



50 years of AMAZONE crop protection technology

PIONEERING!

AGAIN AND AGAIN



AMAZONE

50 years of crop protection technology

Precision makes your success!



Fifty years ago, AMAZONE introduced its first crop protection sprayer. In 1969, our objective was, and it still is today, to continuously strive to improve crop protection techniques by being innovative. In this brochure we look back on the development of spraying technology and introduce to you today's state of the art solutions. The use of these technical possibilities by encompassing precision farming will play an increasing role in crop protection going forwards. In this way, technology can be harnessed to optimally achieve the objective of protecting your crop by keeping it healthy; yet in a cost-effective manner.

We look to assist you in this task by creating for you the best AMAZONE sprayer programme of all times. From the UF mounted sprayers and the UG and UX trailed sprayers through to the Pantera self-propelled sprayer – we offer, for any farm size and any agricultural contractor, the optimum choice in crop protection sprayers.

Determining your success by the utilisation of precision technology, for instance with electric individual nozzle control, helping you to reduce costs and at the same time



contribute to a sustainable and environment-sensitive farming system. With this in mind, we – the AMAZONE team – will continue to further develop in the future our sprayer programme based on the philosophy “Precision” and “Efficiency”.

Yours Sincerely



Christian Dreyer,
Director



Dr. Justus Dreyer,
Director





50 years

AMAZONE crop protection technology!

1969

First mounted S (Sprayer) and US (Universal-Sprayer) with manual-folding boom up to 10 m – 300 l to 600 l tank made from fibre glass reinforced polyester.



1973

US 602-T with low, wide polyethylene tank and manual-folding 12 m boom.



1980

US 1000-T with 1,120 l actual volume. First manual-folding boom with vertical folding technology in 15 m, 16 m and 18 m.



1991

First FT front tank with 800 l stainless steel tank and injector system for the fully automatic liquid transfer.



1992

First UG 2200 and UG 3000 crop protection sprayers with H-booms. Vertically-folding booms via hydraulic rams with V4A stainless steel cables.



1994

Super-S boom up to 24 m. Hydraulically-folding to the vertical via hydraulic rams on every pivot point.



2003

Trailed UX 4200 crop protection sprayer and UX 5200. Super-L boom up to 36 m, hydraulically-folding longitudinal booms.



2007

Separate Pre-Mix spray agent pre-mixing for crop protection sprayers.



2009

LED individual nozzle lighting – Improved visibility of the nozzles' spray fan after dark.



2014

Self-propelled Pantera 4502-H with 1.7 m ground clearance via hydraulic height adjustment of the chassis.

1.7 m ground clearance



2015

AmaSpot – Intelligent sensor-nozzle system for the reduction in application rates of plant protection agents.

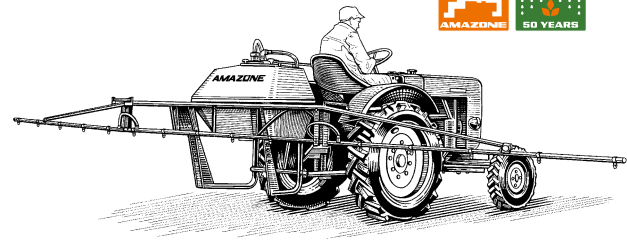


2015

AmaSwitch electric individual nozzle control with 50 cm part-width sections.



When, in 1969, AMAZONE dared take its first steps into crop protection technology, AMAZONE had to convince the farmers again and again by coming up with innovative ideas that meant technical benefits and, right from the beginning, the designers put the emphasis on further developing the preciseness of application.



1986

H-boom up to 21 m, hydraulically-folding to the vertical via V4A stainless steel cables, super-light, super-stable and super-narrow transport width.



1989

UF 600 to UF 1200 mounted sprayers with fresh water tank and Vario control for rinsing and cleaning the mounted sprayer.



1990

Q-boom up to 15 m, transversely folding, manual or hydraulic folding.



1998

The take-over of **BBG Bodenbearbeitungs-geräte Leipzig** – brought along the **S 320** trailed sprayer.



2001

Intelligent nozzle drive for crop protection sprayers.



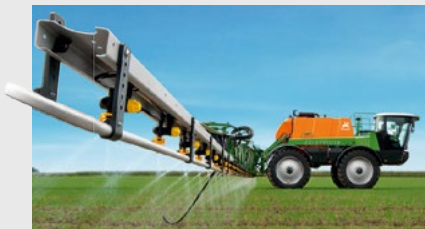
2003

UF 1501 and UF 1801 mounted sprayers with new operator station and tank concept.



2010

First self-propelled **Pantera 4001** crop protection sprayer produced in-house.



2011

Trailed **UX 11200** crop protection sprayer with tandem axle.



2011

AmaSelect electric individual nozzle control with 50 cm part-width sections and electric change-over and on-off control of the nozzles.



2017

UF 2002 mounted sprayer with **SmartCenter**. Here in combination with **FT 1001** front tank and **FlowControl**.



2017

UX 01 trailed sprayer with **ContourControl**, **SwingStop** and **SmartCenter**.



2017

SwingStop pro – active horizontal swing stop for sprayer booms and dynamic rate regulation at the individual nozzle



The best AMAZONE sprayer programme of all times

UF 01 mounted sprayer



Super light profile design

Available up to 1,800 l, all UF 01 mounted sprayers have a light yet very robust frame and a slim, close-coupled tank position making them easy to carry. The modern polyethylene tanks with their rounded off design ensure perfect agitation and cleaning and minimal spray residual volumes. Due to their special profile design, all AMAZONE booms are super robust, yet at the same time extremely light and their conical hinge pins without grease nipples make them virtually maintenance free.

Tank capacity: 900 l / 1,200 l / 1,500 l / 1,800 l, **Working width:** 12 m to 30 m

UF 02 mounted sprayer



Efficient – operator friendly – comfortable

The UF 02 features a nominal volume of 1,600 l and 2,000 l. The specially shaped, polyethylene tank is integrated into the main frame to give a favourable centre of gravity. The UF 02 frame has been designed completely around to the new tank design. The reinforced steel profiles provide enormous rigidity, yet at minimal weight.

Tank capacity: 1,600 l / 2,000 l, **Working width:** 15 m to 30 m

Front tank FT 1001



The value for money self-propelled machine across the entire UF range

The particular benefits of manoeuvrable tractors in smaller fields and the optimum behaviour on slopes are strong arguments in favour of a front tank solution. The tank shape has been designed in such a way that there are no obstructions, neither on the road nor to the view in row crops.

Tank capacity: 1,000 l

UG trailed sprayer



Proven technology for the most demanding use

The broad steel frame, compact tank and the robust boom technology with its profiled structure ensure optimised weight and strength. The UG is therefore both extremely robust and light. All hoses are protected within the profile of the frame.

Tank capacity: 2,200 l / 3,000 l, **Working width:** 15 m to 28 m

UX Special trailed sprayers



Utmost efficiency!

The UX Special, with a maximum nominal volume of 4,200 litres and in boom widths of up to 30 metres, has a very low centre of gravity and is of very compact design. The sprayer is manoeuvrable, light to pull and designed for optimum boom coverage, with the best possible spraying and transport speeds. On the UX Special, the axle steering ensures an especially smooth boom ride and a high stability in all driving situations. The AutoTrail steering provides the exact, track-true following.

Tank capacity: 3,200 l / 4,200 l, **Working width:** 15 m to 30 m

UX Super trailed sprayers



Comfortable operation down to the last detail

With the new UX Super, AMAZONE introduces to the market a trailed crop protection sprayer with a new operating concept and innovative boom guidance. This crop protection sprayer offers even more precision and efficiency and more comfort. It is delivered with tank volumes of 4,200 l, 5,200 l and 6,200 l. For the UX Super the Super-L2 booms of 21 m to 40 m are available.

Tank capacity: 4,200 l / 5,200 l / 6,200 l, **Working width:** 21 m to 40 m

UX 11200 trailed sprayer



A new dimension in plant protection technology

With the UX 11200, AMAZONE offers a 12,000 l tandem axle sprayer for where there are extreme demands in output. The Super-L boom is available in working widths from 24 m up to 40 m. The high-performance pumps provide a fill speed of up to 900 l/min.

Tank capacity: 11,200 l, **Working width:** 24 m to 40 m

Pantera self-propelled sprayer



Powerful intelligence

The 218 hp AMAZONE self-propelled sprayer with a length of 8.4 m, a height of 3.8 m and a width of 2.55 m appears really compact. The comfort cab up front makes work easier and more convenient for the driver. Behind the cab, the 4,500 l tank and the Super-L boom, with working widths of up to 40 m, are fitted enabling hourly work rates of more than 20 ha in good field conditions.

Tank capacity: 4,500 l, **Working width:** 21 m to 40 m,
Pantera-H: 1.7 m ground clearance

AMAZONE –
Precision is in the DNA

UF mounted sprayers

With
ISOBUS
technology



The top benefits:

- + Optimised lifting power design with favourable centre of gravity
- + Clever quick coupling system and a comfortable parking device that simplifies the mounting procedure
- + SmartCenter is covered to protect it from dirt and an integrated, dust-proof 30 l clothing locker
- + Tailored SmartCenter control station – from the intuitive to operate Standard-Pack to the Comfort-Pack with TwinTerminal 3.0 for the electric operation of the suction valve
- + High-capacity induction bowl for minimum fill times and a homogeneous spray agent mixture
- + High-capacity, self-priming, low-maintenance piston diaphragm pumps for high delivery rates even at high spraying pressures
- + With FlowControl⁺ and the FT front tank expandable up to 3,000 l
- + Multiple-action boom suspension for an ultra-smooth boom ride
- + DistanceControl fully automatic boom guidance system
- + DUS pressure recirculation system or DUS pro for the continuous circulation of the spray agent
- + AmaSwitch individual nozzle control – for 50 cm part-width section control
- + Automated cleaning program for perfect cleaning results under all conditions

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UF 2002 with SmartCenter



UF 2002 with front tank FT 1001

UX trailed sprayers



The top benefits:

- + Low transport height and low transport measurements due to the innovative tank and boom design
- + Lightweight, compact, manoeuvrable – compact design with a steering angle up to 28° for maximum manoeuvrability
- + SmartCenter with dustproof storage compartments under large, one-piece covers on the left and right hand side
- + Tailored SmartCenter operator station – from the intuitive to operate Standard-Pack up to Comfort-Pack plus with fully automatic touch-terminal actuation
- + High-capacity induction bowl for minimum fill times and for a homogeneous spray agent mixture
- + High-capacity, self-priming, low-maintenance piston diaphragm pumps for high delivery rates even at high spray pressures
- + DistanceControl fully automatic boom guidance system
- + For difficult terrain conditions:
 - ContourControl active boom guidance for optimum vertical boom guidance under all conditions
 - SwingStop for active swing stop to reduce the horizontal boom tip movements
- + DUS pressure recirculation system and DUS pro for the continuous circulation of the spray agent
- + 50 cm part-width sections and optimum nozzle choice thanks to AmaSwitch and AmaSelect intelligent nozzle control
- + Automatic cleaning programme for perfect cleaning results under all conditions



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Comfort-Pack plus

Pantera self-propelled sprayer



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Automatic suspension management
Smooth setting at constant speeds, harder settings
when accelerating, braking and manoeuvring

The top benefits:

- ⊕ Outstanding tandem chassis – for a smooth and horizontal boom ride and high slope stability
- ⊕ Intelligent chassis management with 2-wheel, 4-wheel and dog-leg steering for even more manoeuvrability
- ⊕ Pantera-W and Pantera-H chassis options – for more flexibility in plant production (track width/ground clearance)
- ⊕ Pantera⁺ drive concept with alternative wheel drives available for all vehicle types – for extremely steep slopes
- ⊕ Stepless hydrostatic individual wheel drive – for speeds from 0 to 50 km/h
- ⊕ Intelligent drive management with powerful engines in country-specific emission stage 3A or 4 and 5.
- ⊕ Intelligent engine control with ECO mode and Power Mode – for even more efficiency
- ⊕ Intelligent cab management – for an improved view and even more driving pleasure
- ⊕ Intelligent operation management with state-of-the-art operator terminals and ergonomic AmaPilot⁺ multi-function joystick
- ⊕ Intelligent crop protection management with fully automatic DistanceControl boom guidance – for optimised height guidance of the boom. also with ContourControl and SwingStop for extremely difficult terrain conditions
- ⊕ AmaSwitch and AmaSelect individual nozzle controls as option – for 50 cm part-width section control



Boom in aircraft design

The weight which has been taken away from the boom is returned as tank capacity. Its intelligent lightweight design means every material is utilised where it makes sense, for example: aluminium for weight-reduction on the outer boom, however, not at the boom centre. There, high-tensile steel is used so that the boom is kept in rigid and spraying faults due to boom movement are prevented.

AT THE
SAME TIME
super-strong,
super-light and
super-compact



AmaTron 4 ISOBUS terminal

Simple and convenient operation as intuitive as your tablet

The AmaTron 4 operator terminal with its 8" multi-touch colour display, fulfils the highest demands of any end user. No matter whether via the cleverly designed operator elements (touch / 12 backlit keys / 3 one-touch keys) or via the intuitive operation in day or night mode, AmaTron 4 offers maximum user-friendliness. Via a finger swipe or via the App carousel, one quickly gets from application to application and to the clearly and simply structured operator terminal. The practical MiniView, a freely configurable status bar and also an integrated light bar make the use of AmaTron 4 especially clear and comfortable.



PIONEERING!



The pivot joint without any play

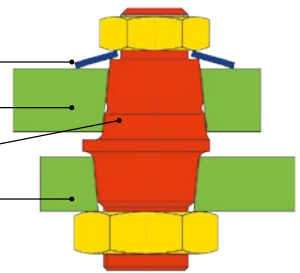
The conical pivot joint pin is the clever heart of a thoughtful boom philosophy! The boom sits, free from play, on the conical pivot joint pin and ensures, for the user, an optimum boom function even after many years.

Spring washer

Loose part of the pivot joint

Double cone eccentric pin

Fixed part of the pivot joint



Maintenance-free and long-lasting

The use of stainless steel as standard and the KTL paint process to auto industry standards are the guarantee for a long service life. **The key at AMAZONE:** All hydraulic pipe fittings are always made from stainless steel!

Super-narrow transport width

In its transport position, the boom is positioned compactly behind the base machine or is integrated in the base machine.

Due to the 3-fold shock absorbed suspension, the hydraulic height adjustment and the elastic skids, the booms are safely guided over the crop at the right distance.

PIONEERING!



Testimonials

Overview of the machines in practice

Andreas Weinfurtner – UF 2002 with FT 1000 front tank

With 50 cm part width section a great leap forward

In Rieden, in Upper Palatinate, Andreas Weinfurtner is a part-time farmer with a 150 ha arable farm. Looking after around 750 ha per season, he carries out plant protective treatments with yard-to-field distances of up to 10 km. Since 2011 he manages this with an AMAZONE UF 1801 mounted sprayer with 1,800 l tank capacity and an additional 1,000 l front tank. “With this sort of capacity I almost have the output of a small self-propelled sprayer, however, I am far more manoeuvrable on our small fields.”

In 2018 he exchanged the sprayer for a new UF 2002 with additional equipment, such as the electric AmaSwitch individual nozzle control. “Now the part-width sections are switched in 50 cm steps and we have only minimum overlaps. In this way we have made a great leap forward. We use less plant protection agent and have saved considerable costs. And the crops grow more evenly as we have no more damage from overlaps or gaps.”

A further plus of the new sprayer is the Super-S2 boom with DistanceControl plus boom guidance, operating with four sensors. “In this way the boom is guided even more



evenly above the crop, also in hilly terrain, and overall runs even smoother than before. Also the boundary nozzle control which ensures a precise cut-off when spraying around the border up against adjacent crops is a good solution.”

For this part-time farmer who, during the high season, tries to keep on spraying into the evenings as long as possible, the LED individual nozzle lighting is very helpful. “This enables me to fully monitor the function of the nozzles also at dawn and after dark.”

AmaSwitch electric individual nozzle switching

- ✔ Allows 50 cm part width sections to be switched via GPS
- ✔ Manual rotation of the 3-fold nozzle body
- ✔ Opening and closing of the nozzle via an electric valve
- ✔ As standard with DUS pro high pressure recirculation
- ✔ Flexible configuration of working widths and part-width sections
- ✔ Low residual volumes and even pressure conditions thanks to the conical spray line



AmaSwitch individual nozzle switching

Selbitz eG farm – Pantera

AmaSelect optimises liquid fertilising

On the arable farm of Selbitz eG in the district of Wittenberg (Saxony Anhalt) the self-propelled AMAZONE Pantera 4502 sprayer operates on an area of 9,000 to 12,000 ha. Here there is 2,200 ha of arable farmland in cultivation as well as 500 ha of grassland which is divided in many fields from very small up to 100 ha plots.

Here, the self-propelled sprayer is the optimum machine: “Including the road transport we manage, on a ten hour day, work rates of around 130 to 140 ha”, Detlef Dutz reports who drives the Pantera and is at the same time responsible for plant protection on the farm. “With regard to the chassis I actually can’t imagine a better machine”, the driver judges about the tandem chassis and the hydro-pneumatic suspension of the Pantera. “So, the Super-L boom rides very smoothly even at transport speeds.”

In particular when liquid fertilising, the AmaSelect electric individual nozzle control with 50 cm part-width sections in Selbitz is very helpful. About this Detlef Dutz reports: “We spray a large amount of N-fertiliser as AUS. For the second and third N-applications we then operate the Pantera in combination with a Yara N-Sensor. For this part-area site



specific fertilisation, AUS is sprayed at varying application rates. Depending on the application rate and the forward speed, AmaSelect toggles between two different FD nozzles. For large application rates even both nozzles are simultaneously switched on so that one always operates within an optimum pressure range. So I can, even if I spray larger rates, still increase the forward speed a bit still.”

Optimum functionality: AmaSelect

- ✓ Electric individual nozzle switching via the 4-fold nozzle body
- ✓ Automatic adding or switching over of nozzles, that means nozzle change without having to leave the tractor cab
- ✓ 50 cm part-width sections are controlled automatically via GPS-Switch
- ✓ As an option with extension kit for 25 cm nozzle spacing
- ✓ Flexible configuration of working widths and part-width sections
- ✓ With integrated LED individual nozzle lighting
- ✓ As standard with DUS pro high pressure recirculation: For a maintained spray agent concentration and zero deposits in the spray pipes
- ✓ Minimal residual volumes and an even pressure conditions thanks to conical spray pipe



AmaSelect electric individual nozzle control with 4-fold nozzle body and 50 cm or 25 m nozzle spacing

Testimonials

Overview of the machines in practice

Agropan GnbR – UX 5200

Robust booms even after 50,000 ha of operation

Agropan GnbR, in the Austrian Weinviertel, 30 km north of Vienna, was founded for a combined machinery pool for the use of five farms across 1,670 hectares of arable land. Two AMAZONE UX 5200 trailed sprayers are part of the set-up. The elder UX 5200 has been running since 2007 and has already sprayed 50,000 ha. “The sprayer is very robust and we have already the fifth set of tyres, however we still operate with the first set of booms”, Agropan manager Dipl.-Eng. Thomas Schmidt states.

“It is this robustness that has convinced us to decide once again in 2017 in favour of an AMAZONE UX 5200 with 5,200 l tank volume”, so Schmidt continues. He particularly likes the chassis of the sprayer with its sprung axle. “In this way, the sprayer is protected from unnecessary shocks during the many road journeys and in the field. The axle steering is very helpful as, in the tramline and on slopes, it optimally guides the sprayer behind the tractor. This is better than to rely on narrow husbandry tyres, which, due to our hilly terrain, would not be optimal with regard to the track guidance and which would also cause more soil compaction.”



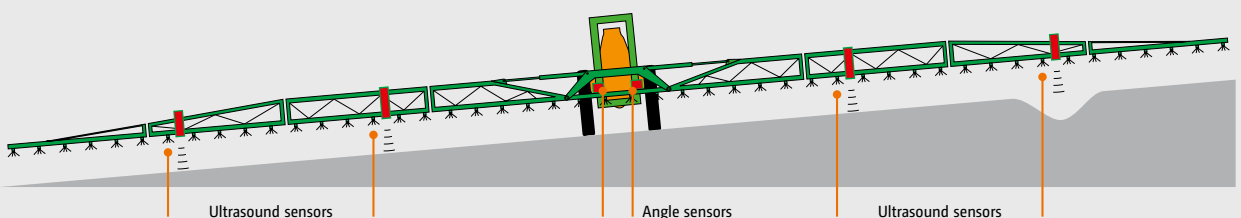
The estate manager especially praises the boom guidance on the new UX 5200: “With DistanceControl, the height guidance above the crop is at the optimum. If needed we can lower the boom down to an extreme to minimise drift. This is very important for us as we have on many fields surrounding organic farming neighbours. Here the drift has been at zero and to help this we have chosen also the optimum nozzle technology.”

Schmidt also likes the ground clearance of the sprayer very much: “So, for the early corn borer beetle control coupled with underleaf fertiliser application we can operate still in waist-high maize without damaging the plants.”

DistanceControl with 2 sensors or DistanceControl plus with 4 sensors

In conjunction with Profi-fold I, the fully automatic DistanceControl boom guidance system with 2 sensors, or DistanceControl plus with 4 sensors, is available for all booms. In crops with heavily differing growth stages or where corn has partially lodged, it can happen that a boom equipped with just 2 sensors dives into the crop.

This is remedied by DistanceControl plus with 4 sensors. The sensors are electrically connected in parallel and so that it is the sensor which is the closest to the target surface that is active.



DistanceControl plus

Gerald Luther – Pantera

With the Pantera self-propelled, 120 individual fields under control

That fact that the self-propelled Pantera is the optimum solution even on a medium sized farm, is shown by the example of Gerald Luther. The farmer, in Alsleben (Lower Franconia), runs around about 300 ha of arable land and has been, since 2013, working with a 36 m 4502.

“Even for crop protection I need, in view of the limited time available to me, technology which I can utilise at any time without the need for long preparation times”, Gerald Luther explains the first reason. “To mount a sprayer to a tractor or to demount a trailed sprayer again and again takes far too much time, whereas the Pantera is always ready for immediate use.”

As for the second reason, the Mr. Luther mentions the specific field set-up in the former “Realteilungsgebiet” (divided among heirs). He works on more than 120 individual plots. The biggest has a size of 15 ha and the smallest of 0.5 ha. “With a trailed sprayer it is not easy to perform well on these many small fields. Turning is too complex and there is too much damage caused by driving”, Mr. Luther comments. “A tractor with a mounted sprayer or self-propelled unit are

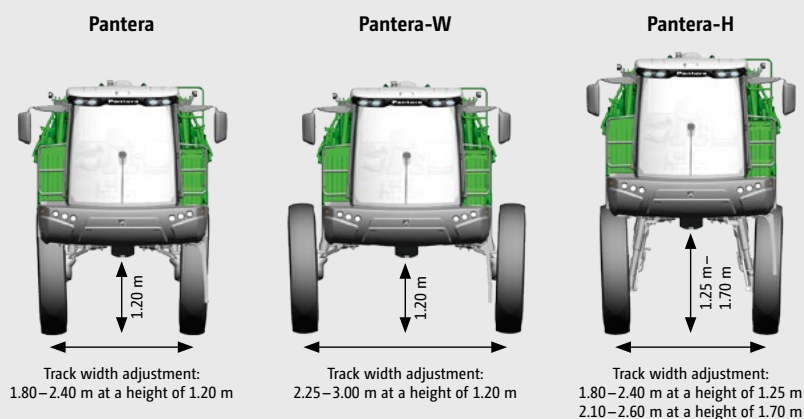


significantly more manoeuvrable.” In view of their own farm size and the fact that he carries out crop protection measures also for other farms, a mounted sprayer was not sufficient for him any more.

Even if some fields are so small that the full 36 m boom width of the Pantera cannot be utilised, it doesn’t create a problem because the working width can be reduced from 36 m to 28 m, 19 m or 12 m without any problem. The high ground clearance is of benefit, for instance, when blossom spraying in rape or in maize for corn borer beetle control. The track width adjustment is of advantage when carrying out contractor work on other farms.

Pantera self-propelled sprayer

Fully automatic track width adjustment is standard and so you can, for instance, as an agricultural contractor, quickly response to the differing demands of your customers and crops. Once the desired track width has been pre-selected, the exact cm-precise adjustment is carried out automatically. To protect the wheel drives, these are provided with additional covers.



THE BEST AMAZONE SPRAYER PROGRAMME OF ALL TIMES

UF mounted sprayers 900–2,000 l, 12–30 m



UG and UX trailed sprayers 2,200–11,200 l, 15–40 m



Pantera self-propelled sprayer 4,500 l, 21–40 m



AMAZONEN-WERKE
H. Dreyer GmbH & Co. KG
Phone +49 (0)5405 501-0
www.amazone.de · www.amazone.co.uk
E-Mail: amazone@amazone.de

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