially on booms with vertical folding)

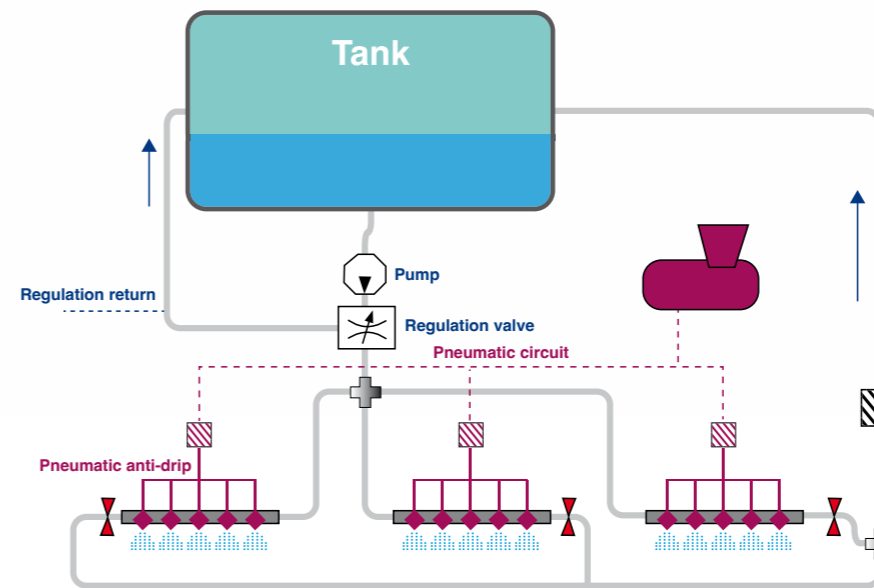
#### Switching on the pump - Press the RTS function:

The cycle is triggered in order to create a flow throughout the boom via a tank return pipe. The dead volume of the boom begins without any flow to the ground. This cycle is automatic and the operator is informed when it is complete.

During this function, the flow circulates in the same direction as the sprayer. So no flow inversion that can bring deposits back into the pipes. The circulation pressure, lower than the opening pressure of the quadrix nozzles, is controlled by the ECT regulation.



## → CONTINUOUS FLOW (optional)



**Continuous flow ensures that the spray mixture flows during and after spraying. Based on an AGP (Pneumatic Anti-Drip) system, it provides various advantages:**

- > Minimises dirt and deposits
- > Permanent agitation
- > The rinsing water may be used several times by "recirculating" it = less contaminated water to be evacuated
- > Rapid start-up
- > Instantaneous pneumatic cut-out
- > Returns channelled into a single pipe
- > Motorised valves to start circulation from the cab
- > Benefit from instantaneous start-up at low cost thanks to the pneumatic circuit.

# Multipurpose and High-Tech cabin



## The ISOBUS terminal offers the following functions as standard:

- Section shut-off
- Guidance
- Intraplot dosage adjustment
- Pilot for other ISOBUS tools
- 25.6 cm high-definition screen



## BERTHOUD benefits

### E-pilot joystick

Wireless, usable for control in the cab or outside the tractor (max. 20 m)

## The ISOTRONIC solution Well thought out and Economical!



- When this version is selected, the sprayer is delivered without a cab unit.
  - Connected to an ISOBUS tractor or another ISOBUS pilot unit, the sprayer is recognised by the terminal (UT). This terminal will display the spraying parameters and control the sprayer functions.
- All the functions grouped under the TASK CONTROLLER concept will be managed from the
- tractor terminal or the pilot unit.

# HERACLES

## 100% BERTHOUD

**BERTHOUD**, a success story that started in 1895 on the initiative of Paul **BERTHOUD**. In 1987, the brand joined the Exel Industries Group, the world leader in spraying techniques, which operates in the agricultural, industrial and general public fields. **BERTHOUD** designs sprayers for the protection of vineyards and row crops (mounted, trailed, self-propelled).



### Brand

Berthoud meets all your requirements: mixed-farming breeding, cereal crops, large farms, agricultural contractors (ETA), Cooperatives for the use of agricultural equipment (CUMA), etc. From the simplest machine (mechanicalDPA), to **E BERTHOUD SOLUTIONS**, (precision agriculture), all of them enjoy the best resale value on the second-hand market.



### Innovation

BERTHOUD designs 100% of its sprayers and over 10% of its employees work on Research and Development. BERTHOUD develops its own concepts and holds many patents.



### Network

A special partnership of over 50 years with a network very close to your farm. 350 dealership technicians are trained each year in our Training Centre.



### Service

Delivery of spare parts in less than 24 hours, service level close to 99% strengthened by the high availability of our teams on the road and the performance of our After Sales hotline.



# BERTHOUD