

BERTHOUD Innovations - AGRITECHNICA 2013

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BERTHOUD: the pioneer of spraying since 1895.

BERTHOUD is the real spraying specialist. We offer a complete range of equipment for any type of agriculture, from the most simple to the most sophisticated. We have a suitable product to meet any sort of spraying need.

BERTHOUD: our range of sprayers is the most complete on the market. We have 3 different product families (row crops, vineyards, and orchards), BERTHOUD has sprayers ranging from 200 litres to 7,000 litres.

The uncontested leader in France for several years, BERTHOUD is now taking an increasing share of its business on export.

A French manufacturer, designing 100% of its products, BERTHOUD also has perfect control of all its products, from the pump to the spray boom, including regulation and machine suspension.

4 different areas acting as a display for "Made in France BERTHOUD" - "Produce more to increase efficiency".

1- CLEAN SPRAYER area

BERTHOUD presents its "CLEAN SPRAYER" direct injection system.

This is what makes CLEAN SPRAYER different from the others. The Cyclone mixer (a BERTHOUD patent) can spray a homogenous chemical mix throughout the treatment and can continuously prepare the chemical mix.

The CLEAN SPRAYER makes it possible for the operator to use 3 chemicals simultaneously, or else one after the other, using high dosage quantities, without having to get down from the driving seat.

The dose per hectare can be changed without changing the volume per hectare of sprayed chemical mix.

Its circuit consists of short pipes and the total volume of the limited concentrated product reduces hysteresis in a natural way, when compared to other known standard systems. It is therefore able to react much more easily, to respond to variations in dose and speed.

Product containers can be installed and removed without touching the active substance. That limits the risk of contamination for the operator.

This system has been developed to be incorporated on a traditional DPAE regulation sprayer, and that sprayer can continue to operate normally without the direct injection system.

What are the benefits for the user?

- environment-friendly: direct injection reduces to the minimum the residual volume at the end of application, which simplifies rinsing operations and limits the quantities of plant-protective effluents to be removed.
- comfort / safety of the operator: direct injection uses standard containers, connected directly to the system. The operator is never in contact with pure products, thus limiting his or her exposure.
- optimising the collective treatments time: faced with the multitude of treatments and the development of service provisions, the CLEAN SPRAYER provides the answer to farmers looking for productivity. Using just one and the same fresh water tank, the operator can carry out several treatment programmes, just simply by changing the containers.

2- RAPTOR FC area

More comfort and productivity for the user

The RAPTOR has been developed to supply a front cab for the 2013 campaign: RAPTOR FRONT CAB (RAPTOR FC).

It completes our range of RAPTOR and RAPTOR AS, respectively with rear spray booms and front booms, in 4 tank capacities: ranging from 2,500 litres to 5,200 litres and with booms from 24 to 42 metres (availability depending on the model).

BERTHOUD now has the widest range of self-propelled sprayers in the market. The RAPTOR FC is available in three versions: 3,200, 4,200 or 5,200 litres, with AXIAL, EKTAR B2 booms from 24 to 42 metres.

Concerning this FC version, it is constructed using the same BERTHOUD basics as those of the RAPTOR and RAPTOR AS self-propelled – the basics which have made them well known:

- Pneumatic suspension of the chassis,
- hydrostatic transmission with BOSCH REXROTH geared motors which deliver torque and power, plus improvements to your comfort by means of the AUTOMOTIVE (Car-Type) driving system and the HYDROPILOT speed regulator as standard specification,

- The OMEGA bi-turbine centrifugal pump of BERTHOUD design – unique on the market – is standard on the RAPTOR self-propelled range. It provides high flow and high pressure at the same time.
- BERTHOUD spraying equipment.

This FC version has specific benefits :

- New technology engine specification which combines torque, power and respect for environmental standards
 - The RAPTOR FC range is propelled by a DEUTZ engine (from 175 to 245 bhp) equipped with a EGR depollution system with catalytic silencer and particle filter which enables it to respect the TIER IIIb antipollution standard criteria (Tier4 interim).
- A cabin which shows the difference
 - The RAPTOR FC is equipped with a High Comfort cab with an elevation system with nitrogen ball suspension. The operator's panoramic view makes driving more agreeable, both in the field and on the road.
 - Operator comfort is also improved as a result of this suspension using nitrogen balls which naturally limit the oscillating movement of this front-cab self-propelled machine.

Visibility, space, easy access, shock absorption: we've got everything here to improve both comfort and productivity.

RAPTOR: The largest range of self-propelled machines in the market

3- SPRINTER range

Both simple and economical: a complete success

BERTHOUD is continuing the renewal of its trailed sprayer range by announcing a new design: the 2,500 litres SPRINTER.

Its intelligent architecture has been developed to combine the practical with the economic in a "small format".

The SPRINTER provides an answer to customers looking for a simple, compact and lightweight machine.

After presenting the TENOR range, the TRACKER, BERTHOUD is now unveiling the most compact sprayer in its towed range, the 2,500 litres SPRINTER.

Capitalising on the BERTHOUD basics, the SPRINTER continues to write history in the small trailed range as a replacement for its forebears: the PRIMER, the RACER EX/EXS and the MAJOR.

The SPRINTER is a real BERTHOUD with all the advantages which have given so much success to all our ranges: proven 100% BERTHOUD equipment such as the GAMA pump, the DP TRONIC regulation and a simple operation using the BERLOGIC system.

The SPRINTER is also the ideal choice for a modern technical solution: a compact, light and multipurpose machine.

The heritage from its ancestors: a unique style in the market

The SPRINTER inherits the strong personality from the BERTHOUD trailed range. With its 3.75 m wheelbase, its low centre of gravity and the design of its tank, it has compact proportions which suggest agility, ease of handling and stability both on the road and in the field, while limiting residual volumes, in a natural manner.

Its small size, its low weight and its compact size makes this a machine which only requires low towing power.

The SPRINTER is associated with the new "ALS" steel boom with lateral folding from 18 to 24 metres.

This new boom replaces the RLD boom. This is a new boom generation to be supplied to our customers:

- Suspension on central AXIAL pivot which gives this boom very good stability and good behaviour on slopes, round bends and on flat terrain,
- A robust and compact "L"-shape structure. And it respects the overall legal dimensions on the road of 2.55 m,

The SPRINTER can also be combined with a rear vertical folding MULTIS boom of 15 and 18 m.

Practical and reliable down to the smallest detail

Equipped with an axle with mechanical variable track: from 1.5 m to 2 m, the SPRINTER is a multi-purpose sprayer for all types of agriculture.

It is suitable for a wide range of work and multi-purpose jobs thanks to the maximum clearance of its boom of 2.5 m and a minimum height of 0.5 m.

For personnel, the SPRINTER can be adapted to suit each need, for every sort of operation

Options such as the mechanical rudder bar, the adjustable boom, dilution or rinsing of the tank from the cabin

– all these form an integral part of the equipment proposed on this spraying sector.

The ADVANTAGES of the SPRINTER:

- + The BERTHOUD basics: GAMA pump, BERLOGIC, etc.
- + Compact- lightweight: short wheelbase, low centre of gravity.
- + Environmental: the design of its tank and its low residual volumes.
- + Equipment panel.
- + New ALS spray boom with axial suspension.

SPRINTER 2,500 litres: The BERTHOUD condensed version

4- BERTHOUD Solutions area

New 100% BERTHOUD environmental technology

BERTHOUD is one of the only manufacturers of sprayers to design its own onboard electronics and regulation system. Replacing the DP Tronic range, the C Tronic is available on the TRACKER and ELYTE series since September 2013 (C Tronic was available on the TENOR and RAPTOR series since 2011).

With a wide colour screen displaying simultaneously several items of information and a new Standard pilot multifunction wireless joystick, this new electronic system incorporates the basic sprayer functions, but also the control of associated functions such as DUALELEC (optional) and an entirely electronic setting up system. C TRONIC also has BUS CAN technology.

BERTHOUD also offers the -Tech pack as an option, which can equip BERTHOUD sprayers to provide both guidance (and auto guidance on selfpropelled machines), GPS sections shut-off and rate modulation.

BERTHOUD solutions for more user convenience and ergonomics:

- Clear information for immediate action: Wide colour screen providing simultaneous display of volume/ha, litres spread, pressure measured, surface treated, volume remaining in tank and forward speed.
- BERTHOUD EXCLUSIVE PRODUCT -Pilot: Multifunction wireless joystick is standard: Very ergonomic, it controls all the hydraulic functions of the sprayer, the opening/closing in general of spraying and the sequential opening/closing of sections via a radio connection in a radius of more than 25 metres around the central box
- Up to 15 sections individually controlled by switches or by sequential system using -Pilot

A system which is both innovative and high performance – Have a look at these options:

- It is possible to have a meteorological station display weather information on C Tronic: Temperature, hygrometry, wind speed
- Manage precisely your agricultural inputs using the -Tech pack BERTHOUD solutions: guidance, GPS sections shut-off
- Compatible with most GPS solutions on the market
- ACS function (Aid in Simplified Driving) programmable as an option: end of field sequence, automatic unfolding of the boom.
- Rear view camera available as an option
- Traceability: parcel management, user management, treatment sheet, meteorological data, etc.

Source: BERTHOUD