# Mounted sprayer **UF 02**



# **UF 02 mounted sprayer**





On request, all new AMAZONE sprayers can be provided with an official sprayer proficiency certificate. The proficiency certificate meets current EU regulations according to EN ISO 16122, which is, for European member states, supported also with the CEMA label.

The UF 02 mounted sprayer is available in tank capacities from 1,000 to 2,000 litres and with booms in working widths from 12 to 30 metres. The UF 02 is outstanding in its compact design, as well as its simple, comfortable operation. In combination with the FT front tank, the tank capacity of the highly manoeuvrable, tractor-mounted combination can be increased to 3,500 litres. That sets the standards!



### **UF 02** highly efficient - comfortable operation

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# **UF 02 mounted sprayer**









1,000 l to 2,000 l (up to 3,500 l with FT)



up to 60 part-width sections



150, 200, 250 or 300 l/min pump capacity The advantages at a glance



# The advantages at a glance:

- ♣ Lifting force optimised design with a favourable centre of gravity mounting
- Clever quick coupling system and a convenient parking mechanism for easy mounting and demounting
- ◆ SmartCenter: tailored operating systems from the intuitively operated Standard-Pack to the Comfort-Pack with TwinTerminal 3.0
- ♣ High-performance 60 litre induction bowl with a suction capacity of up to 150 l/min ensures the shortest possible fill times and a homogeneous spray liquid mix
- Outstanding multi-facet spring suspension for a smooth boom ride
- DUS and DUS pro pressure recirculation systems for a continuous circulation of the spray liquid
- 50 cm part-width sections thanks to the AmaSwitch electric individual nozzle control
- Automatic cleaning programme for perfect cleaning results under all conditions

### **MORE INFORMATION**

www.amazone.net/uf02



PRODUCT FILM
Find out more



**DOWNLOADS** mySprayer App



SMARTLEARNING www.amazone.net/ smartlearning

# High output – compact – safe



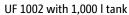
#### **Exceptional performance**

With its teamwork of shape and performance, the UF 2002 convinced and inspired the iF Jury, consisting of experts and designers from all over the world. The jury's evaluation criteria included, in addition to the quality of design, the finish and material choice, the degree of innovation and the environmental compatibility, its functionality and ergonomics and, finally, a visualisation of use and safety.



Spray agent tank







UF 1302 with 1,300 I tank

### High-capacity spray agent tanks

The UF 02 mounted sprayer is available in tank capacities of 1,000 l, 1,300 l, 1,600 l and 2000 l. The specially shaped, polyethylene tank is integrated into the main frame to give a favourable centre of gravity. The advantages of this tank design are the absolutely smooth inner and outer walls of the tank, the rounded internal design and the low positioned sump on the tank bottom. This allows for quick, effective tank cleaning as well as minimal residual volumes.

The filling of the tank is carried out, both on the suction side and even when filling via the bowser fill port, down near the tank floor. This reliably eliminates any tendency for foaming during the filling procedure. For an intensive agitation capacity and to prevent any deposits settling in the tank, the agitator is also positioned down on the tank floor. The internal cleaning nozzle, the tank breather and the easily opened, domed lid are positioned right up in the tank.

Model	Nominal volume	Fresh water tank
UF 1002	1,000 l	260 I
UF 1302	1,300 l	260 I
UF 1602	1,600 l	200   / 350
UF 2002	2,000 l	200   / 350



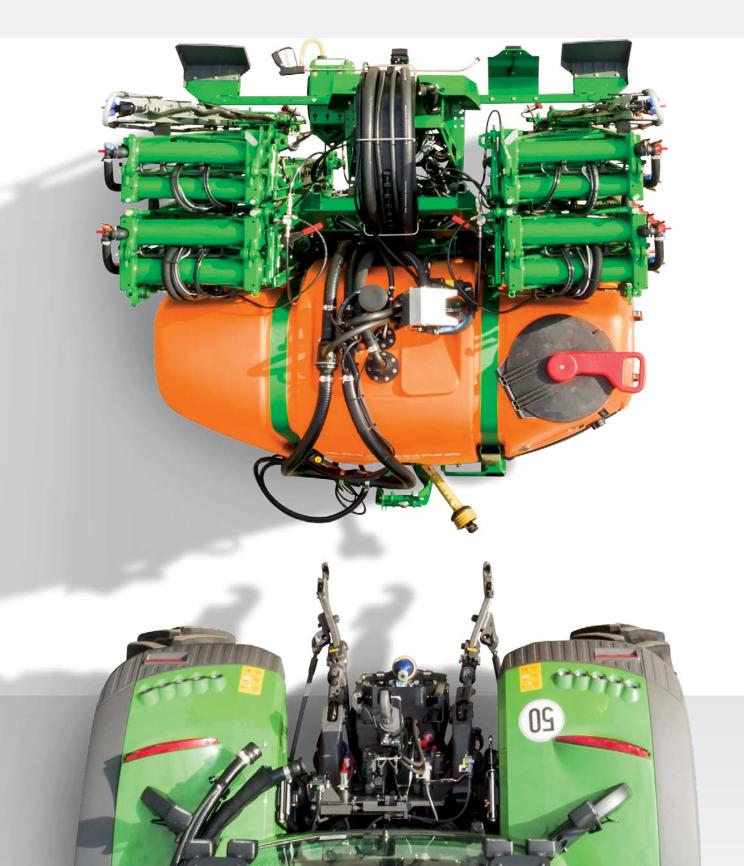
UF 1602 with 1,600 I tank



UF 2002 with the big capacity 2,000 I tank

# Hitch up, fill up, and off we go!

For every tractor the optimum mounting position!



Model

Lower link

Top link pin without

quick coupling system

Top link pin with

quick coupling system

coupling dimensions
Lower link pins

**UF 1002\*** 

**UF 1302\*** 

Cat. 2

Cat. 2

Cat. 2

Cat. 2

8

\* with 2 lower link mounting positions

**UF 1602\*** 

**UF 2002\*** 

Cat. 3

Cat. 3

Cat. 2/3

Cat. 3

with integrated balls

Optional quick coupling system

# Favourable centre of gravity – perfect frame design

Due to the large tank volumes of the UF 02, it is of importance to link the machine to the tractor with an as favourable a centre of gravity as possible. To ensure this, the UF 02 is equipped with two different link arm positions for different tractors. Guide plates in front of the frame help to link the lower link arms to the non-rotating, lower link pins.

# Comfortable hitching up – the quick coupling system

For an even more relaxed coupling and uncoupling of the UF 02 from the tractor, it can be equipped with the optional quick coupling system. In conjunction with the TeleSpace PTO shaft, the machine can be hitched on and off with greater comfort.

# Comfortable demounting – the parking system

The new parking system is completely integrated in the frame. As an option, the patented system can be equipped with castor wheels that remain on the machine even during operation. Via its simple and robust mechanical design, the parking stands or rollers can be quickly swivelled from the transport position up into the work position. Any trouble-some removal of parking rollers or skids is avoided.



Swivelling in and out the parking device

### Perfect down to the last detail

### Stepless hydraulic main agitator

The intensity of the hydraulic agitator can be steplessly reduced down to nothing in order to avoid any foaming of the crop protection agent or to facilitate spraying out the remaining tank contents.

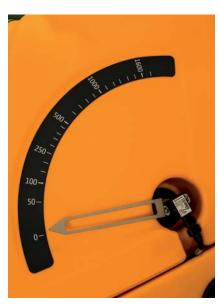
# **Everything thought of!** Fill level and cleaning

The fill level can be read off both via a clearly visible scale or from the operator terminal.

High-performance, rotating nozzles clean the spray agent tank internally. Short pipe runs and hose cross-sectional areas as small as possible make for low residual volumes. Continuous internal cleaning is available as an option (not with Flow Control<sup>+</sup>).







Fill level indicator

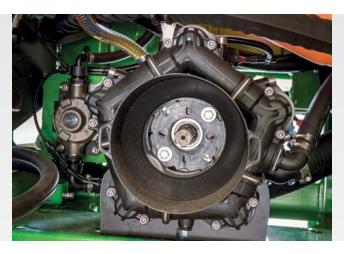


**❸** High-performance, rotating nozzles

Pump technology | Agitator 10 | 11

#### Possible pump options:

Model	Pump capacity I/min	
UF 1002	150 / 200 / 250	
UF 1302	150 / 200 / 250	
UF 1602	200 / 250 / 300	
UF 2002	200 / 250 / 300	



The pumps of the UF 02 are high-performance, dry-run safe and liquid-fertiliser proof

# High performance and reliable pump technology

The UF 02 can be equipped with a single pump system with a choice of 150 l/min, 200 l/min, 250 l/min or 300 l/min as required. During the filling procedure at a nominal pump speed, the full pump capacity is available for filling the spray agent tank. At the same time, either the contents of the induction bowl can be drawn out via the venturi or the total fill capacity can be increased up to 450 l/min.

#### Benefits of a piston diaphragm pump:

- Simple handling due to its self-priming capability at the start of the filling procedure
- Very high, consistent application rates with system pressures of up to 10 bar
- Can run dry and is liquid-fertiliser proof
- Long service life

### Hydraulic pump drive

The UF 1602 and UF 2002 can be equipped with the new hydraulic pump drive as an option. The hydraulic pump drive is completely integrated in the load-sensing hydraulics of the sprayer and offers a comfortable and flexible option for driving the spray pump.

#### Advantages of the hydraulic pump drive:

- Pump drive independent of the tractor
- Protection of the pump due to no excessive speeds
- Easy coupling to and uncoupling from the tractor
- **♥** Fuel-efficient
- Maintenance-free



Hydraulic pump drive for the 300 l/min pump on the UF 02

### **SmartCenter**

Perfect operator comfort via the simple and centralised controls



• The inside of the swing door offers storage space for a pair of gloves and a measuring jug

### Centralised control all via the SmartCenter

The new SmartCenter operator station is equipped with a large hinged door that protects all the relevant operating controls and the induction bowl from dirt and water splashes. A holder for gloves and a measuring jug are provided in the inner panel of the swing door. As the swing door opens backwards towards the boom, it protects the operator from chemical contact on his clothing from the booms plus, at the same time, creates plenty of free space between it and the tractor. With the Standard-Pack, or the optional Comfort-Pack, AMAZONE offers two particularly comfortable solutions for the operation of the UF 02.



**▼** SmartCenter with Comfort-Pack

The UF 2002 is a state-of-the-art sprayer with so many features. The new operator centre is well thought-through and logically designed."

("agrarheute" magazine – Test report UF 2002 with FT 1001 · 03/2018)

### Well thought through – in every detail

The 20 I hand wash tank is positioned above the induction bowl and it is completely integrated into the machine design. The wash water runs directly into the induction bowl and is sucked into the tank. In addition, an easily accessible soap dispenser is positioned underneath the hand wash tank. As standard, the UF 02 features a 30 I dustproof and splash water safe clothing locker for carrying any personal protective equipment.

#### The benefits:

- Central layout of all the relevant operator controls with perfect accessibility
- Operator station sealed against dirt and splash water ingress
- **◆** 30 I clothing locker sealed against dirt and splash water
- ▼ Integrated 20 I hand wash tank



Easily accessible soap dispenser underneath the hand wash tank



30 I dust and waterproof clothing locker

# Intuitive, simple, efficient –

The right solution for any application

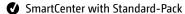


"Striking is the new 7-way pressure tap which serves all the functions on the pressure side. Because of this, operator errors are virtually impossible."

("agrarheute" magazine – Test report UF 2002 with FT 1001  $\cdot$  03/2018)

**▼** SmartCenter with Comfort-Pack







Easy actuation via the 7-way pressure tap

# SmartCenter with Standard-Pack – simple and intuitive operation

Essentially, Standard-Pack means that the UF 02 is operated mainly via the manual suction and the pressure taps. The suction tap determines from where the pump is going to draw the liquid from, whereas, correspondingly, the pressure tap determines where the pump will send the spray liquid to. In addition, the in-house developed 7-way pressure tap from AMAZONE simplifies control of the pressure side.

# SmartCenter with Comfort-Pack – Operation made easy!

In conjunction with Comfort-Pack, the TwinTerminal 3.0 is also utilised. In addition, automatic fill stop for the suction fill is also included. As an option, fill stop is also available when pressure filling from a bowser. During application, the intensity of the agitation is regulated depending on the tank fill level. As the fill level decreases, the agitation capacity is automatically reduced down until it is completely switched off preventing the formation of foam at a low fill level. In addition, the automatic agitation regulation offers auto-dynamic agitator control. This means: if larger application rates are required at the nozzle, the agitator output is reduced. When the nozzles are switched off on the headland, the agitation is automatically restored.

"Via the electronics, spraying is made almost child's play. The automated system controls the filling and the spraying processes."

("agrarheute" magazine – Test report UF 2002 with FT 1001 · 03/2018)

#### 7-way pressure tap

The UF 02 is equipped with a 7-way pressure tap. As oppose to a normal rotary ball valve, the in-house developed valve from AMAZONE consists of a cam and valve seats. Exclusively by swivelling in and out the handle on the pressure tap, the relevant liquid paths are reliably opened or closed.

After the spraying operation is finished, Comfort-Pack provides fully automatic cleaning which can be controlled completely remotely from the tractor cab.

Additional functions such as boom rinsing, cleaning the spray liquid circuit from heavy deposits or a defined dilution of a subsequent tank mix in the field are all functions included within Comfort-Pack.



TwinTerminal 3.0

# **Exact mixing**

Quick and safe with the induction bowl



#### The benefits:

- **▼** Extremely quick and absolutely trouble-free filling
- **⊘** Suction capacity of 150 l/min
- Fresh water supply during both suction and pressure filling
- **⊘** Safe induction even of powder and granular spray agents, thanks to the additional mixing nozzle
- Practical folding measuring jug holder in the induction bowl lid

"Everything has been thought of for the induction bowl; even canisters can be left to drain."

("agrarheute" magazine – Test report UF 2002 with FT 1001  $\cdot$  03/2018)

The 60 I induction bowl copes with anything. We experienced this when inducting Epsom salts."

("agrarheute" magazine – Test report UF 2002 with FT 1001  $\cdot$  03/2018)

# Trouble-free filling with top performance

The 60 l induction bowl is positioned directly underneath the operator control chest. The phenomenal suction capacity of 150 l/min guarantees the quick, absolutely trouble-free filling and a complete emptying. For inducting powders or granular spray agents, an additional mixing nozzle is positioned underneath the suction aperture which safely prevents any blockage of the suction aperture. The mixing nozzle is infinitely-variable and can be operated in parallel to the infinitely adjustable output of the high capacity rinse ring.

When either suction or pressure filling, the induction bowl can be also supplied with fresh water via a steplessly adjustable 3-way valve!

The canister cleaning nozzle is activated simply by pushing down the canister or measuring jug. In the upper zone of the canister cleaning nozzle there is an additional, smaller contact area which is positioned where the nozzle can be activated, specifically for a more effective cleaning of the canister neck.

Details, such as the measuring jug holder, or the drain off possibility for the canisters located on the inner side of the dustproof and liquid tight lid, provide the operator with an exceptionally convenient operation. When the induction bowl is closed a complete internal cleaning can be carried out with the aid of the canister cleaning nozzle. The spray lance, included in the standard execution, is positioned to the right hand side of the induction bowl.



Induction bowl with drain off facility for empty canisters



◆ A holder for gloves and a measuring jug are provided in the inner panel of the operator station cover

# AMAZONE aircraft-style boom design



"Very smooth boom ride in the field during work from the 30 m booms"

("agrarheute" magazine – Test report UF 2002 with FT 1001 · 03/2018)

Booms | Profile

18



UF 1002 with Super-Q-Plus boom

### Simultaneously superbly strong and superbly light

Due to the special profile design, AMAZONE sprayer booms are very light yet, at the same time, very robust. The nozzle bodies with integrated diaphragm non-return anti-drip valves fit up into the boom profiles reliably preventing any dripping at the nozzle. Self-adjusting bayonet fixings ensure a tool-less quick nozzle change. For any operational use and any application rate, the right nozzles are available, for example, for optimum wetting, anti-drift or for liquid fertiliser use.

### 3-fold shock absorbed suspension for the most arduous of operational conditions

As standard, all AMAZONE booms are equipped with

- springs and shock absorber pack for damping the vertical roll movement
- vrubber buffer damping elements with ball suspension to damp down the horizontal yaw movements and
- tension springs for the shock absorbed suspension of the entire boom.

As standard also is hydraulic height adjustment with guide skids that results in the perfect boom guidance and thus, the accurate longitudinal and lateral distribution of the spray liquid.

### **Boom design** to perfection

In hilly terrain and with large working widths, hydraulic tilt adjustment makes sense. The quick and precise tilting and return of the boom into the level position is possible via a tractor spool valve or via the electro-hydraulic functions in the ISOBUS terminal.

The AMAZONE Super-S series booms are JKI approved. They therefore comply with the highest European demands for crop protection implements!



## **Compare for yourself!**

It's those important quality features that make the difference!



#### Compactness matters!

It is easy to carry due to the low centre of gravity and the light and robust design of the machine. The front axle weight load is lower than that of many competitors.

#### Drive safely!

The visibility in road transport is exemplary. Anywhere the tractor can go, the sprayer, with its narrow boom fold, goes as well. No protruding parts, no boom damage, minimal transport width.

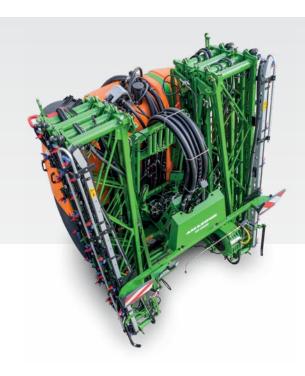
#### **Everything in its place!**

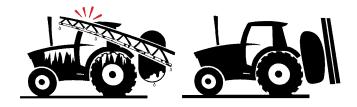
The boom locates safely in the transport hooks. No rattling. No susceptible wear on the boom pivots. High road speeds are not a problem.

## Maintenance-free and with a long service life

The decades of experience in boom design pay off: the conical hinge pin is the intelligent centre of a well thought-out boom philosophy! The boom pivots self-adjust against any play on the conical hinge pins, thereby ensuring an optimised boom function for the end user, even after many years.

The standard use of stainless steel, the use of automotive-industry standard, cathodic dip painting process and the targeted use of plastics and aluminium are the perfect guarantee of a long service life.





#### Clean working!

No spray agent from the booms drips on to the tractor or on the operator station and the booms also do not hit the tractor cab.



### **Q-plus boom**

12 - 12.5 - 15 metres

### The robust, entry-level boom

With the horizontally folded Q-Plus boom in working widths of 12 m, 12.5 m and 15 m, AMAZONE offers an entry-level boom that is second to none when it comes to quality and reliability. Folding in and out is hydraulic as standard, as are the boom height adjustment and one-sided folding in the left-hand direction of travel.

#### The benefits:

- Super-stable and, at the same time, super-light
- 3-fold shock absorption
- Hydraulic height adjustment as standard
- One-sided folding on the left-hand side as standard
- **◆** Available with hydraulic tilt adjustment

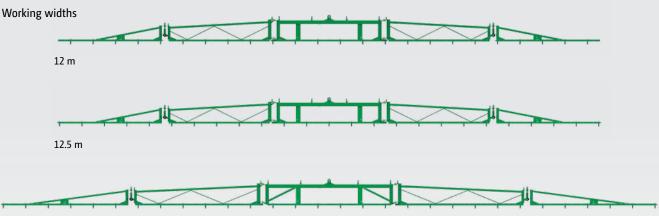


UF 1002 with Q-Plus boom

#### Centralised hose guidance

The central hose guidance ensures a clean and kink free routing of all hoses and cables.

### Boom layout and folding variants for the Q-Plus boom



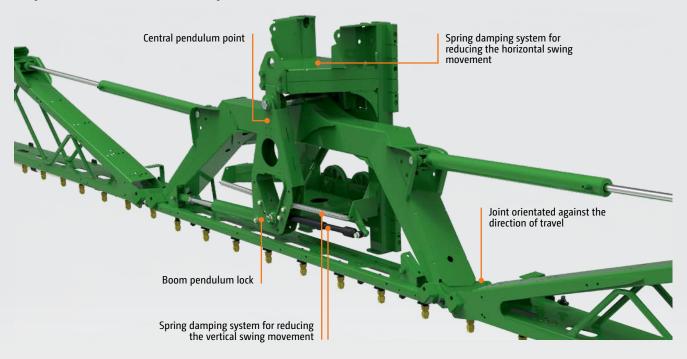
# Super-S boom

The industry-leading boom from 15 to 30 metres



UF 2002 with 30 m Super-S2 boom and FT 1502 front tank

### Super-S1 and S2 boom suspension



The 3-fold, shock-absorbed suspension, with hydraulic height adjustment and elastic boom height indicators, guides the boom reliably over the crop at the right height.

Super-S | boom 22 | 23



# The comfortable, industry-leading boom in working widths up to 30 metres

The vertically folding Super-S boom is available in working widths from 15 m to 30 m. Due to the layout of the boom, there are only a few pivot points, which enables a quick folding and, more importantly, a transport width of just 2.40 metres. When equipped with Profi-fold electro-hydraulic boom actuation and DistanceControl height control, operation is made so much easier.

The Super-S boom is available as the Super-S1 from 15 m to 21 m and the Super-S2 from 15 m to 30 m.

#### The benefits:

- **⊘** Super-stable and, at the same time, super-light
- Super narrow transport width of just 2.40 m
- 3-fold shock absorption
- Hydraulic height adjustment as standard
- Available with the fully automatic DistanceControl height control
- Available with hydraulic tilt adjustment
- Available with end nozzle control
- Available with Profi-fold electro-hydraulic boom actuation

# More than just a solid core: Profiles made from high tensile steel

What has been taken away from the boom in weight has been returned in output. The clever lightweight design makes use of the material where it makes sense. For instance, aluminium for weight reduction at the outer boom sections of the Super-S2 boom, but not however, in the middle of the boom. There, high tensile steel is necessary so that the boom is kept rigid and in line and so spray errors due to movement are prevented.





▼ The Super-S2 boom is super-stable and, at the same time, super-light

### Super-S1 boom

15 – 18 – 21 metres

Due to the layout of the boom sections, there are only a few pivot points, which allows faster folding.

The well-known, robust profile construction convinces completely. Despite the individual sections of the Super-S1 boom being 50 centimetres longer in comparison with the Super-S2 boom, the machine height comes to just 3.48 metres.

The Super-S1 boom, in working widths of 18 and 21 metres, can be easily reduced to 15 metres by folding in the outer boom sections.

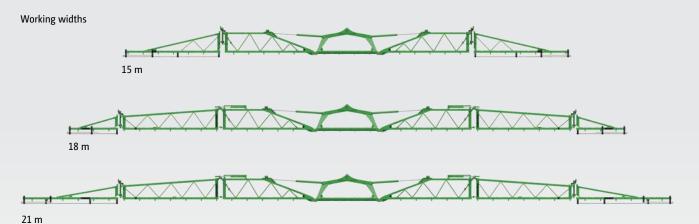


UF 1602 with 21 m Super-L1 boom

The boom is so robust and, during our use of it, the boom ride was pleasantly smooth."

("dlz agrar magazine" – Field test UF 1201 "Super also in small widths" · 05/2016)

### Boom layout and folding variants for the Super-S1 boom



### Super-S2 boom

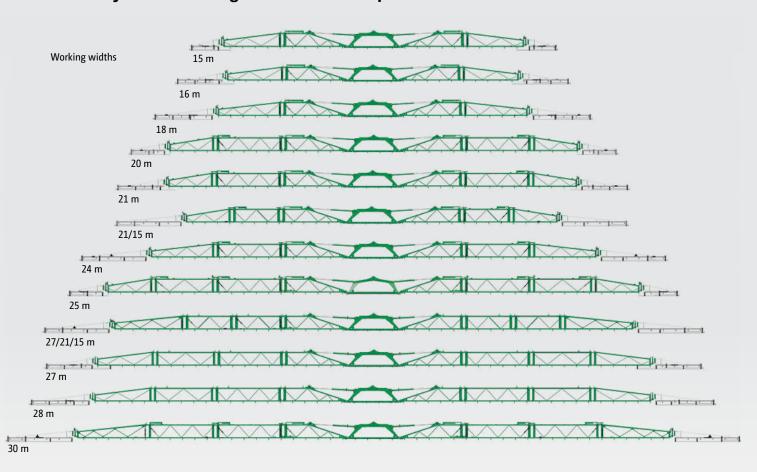
15 – 16 – 18 – 20 – 21 – 24 – 25 – 27 – 28 – 30 metres

Due to the shorter, individual sections, a machine height of just 3.28 m is achieved.



UF 2002 with 30 m Super-S2 boom

### Boom layout and folding variants of the Super-S2 boom



# With maximum comfort and even more precision

### **Pre-select folding**

Independent folding is possible via either the AmaSpray<sup>+</sup> in-cab terminal or an ISOBUS terminals via the tractor spool valves.



#### Profi-fold – flexible and comfortable

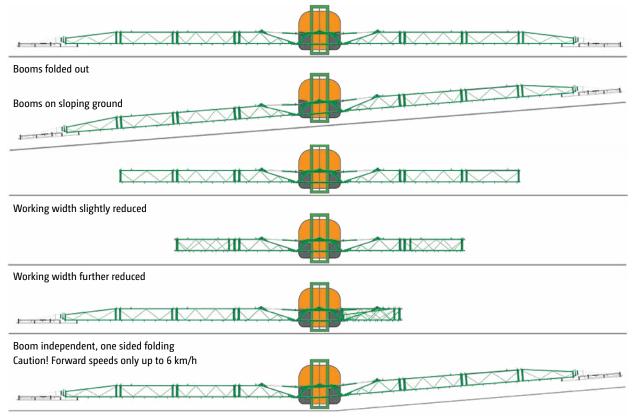
As an option for all Super-S booms, AMAZONE offers the Profi-fold electro-hydraulic actuation system. All hydraulic functions can be performed reliably and easily from the cab using the ISOBUS terminal. The multi-function joystick makes handling particularly comfortable.

#### Profi-fold 1:

Height adjustment, folding in and out, independent, one side folding at reduced speeds (max. 6 km/h), boom width reduction, and tilt adjustment.

#### Profi-fold 2:

In addition with variable geometry, individual boom tip angling.





Sensors precisely detect the target height distance and look after the operation

### DistanceControl with 2 sensors or DistanceControl plus with 4 sensors

As an option for the Super-S boom, AMAZONE offers, either DistanceControl fully automated boom height control with two sensors or DistanceControl plus with four sensors. In heavily differing crop heights, or in areas with partially lodged corn, it could be that the boom, when equipped with 2 sensors, dips into the crop. In this case equipping the boom with four sensors will prevent this. The sensors are electrically connected in parallel and so it is always the sensor that is closest to the target surface that is sensing.

The driver is able to concentrate on correctly applying the plant protection agent, whilst the computer optimises the boom guidance!

#### Benefits of the DistanceControl boom guidance

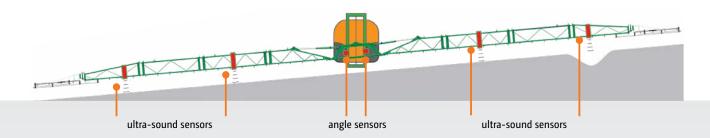
Fully automatic boom guidance including boom height, tilt adjustment and boom lifting on the headland



DistanceControl when equipped with two sensors: measuring to the crop



DistanceControl when equipped with two sensors: the boom can dip into the crop, for example, where there is lodged corn



DistanceControl plus:

remedy for difficult operating conditions by equipping with four sensors

## ContourControl boom guidance

For the UF 1602 and 2002 with boom working widths from 27 m



The UF 2002 mounted sprayer with ContourControl for fully automatic boom guidance

#### ContourControl

The AMAZONE ContourControl active boom guidance is a ground-breaking fully automatic hydraulic boom guidance system which now can also be used on mounted sprayers. The boom tilt is controlled by a hydraulic cylinder which is pre-pressurised on both sides. Rapidly switching hydraulic valves bring the boom to the desired position. This actively reduces any of the various effects caused by uneven ground and other influences while driving.

The cylinders for positive and negative angling of the two outer ends of the boom are controlled using the same principle. This allows the boom to follow highly uneven topography in order to maintain an optimal distance to the target surface across the entire working width, even on extremely hilly terrain.

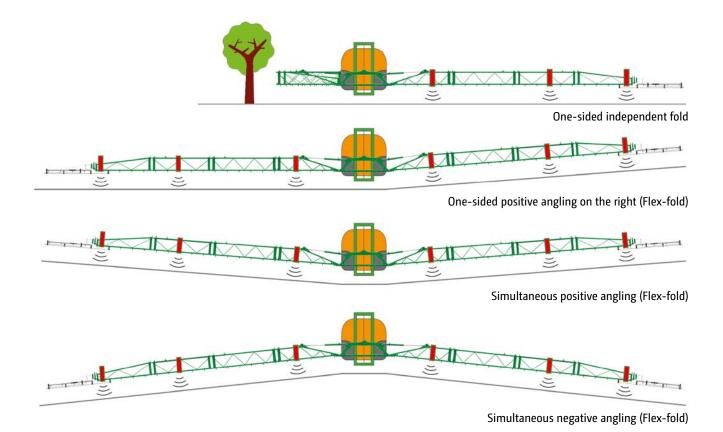
### Flex-fold

The standard, electro-hydraulic Flex-fold mechanism of the boom with ContourControl controls each pivot point on the boom separately. This allows the boom to be folded out to a reduced working width from the tractor cab.

The overload protection within the hydraulic system is

simultaneously used as break back protection when

working at these reduced working widths. The individual control of the hydraulic cylinders at the pivot points allows up to two segments to be folded out at a time on each side of the boom. This considerably reduces the down time when folding the boom in and out.



## TG part-width section control



### **Electrically-controlled TG valve chest**

The TG part-width valve chest is available for either ISOBUS control or AmaSpray<sup>+</sup>. The part-width boom sections are switched, on and off, quickly and drip-free via electric motor valves with pressure relief.

The amount applied is accurately and directly controlled by the operator terminal for all situations. An equal pressure unit is not required with this technology.



# DUS pressure recirculation system

With DUS you determine the timing



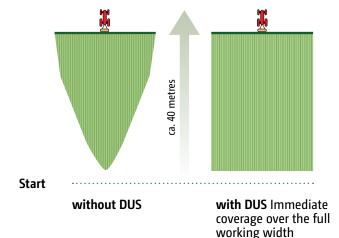
DUS pressure recirculation system

# The DUS pressure recirculation system – proven more than 10,000 times

The AMAZONE DUS pressure recirculation system ensures a reliable circulation throughout the entire system. When starting the spraying operation, all the hoses including the spray lines are filled under pressure in the reverse direction with the mixed spray agent. This means the spray lines are always full and immediately ready to use over the entire working width. There is no waiting on the headland.

Every time individual part-width sections are shut off, during the turning operation and during transport, the spray liquid circulates continually thanks to the pressure recirculation system. This reliably prevents deposits, blockages or segregation in the spray lines.

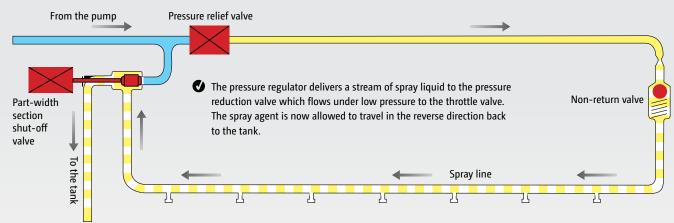
During the cleaning operation, fresh water flushes the spray lines out right up to the nozzles without any spraying being necessary. During this cleaning procedure, the concentrated spray liquid is returned back to tank via the pressure recirculation system leaving the spray lines clean.





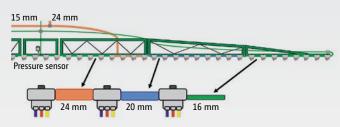
Incorrect application of plant protection agents without the DUS pressure recirculation system

### DUS pressure recirculation system: supplies each individual part-width section



### **AmaSwitch**

# Electric individual nozzle control with 50 cm part-width sections



DUS pro high pressure recirculation with conical spray line on here, for example, AmaSwitch

# Automatic 50 cm part-width section switching

With AmaSwitch, AMAZONE offers the precise solution for automatic part-width section control on 50 cm sections. AmaSwitch is the ideal alternative for users who want to maximise the benefits of very precise switching in wedge shaped fields and areas of overlap, thanks to the 50 cm part-width section control.

Standard equipment with AmaSwitch includes the DUS pro high pressure recirculation system and, in addition, can be equipped with LED individual nozzle lighting.

# Triple nozzle body, with electric on/off switching

The technology behind AmaSwitch is based on a conventional, manually-rotated, triple nozzle body with electric individual on/off. The opening and closing is achieved via an electric valve which is fixed directly onto the nozzle body. In conjunction with GPS-Switch, it is thus possible to very precisely control 50 cm part-width sections in short work and on the headland. In addition to the automatic switching using 50 cm part-width sections, it is also possible to configure the amount of part-width sections from choice.

### **DUS** pro

With DUS pro, the spraying pressure is constant right up to each individual nozzle and at the set spraying pressure. Thanks to the conical spray lines, minimal residual spray volumes are achieved.

#### **Conical spray line:**

the dimensions of the spray line vary along the boom

- Minimal residual spray volumes
- Even flow rate

# Quad nozzle body, with the additional 25 cm nozzle spacing

In addition to the triple nozzle body, AmaSwitch electric individual nozzle control can also be equipped with a quad nozzle body. In addition, a true 25 cm nozzle spacing can be achieved with the aid of an optional extension kit. This offers the benefit, in combination with specific 80° nozzles, to reduce the boom to target surface distance down to less than 50 cm.



AmaSwitch triple nozzle body with electric individual nozzle lighting

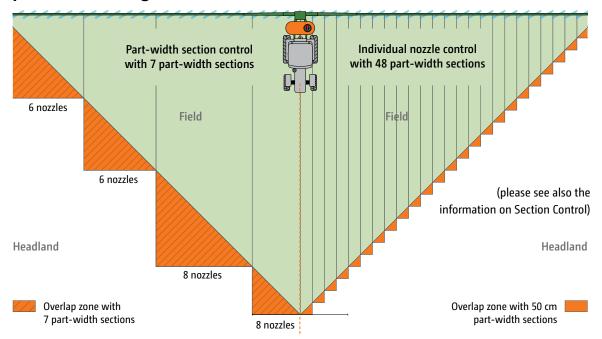


AmaSwitch quad nozzle body



AmaSwitch with quad nozzle body and extension set for an actual 25 cm nozzle spacing

### **Example: 24 m working width**

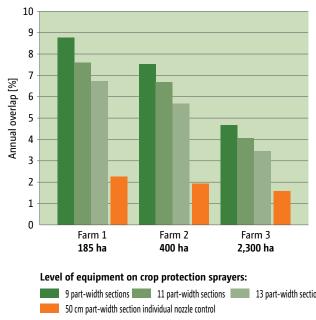


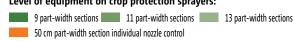
### **Calculated example:**

Annual average overlap of conventional part-width sections vs 50 cm part-width sections in combination with **Section Control** 

### Important knowledge for field analysis

- Average overlap with 50 cm part-width sections only 1.92%
- Average overlap with 9 part-width sections 7%
- Short payback period for larger farms due to annual saving potential
- Due to smaller field sizes, smaller farms save proportionally more
- When growing crops with a high crop protection demand (e.g. potatoes, sugar beet), 50 cm part-width sections are particularly cost-effective





### **Comparison of systems:**

		Electric individu	ial nozzle control
The benefits	Part-width section valves TG	AmaSwitch Triple	AmaSwitch Quad
Multiple boom sections	up to 11	up to 60	up to 60
50 cm part-width sections	_		
Number of nozzles per nozzle body	1, 3	3	4
Manual nozzle switching			
Low pressure recirculation (DUS)		-	_
High pressure recirculation (DUS pro)	-		
25 cm nozzle spacing	-	_	
Individual programming of the part-width sections (TB)	_		
No need for compressed air			
LED individual nozzle lighting			
Nozzle switching –system overview	= includ	ed = optional	– = not possible

Nozzle switching -system overview

## The right nozzle choice

The basis for success in crop protection



### Less drift also at higher wind speeds

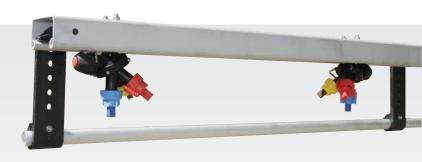
With the air-assisted injector nozzles, crop protection agents can be applied with very little drift. They are universally usable in all crops and all classifications.

Because of the coarse droplet application, these nozzles can also be used in higher wind speeds.

AMAZONE offers a wide range of nozzles from agrotop, Lechler and TeeJet.

### Single and multi-nozzle bodies

The nozzle bodies with integrated diaphragm non-return anti-drip valves fit up into the boom profiles reliably preventing any dripping at the nozzle. Self-adjusting bayonet fixings ensure a tool-less quick nozzle change. The triple or quad nozzle bodies are suited to frequent nozzle changes due to different applications and crops. Nozzle protection tubes, as standard on the outer sections, or, if desired, over the entire boom working width, ensures protection for long injector nozzles and multiple nozzle bodies.







• Everyone purchasing an AMAZONE crop protection sprayer receives, free of charge, an AMAZONE nozzle mounting tool that enables a much easier nozzle change.

Injector nozzles (ID, TTI) have a relatively coarse droplet spectrum and are particularly versatile with regard to their range of application. A pressure range of 2 to 8 bar is possible.

If coverage quality is at the foreground of the application, the use of standard or anti-drift fine droplet nozzles, such as XR or AD, is recommended. Special care is required here due to their tendency to drift above 3 bar.

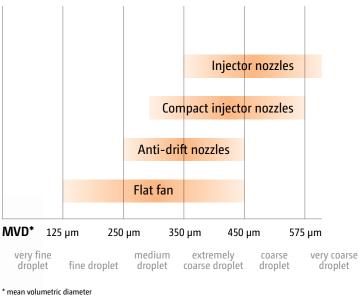
A good compromise is provided by the modern ID-K or Airmix compact injector nozzles. These have relatively little drift, but do not have too coarse a droplet spectrum and are operated at 2 to 4 bar.

When it comes to special coverage qualities, the double flat fan nozzle is an interesting alternative: the AVI Twin from Agrotop also produces droplets that are not too fine.

The split spray pattern ensures a more even deposit on the front and back of the plant and makes sense maybe, for example, in ear treatment.

For speeds greater than 10 km/h, the TD HiSpeed nozzle with its asymmetrical spraying angle is becoming a new industry trend.

#### Distribution of the droplet size

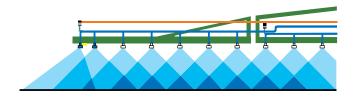






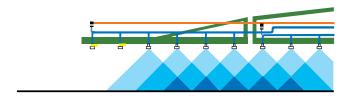
## **Equipment for every application**

# Electric boundary nozzle switching For environmentally-friendly spray application at the field edge



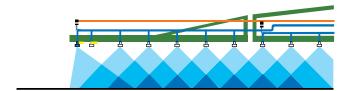
#### Additional nozzle switching

In order to extend the normal working width, an asymmetrical nozzle can also be switched on. This is particularly useful if the distances between tramlines are not precise enough.



#### **End nozzle switching**

If a one metre buffer zone around the edge of the field needs to remain unsprayed due to distance constraints, end nozzle switching can be used.



#### **Boundary nozzle switching**

For precision border spraying between two sensitive crops, the boundary nozzles can be used to make sure the spray pattern is accurately defined.





## **Liquid fertilisation**

In conjunction with the AMAZONE booms, a separate drag hose kit for risk-free late fertilising is available. The self-contained aluminium profiles can be attached with a few hand clamps. Stainless steel weights help keep the position of the drag hoses within the crop. For the coarse droplets distribution of liquid fertiliser, AMAZONE offers multi-hole nozzles (3, 5, or 7 hole).

## **Under-leaf spraying**

Elegant solutions for successful under-leaf spraying are also possible in combination with AMAZONE crop protection sprayers. The Dropleg system from Lechler, for instance, is an easy and robust under-leaf spraying system that hangs freely between the rows and which fully meets the demands of the professional grower.

# **LED individual nozzle lighting**

Professional work lighting is today the basis of a flexible, output-increasing solution to operating in twilight and at night. LED individual nozzle lighting picks out each individual spray fan. An absolutely immediate assessment of their operation down to the very last nozzle on the boom can be made.

# **LED boom lighting for Super-S booms**

For flexible and efficient operation at twilight and in the dark, LED boom lighting is available.

Two far-reaching LED work lights, mounted in the middle of the boom, ensure excellent visibility of all the nozzles at a glance.





# FT 1001 and FT 1502 front tank

For an affordable self-propelled sprayer with up to 3,500 litres



High-capacity and compact, UF 02 with FT front tank

# Self-propelled sprayer: UF with FT for even higher outputs

The FT front tank means that the tank volume of the UF mounted field sprayer can be very easily extended by either 1,000 litres or 1,500 litres. Thanks to the optional FlowControl<sup>+</sup> System and the compact design, the UF front tank is the ideal solution for increasing the overall capacity of the UF.

## From mid-April to mid-May...

... huge tulip fields light up North Holland. For targeted plant protection, tulip grower Siem Munster relies on a UF 2002 mounted sprayer and a FT 1001 front tank. The core characteristics of this combination are particularly important when working in his tulip crop: efficient, comfortable, compact and precise!

• "With the FT 1,000 I front tank one gets a highly manoeuvrable sprayer with the capacity of a small self-propelled machine." ("agrarheute" magazine – Test report UF 2002 with FT 1001 · 03/2018)



## The advantages at a glance:

- FlowControl<sup>+</sup> intelligent fill level management for optimum weight distribution
- Improved driving stability on slopes due to the intelligent loading of the front axle
- Extremely compact design thanks to front linkage better manoeuvrability in the field and for a safer road transport

Model	Nominal volume
Front tank FT 1001	1,000 l
Front tank FT 1502	1,500 l

The special advantages offered of more manoeuvrable tractors with a mounted implement compared with trailed sprayers in smaller and more awkward shaped fields as well as the better behaviour on slopes are the major arguments for the front tank solution.

But also in the 3,500-litre self-propelled sprayer class, a comfortable tractor equipped with a high-quality combination of mounted sprayer and front tank makes an interesting alternative.

Growers, for whom the volume of their UF 02 mounted sprayer is not large enough, can expand the nominal volume up to 3,500 litres by combining it with a front tank. With the aid of FlowControl<sup>+</sup>, the front tank is completely integrated into the spray liquid circuit of the UF 02.

## Benefits over a self-propelled sprayer

- Huge advantage on price
- **●** 80 km/h permitted speed with high-speed tractors
- The tractors which can also be used for other operations

### Benefits over a trailed sprayer

- Compact unit
- **♦** Less side crabbing on side slopes
- Perfect ballasting of the front axle provides good driving stability on slopes
- Faster manoeuvring on the headland
- Easy manoeuvring in smaller and wedge-shaped fields
- Compact transport on narrow country lanes and along roads
- The front tank simultaneously serves as front weight ensuring an optimum balance
- Reduction of soil compaction



# Automatic regulation via FlowControl+

Operates just like using one large tank



40



The operator terminal controls the liquid circuit. Only when the fill level of the rear mounted sprayer reaches the 30 % mark is the spray agent pumped from the front tank to the rear.

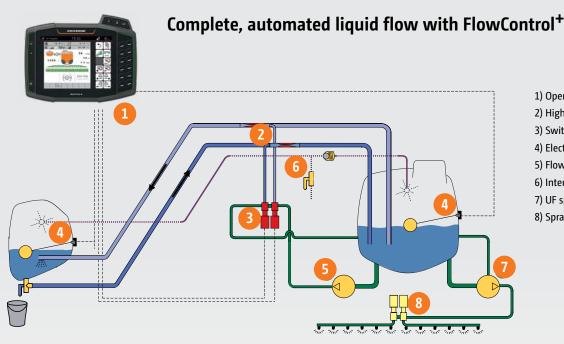
# **Electronic fill level** management system

The special feature of the FT front tank is the complete integration of the front tank into the mounted sprayer liquid circuit using the FlowControl<sup>+</sup> electronic fill level management via the ISOBUS terminal.

The technological basis of FlowControl<sup>+</sup> is the two electronic fill level indicators in the tanks and the two high capacity injectors. The transfer rate in each direction is up to 200 l/min. The liquid in both spray tanks is always ideally homogenised.

The ISOBUS terminal automatically controls the liquid circuit, so that there is always an optimised weight distribution. Premature reduction of the load on the front axle is prevented. Depending on the fill level, new liquid is delivered from the front tank early enough so that the rear sprayer tank is never emptied before the front tank. The tank mix always remains homogeneous.

The manual control also enables the transfer of just fresh water to the front tank. In practical terms, the FlowControl+ pump additionally assists the filling procedure so that a maximum suction capacity of up to 400 l/min is possible.



- 1) Operator terminal
- 2) High capacity injectors
- 3) Switch valves for injectors
- 4) Electronic fill level indicators
- 5) FlowControl<sup>+</sup> pump 150 l/min
- 6) Internal cleaning
- 7) UF spray pump
- 8) Spray line

# In handling and in transport ...

... superb!





# Sophisticated design for the utmost in safety

In the yard or in the barn: the compact combination, carried on its transport wheels, stores easily away. The system's simple handling is already convincing even after just a few hours in the field. The internal cleaning of the sprayer combination is carried out via the fresh water rinse tank on the UF.

The additional 100 I capacity of the fresh water rinse tank allows the appropriate cleaning according to European guidelines (rinse tank capacity: min. 10 % of the tank volume). The compact sprayer-tractor unit is favourable especially in narrow lanes with hardly any obstruction to the view thanks to the well thought out design.



The AMAZONE FT complies with all relevant EU traffic safety directives and standards.

The optional road lighting kit is necessary in cases where the lights of the tractor are hidden. The hidden headlights of the tractor must be duplicated on the tractor roof. The fitting on the front tank is not allowed.





#### Optional camera system

In difficult driving situations, such as when pulling out of road junctions, the optional camera system on the front tank and on the mounted sprayer provides better visibility, and thus more safety, to the front and the rear. The high resolution, antiglare monitor is backlit and can also display two cameras at once.

# Operation from simple to high-end, everything and anything is possible





UF 1002 with Q-Plus boom

## AmaSpray+ operator terminal

The handy AmaSpray<sup>+</sup> is specifically designed for the operation of AMAZONE sprayers and offers simple, but nevertheless, automatic control of the UF mounted sprayer. Switches integrated into the operator terminal enable the control of 5, 7 or 9 part-width sections. AmaSpray<sup>+</sup> has a digital pressure display and digital tank level indicator. It records the quantity applied and area worked. The hydraulic functions are operated using the spool valves on the tractor. Boom tilt and pendulum lock are also displayed in the AmaSpray<sup>+</sup>. As an option, AmaSpray<sup>+</sup> enables one-sided folding of the boom or, alternatively, access to the boundary and end nozzle spraying systems.

The AmaSpray<sup>+</sup> operator terminal with serial Interface can also be used for the automatic documentation (ASD) and part area site-specific application via a GPS terminal.

#### Functions of AmaSpray<sup>+</sup>:

- Single, high-contrast, backlit screen
- Overall and part-width section on/off
- Up to 9 part-width sections
- Digital pressure indication
- Digital fill-level indicator
- Display of boom position and lock status
- Hectare meter (total and daily counter)
- **4** +/- 10 % kev
- Field record management system

#### Option possible:

- Pre-select fold for independent boom folding
- End or boundary nozzle for the Super-S boom (alternatively with pre-select fold)
- Fold or tilt via 1 double-acting spool valve (electro-hydraulic changeover valve)
- ◆ ASD inside: serial interface for documentation and GPS terminal versatility







# ISOBUS as the basis for intelligent communication

## One language, many benefits!

Each ISOBUS-enabled machine from AMAZONE comes with the latest technology and almost unlimited possibilities. It makes no difference whether you use an operator terminal from AMAZONE or an ISOBUS terminal fitted directly in the tractor. ISOBUS is an internationally recognised standard for communication between the operator terminal, tractors and connected implements on the one hand and Farm Management Information Systems on the other.

## Operation via a wide-range of ISOBUS terminals

Which means that ISOBUS enables you to take control of all your ISOBUS compatible equipment. You only have to connect the machine to the respective ISOBUS terminal and the usual operator interface appears on the monitor in your tractor cab.

#### Benefits of ISOBUS at a glance:

- This worldwide standard provides a uniform interface and data exchange format that ensures compatibility even with third party manufacturers
- Plug and Play between machine, tractor and additional ISOBUS implements



ISOBUS 46



# Perfectly developed machine operation from AMAZONE

AMAZONE machinery and operator terminals offer a range of functions which are very easy and safe to operate:

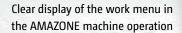
- Highest compatibility and function flexibility of your ISOBUS equipment
- No additional modules on the machine side. All ISOBUS machines from AMAZONE come ready-equipped with the necessary ISOBUS functions as standard
- Practice-oriented machine software and logical menu structure
- MiniView display with all AMAZONE terminals and additional ISOBUS terminals. See, for instance, the machine data in the map view
- Possibility of operating the machine via the tractor terminal or a twin terminal solution
- ✔ Flexible assignment of the map and machine view between the tractor terminal and the operator terminal
- Unique operating concept. Freely configurable displays and individual user interfaces for each driver
- Useful additional functions such as automatic boom lowering on AMAZONE crop protection sprayers
- **▼** Integrated TaskController data logger function



Clearly structured AMAZONE machine operation

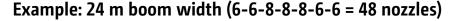
#### Advantages of the AMAZONE machine software:

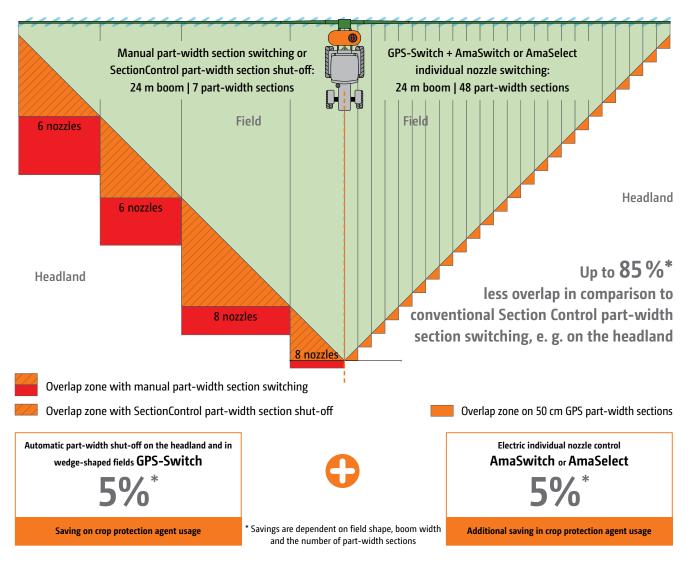
- User-oriented and intuitive
- Tailored to the machine
- Function scope above and beyond the ISOBUS standard





# Automatic part-width section control GPS-Switch





## Precise switching with 50 cm part-width sections

The decisive benefit of individual nozzle control is the possibility to operate with small part-width sections giving an even greater degree of accuracy in wedge shaped fields, short work and on the headland. If AmaSwitch or AmaSelect is combined with the automatic GPS-Switch Section Control, the automatic switching of individual nozzles in 50 cm partwidth sections is made possible. With this system, areas of

overlap are significantly reduced and are, in comparison with a conventional Section Control part-width section shut-off system, up to 85 % less. So, the combination of GPS-Switch and individual nozzle control results in, depending on field shape and size, the working width and number of part-width sections, significant savings in spray agent compared with a normal spraying system used thus far.

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Overlaps on the headland or in wedge shaped fields are prevented via precise switch points with GPS-Switch.

If the operating terminal facilitates Section Control, such as GPS-Switch part-width section control from AMAZONE, the part-width sections are activated completely automatically and in relation to the GPS position. Once a field has been created, and then in automatic mode, the driver can concentrate fully on the operation of the towing vehicle, since the part-width sections are switched automatically in wedge shaped fields and on headlands.

#### Benefits of automatic part-width section control:

- Stress relief for the driver
- Increased precision, even at night or at higher speeds
- Fewer overlaps and gaps
- Saving inputs
- Less crop damage and environmental impact
- With Section Control, the ISOBUS terminal takes on so much of the work from the driver."

("dlz agrar magazine" – test report ZA-TS fertiliser spreader · 02/2017)

#### **GPS-Switch**

With GPS-Switch, AMAZONE offers GPS-based, fully automatic, part-width section control for all AMAZONE operator terminals and ISOBUS-compatible fertiliser spreaders, crop protection sprayers or seed drills.

#### **GPS-Switch basic**

- Automatic part-width section control for up to 16 part-width sections
- Creation of a virtual headland
- Automated boom lowering with an AMAZONE crop protection sprayer
- Optional with AmaTron 4

#### **GPS-Switch pro** (as an add-on to GPS-Switch basic)

- Automatic part-width section control with up to 128 part-width sections, particularly for crop protection sprayers with individual nozzle control
- Marking of obstacles (e.g. water holes, pylons)
- Auto-zoom when approaching the headland
- Optional with AmaTron 4

#### AmaClick

Special crops and bed work often require the on/off switching of the individual part-width sections in the middle of the boom. AmaClick is an additional ergonomic control unit that can be used either in conjunction with the AmaPilot+ multi-function joystick or also as a standalone system alongside an ISOBUS terminal.



# Workday made easy –

## Make the most of the possibilities!

## GPS-Maps&Doc

All standard ISOBUS terminals from AMAZONE can collect and save machine and site-specific data using Task Controller. Part-area, site-specific operation via application maps in either Shape file or ISO-XML formats is also possible.

- Easy creation, loading and processing of jobs
- Start a new task straight away and decide later whether the data is to be saved or not
- ✓ Import and export jobs in ISO-XML format
- **⊘** Job summary via PDF export
- ✔ Intuitive system for processing application maps in either Shape file format and ISO-XML format
- Automatic part-area, site specific regulation of the application rate
- Indication of inactive field boundaries and automatic field detection when approaching the vicinity
- Optimum crop management via needs-based application
- Available as standard with AmaTron 4

## GPS-Track

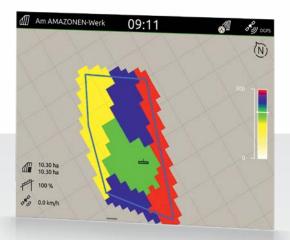
The GPS-Track parallel guidance greatly helps with orientation in the field, especially on grassland or in areas without tramlines.

- With a virtual light bar in the status bar
- Automatic tramline control via GPS for seed drills
- Various track modes such as A-B lines or contour following
- Optional with AmaTron 4

#### *AmaCam*

Software licence for displaying a camera image on AmaTron 4.

 Automatic display of the camera image on AmaTron 4 when reversing



Display of the application map in AmaTron 4



Display of the camera image in AmaTron 4

# AmaTron 4

Manager 4 all



# Simple and convenient operation as intuitive as your tablet

Why not handle a terminal as intuitively as a tablet or a smartphone? With this in mind, AMAZONE has developed the operator-friendly AmaTron 4 which offers a noticeably smoother operational procedure, especially when it comes to job management. The AmaTron 4, with its 8" multitouch colour display meets the highest expectations and offers maximum user-friendliness. A swipe of the finger or use of the App carousel allows quick changes between applications and the simple and clearly structured operating menu. A useful MiniView, a freely configurable status bar as well as a virtual light bar make the use of the AmaTron 4 particularly clear and convenient.

#### **Benefits of AmaTron 4:**

- Automatic full screen mode when not being touched
- Automatic display of the touch buttons via a proximity sensor
- Practical MiniView concept
- Actuation via the multi-touch colour display or soft keys
- Particularly intuitive and user-friendly
- **▼** Field-related documentation
- Practice-oriented and intelligent menu navigation
- Practical quick-start menu with import and export of job data, help windows, day/night mode and the AUX-N assignment
- One camera input and automatic reversing detection
- Free trial period for all chargeable licences
- ◆ AmaTron Connect for the optional entry into the digital age

Equipped as standard with:

# GPS-Maps&Doc



AmaPilot<sup>+</sup> everything in the one hand!

Thanks to the AUX-N feature, you can operate multiple functions on the machine via AmaPilot+ or any other ISOBUS multi-function joysticks.

#### Advantages of AmaPilot+:

- •Nearly every function is controlled directly via the 3 levels
- Adjustable palm rest
- Freely programmable, individual key layout

# **AmaTron Connect**

# New ways of comfortable networked operation

With AmaTron Connect, AMAZONE provides a digital interface to a smartphone or tablet. The mobile device and AmaTron 4 are simply connected as a hotspot. AmaTron Connect enables use of the AmaTron Twin App as well as data exchange via agrirouter and the myAmaRouter App.

#### AmaTron Twin App Clear display enhancement

The AmaTron Twin App offers the driver even more comfort during work, as any GPS functions in the map view can also be operated via a mobile device, e.g. a tablet, in parallel with machine operation on the AmaTron 4.

# Now download the free App and try the DEMO in the App.



#### Advantages of the AmaTron Twin display enhancement:

- Use of an existing mobile device
- **❸** Greater clarity all applications in sight
- ✔ Comfortable control of the GPS functions in the map view, in parallel, via the mobile device
- Clear, authentic representation of the working machine and its part-width sections

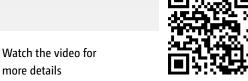


Alternative map views with AmaTron Twin – clear display of the machine and its part-width sections, as well as buttons on the right hand side of the mobile device.

# agrirouter –

# the independent data exchange platform for agriculture





## Secure data exchange

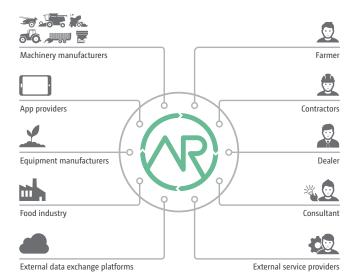
agrirouter is an independent data exchange platform for farmers and contractors. It enables simple and cross-manufacturer data exchange between machines and agricultural software applications, thereby reducing administration.

The user retains full control over the data at all times.

#### myAmaRouter App

For the on-line transfer of data between AmaTron 4 and agrirouter

The myAmaRouter App enables data to be exchanged between the AmaTron 4 ISOBUS operator terminal and the agrirouter manufacturer-independent data exchange platform. If an AMAZONE machine is to be used to carry out a task with job data (e.g. application maps), the data can be easily transmitted from a Farm Management Information System (FMIS) to AmaTron 4 via agrirouter and the myAmaRouter App. After the work has been completed, the job can be sent back and is available for documentation in an agricultural software application.



The manufacturer-independent agrirouter enables secure and uncomplicated data exchange.

#### Benefits of agrirouter:

- Simple data exchange between the AmaTron 4 ISOBUS operator terminal and the manufacturer-independent agrirouter data exchange platform
- Easy and rapid transfer of job and task data without the need for a USB stick
- More flexibility in data exchange and documentation

# Uncomplicated data transfer. Transparent and secure!





# Crop protection technology from AMAZONE

Benefit from more than 50 years of experience



Technical data:

# **Technical data:**

# UF mounted sprayer and FT front tank

Model	UF 1002	UF 1302	UF 1602	UF 2002					
Tank capacity (I)	1,100	1,400	1,680	2,125					
Nominal volume (I)	1,000	1,300	1,600	2,000					
Fresh water tank (I)	260	260	200 / 350	200 / 350					
Working width (m)	12 – 30								
Empty weight (kg)	850¹	1,200²	1,400³	1,5504					

Model	FT 1001	FT 1502			
Tank capacity (I)	1,125	1,580			
Nominal volume (I)	1,000	1,500			
Empty weight (kg)	217	225			

Sprayer boom		Q-plus Super-S1			1	Super-S2												
(m)	12	12.5	15	15	16	18	15	16	18	20	21	21/15	24	25	27	27/21	28	30
Transport width (m)	2.	.56	3.00	2.40														
Height (m) of parked machine		3.10		3.48			3.20										3.28	
Height adjustment (m)		0.50 – 2.20																

<sup>&</sup>lt;sup>1</sup> with 15 m Q-plus sprayer boom

Illustrations, content and technical data are not binding! Deviations of technical data are possible depending on the equipment. The illustrations may deviate from the requirements for local road traffic regulations.



<sup>&</sup>lt;sup>2</sup> with 21 m Super-S1 sprayer boom

<sup>&</sup>lt;sup>3</sup> with 21/15 m Super-S2 sprayer boom and Profi-fold 1

<sup>&</sup>lt;sup>4</sup> with 30 m Super-S2 boom and Profi-fold 2







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