

Mounted sprayers



www.kuhn.com

DELTIS 1000 & 1200 L
ALTIS 1300, 1600 & 1800 L
15 - 28 m booms



be strong, be **KUHN**



DELTIS

1000 I

1200 I

ALTIS

1300 I

1600 I

1800 L

KUHN HIGH PERFORMANCE MOUNTED SPRAYERS

A DESIGN WORTHY OF THE LARGEST MODELS

DELTIS and ALTIS mounted sprayers have been designed on the same basis as our trailed and self-propelled sprayers. The OPTILIFT system with parallelogram will guarantee a level of quality and reliability that's worthy of the largest models.

SIMPLE YET SUITED TO YOUR NEEDS

First and foremost, DELTIS and ALTIS are simple, reliable sprayers that you will quickly come to grips with.

- Quick, easy coupling
- Simple, trouble-free set-up
- Intuitive electronic regulation.

BALANCE IS THE KEY

With their light weight, suspension in transport and 3D suspension, DELTIS and ALTIS are designed to offer constant balance throughout the spraying operation to ensure high output and total reliability.

KUHN mounted sprayer solutions

DELTIS

1000 & 1200 L

15 to 24 m

ALTIS1300, 1600 &
1800 L

15 to 28 m

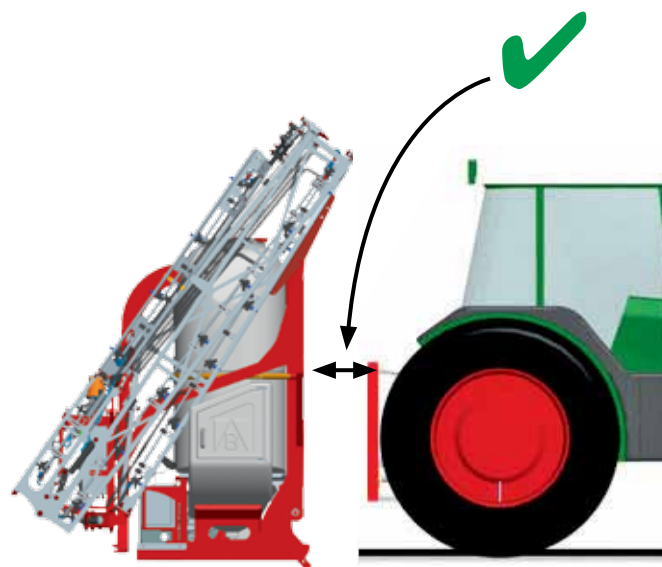




EASY COUPLING

DELTA and ALTA sprayers can be coupled to the tractor simply and effortlessly with EASY-HITCH. This system also offers easy access for the installation of hoses and the drive shaft.

1. Position the lightweight A-frame on the lifting arms and back the tractor up to the sprayer. The space required between the sprayer and your tractor wheel is maintained so that connections can be made.
2. Connect easily:
 - Long drive shaft
 - Easy-to-access hydraulic hoses
3. Reverse and lift the tractor arms. Locking is automatic.
 - No risk of losing the machine.





"L" FRAME

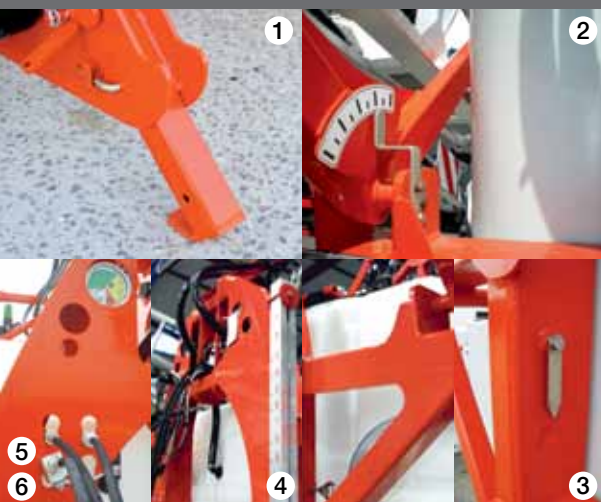
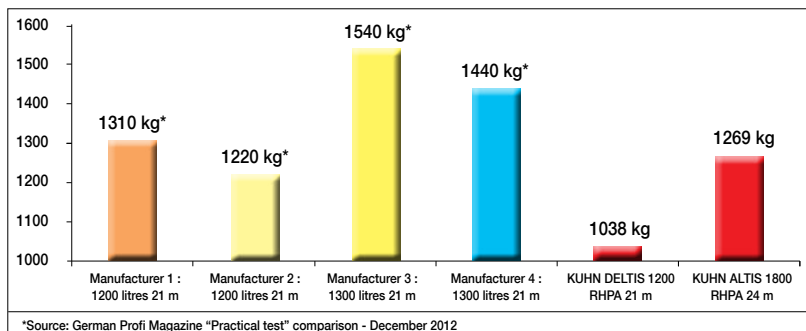
BALANCE STARTS RIGHT HERE



The overall design of DELTIS and ALTIS mounted sprayers is based on a simple fact: you cannot always use your main tractor for spraying. The "L" design coupled with the OPTILIFT parallelogram reduces the unladen weight when compared with rival models. Moreover, the advantageous frame shape means that the weight is transferred above the lifting arms, which are themselves integrated by the EASY-HITCH coupling.

PRACTICAL ACCESSORIES

1. Parking stands
2. Boom height indicator
3. Vertical setting indicator (ALTIS)
4. Dry float gauge (optional on DELTIS)
5. Hose storage
6. Pressure gauge protection





A PARALLELOGRAM

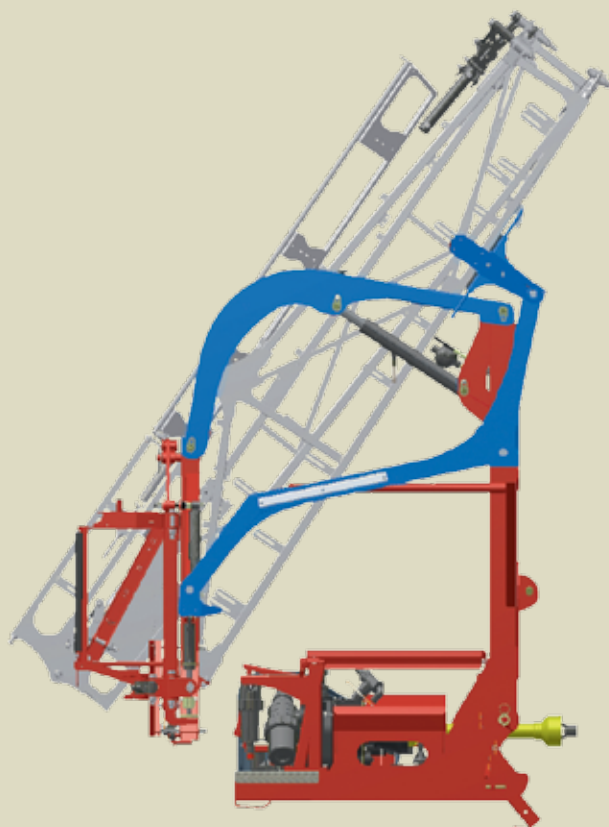
JUST LIKE ON LARGER MODELS

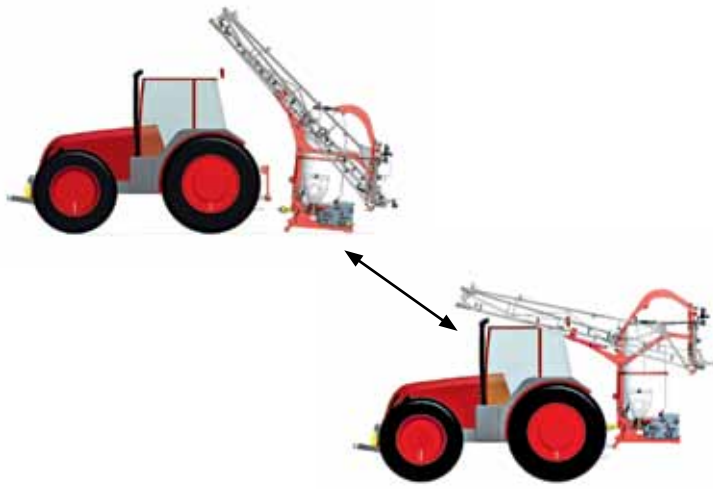
OPTILIFT is the keystone of DELTIS and ALTIS mounted sprayer design. Nowadays, many manufacturers of trailed and self-propelled sprayers have swapped sliding mast lifting systems in favour of parallelogram lifting systems. DELTIS and ALTIS mounted sprayers have naturally followed this trend by proposing OPTILIFT which features a parallelogram lifting system, essential to sprayer performance.

The real added value of the OPTILIFT system lies not only in its parallelogram lifting system, but above all in its integrated boom supports - all on the "L" frame.

OPTILIFT offers numerous advantages:

- Multiple boom position
- Working height
- Suspension in transport and in work





Multiple boom position (RHPM and RHPA)

Your sprayer is faced with several situations during its lifetime: storage, hitching, road transport, field work, etc. These situations may involve numerous constraints which is why the two-arm booms on DELTIS and ALTIS mounted sprayers are designed so that they can be positioned as you require. Examples:

- Booms lifted clear of the cab for easy sprayer coupling
- Lateral positioning to limit height for road transport or storage, if necessary.
- Lateral positioning to shift the centre of gravity of the sprayer even further forward.

The OPTILIFT system improves modularity - you can decide your best boom position.

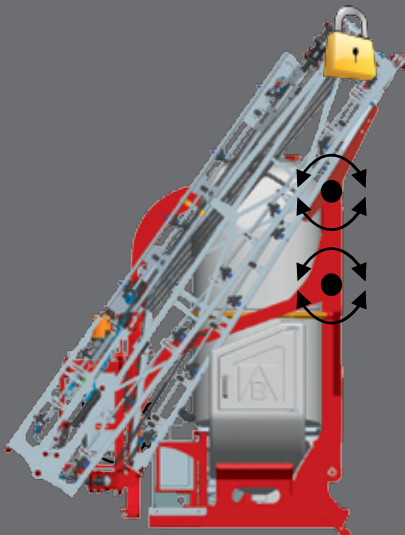


Aim high

Tall crops, exceptionally uneven terrain, obstacles to be negotiated... Sometimes the constraints imposed by your fields or crops call for particularly high lifting. With the OPTILIFT parallelogram, DELTIS and ALTIS sprayers have a clearance of 2 m under the booms (machine on the ground, or up to 2.50 m with the machine hitched), giving you plenty of room to manoeuvre, irrespective of conditions.

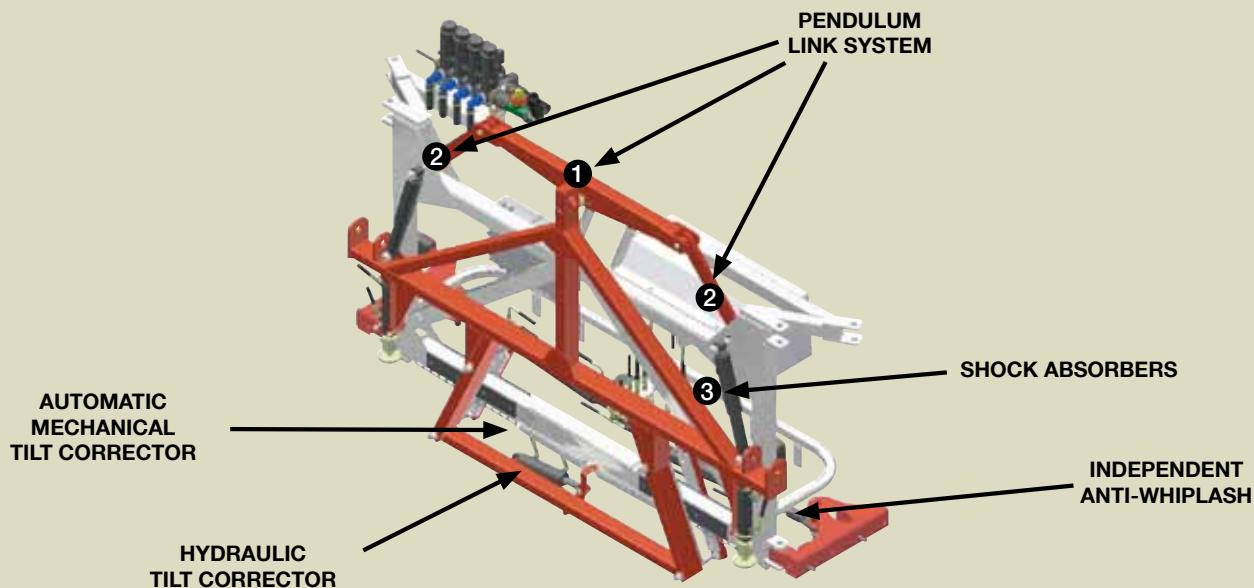
SUSPENSION IN TRANSPORT RELIABILITY

Front axle, cab, seat...: tractors are increasingly relying on suspended systems to ensure maximum comfort while maintaining a high speed (up to 50 km/h in some countries) to save time on the road. In the cab, you no longer feel the stresses and jolts experienced by the equipment hitched to the tractor. The OPTILIFT's parallelogram suspension in transport protects the boom while travelling at high speed. Save time without worrying about your sprayer.



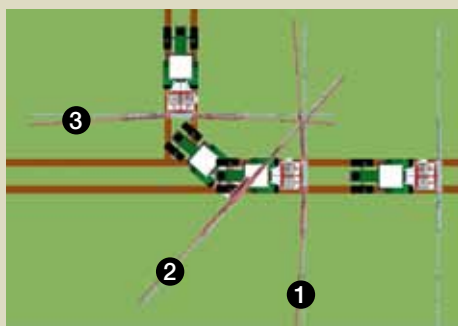
EQUILIBRA

ESSENTIAL 3D SUSPENSION



PENDULUM LINK suspension with shock absorbers

On uneven terrain, the combination of a pendulum (1) and links (2) offers sufficient freedom of movement to keep the boom steady, regardless of the type of land constraints encountered. Two shock absorbers (3) also dampen and limit vertical movements to keep the boom perfectly level, especially on cornering, even at high speed.



INDEPENDENT ANTI-WHIPLASH: the 3rd dimension

Whiplash describes the boom back-and-forth movements which are highly damaging to the articulations, especially during headland manoeuvres:

- Braking (1)
- Headland turning (2)
- Acceleration (3)

The nitrogen accumulator system protects each arm perfectly and independently in all of these situations for increased reliability as well as during all spraying operations.

KUHN “+” POINTS

AUTOMATIC MECHANICAL TILT CORRECTION

The 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 by the operator. A hydraulic tilt correction cylinder (optional on RHPM) supplements automatic mechanical correction in areas where the terrain is particularly uneven.



TRAPEZIA SUSPENSION: Simple and efficient

RHPM booms are equipped with TRAPEZIA suspension, comprising:

- 2 stabilizing links
- Automatic mechanical tilt corrector
- Hydraulic tilt corrector (optional)

RHPM & RHPA BOOMS

THE POWER OF ALUMINIUM

MASTERY OF THE MATERIAL

Making the booms in aluminium prevents oxidation: the boom is permanently protected against chemical attack to guarantee the long life of the structure, even in the event of impacts on a safety device, unlike paint which can flake off and leave the steel without protection.

Furthermore, the density of aluminium (3 times less than steel) means that thicker material can be used without compromising the light weight of the structure resulting in improved robustness.

ARTICULATIONS

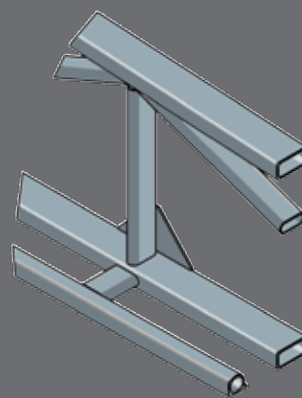
The size of the articulations and the use of ball joints contribute to the robustness of the structure.

Various setting points offer the possibility of readjusting the boom arms over time to keep spraying with the same regularity.



RHPM and RHPA

- RHPM with TRAPEZIA suspension, from 15 to 24 m
- RHPA with EQUILIBRA suspension, from 18 to 24 m
- 27 and 28 m on ALTIS only
- 2 aluminium arms
- 3D safety
- Stainless steel pipe as standard
- Quadrijets as standard
- Pipe height adjustment





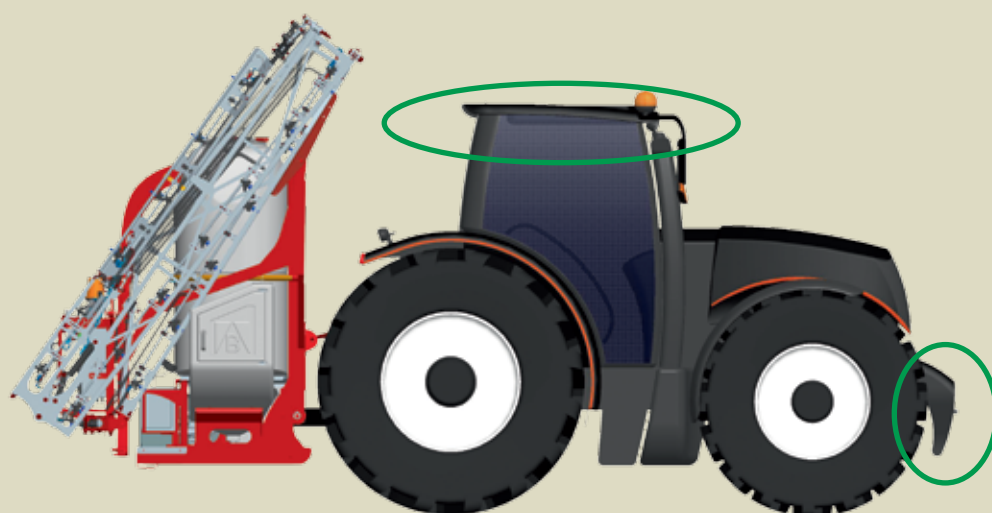
MEA3 BOOM

LATERAL? VERTICAL? NO... DIAGONAL

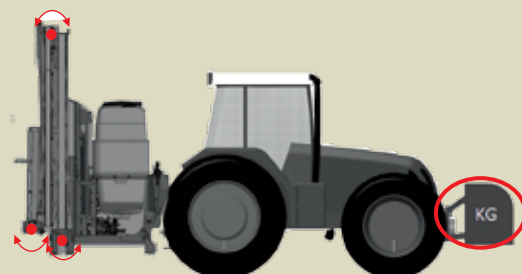
Do your expectations also include a compact boom? In that case you will find what you're looking for in the new MEA3. Being neither a lateral 2-arm boom, which has a limited number of articulations but is not exactly compact, nor a vertical boom with its large number of articulations and a particularly unfavourable weight transfer, the MEA3 now fulfils all your expectations.

MEA3 combines balance thanks to its EQUILIBRA suspension system and OPTILIFT parallelogram, compactness with its 3 arms and also reliability with its limited number of articulations.

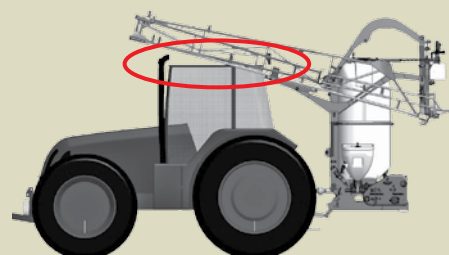
Neither lateral, nor vertical... the MEA3 boom is DIAGONAL.



DIAGONAL BOOM



VERTICAL BOOM



LATERAL BOOM

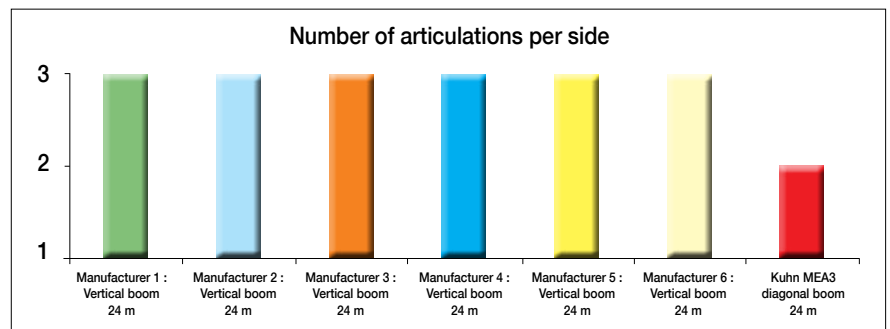
MEA 3 :

- 20, 21 and 24 m
- EQUILIBRA suspension
- 3 aluminium arms
- Exclusive DIAGONAL folding
- 3D safety with rear protection of the nozzles
- Stainless steel pipe as standard
- Quadrijets as standard
- Pipe height adjustment

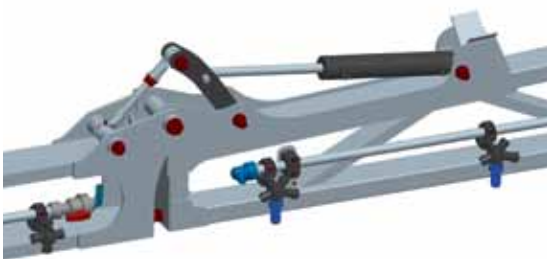
2 ARTICULATIONS + 3 ARMS = RELIABILITY + COMPACTNESS

The articulation is often the weak point of the boom, in terms of both mechanical stress and whiplash. The MEA3 boom has just two articulations whereas the vertical booms present on the market have three. One less articulation means improved reliability and also less boom whiplash.

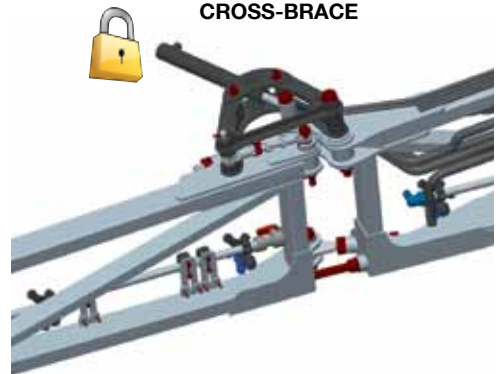
Furthermore, the articulations are designed with a mechanical cross-brace locking system. The hydraulic cylinders are protected in case of contact and whiplash is kept to a minimum.



2ND ARTICULATION: VERTICAL CROSS-BRACE



1ST ARTICULATION: SELF-LOCKING, HORIZONTAL CROSS-BRACE





SETTING UP

SAVE TIME

Setting up is key to successful use of your machine. Kuhn mounted sprayers come with a centralized set-up area to have all controls handy when you prepare your treatment.

DELIVERY

- Spraying (C)
- External delivery as standard (B)
- Product incorporation (D)
- Tank rinsing (F)

SUCTION

- Main tank (2)
- Rinsing tank (3)
- External suction as standard (1)



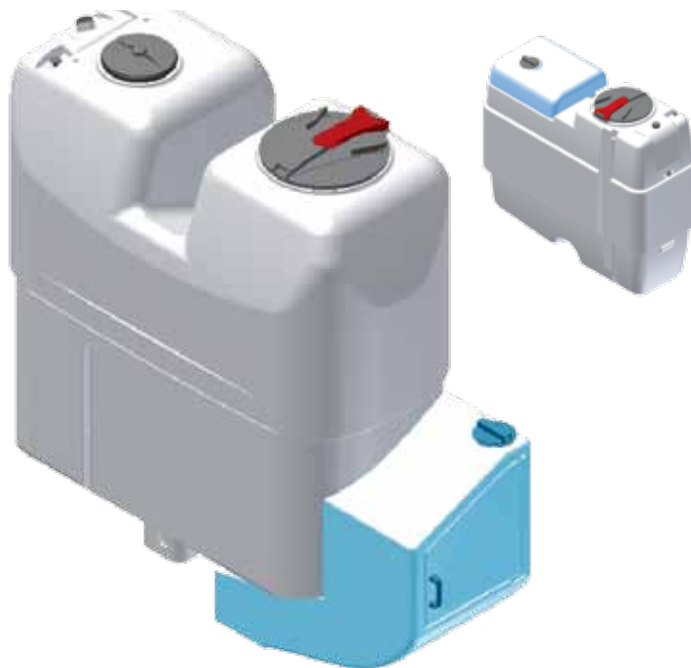
KUHN “+” POINTS

Simple, intuitive layout to prepare the tank without trouble or difficulties.

MAIN TANK AND RINSING TANK: BALANCE IS AGAIN THE KEY

The tanks are designed to maintain excellent left/right balance irrespective of fill level. Designed with a deep sump, draining is extremely efficient with very little product left behind. On ALTIS, this principle is reinforced for all forms of tilt with the special double-sloping sump shape.

The walls of the polyethylene tanks are perfectly smooth, inside and out, to facilitate cleaning. They are also anti-UV treated to improve the resistance and lifetime of the assembly.



FILTRATION: SIMPLE AND EFFICIENT!

Triple filtration:

- 1: Spray filling
- 2: Suction from tank
- 3: Spraying with bowl filters on each section.



PUMP: FOR EVERY NEED

Two types of pump are available as required:

- PM 125 and 165 piston-diaphragm pump
- PM 265 piston-diaphragm pump (ALTIS only)
- PC 700 centrifugal pump (ALTIS only).

INCORPORATOR : EFFICIENT AND COMPREHENSIVE

DELTIS and ALTIS mounted sprayers are equipped as standard with an incorporator with a venturi system. The product drops by gravity into the venturi and is propelled into the main tank. The incorporator is equipped with a rinsing system and a bottle rinser.

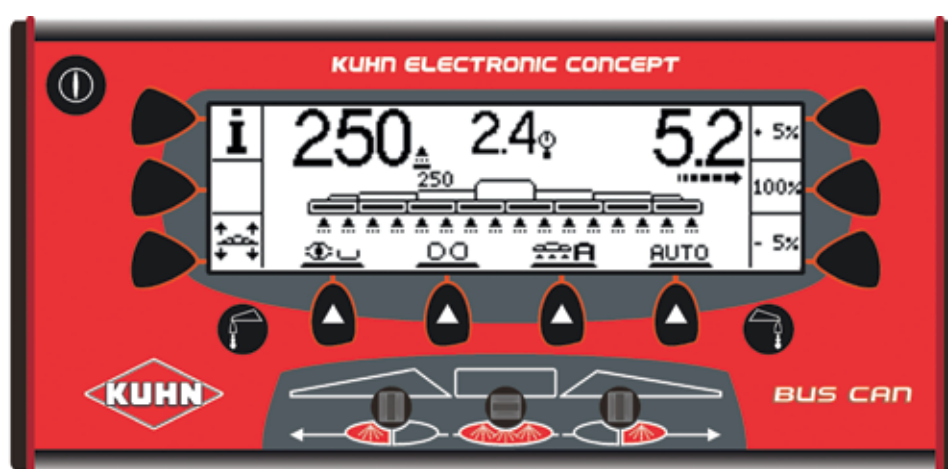
ALTIS “+” POINTS

- 35 litre incorporator
- Parallelogram-mounted incorporator for improved accessibility
- Perfectly conical design for effective incorporation of powder products.





ELECTRONICS SIMPLIFIED CONTROLS



KUHN “+” POINTS

Find the following information on a single screen:

- Intended and actual volume per hectare
- Pressure
- Forward speed
- Dose modulation
- Sequential section control
- Boom rinsing only
- Management of numerous accessories
- Hydraulics management

**REB3 unit: top of the range.
Management of numerous additional accessories**

- DPAE regulation with flowmeter
- Management of optional accessories:
 - Electric border nozzles
 - GPS section control
 - Electronic gauge with automatic stop
 - Electric rotary washers
 - Work lights
 - Rotating beacon



DPS unit

- DPME regulation
- Pressure setting
- Sequential section control ((9 maximum according to optional accessories))
- Management of hydraulic boom functions
- Management of work lights and foam markers



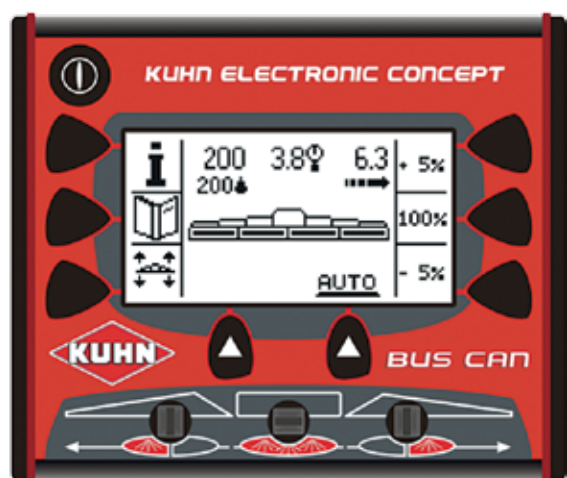
FINGERTIP CONTROL



Everything is incorporated into the regulator, therefore fewer switches and operations

The REB3 regulation provides greater comfort

- Easy connection: CAN BUS technology
- Compact units: less space required in the tractor cab
- Accurate regulation over the long term



RPB unit: designed for simple sprayers

- DPAE regulation with pressure sensor
- Sequential section control (7 maximum)
- Work lights management
- Extremely compact dimensions



HYDRAULICS

Integrated into the regulator or as a complement - a solution for every need

REQUIREMENT

Up to 3 hydraulic functions:

- Open 1st arm
- Open 2nd arm
- Tilt corrector

Several hydraulic functions and/or Hydraulic controller on the sprayer

CONNECTION

- 1 single-acting valve (height)
 - 1 double-acting valve (selector)
- (2 double-acting valves for the 27 and 28 m models)

Continuous pumping from tractor
(1 SA valve + 1 free return)

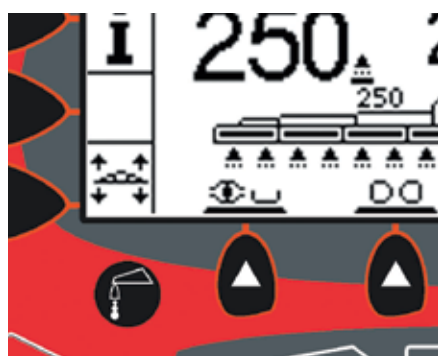
UNIT

Everything is integrated into the regulator

CH10 unit in addition to REB3



KUHN “+” POINTS TO COMPLY WITH GOOD SPRAYING PRACTICES



DILUSET: ELECTRONIC GAUGE WITH AUTOMATIC CUTOUT AND ELECTRIC ROTARY WASHER

- Instant indication of the precise quantity in the tank: electronic gauge
- Overflow prevention: automatic filling shutoff
- Machine rinsing from tractor cab

Operations:

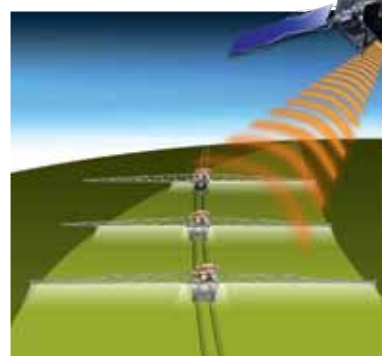
- Transfer of clean water to the main tank
- Rinsing of the main tank interior
- Boom rinsing (with or without return to tank)

You can break down the rinsing operations yourself by means of the electronic gauge which provides information on the volumes transferred.



THE INSIDE'S CLEAN, NOW FOR THE OUTSIDE...

Rinse the outside of the machine with the external cleaning kit (automatic 15 m hose reel and spot spray gun).



GPS SECTION CONTROL: OPTIMIZE THE OPENING AND CLOSING OF YOUR SECTIONS

The boom sections are opened and closed automatically irrespective of the position of the machine in the field. Fully integrated into the REB3 regulator, the configurable system is simple to manage according to requirements.

- Only 3 operating modes (manual, contour or automatic)
- Various configurations can be programmed to optimise overlap
- A number of optional devices are coupled to the GPS Section Control:
 - H MATIC: when the spray opens, the boom is already at spraying height.

ALREADY EQUIPPED WITH A GUIDE BAR?

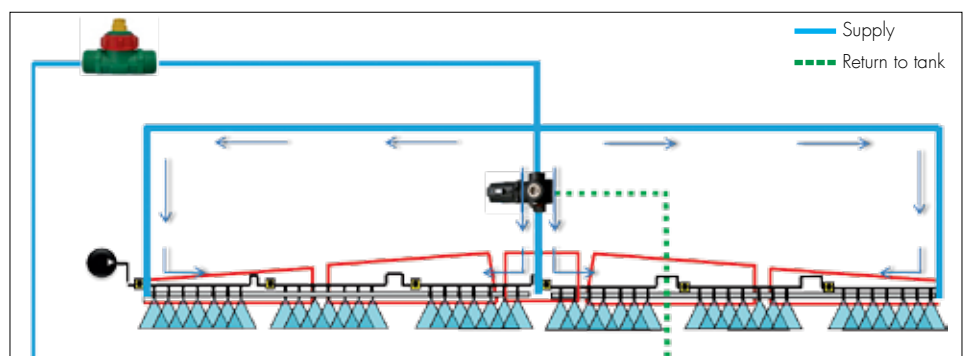
Our sprayers are compatible with many guide bars equipped with GPS section control systems, enabling you to utilise your existing equipment.

USEFUL OPTIONS



WORK UNDER OPTIMUM CONDITIONS: WORK LIGHTS

To make the most of optimum spraying conditions (low temperature and high humidity), night work is possible. 1 LED lamp is positioned under the boom on each side for perfect spraying control, even at night.

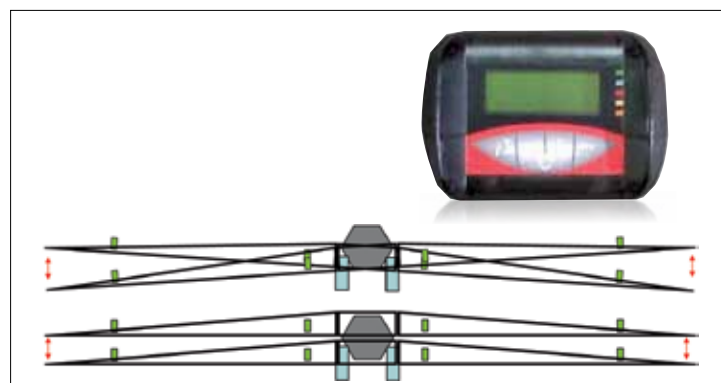


INCREASE SPRAYING PRECISION: PNEUMATIC CONTINUOUS CIRCULATION

- Precision at the start of the field: even when spraying is stopped, the product flows continuously through the boom at a high rate. Priming is continuous and the risk of deposits is very low.
- Opening and closing precision: an air circuit controls the anti-drip valves directly and the spray is opened and closed instantly.



TERRAIN TRACKING CONTROLLERS



H MATIC

At the headland, when spraying is stopped, the boom lifts to a height pre-set by the operator. Headland manoeuvres are made easier and can be performed at a higher speed. Boom height can be seen on the REB3. For the transport position, a lower stop can also be set.

DEVERIX: A REGULAR SPRAYING HEIGHT

Equipped with 2 or 4 sensors, the boom follows the terrain automatically over the most irregular slopes to guarantee an optimum spraying height over the entire width. The precision of the sensors enables the structure of the land or the crop to be analysed at all times for regular correction and perfect tracking. Various modes of operation can be selected according to working conditions.

- 2 sensors: height and tilt control or independent variable geometries for right and left
- 4 sensors: simultaneous control of height, tilt and variable right/left geometry.

KUHN SERVICES

BENEFITS TO HELP YOU GET MAXIMUM USE AND PROFITABILITY FROM YOUR EQUIPMENT

KUHN sos order

**WITH KUHN SOS ORDER,
RECEIVE YOUR PARTS
ALL YEAR ROUND ***

Express delivery! You are sure of getting the spare parts you need every day of the year - including weekends and bank holidays. With KUHN SOS Order, downtimes are kept to a minimum and your productivity is preserved.

* except for 1st January, 1st May and 25th December.

KUHN protect +

**WITH KUHN PROTECT +,
WORK WITH TOTAL PEACE OF MIND**

36 months cover with all the safeguards provided by the warranty! With KUHN protect +, you can concentrate exclusively on your job while enjoying maximum performance from your machine. Because investing in equipment with the latest modern technology is also a way of being more efficient in all your work.

KUHN i tech

**WITH THIS EXPERTISE
YOU ARE ALWAYS ONE STEP AHEAD**

An unexpected technical problem 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

**WITH KUHN FINANCE, YOU HAVE PEACE OF MIND
WITH YOUR VERY OWN FINANCE PLAN**

Purchase new, more productive equipment and optimise your cash flow and tax situation! With KUHN Finance, you can modernise your equipment and develop your farm steadily, according to your needs and requirements. Our plans are tailored to meet your needs.



Technical specifications

	DELTIS	ALTIS
Tank capacity (l)	1000 / 1200	1300 / 1600 / 1800
Actual capacity (l)	1080 / 1260	1425 / 1680 / 1900
Boom width	RHPM 15 - 24 m or RHPA 15 - 28 m (27 and 28 m on ALTIS) MEA3 20, 21 and 24 m	
	Lateral	
	Diagonal	
Pump type	PM 125 / PM 165	PM 125 / PM 165 / PM 265 / PC 700
Regulation	DPME (DPS) or DPME (RPB or REB3)	
Type of circulation	Standard / Boom end	Standard / Boom-end / Continuous with pneumatic anti-drip valves
Rinsing tank capacity (l)	100	180
Tank rotary washers	1 x 360° head	2 x 360° heads
Product incorporator	25 litres, fixed	35 litres, on parallelogram
Stands for removal	Manual, retractable	
Lifting system	OPTILIFT parallelogram with nitrogen accumulator damping system	
Boom suspension	TRAPEZIA (RHPM) or EQUILIBRA (RHPA and MEA3)	
Filtration	Triple (on filling, on suction and on section)	
Overall width (m)	2.55	
Overall height for transport (m)	Lateral booms: 3.10 - 3.60 MEA3 20 and 21 m booms: 3.35 MEA3 24 m booms: 3.50 - 3.65	
Examples of unladen weight (kg)	DELTIS RHPM 21 - PM 125 - Selector: 1028 kg DELTIS MEA3 24 - PM 125 - Selector: 1065 kg ALTIS RHPA 24 - PM 165 - Selector: 1269 kg ALTIS RHPA 28 - PM 165 - Electrovalves: 1349 kg	

* Some services are not available in all countries.



OPTIS

OMNIS

DELTIS

ALTIS

KUHN MOUNTED SPRAYERS IN BRIEF

Technical specifications

	OPTIS	OMNIS	DELTIS	ALTIS
Tank capacity (l)	600 / 800 / 1000	800 / 1000 / 1200	1000 / 1200	1300 / 1600 / 1800
Boom width (m)	2 - 16	12 - 18	15 - 24	15 - 28
Regulation	Constant pressure (CP) / DPM / DPME / DPAE	DPME / DPAE	DPME / DPAE	DPME / DPAE
Booms	Manual	Hydraulic		
Boom lifting system	Manual or hydraulic sliding mast	Hydraulic sliding mast	OPTILIFT parallelogram	OPTILIFT parallelogram
Boom suspension	Fixed or Stabilized	TRAPEZIA	TRAPEZIA or EQUILIBRA	TRAPEZIA or EQUILIBRA
Product incorporator	◇	◆	◆	◆
Rinsing tank	◇	◆	◆	◆

◆ standard equipment

◇ optional equipment

OPTIS

OMNIS


DELTIS

ALTIS



* Some services are not available in all countries.

To discover your nearest Authorized
KUHN dealer, check us out at
www.kuhn.com

 www.kuhn.com	Your Authorized KUHN dealer
--	-----------------------------

KUHN NORTH AMERICA, INC.

1501 West Seventh Avenue - P.O BOX 0167 - Brodhead, WI 53520 - USA

KUHN FARM MACHINERY PTY. LTD

313-325 Foleys Road - Deer Park, VIC, 3023 - AUSTRALIA

KUHN FARM MACHINERY (U.K.) LTD

Stafford Park 7 - GB TELFORD/ SHROPS TF3 3BQ

Some machines have a considerable weight. Respect the tractor gross vehicle weight rating, its lift capacity and maximum load per axle. The tractor front axle load must always reach minimum 20 % of the tractor net weight. Our material is produced in accordance with the European Machinery Directive in the member states of the European Union. In countries outside the E.U., our machinery complies with the safety regulations set by the country concerned. Some safety devices may have been removed from our leaflets in order to clarify the illustration. Under no circumstances should the machine be operated without the necessary safety devices in place (as specified by the assembly instructions and operators manual). We reserve the right to change any designs, specifications or materials listed without further notice. Machines and equipment in this document can be covered by at least one patent and/or registered design. Trademarks cited in this document may be registered in one or several countries.

KUHN
is also on

