

Trailed sprayers

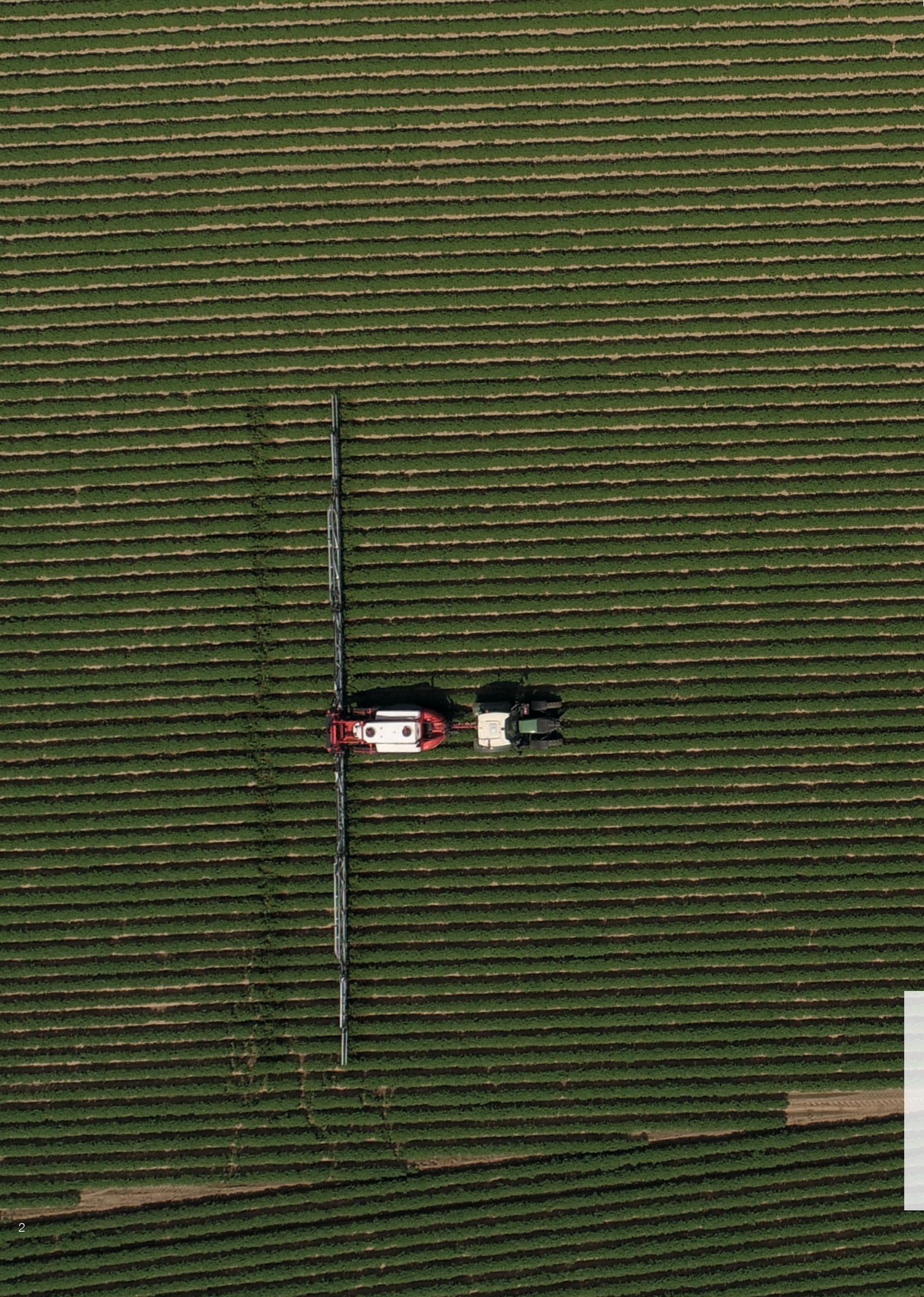
METRIS 2 & OCEANIS 2
3200, 4100, 5000, 5600, 6900 & 7700



www.kuhn.com



be strong, be **KUHN**



METRIS 2**3202****4102****OCEANIS 2****5002****5602****6902****7702**

KUHN HIGH-PERFORMANCE TRAILED SPRAYERS

TRAILED SPRAYERS

INCREASE YOUR PRODUCTIVITY RATES WITH PRECISION

Protecting your crops in the most favourable weather conditions is key to achieving maximum results. Temperature, wind? For healthy crop growth, spraying should be done at just the right time. Designed for intensive use, the KUHN METRIS 2 & OCEANIS 2 sprayers allow you to work quickly and efficiently.

A MACHINE FOR EVERY NEED

Offering 3,200-7,700-litre tank capacities and booms from 18 to 48 m, Kuhn is sure to have the right combination for your farming needs. The METRIS 2 & OCEANIS 2 trailed sprayers are available with state-of-the-art technology for precision spraying fully suited to your usage.

QUALITY IS YOUR WATCHWORD

The accuracy of METRIS 2 & OCEANIS 2 trailed sprayers allows you to protect your crops durably and sustainably. With top-quality finishing, The METRIS 2 & OCEANIS 2 trailed sprayers provide you with all the equipment you need.



METRIS 2	3,200 & 4,100 l	18 to 38m
OCEANIS 2	5,000, 5,600, 6,900 & 7,700 l	24 to 48m

METRIS 2 COMPACTNESS



"With the axle close to the tractor, the sprayer cuts out less in corners while manoeuvring!"

Benoit CHAUVIN
Farmer in Marigny (France)

A LIGHT-WEIGHT MACHINE

The METRIS 2 trailed sprayer is one of the lightest in its class. Kuhn's choice of top range material respects soil structure. Your yield potential is preserved and working in difficult conditions is easier.



FINISHING WITH A 'NO-CASING' OPTION FOR SIMPLE SOLUTIONS

The METRIS 2 trailed sprayer can also be fitted without doors and side covers. This economical solution offers you the advantage of good wheel visibility, especially in narrow tracks.



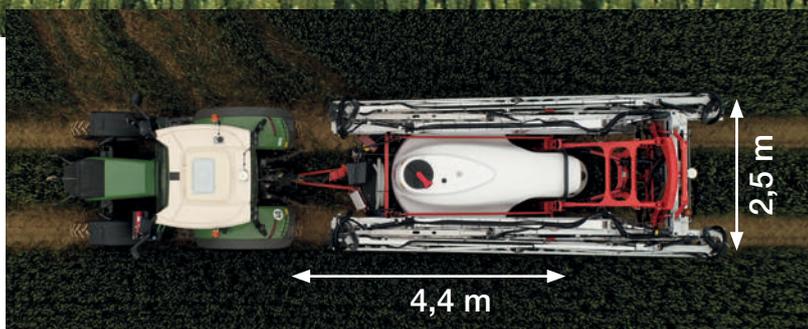


PROTECT YOUR SPRAYER'S EQUIPMENT

The protective covers on the METRIS 2 trailed sprayers are fitted with all the machine's components. On both the left and right sides: centralised filtration, valve panel or chemical induction bowl..., everything is protected from any projections or tall crops.

EASY HANDLING

The METRIS 2 trailed sprayers are among the most compact on the market. The hitch-to-axle distance of 4.40 m provides you with easy handling in all situations. The METRIS 2 lets you manoeuvre where others cannot.



CHOOSE THE COUPLING METHOD THAT CORRESPONDS TO YOUR TRACTOR

High or low coupling, METRIS 2 trailed sprayers allow you to choose a machine suited to your tractor. KUHN offers a huge range* to ensure the perfect connection between your tractor and the sprayer.

**According to certification*



OCEANIS 2 5002 5602 6902 7702

OCEANIS 2 INTENSIVE USE

With tank capacities of 5,000, 5,600, 6,900 or 7,700 litres, the OCEANIS 2 offers greater autonomy so you can increase your work output. You spend less time at the filling station to make better use of your time in the field and increase your work efficiency.

With a choice of booms between 24 and 48 m, your spraying productivity will be impressive.

Working with the OCEANIS 2 sprayer means improving your efficiency. You can save time by spraying faster.



SPEND LESS TIME ON SPRAYER MAINTENANCE

The OCEANIS2 trailed sprayers are equipped with a system to offset lubrication points. With easy ground access, you can even lubricate the difficult-to-access points. Sprayer maintenance is easier so your machine can spend more time in the field.



CHOOSE THE COUPLING METHOD THAT CORRESPONDS TO YOUR TRACTOR

The OCEANIS 2 sprayer lets you choose the hitching system suited to your tractor's equipment.



Hitch Ø40mm



Hitch Ø50mm



Ball hitch Ø80mm





PROTECT YOUR SPRAYER'S EQUIPMENT

The protective covers on the OCEANIS 2 trailed sprayers are fitted with all the machine's components. The sprayer is fitted with two spacious storage compartments on each side, allowing you to store your equipment. A standard PPE compartment located on the operating panel is supplied as standard.

TWO FRAMES FOR A LIGHT-WEIGHT, COMPACT MACHINE

Depending on its capacity, the OCEANIS2 integrates two frames to ensure the machine's compact design. While the sprayers with a 5,000 or 5,600-litre tank capacity have a hitch-to-axle distance of 5 m, the larger capacities (6,900 and 7,700 litres) are equipped with a 5.70 m frame. During the design phase, Kuhn took every measure to reduce the machine's weight, facilitating work in difficult conditions whilst respecting soil structure.



DRIVE FASTER WITH A WELL-BALANCED SPRAYER

In order to improve your work output, good, secure machine stability is key. The METRIS 2 & OCEANIS 2 were specifically designed to ensure a perfect sprayer balance, on the road and in the field. The centre of gravity is positioned to allow the sprayer to maintain excellent stability throughout the spraying process.



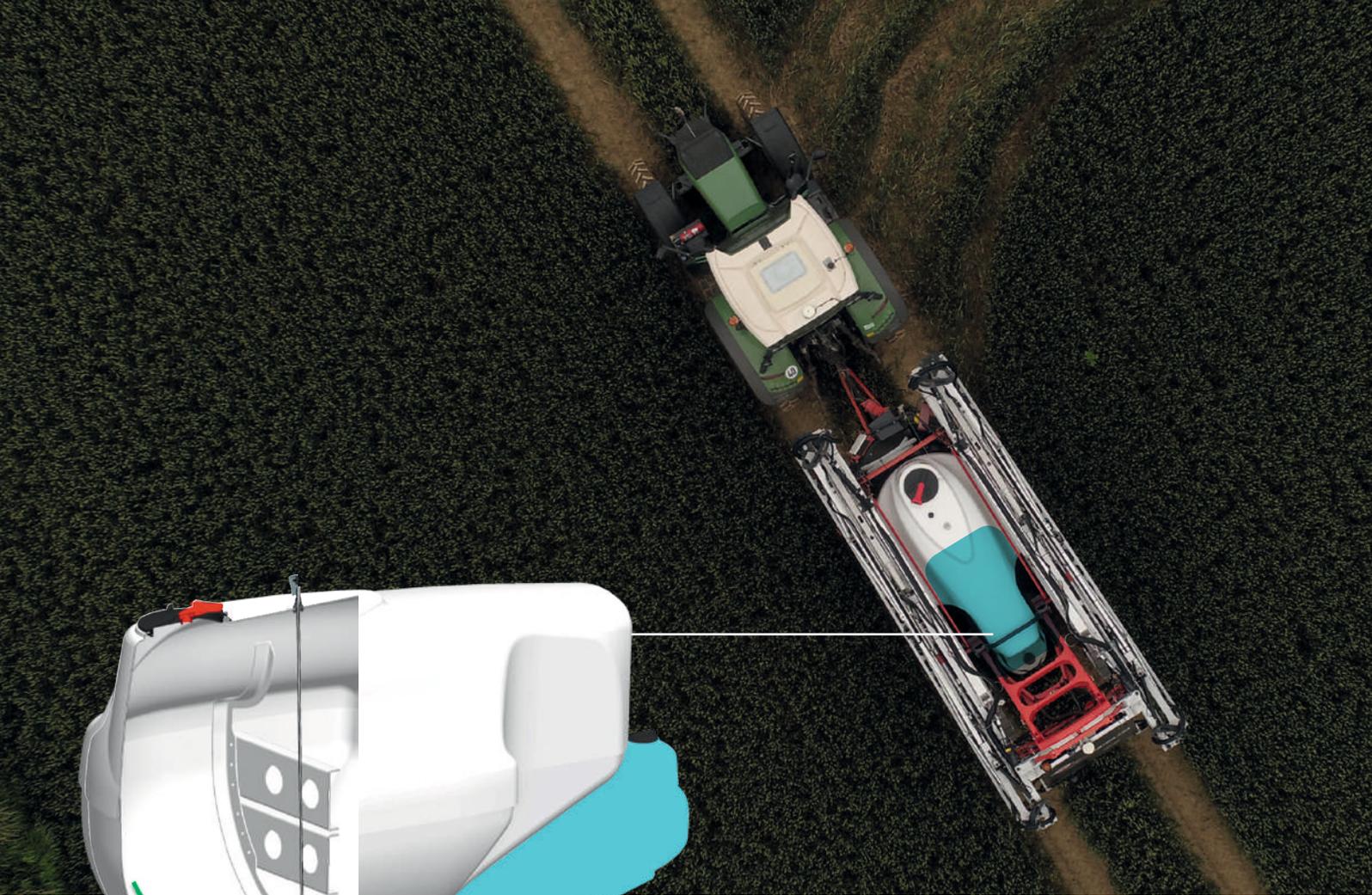
SECURE TANK DRAINAGE

Tank drainage is done from the outside to safeguard the operator from projections.



BAFFLES

The polyester tank on the METRIS 2 & OCEANIS 2 sprayers incorporates baffles to stabilize the spray mixture during transport. The sloshing of the water is immediately stopped so as not to disrupt the sprayer's balance.



KEEP THE BALANCE

The position of the rinsing tank centred over the axle allows the METRIS 2 & OCEANIS 2 sprayers to maintain good balance in all conditions, with reduced dead volumes. The machine's centre of gravity remains along the axis, regardless of the tank level.

POLYESTER: A MATERIAL FULL OF ADVANTAGES

The polyester tanks are manufactured to provide a smooth, non-porous surface for quick and efficient cleaning. The heavy-duty material is tough enough to attach the baffles, which stabilise the spraying mixture inside the tank.



FILL YOUR SPRAYER EASILY

Filling a sprayer is strategic. Exact volume, filling time, contact with plant protection products are important requirements concerning filling operations. On the METRIS 2 & OCEANIS 2 sprayers, KUHN has developed a filling design that meets all these requirements.

MAINTAIN FILLING CONTROL

"Sprayer filling is fully controlled by the EASY-SET unit, with the operator only having to select the required volume of spraying mixture. It is a good system, which helps me a lot. With a machine like this, I am ready to tackle my spraying work for many years to come."

CROP PRODUCTION MAGAZINE May 2015



Robert HOLMES farmer in Derbyshire (England),
METRIS 3202 sprayer user



CENTRALISED FILLING

Whether filling the main tank or the rinsing tank, these operations can be centralised on the operating panel. Pressurised filling is available as an option to allow you to perform all your incorporation operations with clean water.



RAPID, SAFE INCORPORATION

The new chemical induction bowl in the METRIS 2 & OCEANIS 2 sprayers offers a new reference in terms of safety. Its funnel design allows the efficient incorporation of all types of products, liquids, powders or granules, with reduced times.

With its watertight design and rotary cleaner, your machine's chemical induction bowl is rinsed efficiently, without any splashing for increased operator safety.



EASYFLOW: CONTACT-FREE INCORPORATION

The EASYFLOW system on KUHN's sprayers eliminates the risk of the operator coming into contact with the product. From puncturing the heat-sealed lid to rinsing the containers, the Contact-free Transfer System ensures maximum security during operations.



HIGH-VOLUME FILLING

With high-volume piston-diaphragm or centrifugal pumps on KUHN'S trailed sprayers, you will save time filling the main tank. You spend less time at the filling station to make better use of your time in the field and increase your work outputs.

TANK VOLUME DISPLAY

You have excellent visibility over the gauges, both from the operating panel and the tractor cab. The rinsing tank gauge also allows you to easily break down the rinsing operations into various steps.



ELECTRONIC GAUGE

KUHN now provides as standard automated filling with the DILUSET+ or e-SET systems to help you fill your sprayer with a set volume. With the e-SET system, you won't need to climb up into the cab, you just enter your selected volume on the operating panel.



SIMPLE, BOTH INSIDE AND OUTSIDE

The sprayer set-up is the key step to start spraying. With only 2 main valves, the total number of handling operations from filling to rinsing is considerably reduced, and more importantly the risk of error is completely eliminated. You can be sure that the sprayer is entirely rinsed. Setting up is simple with a shorter circuit for less dead volume to make rinsing stages easier.



MANUSET

Perfect control of your product preparations. During rinsing, a 360° rotation with the delivery valve ensures that fresh water is projected into all sprayer circuits.

DILUSET +

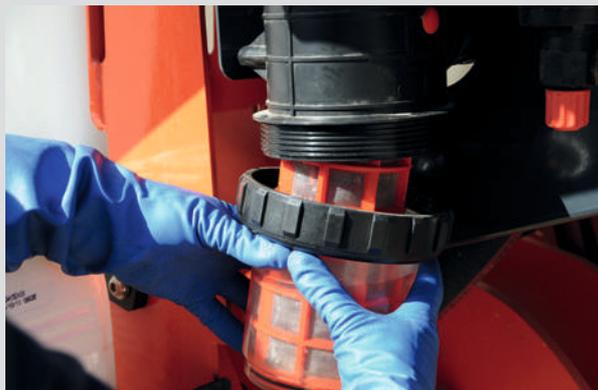
Rinse the sprayer or just the boom from the cab! During filling operations, pumping automatically stops when the set point is reached, while you maintain control on the operating panel with the DILUSET + unit.

E-SET

In addition to the RINSASSIST function and the automatic filling system, the e-SET guarantees a 1% dilution of any residues. With the EASYSET unit on the operating panel, you can stop looking for valves, just select the required function.

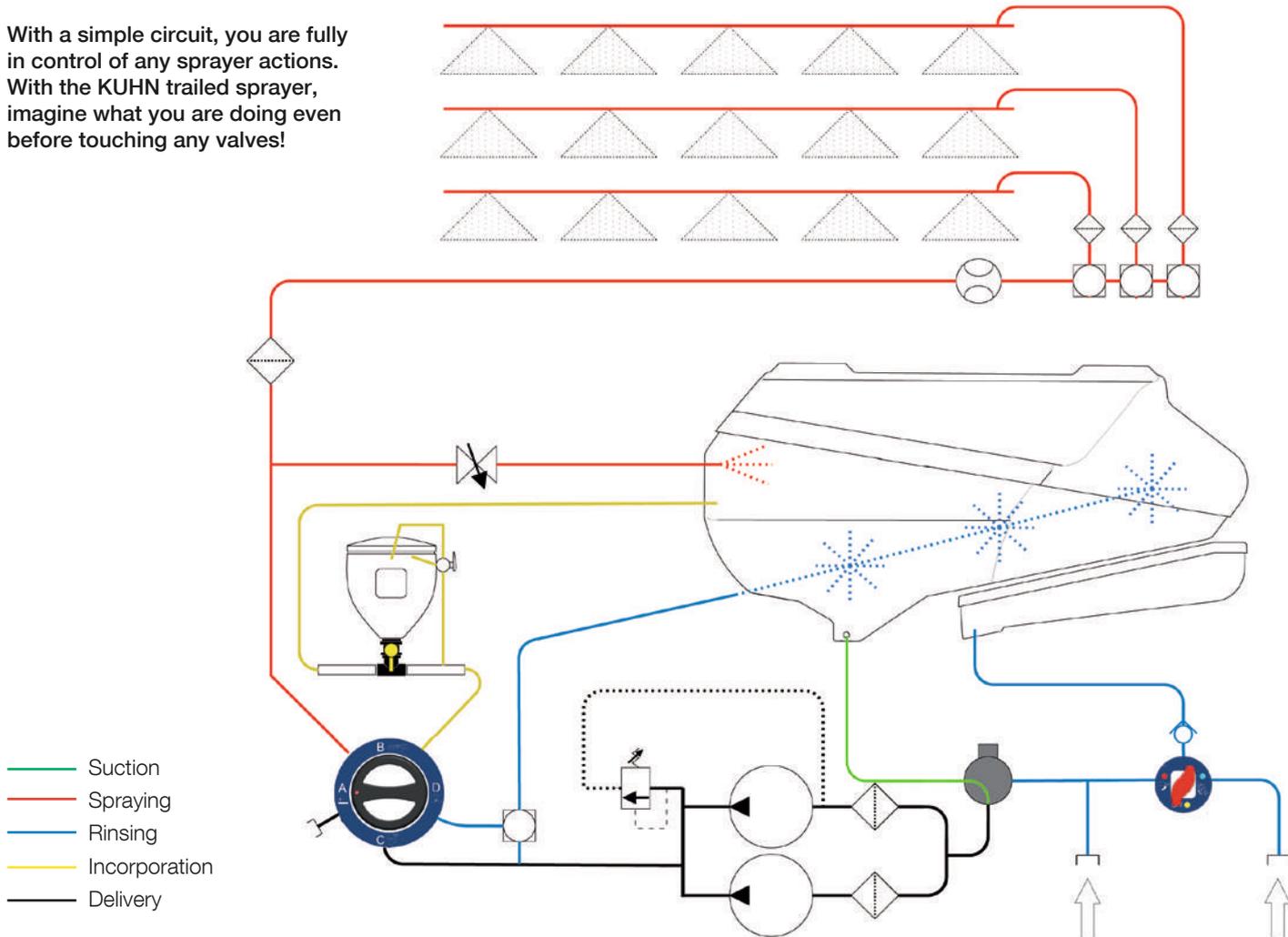


PREVENT BLOCKAGES WITH THE QUADRUPLE FILTRATION



The KUHN trailed sprayer is equipped with four levels of filtration. After filling (1st), the transparent suction filter (2nd) and the pressurised delivery filter (3rd) will prevent any larger impurities from reaching the boom. With its transparent bowl, the suction filter can be emptied, ensuring a secure disassembly. The bowl filters are located on the boom (4th) in standard and continuous hydraulic circulation (CHC), after the section valves, nearest the nozzles and therefore reduce the risk of blockage to a minimum. All the filters can be cleaned even when the sprayer tank is full.

With a simple circuit, you are fully in control of any sprayer actions. With the KUHN trailed sprayer, imagine what you are doing even before touching any valves!



KUHN PLUS POINTS

MULTIFUNCTION ERGONOMIC HANDWHEELS

With the 360° multifunction handwheel, reduce operations by up to 30%. Thanks to an ergonomic design, the valves are easily operated for a simple, trouble-free set-up.

4 LEVELS OF SUSPENSION FOR PERFECT STABILITY ON THE ROAD AND IN THE FIELD

Good machine stability while you work is essential to keep the boom as close as possible to the target. The sprayer's stability is, therefore, an important prerequisite for achieving this goal. The METRIS 2 & OCEANIS 2 trailed sprayers, with their four levels of suspension, allow you to keep your machine stable and perfectly suspended on the road and in the field.



HYDRO-PNEUMATIC SUSPENSION FOR THE OCEANIS 2

On OCEANIS 2 sprayers, the drawbar and axle are suspended by hydro-pneumatic cylinders to protect the machine's frame. Even during rapid movements, shocks caused by uneven terrain are absorbed, which means a longer life for your machine. With the double nitrogen ball technology, the machine adapts perfectly to the load, while maintaining excellent suspension.





NITROGEN BALL-SUSPENDED BOOM

The parallelogram, for boom height adjustment, is cushioned by nitrogen balls. The boom is suspended during work. The parallelogram also enables boom suspension in the transport position as no fixed points link the boom to the frame. The structure lasts longer.



EQUILIBRA SUSPENSION

The EQUILIBRA pendulum link suspension, from 18 to 48 m, provides the boom with a three-dimensional shock absorption system. It allows the boom to follow the terrain, irrespective of working conditions and without any driver intervention, even at high speed.



STRATHANE SUSPENSION ON THE METRIS 2

The drawbar suspended by Strathane pads protects the tractor and its driver from any machine movements. The suspended axle protects the machine on uneven terrain, while in the field and on the road. A suspended axle means a longer life for the machine!

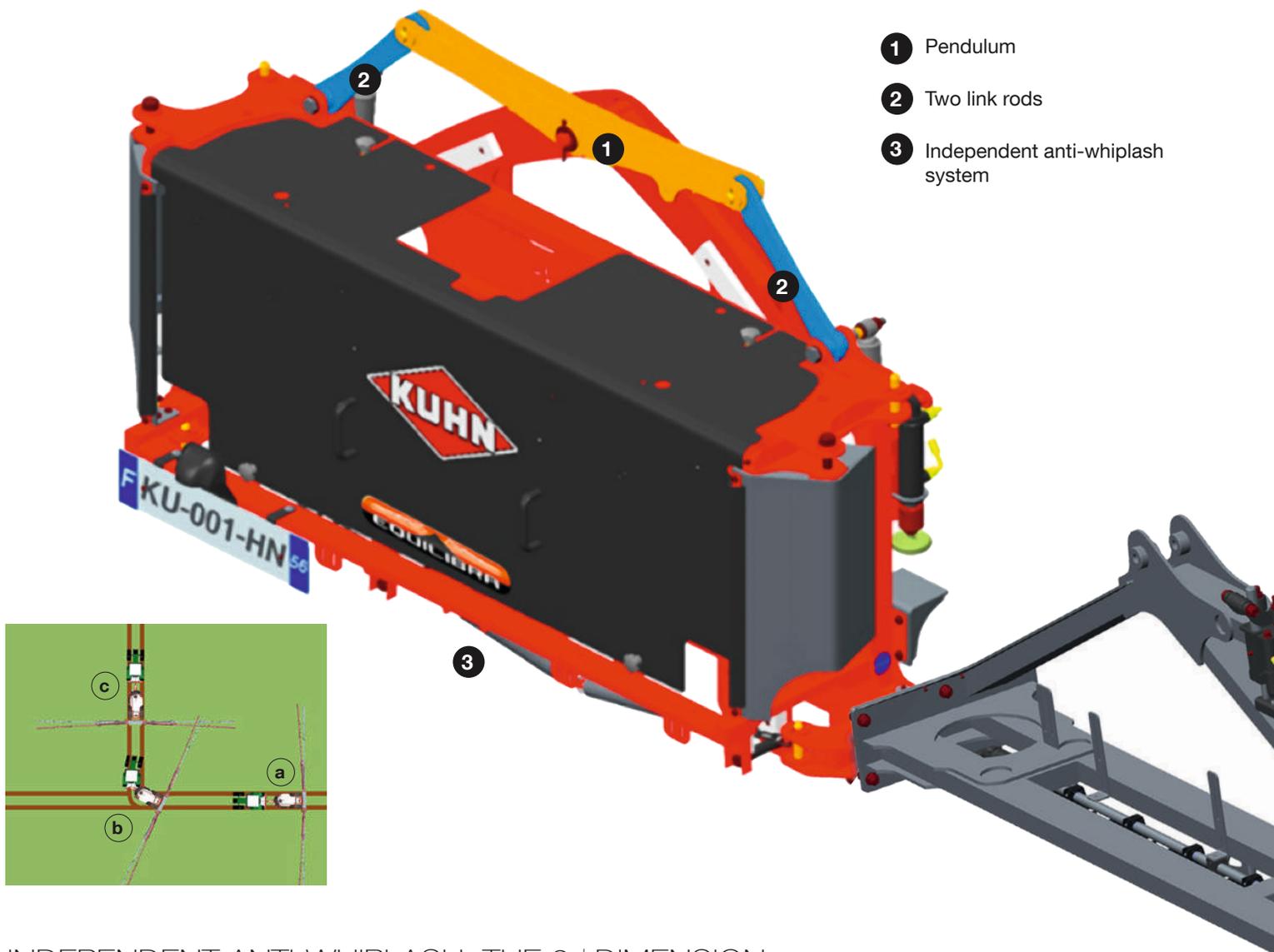
Strathane is used to ensure:

- Rapid absorption of any shocks
- Instant adaptation to the load
- Low displacement for maximum stability.

SAVE TIME, SPRAY FASTER

ESSENTIAL 3D SUSPENSION

The EQUILIBRA suspension system allows the boom to remain perfectly parallel to the ground when driving over rough terrain. The EQUILIBRA suspension with pendulum links provides the boom with a three-dimensional shock absorption system. The boom runs smoothly over the ground and the crops and no longer shifts and drifts!



- 1 Pendulum
- 2 Two link rods
- 3 Independent anti-whiplash system

INDEPENDENT ANTI-WHIPLASH: THE 3rd DIMENSION

Whiplash describes the back-and-forth boom movements which are highly damaging to the joints, especially during headland manoeuvres: Braking (a), Headland cornering (b), Acceleration (c).

The nitrogen ball system on the first arm cylinders protects each side of the boom perfectly and independently in all of these situations for increased reliability as well as during all spraying phases.

Therefore, the structure is protected even in case of sharp braking.



KUHN PLUS POINTS

AUTOMATIC MECHANICAL TILT CORRECTION

Two springs located under the lower part of the frame allow the boom to follow the terrain automatically. Tilt correction remains fully mechanical, with no action required from the driver.

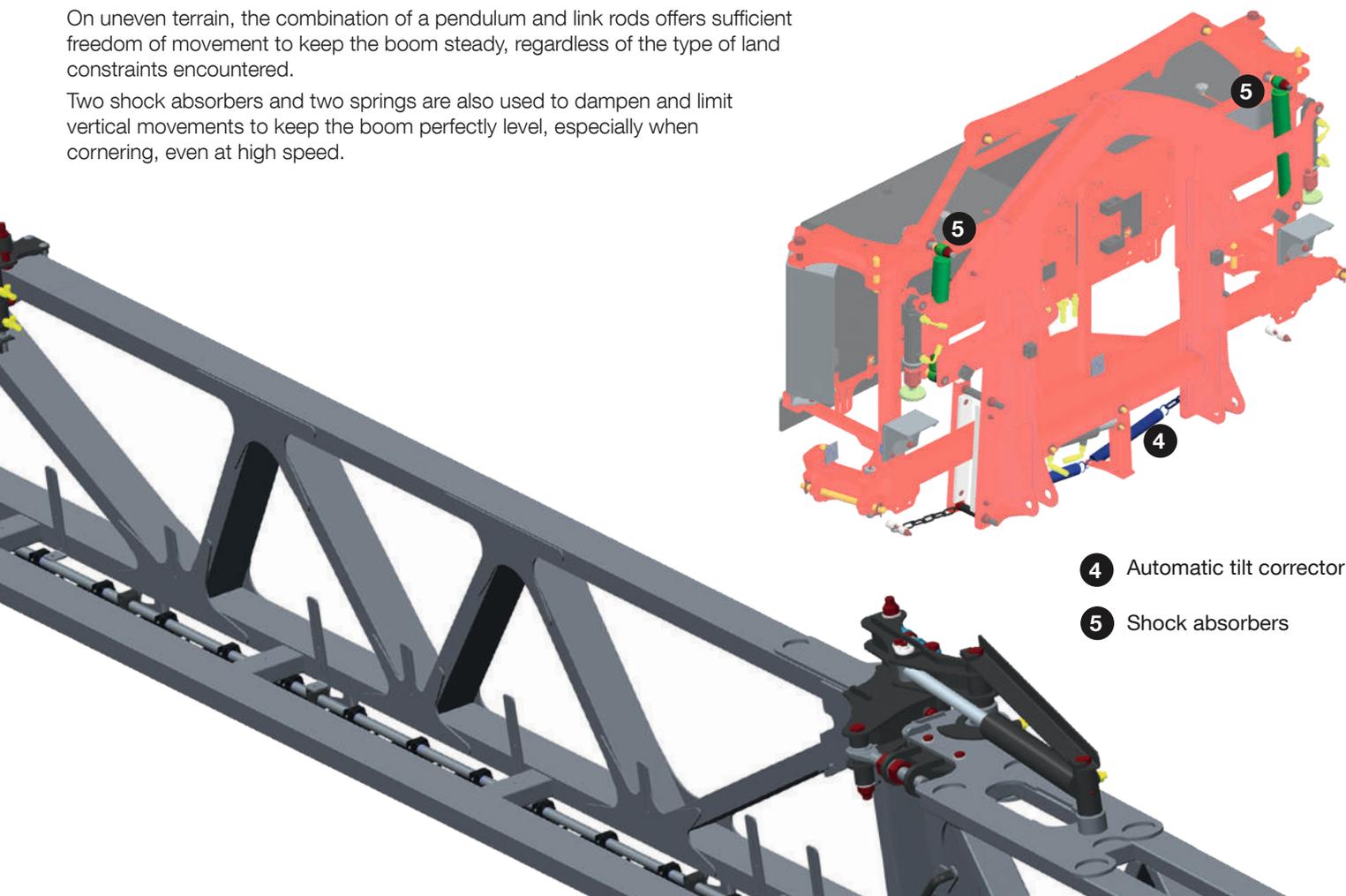
- A hydraulic tilt correction cylinder supplements the automatic mechanical correction in particularly hilly areas.
- Shock absorbers on each side of the frame limit boom inertia and reduce lateral movements of the structure.



EQUILIBRA: PENDULUM LINK SUSPENSION WITH SHOCK ABSORBERS

On uneven terrain, the combination of a pendulum and link rods offers sufficient freedom of movement to keep the boom steady, regardless of the type of land constraints encountered.

Two shock absorbers and two springs are also used to dampen and limit vertical movements to keep the boom perfectly level, especially when cornering, even at high speed.



- 4 Automatic tilt corrector
- 5 Shock absorbers

THE POWER OF ALUMINIUM: CHOOSE A LIGHTWEIGHT AND DURABLE SOLUTION

The booms are made of aluminium which features a density three times less than steel, keeping the structure light and providing a structure to protect the sprayer components. The lightweight booms make it possible to respect the soil structure, even in wet conditions.

Aluminium booms feature outstanding durability. Completely insensitive to corrosion and chemical aggression, aluminium needs no special protection and greatly facilitates sprayer maintenance while providing long service life.

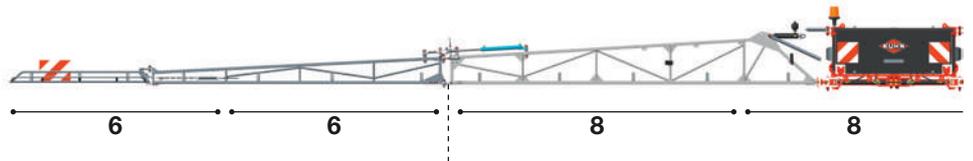


RHPA 12/24m

7 sections

Other available widths

12 / 18m - 12 / 21m
14 / 27m - 14 / 28m - 14 / 27 / 28m

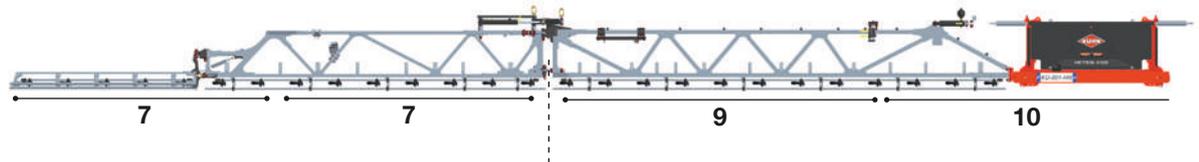


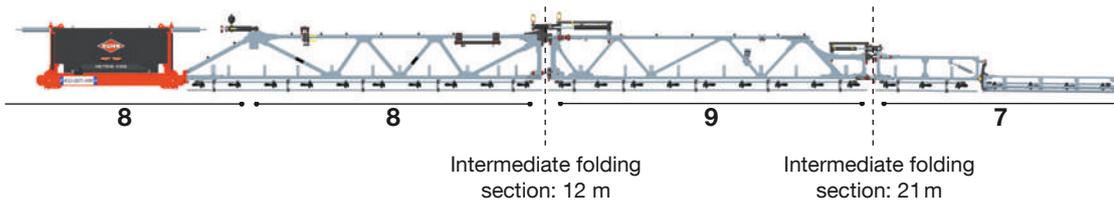
LEA2 14/28m

7 sections

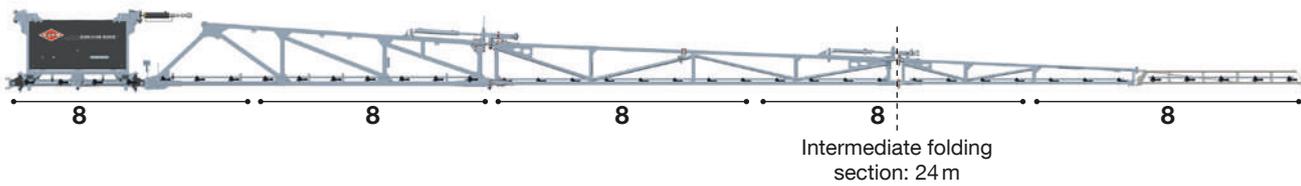
Other available widths

12 / 24m - 14 / 27m - 14 / 27 / 28m
16 / 30m - 16 / 28 / 30m - 16 / 32m*

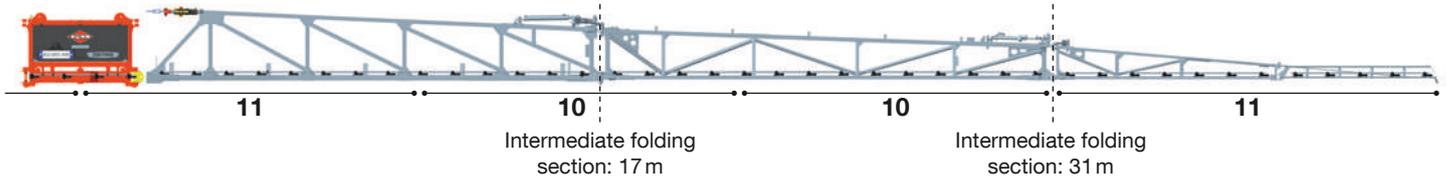




LEA3 12/21/28 m
7 sections
Other available widths
 12 / 21 / 27 m - 12 / 21/ 27 / 28 m
 12 / 21 / 30 m - 24 / 32 m - 24 / 33 m



RHA3 24/36 m
9 sections
Other available widths
 24 / 30 m
 24 / 32 m
 24 / 33 m
 24 / 32 / 33 m
 14 / 26 / 36 m*
 25 / 38 m
 25 / 36 / 38 m
 14 / 26 / 38 m*
 14 / 26 / 36-38 m*
 27 / 39 m*
 28 / 40 m*



RA3 17/31/42 m
8 sections
Other available widths
 17 / 31 / 44 m - 17 / 31 / 45 m

* Booms only available on the OCEANIS 2 trailed sprayers



A WELL-DESIGNED BOOM

KUHN booms are designed to be fully suited to your usage. Beginning in the machine's design phase, all the aspects were closely studied to perfectly meet your working requirements for the METRIS 2 or OCEANIS 2 sprayers.



LARGE-SIZED JOINTS

The joints are ball-mounted to allow them to swivel without any stress on the structure, and to ensure long life for the boom. The size of the joints allows the boom to last longer, with minimal servicing.



PIPE INTEGRATED WITHIN THE STRUCTURE

The boom-end safety devices can rotate in all three dimensions. The pipe and jets are fitted inside the structure, and protected in front, underneath and behind the boom. There is no risk for the boom even in the event of friction.



STAINLESS STEEL PIPES AND PIPE ADJUSTMENT

The stainless steel pipe guarantees a longer service life and resistance to any temperature changes. The height adjustment of the entire pipe assembly means that the jets are constantly protected by the boom structure, irrespective of your nozzle type.



3-ARM BOOMS: ASSISTED UNFOLDING

Boom unfolding and folding operations with the compact 3-arm folding boom are automatically controlled by the terminal to ensure safe handling.

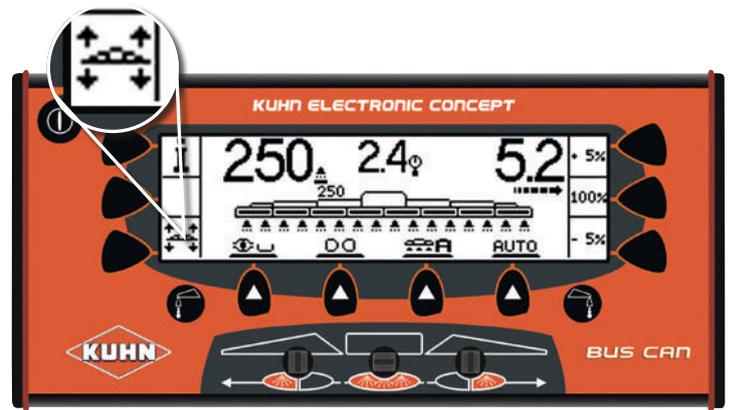


BOOM CONTROL AT YOUR FINGERTIPS!

FUNCTION SELECTOR: THE COST-SAVING SOLUTION

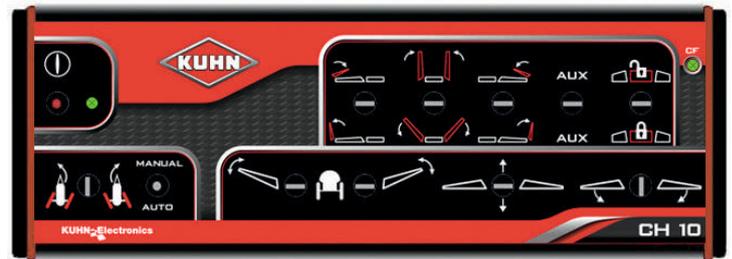
For a machine with simple folding kinematics, the hydraulic function selector provides you with an even simpler solution, and just as easy to use.

While a single-acting valve is used to control boom height, a double-acting valve controls boom opening/closing, and tilt correction.



CH10 UNIT: ADAPTED TO ALL CONFIGURATIONS

The CH10 unit comprises all the elements required for sprayer handling, irrespective of any optional equipment. Variable geometry? Tag axle? All elements are provided to control the machine with your fingertips!



FULL CONTROL FROM THE ISOBUS TERMINAL

From the ISOBUS terminal, all the boom's hydraulic functions are accessible on the unfolding display screen. Plus, an ISOBUS control auxiliary such as the ISOCLICK can be added to control all working functions during spraying, giving you an even more direct access.



LET THE SYSTEM CONTROL THE BOOM! BOOM ASSIST HEIGHT ASSISTANCE

Correctly controlled spraying height is essential to maintaining good distribution while limiting drift. In specific topographic situations, BOOM ASSIST will help you control the boom, in particular at night, when conditions are ideal.

BOOM ASSIST: BOOM AT THE CORRECT HEIGHT MEANS LIMITED DRIFT AND COST SAVINGS

Using ultra-sound sensors, the system detects the boom height at all points. Ultrasound technology is used to maintain the correct boom height in relation to the vegetation, under any conditions: day or night, dry weather or fog, vegetation or bare ground... BOOM ASSIST automatically adjusts the height, tilt and independent variable geometries to keep the boom close to the target.

While you drive the tractor without having to operate the boom, BOOM ASSIST controls the hydraulic boom functions. Keeping your boom at the ideal height limits drift (wastage) and provides savings in terms of crop protection products.



	BOOM ASSIST SLANT	BOOM ASSIST TOTAL	BOOM ASSIST TOTAL PRO	BOOM ASSIST EXTREME
Number of ultra-sound sensors	2	3	3	3
Sensors with HYBRID Ground / Vegetation technology	X	X	X	X
Automatic height control at the headland	X	X	X	X
Height control	X	X	X	X
Tilt correction	X	-	-	X
Variable geometry boom	-	X	X	X
Proportional hydraulic unit	-	-	X	X
Spring-loaded tilt corrector	-	-	-	X
Nozzle spray every 25 cm	-	-	-	X

X equipment as standard

- equipment not available

KUHN PLUS POINTS

BOOM ASSIST sensors are specially designed for spraying, keeping the boom at the right position in relation to the ground, the crops, or both at the same time in hybrid mode.

The patented HYBRID mode is integrated as standard into the sensors and enables the system to detect crop height. For flattened or uneven crops, the system never loses its efficiency.



H-MATIC AUTOMATIC BOOM LIFTING

At the headland, when spraying is stopped, the boom lifts to a height preset by the user. Headland manoeuvres are facilitated, with increased speed. While you work, the unit indicates the height of the centre frame. For the transport position, a lower stop can be set. With GPS Section Control, the automatic H-MATIC lifting system will anticipate boom lowering to ensure the correct height when the first section opens!

TAG AXLE

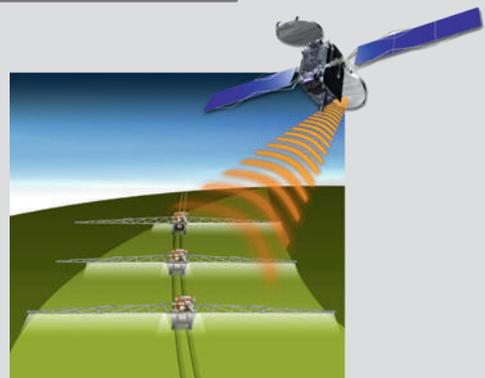
Keep your sprayer within the tractor tracks. With the tag axle, the sprayer remains in the tractor's tracks at the headland, or when following curves in the field. It reacts precisely in response to the speed information received. The crops are protected, damage is limited and your harvests preserved.



FOLLOWS AT ANY SPEEDS

At normal speeds and during low-speed manoeuvres, the tag axle keeps the sprayer in the tractor's tracks from 2 to 22 km/h. Beyond that, the axle is automatically realigned and blocked to protect the machine.

KUHN PLUS POINTS



The combination with the GPS Section Control allows the tag axle to automatically realign itself when in reverse: no driver action is required!

ACCURACY FROM THE START TO THE END OF YOUR WORK: A WIDE SELECTION OF CONTINUOUS CIRCULATION OPTIONS

Product circulation through the boom affects the quality of your spraying in many ways: priming, nozzle opening and closing responsiveness, reduced blockages, etc.

Thanks to MULTISPRAY and AUTOSPRAY systems equipped with pneumatic or electrical continuous circulation, KUHN helps you achieve quality spraying.

RAPID PRIMING

As soon as the pump is activated with the valves in spraying position, the spray mixture is instantly loaded into the boom, even before it unfolds. When rinsing, the continuous circulation ensures that all the volumes are diluted before spraying the final dilution.

A QUICKER OPENING OF THE SPRAYING SYSTEM

The spray mixture circulates through the boom continuously, according to the reference pressure. Each jet holder is controlled, therefore the spraying system opens and closes instantly. This opening precision reinforces the cost-effectiveness of your GPS nozzle control, especially for per-nozzle shut-off.

REDUCE BLOCKAGES

While working, the product circulates continually in the hoses, eliminating any risk of deposits or accumulations in the nozzles.

In Continuous Hydraulic Circulation, bowl filters are located after each section valve and at the main supply points, eliminating the need for nozzle filters while maintaining a high-quality filtration.



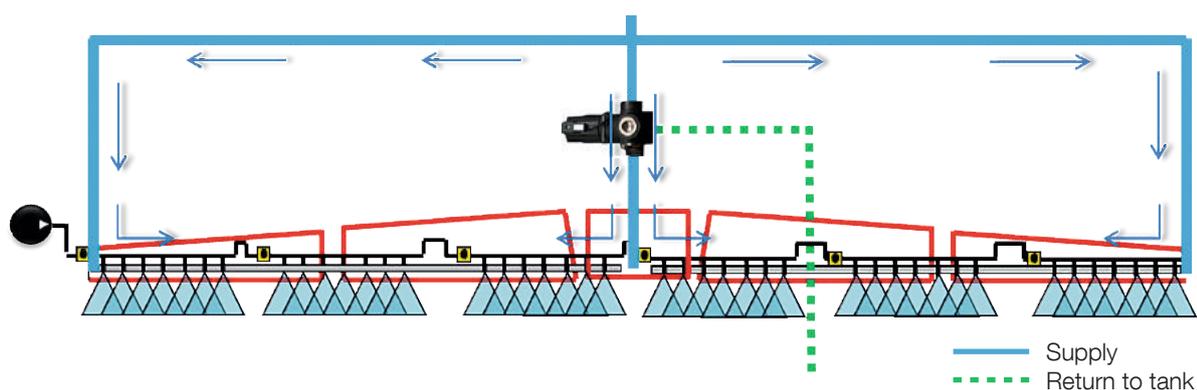
INCREDIBLY SIMPLE: CONTINUOUS HYDRAULIC CIRCULATION

With low-pressure continuous circulation, the boom is already primed before you begin spraying. The Continuous Hydraulic Circulation is not only a simple and efficient solution to prevent product loss at the start of your work in the field, but it also fully dilutes the sprayer's contents before you begin spraying.



	CHC: HYDRAULIC	CPC: PNEUMATIC	CEC: ELECTRICAL	MULTISPRAY	AUTOSPRAY
Opening/closing of spraying system	Mechanical	Pneumatic	Electrical	Electrical	Electrical
Rapid priming	++	+++	+++	+++	+++
Spraying system opening and closing reactivity	++	+++	+++	+++	+++
Individual nozzle shut-off	○	○	●	●	●
Automatic nozzle selection	○	○	○	●	○
Selection and retention of droplet size	○	○	○	○	X
Working speed window	+	+	+	++	+++

● standard feature ○ option not available



CONTINUOUS PNEUMATIC CIRCULATION: INCREASE THE RESPONSIVENESS OF YOUR SPRAYING SYSTEM

Opening and closing precision: an air circuit controls the anti-drip valves directly and the spraying system is opened and closed instantly.

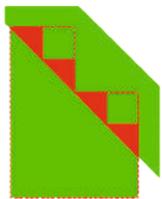
With ultra-fast closing, reinforce the cost-effectiveness of your GPS shut-off.



SURGICAL PRECISION THANKS TO INDIVIDUAL NOZZLE SHUT-OFF



It is important to understand that the more sections you have on the machine, the more you can reduce overlapping. So KUHN naturally offers systems with individual nozzle shut-off to optimise work coverage.

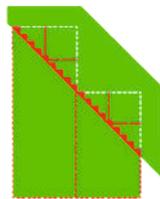


18 nozzles
in four 4.5 m
GPS-controlled
sections

20.25 m²
of overlap for
a 45° point

81 m²
for a 36 m boom
with 8 sections

INDIVIDUAL
SHUT-OFF



18 nozzles
individually controlled
by GPS

2.25 m²
of overlap for
a 45° point

9 m²
for a 36 m boom
with 72 nozzles

9X
LESS
OVERLAP

CONTINUOUS ELECTRICAL CIRCULATION: RADICALLY REDUCE OVERLAPPING

Sprayers equipped with the GPS-controlled individual nozzle shut-off technology will not spray the same area twice. This system means 9 times less overlap at the headland compared with sprayers with 4.5m sections.

KUHN PLUS POINTS

Individual nozzle control enables the user to modulate a prescribed application rate for localised spraying. Once the map is integrated into the terminal, the METRIS 2 or OCEANIS 2 sprayer applies the required dose only on the identified zones. Less product used equals cost savings.



SWITCH TO AUTOMATIC WITH THE MULTISPRAY



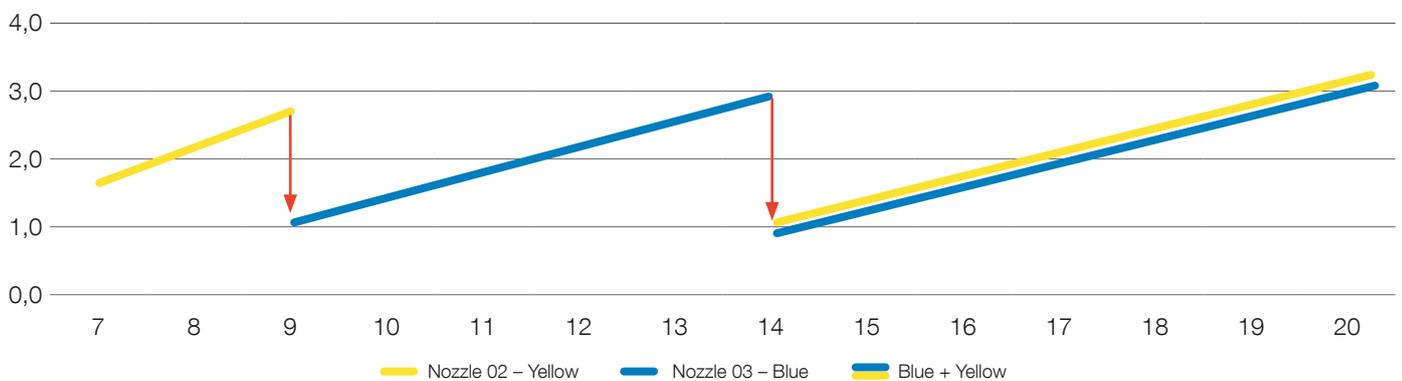
On most sprayers on today's market, the faster your forward speed, the higher the spray pressure. However, if the nozzle is not changed, the size of the droplet changes, which increases the risk of drift. With KUHN's MULTISPRAY precision system, you can automatically change the nozzle according to your forward speed to ensure optimal spray quality.

CONTROL DROPLET SIZE

The size of the droplet generated by the nozzles is the most important point to ensure good spray quality. To maintain optimal droplet size, the MULTISPRAY system automatically selects the nozzle or combination of nozzles best suited to the speed rates and doses. Variations in groundspeed are therefore possible, allowing for easier application rate modulation.

PRESSURE CHANGE FROM 7 TO 20 KM/H WITH MULTISPRAY

100 L/ha - Yellow and blue nozzles



CHOOSE YOUR “DROPLET” SIZE AND DRIVE!

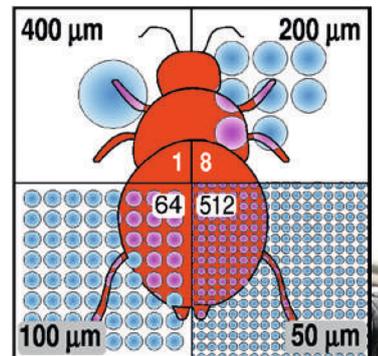
AUTOSPRAY takes care of the rest! During spraying operations, droplet size management is essential to ensure a successful pass. Achieving higher outputs means driving faster, which is not always consistent with maintaining good and consistent spray quality. Climatic conditions, and the fact that they could change during operations, must also be considered. In order to maintain excellent spray quality throughout the operation, KUHN has introduced the AUTOSPRAY spraying system.

DIFFERENT-SIZED DROPLETS: THE CHALLENGES

Droplet size is most often expressed according to its MVD (Median Volume Diameter) in μm .

Depending on the different nozzle models on the market, the droplet size can also vary according to the sprayer system pressure.

Generally, the higher the pressure, the finer the droplet. Most nozzle manufacturers today indicate the droplet size obtained according to the pressure exerted.



Droplet size compared to an insect (©Arvalis).

Product type	Required droplet size	Average droplet size (MVD) in μm	Agronomic recommendations
Contact chemical	VF F	< 231	High risk of drift, minimal wind and high hydrometry
Systemic chemical	M C VC	231-484	Less sensitive to drift and evaporation. Sensitive to leaching
Liquid nitrogen	XC UC	> 484	Very low risk of drift



“Now machine is very easy to use, [...] we select large droplets, small droplets or both, and off we go!”

M. Fuzeau, Farmer in Chenay (France)

SELECT THE DROPLET SIZE THANKS TO THE PULSE WIDTH MODULATION (PWM) TECHNOLOGY

The PWM (Pulse Width Modulation) technology allows the AUTOSPRAY precision spraying system to control droplet size. Nozzle opening time is varied by micro-pulsation to maintain a constant pressure, regardless of the dose to be sprayed. By maintaining the droplet size constant regardless of speed, the AUTOSPRAY system offers users a wider range of speed. Productivity is enhanced, without influencing the quality of the spraying operation.

**8 KM/H
DROPLET SIZE:**

MEDIUM

**GREY NOZZLE
95 L/HA**

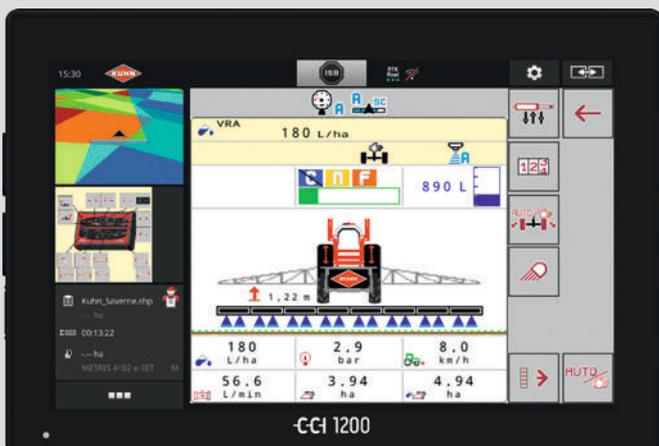
**16 KM/H
DROP SIZE:**

MEDIUM



20 MICRO-PULSES PER SECOND, STAGGERED

In order to ensure excellent work coverage, the AUTOSPRAY electrical jet holders are clocked in a staggered way along the boom at a rate of 20 pulses per second (20 Hertz).



OPT FOR SIMPLE PRECISION

Spraying is a breeze with the ISOBUS terminal. Droplet size can be activated or deactivated with a simple click for optimal spray quality.

By controlling the dose and the droplet size, all components are combined to achieve precision spraying.

MAKE SPRAYING SIMPLER WITH VIOREB

Automatic section control is becoming the standard, regarding both product-application precision and operator comfort. Designed around the GPS Section Control function with a 7-inch touchscreen, the VIOREB regulator unit is perfectly adapted to agricultural spraying. Prepare, Spray, Display: the VIOREB control box facilitates spraying in all stages of your work.



REMARKABLY ERGONOMIC

With its next-generation colour touchscreen, the VIOREB control box is remarkably ergonomic.

Its uncluttered and intuitive menus lets prepare your sprayer in just a few clicks.

From automated sprayer filling to nozzle selection, the VIOREB control box will only ask you the questions required to perform high-quality work in your selected field.

As an option, the VIOREB control box can be equipped with a guidance assistance solution to spray fields without tramlines, or even to avoid counting the rows of crops.



THE REB3 UNIT: YOUR SPRAYING ESSENTIAL

The REB3 unit groups together all sprayer functions. Adapted to precision spraying for crop protection, it was designed for easy use, with good ergonomics.

With its ultra-compact dimensions (21.5 x 11 x 4.5cm), the REB3 unit is easy to install in any tractor cab.

IT ONLY DISPLAYS WHAT YOU NEED, AND WHEN YOU NEED IT

Dose applied, pressure, speed, product volume left in the tank or alternatively section control? It's all there, and nothing else. Functions are displayed when you click or at the headland to let you control the options as required.

VISIOREB will not drown you in unwanted information and lets you only display what you need, while you work.

ITS MANY FUNCTIONS

In addition to controlling the DPAE spraying functions, the VISIOREB control box also includes the following as standard:

- GPS section control
- Filling assistance with a built-in computer
- The brightness level automatically adapts to the working conditions
- Visual aid to make sure the entire field has been treated
- Increased intuitive operation with visual indicators
- Easy management of the fields for improved traceability

As an option, the VISIOREB can be equipped with a guidance assistance



VISIOREB control box during spraying operation - 1:1 scale

OPT FOR THE INTUITIVE ISOBUS INTERFACE TO SIMPLIFY YOUR SPRAYER USE

KUHN provides a user-friendly ISOBUS solution designed to make your work easier. The software developed for spraying will allow you to easily control the sprayer. Every step in using the control box was designed with the user in mind to make ISOBUS METRIS 2 & OCEANIS 2 sprayers easy to use. During filling, spraying or rinsing, the spraying system application assists the driver in order to make using the machine ergonomic and more precise.

KEEP FULL CONTROL: ISOCCLICK

For spraying operations, KUHN has developed the "ISOCCLICK" ISOBUS control unit. It is designed to be easily installed in the tractor's armrest extension.

This control unit allows you to maintain control of the machine's main functions while working. Even at high speed, you're able to easily control sections manually, or perfectly manage the machine's hydraulic functions. KUHN'S ISOBUS sprayers can also be controlled with any other ISOBUS auxiliary already installed in your tractor cab.



INTUITIVE RINSING

When its time to rinse the spray system or the boom, the ISOBUS sprayer application displays the circuit during rinsing.

The DILUSET+ set-up system offers assistance to ensure perfect rinsing of the machine. The rinsing cycle sequencing becomes easy and intuitive, and you only have to visually check where the rinsing water is going.

With the RINSASSIST system, the sprayer takes care of everything! You can monitor each step in rinsing operations from the terminal and be sure that the remaining product in the tank is diluted to 1%.



A CLEAR INTERFACE

The KUHN ISOBUS spraying application was developed to provide you with everything you need to conduct precision spraying operations.

At a glance, you can monitor all the data to achieve spraying quality. All the values you need (dose applied, working pressure, autonomy, etc.) are clearly visible, and you can customise the screen with your preferences.

When spraying specific areas, a simple click on the sections will allow you to activate or deactivate them.

ISOBUS: CONTROL ALL THE TOOLS WITH THE SAME CCI TERMINAL

The ISOBUS technology lets you manage all your farm's ISOBUS machines with the same terminal. No longer changing terminals according to the machine means increased productivity and user comfort. Plus, sharing the terminal's applications with several machines provides substantial gains.



CCI 1200: FUNCTIONS LIKE A TABLET

The new universal CCI 1200 terminal certified by the AEF was developed with three priorities: performance, visibility and flexibility. You can easily control your sprayer thanks to its user-friendly, intuitive design and 30.5 cm (12.1") anti-glare touchscreen.

As a standard feature, the CCI 1200 terminal enables a simultaneous display of two applications, offering you better readability and comfort.

A SPRAYER COMPATIBLE WITH VARIOUS ISOBUS TERMINALS

The METRIS 2 & OCEANIS 2 trailed sprayers have integrated AEF-certified software which means that many other terminals are compatible with the sprayer. So you can maximise the ISOBUS terminals and GPS applications already in your tractor cab.



CCI APPLICATIONS: CUSTOMIZED AND INNOVATIVE

The new CCI 1200 universal terminal certified by AEF can simultaneously display various information essential to the driver. The AUX-N function enables connection to auxiliary control assistants. Very comfortable, it offers myriad applications as standard. Contact your Kuhn dealer for more information and for available applications!



CCI.COMMAND

The CCI.COMMAND application offers you precision guidance and automatic opening/closing of sections via GPS. This enables you to save on inputs and boost your spraying efficiency while offering a comfortable use. Various modules are available:



Section Control: automatic section control or nozzle by nozzle shut-off in headlands and corners.

Parallel Tracking: guidance assistance designed to reduce overlapping, even when visibility is poor.



CCI.CONTROL / TASK CONTROL

This application directly saves all your tasks in each field and enables data exchange in the ISO-XML format. In this way, you always have all the information you need to manage your farm.



Task Controller: you can export data in PDF format or import data into application maps of fields.

Location-based data: variable rate application via GPS using application maps. The data can be uploaded to the terminal via a USB port in SHP or ISO-XML format or linked to a biomass sensor.



CCI.CONVERT: the application can also be linked to N-Sensors® biomass sensors to modulate the application rate "live".

METRIS 2 & OCEANIS 2 ALSO FUNCTION AVAILABLE WITH THE CCI 50

This new universal terminal certified by AEF is compact and versatile. It has a 14.2-cm (5.6") colour touchscreen and 12 softkeys. It provides all the functionalities for precision farming: section control, dose modulation, documentation and more. With its user-friendly interface, on the same display you can view Section Control and other important sprayer information such as dose applied, pressure and tank volume.

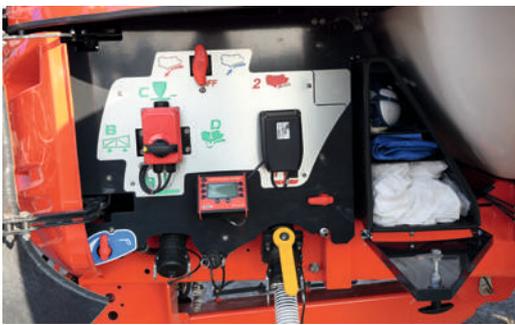


THE KUHN "PLUS" POINTS FOR HIGH-QUALITY SPRAYING



REDUCE DRIFT BY LOWERING THE BOOM

Our next-generation booms, the LEA2 and LEA3 enable a 25-cm spacing between jet holders. With a narrower spacing, the boom works closer to the ground with equal distribution quality and limited drift.



FILL THE TANK EXTERNALLY

Pressurised tank filling is available as an option on the METRIS 2 & OCEANIS 2 trailed sprayers. With this option, during filling operations, pumping automatically stops with DILUSET+ or e-SET, and incorporating products can be done with clean water.



CONTROL THE END JETS FROM THE CAB

To increase the spraying width, an asymmetrical nozzle can be fitted on the boom end. These nozzles are electrically-controlled from the cab. Limited to one side of the boom or on both sides, these nozzles are used for tramlining or for the treatment of field borders.



ALREADY EQUIPPED WITH A GUIDE BAR?

Our sprayers are compatible with many guide bars equipped with GPS section control systems. The Trimble, CNH, Raven, Top Con, Teejet, Arag or Rinex section control systems are compatible, enabling you to leverage your existing tractor equipment. A simple interface will make the REB3 compatible with your section control system.



HYDRAULICALLY-DRIVEN PUMP: NO MORE UNIVERSAL JOINT TO CONNECT!

A hydraulic motor-driven pump is available as an option on the METRIS 2 & OCEANIS 2 sprayers. This avoids the risk of the lifting arm getting caught in the power take-off, and the tractor no longer needs to run at full speed.

EVER-USEFUL EQUIPMENT

CONTROL ALL THE FUNCTION WITH ONE SINGLE FINGER

An ISOBUS 8-button joystick replaces the ISOCLICK. It has a three-position selector to activate 24 different functions. The functionalities are customisable and interchangeable, and the joystick can be used with any other ISOBUS machine.



AVOID FOAMING WITH THE STOPMIX AGITATION SYSTEM

The STOPMIX agitation system is available as an option on the METRIS 2 & OCEANIS 2 sprayers to eliminate the foaming phenomenon when the tank is close to being empty. The pump empties the tank completely, and the sprayer is easier to clean.



THE NOZZLE: THE KEY COMPONENT IN QUALITY SPRAYING!

It is imperative to use the nozzle best suited for your application! KUHN can advise you on the choice of nozzle best suited to your conditions, based on applied volumes, hygrometry and wind. A free Smartphone application is available. Scan and download.



WORK UNDER OPTIMUM CONDITIONS: WORK LIGHTS

To make the most of optimum spraying conditions (low temperature and high hygrometry), night work is possible. LED lamps are positioned under the boom for perfect spraying control, even at night.



NOW FOR THE OUTSIDE...

Rinse the outside of the machine with the exterior cleaning kit (automatic 15m hose reel and spot lance). By cleaning the machine in the field, you can return to the farm with a clean machine, ready to be used with another product.



Specifications		
	METRIS 2	OCEANIS 2
Boom types and widths	RHPA (18 to 28m) TR4 (24 to 30m) LEA2 (24 to 30m) LEA3 (27 to 33m) RHA3 (30 to 38m)	RHPA (18 to 28m) TR4 (24 to 30m) LEA2 (24 to 30m) LEA3 (27 to 33m) RHA3 (30 to 40m) RA3 (42 to 45m)
Tank capacity	3,200 or 4,100 L	5,000, 5,600, 6,900 or 7,700L
Real capacity	3,430 or 4,380 L	5,300, 5,900, 7,300 or 8,000L
Rinsing tank capacity	450 L	550 L
Regulation	DPEA, CANBUS or ISOBUS	
Pumps	PM 265, PM 320, PM 500 or PC 700	
Set-up	MANUSET, DILUSET + or e-SET	
Stand for removal	Manual or hydraulic	Hydraulic
Suspensions	Quadruple (drawbar, axle, parallelogram and boom)	
Boom suspension	EQUILIBRA (Pendulum link-rods with independent L/R anti-whiplash system)	
Filtration	Quadruple (on filling, on suction, before flowmeter and per section)	
Hitch-to-axle length	4.40m	5m (5,000/5,600 L) 5,70m (6,900/7,700 L)
Tracks	Adjustable from 1.50m to 2.25m (depending on tyres)	Adjustable from 1.80m to 2.25m (depending on tyres)
Overall width	2.55m	2.55m (except 6,900/7,700 three arm: 3m)
Transport height	3.35m	3.5m to 4m
Under-nozzle height	Adjustable from 0.50 m to 2.25m (depending on tyres)	
Unladen weight	From 2,800 kg to 4,050 kg	From 3,500 kg to 5,000 kg



be strong, be **KUHN**

KUHN PARTS

Parts designed to last



With our high-tech foundries and forges and state-of-the-art production facilities, KUHN manufactures spare parts that will last for years to come. You can count on our expertise and our genuine parts. Thanks to our KUHN PARTS warehouses, you benefit from our customer support and logistics services. We provide fast and reliable repair solutions, in cooperation with the KUHN Approved Partner nearest you.





KUHN SERVICES* Maximise the use and productivity of your KUHN equipment

* Some services are not available in all countries.

KUHN sos order **RECEIVE YOUR PARTS 7 DAYS A WEEK; 24 HOURS A DAY**

Do you need a spare part fast? With KUHN SOS order, you benefit from express delivery 7 days a week/362 days a year. So you can reduce your machine's downtime and improve your productivity rate.

KUHN protect + **THE PROFESSIONAL'S CHOICE!**

Enjoy 36 months of complete peace of mind with the KUHN Protect+ warranty coverage. This way you'll be able to concentrate exclusively on your work and your machine's performance. Because it's exactly what you expect when investing in high-tech farm machinery.

KUHN Optistart **WITH KUHN OPTISTART, TAKE ADVANTAGE OF TRAINING FROM AN EXPERT**

A few months after your machine is up and running, a KUHN expert will be available to you for a complimentary one-day training. It will be an opportunity to explore and take advantage of all the finer details in the machine's equipment.

KUHN i tech **FOR THE QUICKEST REPAIRS!**

An unexpected technical hitch always occurs at the wrong time. Thanks to Kuhn I TECH, your Kuhn Approved Partner can get you up and running again quickly and efficiently. This 24/7 online service diagnoses the problem quickly and accurately.

KUHN finance **INVEST RATIONALLY!**

You need a new machine, but you're not sure about financing? Update your machinery and boost your farm's performance in total security and according to your needs and requirements with KUHN finance. We offer personalised financing solutions adapted to your needs.

LEXIS

METRIS 2

OCEANIS 2

KUHN TRAILED SPRAYERS IN BRIEF

TECHNICAL SPECIFICATIONS

	LEXIS	METRIS 2	OCEANIS 2
Tank capacity (L)	2,400 - 3,000	3,200 - 4,100	5,000 – 5,600 – 6,900 – 7,700
Boom width (m)	18 to 28	18 to 38	24 to 48
Regulation	CANBUS / ISOBUS	CANBUS / ISOBUS	CANBUS / ISOBUS
Frame suspension	∅	Strathane	Spring / Hydro-pneumatic
Boom suspension	TRAPEZIA / EQUILIBRA	EQUILIBRA	EQUILIBRA
Auto steering track following	Drawbar (optional)	Axle (optional)	Axle (optional)
Boom circulation	Standard / CHC / CEC	Standard / CHC / CPC / CEC	Standard / CHC / CPC / CEC
Precision spraying	AUTOSPRAY	MULTISPRAY / AUTOSPRAY	MULTISPRAY / AUTOSPRAY

LEXIS



METRIS 2



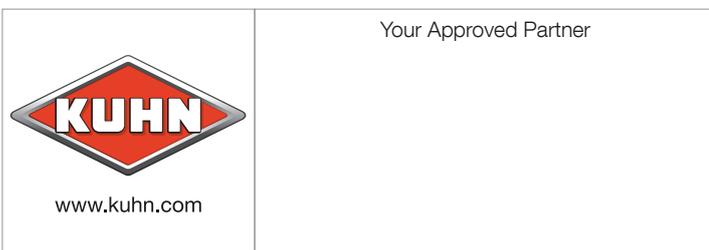
OCEANIS 2



To discover your nearest
Approved Partner, check us out at
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