AMAZONE

GO for Innovation

Innovations at SIMA 2019

Precision by innovation

Saving costs and protection of environment!

More and more precision – this was, and still is, the decisive driving force behind the many innovations from AMAZONE.

All-round innovations for more precision
It is the fact that we continue to bring more precision into the development of our technology that we will show to you again at SIMA 2019 in Paris. There we will introduce new machinery across all the areas of AMAZONE competence. What with the all-round new ZG-TS 01 trailed fertiliser spreaders, the UF 1602, UX 01 Super and Pantera 4503 crop protection sprayers, the Cataya and Centaya seed drill combinations with the CombiDisc mounted compact disc harrow and the new Cirrus-CC featuring the new Double-Shoot technique, on offer is yet again a plethora of innovations that represent more operational comfort and more precision. More precision helps reduce variable costs, further protects the environment and improves yield and quality at harvest.

New standards of precision and operator-friendliness
We would like to particularly emphasise three innovations which set new standards in precision and operator-friendliness. Firstly, the new WindControl system that automatically compensates for the influence of wind during fertiliser spreading and in this way ensures a precise fertiliser distribution even under difficult wind conditions. Then the UX 01 Super with Comfort-Pack plus which does away with the need for manual control taps in the SmartCenter operator station and is equipped instead with a pressure-sensitive, touch display which can be operated also with gloves. Via this the complete spray liquid circuit can be controlled. And finally the in-house developed, AmaTron 4 ISOBUS terminal, which is in tablet style, and offers the highest operational comfort thanks to the 8" multi-touch colour display. Via a swipe or via the App Carousel, one quickly gets from application to application in the clearly and simply structured control menu.

AMAZONE 4.0
AMAZONE 4.0 is our key concept in the age of rapidly increasing digitisation and networking of all operational processes in agriculture and represents our next level of development including our actual and future contributions in the areas of software, electronics, sensors and robotics. Already today, the part-area, site specific application rate control and the part-width section control along with the individual nozzle control systems are state-of-the-art. Planning and documentation systems register and process much machine and work related data. Telemetry systems will allow broad analysis, precautionary maintenance recommendations and offer early fault detection. AMAZONE 4.0 also includes the new SmartService 4.0. With this new style of service support, AMAZONE further expands the learning and training processes in the range of technical customer service and thus supports its sales partners and customers in repair and maintenance work utilising Virtual and Augmented Reality technology.

As the **Specialist for "Intelligent Crop Production"** we are optimistically looking forward to SIMA and warmly invite you to our stand in Hall 5 A (Allée C, Stand 013). We look forward seeing you there!

GO for Innovation

With kind regards
Your AMAZONE Team

Dr. Justus Dreyer
AMAZONE Director

Christian Dreyer
AMAZONE Director

Contents

Innovations at SIMA 2019

New generation of ZG-TS 01 trailed fertiliser spreaders

ZG-TS 10001 trailed fertiliser spreader

Demountable ZG-TS 7501 skid unit fertiliser spreader

ZG-TS 01 features the AMAZONE TS spreading system

New models and special equipment for the new ZG-TS 01 trailed fertiliser spreader

With the new ZG-TS models 7501 and 10001 in hopper capacities of 7,500 l and 10,000 l, AMAZONE sets new standards for trailed fertilising technology. Additionally available is the demountable ZG-TS Truck specifically for mounting as a skid unit on a carrier vehicle. The new ZG-TS 01 models, with their attractive specification levels, replace the outgoing ZG-TS 5500 and 8200 models.

Dynamic hopper design

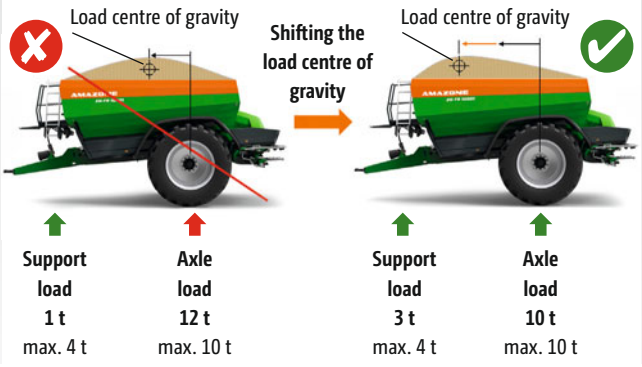
The hopper, rising to the rear, immediately attracts with its dynamic design and, at the same time, allows enough space for a sufficient steering angle of the wheels. In addition, the geometry of the hopper and the arrangement of the drawbar and the axle are designed to prevent any negative support loads.

TS spreading unit for highest precision

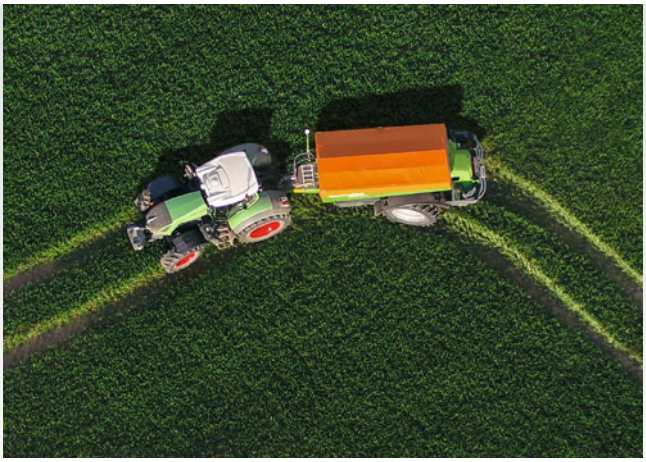
The ZG-TS 01 is equipped with the AMAZONE TS spreading unit. The entire spreading system is made from stainless steel ensuring a long life span. The hydraulic spreading disc drive provides a constant disc speed under all circumstances. Working widths up to 54 m and application rates up to 10.8 kg/s or 650 kg/min are possible. The combination of high application rates, maximum working widths and operational speeds of up to 30 km/h enable an unrivalled efficiency. For normal spreading and border spreading, the so-called AutoTS activates different spreading vanes without having to leave the tractor cab and without the necessity of a disc change. In short, optimal comfort, maximum fertiliser saving and efficiency without compromise.

The ZG-TS features the DynamicSpread part-width section control with the possibility to switch in wedges of up to

ZG-TS 7501 trailed fertiliser spreader



Optimum load distribution



True-track axle steering

128 part-width sections. In addition, the spreader can also be equipped with the ArgusTwin spread fan monitoring and WindControl.

ProfisPro on-line weighing system – the first of its kind
The ProfisPro on-line weighing system allows the automatic regulation of the desired application rate via the metering shutter slides.

Via the new chassis-integrated ProfisPro weighing system, the hopper is connected to a separate machine frame via four weigh cells, one in each corner. In sloping terrain, the additional tilt sensor compensates for any tilt of the machine. In this way, the preconditions for a high frequency on-line weighing system have been met and this makes the ZG-TS 01 the first trailed spreader with on-line weighing function, the signal from which is used in many ways.

So, for example, the weighing signal is utilised both for the constant online-calibration of the application rate and also for the intelligent filling management and the safe brake force regulation during high transport speeds.

Track-true axle steering
Customers, who utilise trailed sprayers with a steering system so as to save the crop, can now follow the same track as well with this spreader. The maximum steering angle is 28° and, with a track width of 1,800 mm and a tyre width of 520 mm, the true-track following is possible. The automatic steering, integrated into the ISOBUS software of

Determining the refill quantity necessary for the remaining area

The working light kit informs the driver of the filling vehicle via flashing signals as to the quantity filled in.

the ZG-TS even offers automatic counter steering on slopes. In addition to the optional equipment with a real steering axle, the ZG-TS 01 can also, of course, be equipped with either an un-steered axle or with an un-steered axle with 3 m track width for farms who rely on Controlled Traffic Farming (CTF).

Hybrid drive

To make the ZG-TS flexible, the spreading unit, floor belt and the steering are driven hydraulically. Available is a choice of two drive systems, one of which enables the utilisation of also smaller tractors as towing vehicle. So, on the one hand there is the classic tractor-based hydraulic system via the Load-Sensing system or, on the other hand, the new Hybrid system. In this case, approximately two thirds of the oil capacity needed is provided by the tractor and the additional third is created by the on-board hydraulics of the spreader, whereby the hydraulic pump is directly driven by the PTO shaft of the tractor. This system allows the utilisation of smaller tractors and is, at the same time, significantly cheaper than a classic, on-board hydraulic system.

On-board hydraulics for the hybrid drive system

ZG-TS 10001 with ArgusTwin

WindControl and ArgusTwin smart combined

For automatic matching of the optimum lateral distribution

SIMA INNOVATION AWARDS 2019
BRONZE

Automatic compensation of the wind influence

WindControl in the work position on the ZA-TS 4200 Profis Hydro

The wind speed and wind direction are displayed in the terminal

Up until now, fertiliser spreading in windy areas can be problematic due to the influence the wind may have on the lateral distribution. This problem has been exacerbated by the trend towards increased working widths. So, particularly for these areas, AMAZONE has developed the special option of WindControl, in accordance with Prof. Dr. Karl Wild, HTW Dresden, which has been awarded a bronze medal at SIMA 2019.

Since 2018 AMAZONE has offered WindControl for ZA-TS mounted spreaders and ZG-TS trailed spreaders and is supplied as an additional supplement to the ArgusTwin spread fan monitoring. With ArgusTwin, the complete spread fan is continuously monitored via 14 radar sensors across both sides of the spreader. In case of a deviation in the lateral distribution, the spread pattern is automatically optimised by the automatic adjustment of the electric delivery system.

While ArgusTwin looks after the perfect throwing angle in relation to the spreading characteristics of the fertiliser, WindControl continuously monitors the wind effect on the spread pattern and optimally compensates. A high frequency measuring wind sensor, fitted to the machine, registers both the wind speed and also the direction and transfers this information to the job computer. According to this data, it then calculates, in conjunction with the information from ArgusTwin, any new settings for the delivery system and the spreading disc speed which are then automatically adjusted. For side winds, the disc speed to the windward side is increased and the delivery system rotated outwards. At the same time the disc speed on the leeward side is reduced and the delivery system rotated inwards. In this way, any influence of wind is automatically compensated for and thus an optimum lateral distribution is ensured.

With the aid of WindControl, larger time windows are created to enable spreading under the influence of wind. Apart from all the important parameters, the user, in addition, has always the real-time wind parameters in view, such as the direction and the force of wind plus is kept informed if the wind is gusting. In addition, in heavy winds, when the system is no longer able to compensate, or when the gusts are too frequent, WindControl sends an automatic alarm to the driver.

The wind sensor is automatically folded in or out when the spreading discs are switched on or off. In addition, the wind sensor can be manually retracted and extended. When folded out, the wind sensor protrudes above the tractor to measure outside the tractor's air turbulence. When folded down, the wind sensor is located between tractor and spreader and is, in this way, protected during road transport or, for example, from low hanging branches. Additionally a protective cover comes down over the sensor so that it is protected from dirt thrown up by the tyres.

50 years

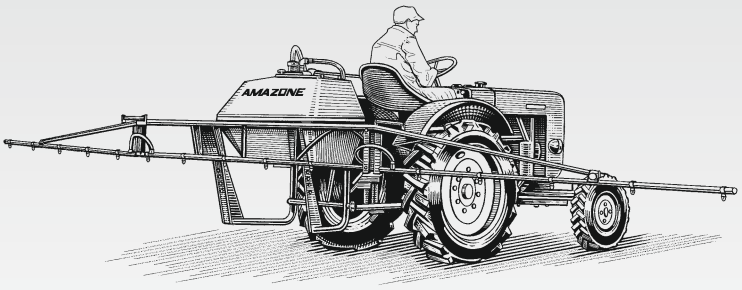
AMAZONE crop protection technology!

Pantera self-propelled sprayer

UF mounted sprayer with FT front tank

UX trailed sprayer

S – the first mounted sprayer from 1969



It was 1969, which is now 50 years ago, when AMAZONE introduced its first crop protection sprayer. Our objective in those days was, and still is today, to constantly strive to improve crop protection technology by being innovative.

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 and environmentally-sensitive manner. From the UF mounted sprayers and the UG and UX trailed sprayers up to the Pantera self-propelled sprayers – AMAZONE offers, for any farm size and any agricultural contractor, the optimum choice in crop protection sprayers.

Great expert knowledge and accuracy are indispensable in crop protection. Therefore, AMAZONE provides more and more precision: Whether the automatic GPS-Switch headland and part-width section control, 50 cm part-width sections with AmaSwitch electric individual nozzle shut off and AmaSelect individual nozzle control with integrated LED individual nozzle lighting – with the sprayers from AMAZONE, the farmer is always at the state-of-the-art level of precision.

A particularly important new development in order to increase that level of precision is the new active ContourControl boom guidance with SwingStop. With the aid of actively actuated hydraulic rams and electronics, this system compensates for any boom swing in either the horizontal or vertical direction and thus ensures an absolutely smooth boom ride.

Also the implementation of our UX AmaSpot trailed sprayers with their intelligent sensor nozzle system for Spot-Spraying is now successfully used in practice.

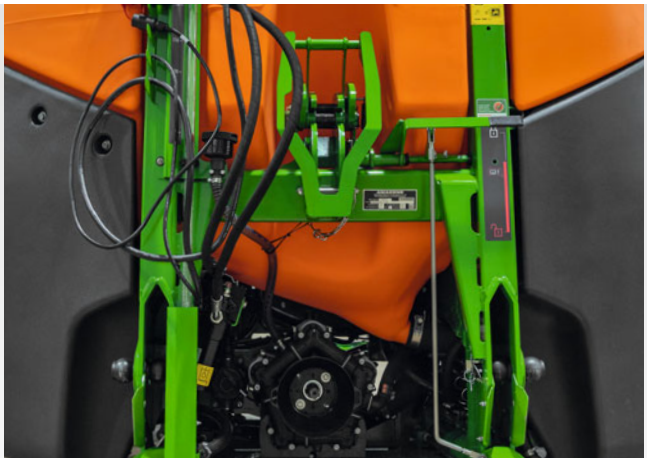
With these innovations the farmer can lower their costs significantly and, at the same time, make an important contribution to sustainable and environment saving farming. With this in mind, the AMAZONE team will also in future develop its sprayer programme further still with a high emphasis on “Precision”, “Efficiency” and “Operator-friendliness”.

In addition, the takeover of the Schmotzer hoeing machinery range which is part of the leading technology in this market segment is an important strategic step for the expansion of AMAZONE’s core competence in plant care. Worldwide, hoeing technology, as a means of mechanical crop protection is again in the spotlight. In the main, besides the mechanical weed control, there are positive aspects of hoeing with regard to soil structure, root growth and nutrient mobilisation. Also in this sector we will push the technology further in the direction of “more precision”.

AMAZONE – The brand for precision through innovation

New UF 1602 mounted sprayer

UF 1602 mounted sprayer



Polyurethane tank with a favourable centre of gravity and low positioned outlet sump ensuring the smallest possible residual volumes.

High capacity 60 l induction bowl

Following on from the introduction of the UF 2002 at Agritechnica 2017, AMAZONE now broadens its range of UF 02 mounted sprayers with the new, ISOBUS compatible, UF 1602 with a nominal volume of 1,600 l and an actual volume of 1,700 l. The UF 1602 can be equipped with all Super-S2 booms from 15 m to 30 m.

Spray agent tank

The UF 1602 features a specifically shaped, polyurethane tank with a favourable centre of gravity. The very smooth tank walls allow the effective interior and exterior cleaning of the tank. In addition, the low positioned outlet sump in the tank bottom ensures the smallest residual volumes. The filling of the tank is carried out, both when suction filling but also during filling from a bowser, near to the hopper bottom so that any possible foaming is significantly reduced.

SmartCenter operator centre and induction bowl

The operation of the spray agent circuit of the UF 02 is carried out via the centralised SmartCenter operator centre. This is positioned, well protected from dirt and splash water, behind a large hinged door found on the left hand side of the machine. In addition to the operator centre, also the new, highly-effective 60 l induction bowl is positioned behind this door. Its conical shape and the high suction capacity ensure its quick, trouble-free and complete emptying. Also granules, such as Epsom salts, etc. can be inducted without any problem thanks to the mixing nozzle, positioned in the suction aperture, and the high capacity rinse ring. The lid features a holder for a measuring jug and a drip off position for canisters which further simplifies the induction procedure for the user.

In the main, the machine is operated using a combination of the suction and pressure taps. Via the suction tap, it is determined from where the pump is expected to suck and, accordingly, via the pressure tap as to where the pump pushes the spray agent. On the pressure side, the newly-developed, AMAZONE 7-way pressure tap is used. During a function change on the pressure side, all the valves are

Centralised SmartCenter operator centre with large access door

Operation via the 7-way pressure tap

Comfort-Pack with automatic fill stop

closed by swivelling out the pressure tap into the neutral position. Now, the deactivated pressure tap can be swung round into a new position without opening any fluid paths. Only when the suitable function has been selected, the chosen path is opened by swivelling the pressure tap back in. In this way, any spray agent unintentionally getting into other fluid paths is avoided.

Around the SmartCenter many practical storage options and storage compartments are positioned. So, measuring jugs and gloves can be located on the relevant holders in the access door. In addition, above the SmartCenter, there is a 30 l clothing locker for any protective equipment which is dustproof and splash water protected.

Comfort-Pack

For the remote control and automation of the liquid circuit, the UF 1602 offers the optional Comfort-Pack which comes complete with automatic fill stop of both the suction hose filling and, if fitted, also that of the bowser fill port. During application, the agitation regulates itself automatically, depending on the tank level. As the fill level decreases, the agitation capacity reduces down eventually to a complete shut-off. In addition, auto-dynamic agitation control is also included. This means that, if a large application rate is required from the boom, the agitation capacity is automatically regulated down for a moment. Then, on the headland, as soon as all the nozzles are shut off, the agitation can then operate again at full capacity.

After application, the Comfort-Pack enables the fully automatic cleaning which can be controlled completely from the tractor cab.

Via the TwinTerminal 3.0, the actual fill levels are displayed on the machine and, if required, the fill levels can be programmed as well as specific adjustments of the liquid circuit being able to be carried out.

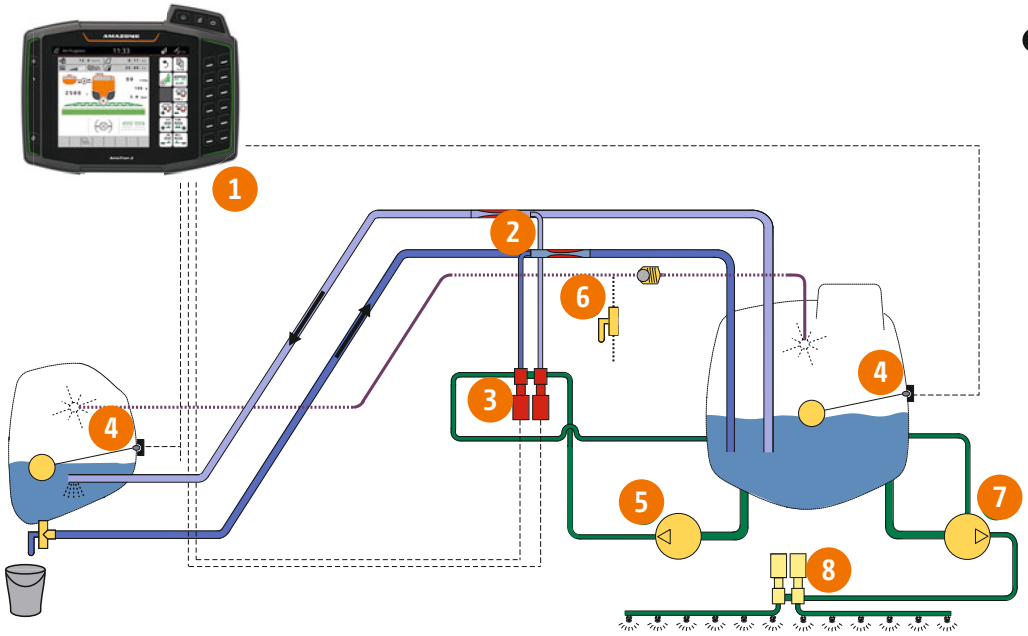
Easily-accessible soap dispenser underneath the hand wash tank

Input of the desired fill levels via TwinTerminal 3.0

UF 2002 mounted sprayer with FT 1001 front tank

Combination with the Fronttank

The UF 1602 features the possibility to increase the volume with an additional 1,000 l by utilising the FT 1001 front tank. With FlowControl^{+}, the front tank is completely integrated in the liquid circuit of the UF 1602. The complete liquid routing is completely automated between the front tank and the rear tank, both during the filling procedure and also during the spraying operation. Thanks to this automation, the driver operates the combination in the same way as just with one tank.



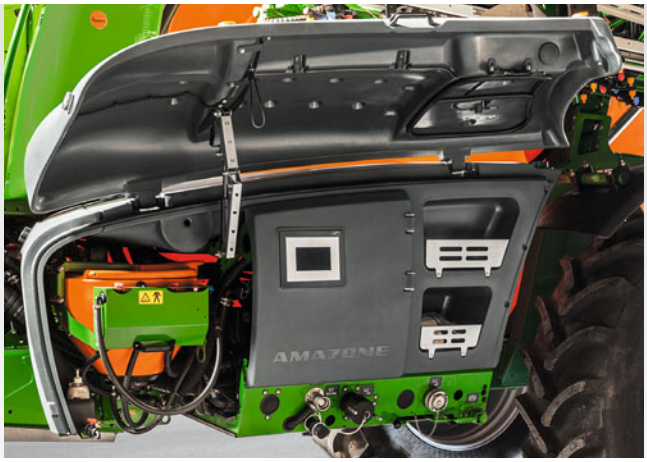
- Automated liquid flow via FlowControl^{+}

1) AmaTron 4
2) High capacity injectors
3) Switch valves for injectors
4) Electronic fill level indicators
5) FlowControl^{+} pump 150 l/min
6) Internal cleaning
7) UF spraying pump
8) Spray line

With FlowControl^{+} the FT 1001 front tank is integrated into the liquid circuit

UX 01 Super – the full trailed sprayer programme

UX 5201 trailed sprayer



The SmartCenter, including the induction bowl is well-protected and located behind the large cover.

The new high-capacity 60 l induction bowl

The new UX 4201 Super, UX 5201 Super and UX 6201 Super trailed sprayers are now available in all levels of equipment and operation. From the standard control pack with the manually-actuated suction valve right through to Comfort-Pack with terminal actuation – from rigid axle up to axle steering. This new range completely supersedes the previous generation UX 00 Super.

Spray agent tank

The UX 01 Super features a specifically-shaped polyurethane tank with a favourable centre of gravity. The very smooth tank walls ensure an effective interior and exterior cleaning of the tank. In addition, the low positioned outlet sump in the tank bottom ensures the smallest residual volumes. The filling of the tank is carried out, both when suction filling but also during filling from a bowser, near to the hopper bottom so that any possible foaming is significantly reduced.

SmartCenter operator station and induction bowl

The operation of the spray agent circuit of the UX 01 Super is carried out via the central SmartCenter operator centre. This is positioned, so as to be well protected from dirt and splash water, behind a large cover on the left hand side of the machine. These large covers on either side of the machine are one of the most striking features of the UX 01 Super. Behind the left hand cover and next to the operator centre is the new, high capacity 60 l induction bowl and two dust-proof storage compartments. On the right hand side an additional 240 l dust-proof and lockable storage compartment is located.

The conical shape and the high suction capacity of the new induction bowl ensures a quick, trouble-free and complete emptying. Also granules, such as Epsom salts, etc. can be inducted without any problem thanks to the mixing nozzle, positioned in the suction aperture, and the high capacity rinse ring. The opened lid features a holder for a measuring jug and two drain-out positions for canisters.

In the main, the machine is operated using a combination of the suction and pressure taps. Via the suction tap, it is determined from where the pump is expected to suck and, accordingly, via the pressure tap as to where the pump pushes the spray agent. On the pressure side, the newly-developed, AMAZONE 7-way pressure tap is used. During a function change on the pressure side, all the valves are closed by swivelling out the pressure tap into the neutral position. Now, the deactivated pressure tap can be swung round into a new position without opening any fluid paths. Only when the suitable function has been selected, the chosen path is

The 7-way pressure tap

Standard Pack with manually operated valves

Comfort-Pack with TwinTerminal 3.0 and 7-way tap

Comfort-Pack plus with pressure-sensitive, touch screen

opened by swivelling the pressure tap back in. In this way, any spray agent unintentionally getting into other fluid paths is avoided.

Comfort-Pack
For the remote control and automation of the spray liquid circuit, the UX 01 Super offers the optional Comfort-Pack which comes complete with automatic fill stop of both the suction hose filling and, if fitted, also that of the bowser fill port. During application, the agitation regulates itself automatically, depending on the tank level. As the fill level decreases, the agitation capacity reduces down eventually to a complete shut-off. In addition, auto-dynamic agitation control is also included. This means that, if a large application rate is required from the boom, the agitation capacity is automatically regulated down for a moment. Then, on the headland, as soon as all the nozzles are shut off, the agitation can then operate again at full capacity.

After application, the Comfort-Pack enables the fully automatic cleaning which can be controlled completely from the tractor cab.

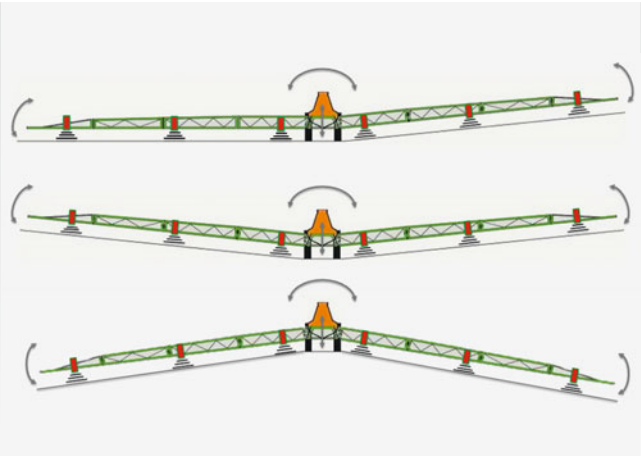
Via the TwinTerminal 3.0, the actual fill levels are displayed on the machine and, if required, the fill levels can be programmed as well as specific adjustments of the liquid circuit being able to be carried out.

Comfort-Pack plus
The Comfort-Pack plus includes all the features above as well as some additional functions. Machines fitted with Comfort-Pack plus do not feature any operator taps in the SmartCenter but are equipped with a pressure sensitive touch display which can be operated also with gloves. In this way, the complete spray liquid circuit can be controlled and required values can be entered.

In addition to the functionalities of Comfort-Pack, Comfort-Pack plus offers the possibility to automatically fill the fresh water tank as well as to predetermine individual fill stops during complex agent mixtures. During the cleaning procedure with this equipment option, the induction bowl is also automatically cleaned as well.

As a supplement to the Comfort-Pack plus, a hydraulically-driven, fresh water pump can be specified to enable the continuous cleaning of the UX.

Boom guidance
The UX 01 Super can be equipped with the Super-L2 boom from 21 m to 40 m – or the new Super-L3 boom in a 36 m working width. For the boom guidance and boom control, AMAZONE can offer the customer a wide range of options. So, for example, there is the possibility of the automatic DistanceControl or DistanceControl plus boom guidance



ContourControl boom with 6 ultrasound sensors

Precise boom guidance at high forward speeds with ContourControl

in conjunction with Profi-fold I. With this configuration, the boom can be guided automatically at the right height and tilt over the crop. If it is intended to operate the boom flexibly and conveniently at a variety of working widths – even where this may be just reduced on one side, or where it is necessary to fold the boom very quickly in or out, then Flex-fold I can be chosen as an alternative to Profi-fold I. Thanks to this intelligent, electro-hydraulic boom folding, the folding times can be reduced by as much as 40% and, so, an even quicker change of fields is possible. As a supplement, Flex Fold II offers the possibility to also angle the boom tips. Both Flex-fold I and Flex-fold II can be also equipped with the automatic DistanceControl or DistanceControl plus boom guidance.

With these large boom widths, high operational speeds and difficult ground conditions the UX 01 Super, as an alternative, can be equipped with the ContourControl boom guidance. The basis of this boom guidance is a rapid-reacting hydraulic system. Here, all the hydraulic functions are actuated from the centralised hydraulic accumulator in the boom thus meaning that short reaction times can be achieved. The additional specification of the booms with ContourControl is the inclusion of 6 ultra sound sensors which precisely guide the boom above the crop. In conjunction with Flex-fold II and ContourControl, the booms can be angled also negatively and thus perfectly follow the ground contour.

In addition to the active boom guidance, the UX 01 Super can be also equipped with the active SwingStop which reduces the horizontal boom movements.

Rigid axle or steering axle

For the UX 01 Super, a rigid axle or a steering axle with a 20 degree or 28 degree steering angle is available. Thanks to this large steering angle and the compact shape of the UX 01 Super, the machine is extremely manoeuvrable. Depending on tyre size and track width, a minimum turning circle of 4.5 m is possible so that true-track following, even behind smaller crop care tractors is possible without any problem.

The new steering axle with 28 degree steering angle

Higher application rates thanks to HighFlow+

HighFlow+ equipment pack with its second pressure filter, additional flow measurement device and changed liquid routing

1) second pressure filter
2) drain tap for pressure filter

Display of the HighFlow+ output capacity in the AmaTron 4 ISOBUS terminal

AmaSelect electric individual nozzle switching

For very high application rates, the new HighFlow+, in conjunction with AmaSwitch nozzle switching or AmaSelect individual nozzle control and Comfort-Pack or Comfort-Pack plus, is available for the UX 4201 Super, UX 5201 Super and UX 6201 trailed sprayers. The maximum output increases then to 400 l/min at a spray pressure up to 10 bar instead of otherwise approximately 200 l/min. With this additional equipment, on the one hand, higher forward speeds can be realised – even with wider boom widths – or, on the other hand, also large application rates per hectare with wider booms at normal forward speeds can be achieved.

As standard, the UX 01 Super features two piston diaphragm pumps each with a capacity of 260 l/min, one of them is utilised for the spraying procedure and the auxiliary agitator whereas the second pump looks after the main agitation. With HighFlow+, the agitation pump, thanks to a second pressure filter and a somewhat different liquid circuit routing, can also be used for the spraying operation.

The intelligent regulation technology found on the UX 01 enables the utilisation of both pumps for the spraying operation yet, nevertheless, a high agitation capacity is still maintained. With each pump having a capacity of 260 l/min at a nominal rotational speed, the spray liquid pump primarily supplies the spray line with up to a maximum of 200 l/min. The remaining 60 l/min of the spray liquid pump capacity thus is still available for the auxiliary agitator and the constant pressure filter cleaning. If 200 l/min through the spray line is not sufficient, then in conjunction with the HighFlow+ equipment, if necessary, the liquid flow of the agitator pump is also used until the desired application rate has been reached. The remaining pump capacity of the agitation pump is further utilised to keep the spray liquid on the move. With a decrease in forward speed, or when switching off part-width sections, the flow rate to the boom drops and the agitation pump automatically reduces the application rate to the boom and thus makes that capacity available again to the agitator. When the flow rate drops to below 200 l/min or at the headland, when all nozzles are switched off, the full capacity of the agitation pump is available again to stir up the liquid inside the tank.

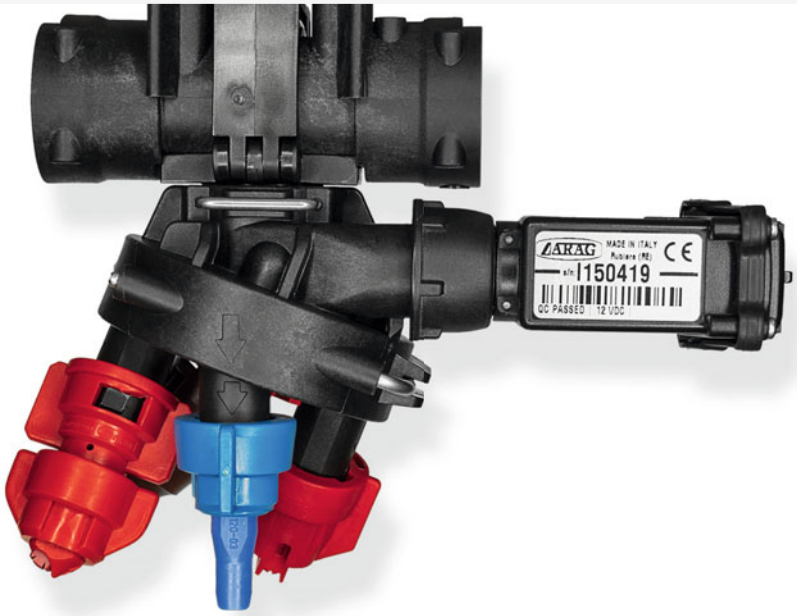
All components of the HighFlow+ system are completely integrated in the cleaning procedure of the UX 01 Super. For the driver, the output levels of the spray liquid pump and of the agitation pump with HighFlow+ are clearly displayed in the terminal. In this way they always have an overview of the optimum utilisation of the pump capacity for agitating and spraying.

Application examples for HighFlow+:

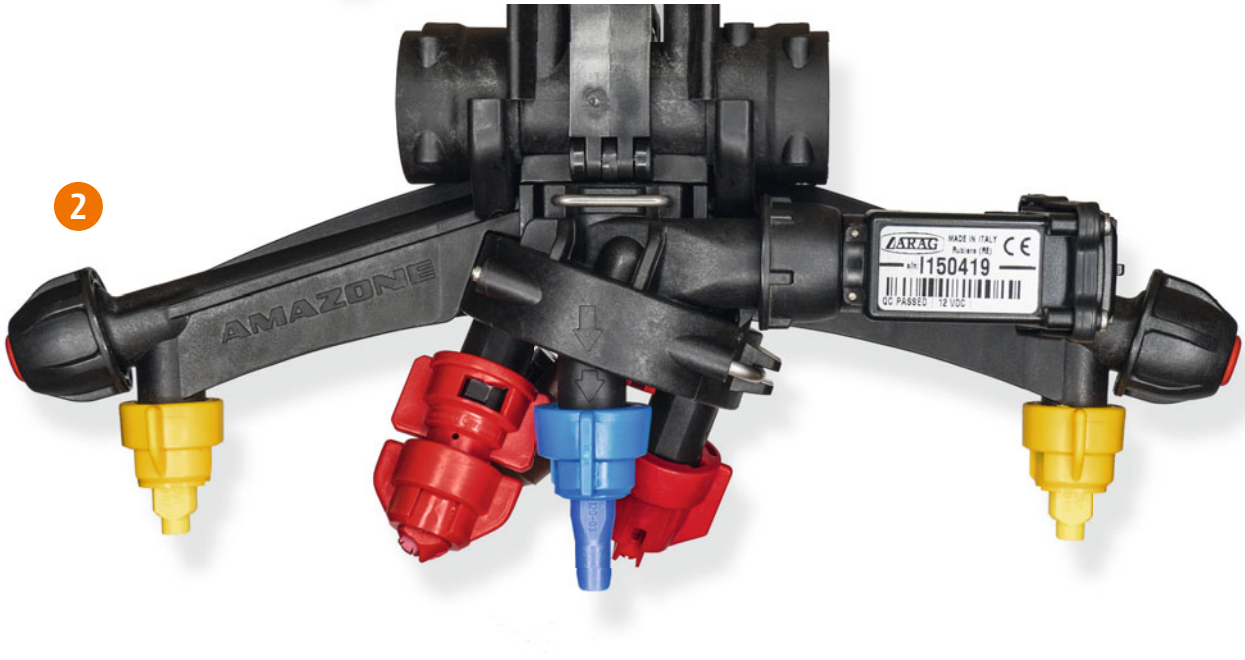
- Quick application in cereal crops:
  UX 5201 Super, 36 m boom, 16 km/h – 400 l/ha
- High application rates when liquid fertilising:
  UX 5201 Super, 36 m boom, 9 km/h – 700 l/ha
- High application rates for vegetable applications:
  UX 4201 Super, 30 m boom, 8 km/h – 1,000 l/ha

AmaSwitch electric individual nozzle shut-off with quad nozzle bodies

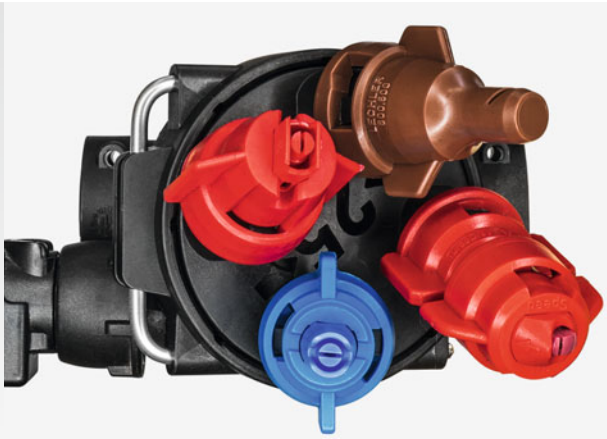
1



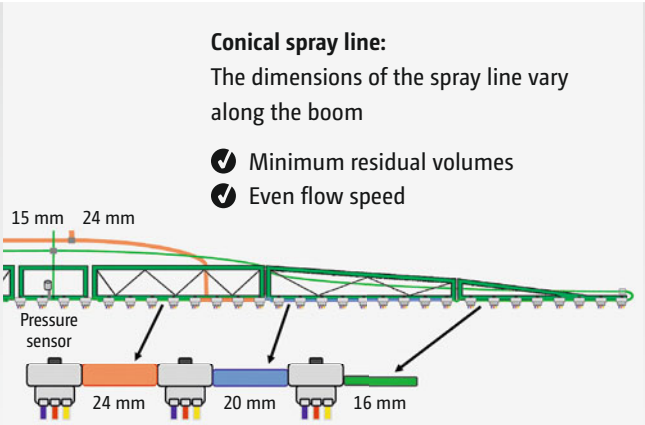
2



1) AmaSwitch with quad nozzle bodies
2) AmaSwitch with t-bar for a genuine 25 cm nozzle spacing



AmaSwitch individual nozzle switching with quad nozzle body



AmaSwitch with conical spray line and DUS pro high pressure recirculation

For a variety of applications, AMAZONE offers different nozzle control systems. In addition to the classic part-width Section Control, AMAZONE also offers the AmaSelect and AmaSwitch individual nozzle control setups. So, on top of AmaSelect, with its electric quad nozzle change-over as well as individual on/off control and AmaSwitch with electric nozzle shut-off and manually changeable triple nozzle bodies, the range is now supplemented by the AMAZONE, in-house developed, AmaSwitch individual nozzle control with quad nozzle body. This new nozzle body includes all the benefits of electric individual nozzle shut-off and the related 50-cm part-width section shut-off. The selection of nozzles is carried out manually, simply, quickly and tool-lessly. A centre position is located between every nozzle position which allows the complete deactivation of the nozzle body. In addition, the nozzle body features an anti-rotation device as seen in the direction of travel.

In cases where, in addition to the classic 50 cm nozzle spacing, a 25 cm nozzle spacing can also play a role, the quad nozzle body of AmaSwitch can be equipped with a t-bar. This t-bar then offers the possibility of a genuine 25 cm nozzle spacing without any compromise in the areas to either side. When using the t-bar, all the nozzles can remain on the rotary nozzle head. Nozzles for crop protection application or drag hoses for the application of liquid fertiliser can be fitted to the t-bar. Via the shift position on the nozzle body, the spray liquid is then not delivered to the rotary nozzle head but to the nozzles on the t-bar. As standard, AmaSwitch features DUS high pressure recirculation and conical spray lines.

AmaSwitch, with quad nozzle bodies, combines the benefits of the individual nozzle shut-off, the manual, simple choice of four fitted nozzles and the possibility of 25 cm nozzle spacing. Thus, this equipment is positioned between the previous AmaSelect system and AmaSwitch with triple nozzle bodies.

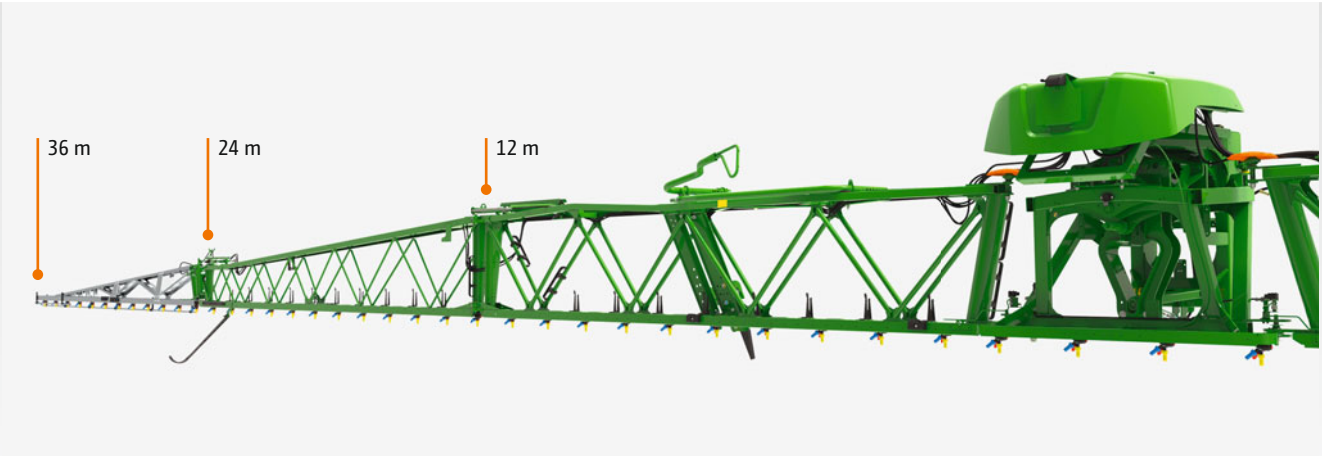
The benefits	Standard valve chest	AmaSwitch triple	AmaSwitch quad	AmaSelect
Part-width sections	up to 13	up to 80	up to 80	up to 80
50 cm part-width sections	–	■	■	■
Number of nozzles per nozzle body	1, 3, 4	3	4	4
Manual nozzle switching	■	■	■	–
Automatic nozzle switching over and off	–	–	–	■
Nozzle selection from the cab	–	–	–	■
Combination of multiple nozzles	–	–	–	■
High pressure recirculation (DUS pro)	–	■	■	■
25 cm nozzle spacing	■	–	■	■
Individual programming of the part-width sections	–	■	■	■
No need for compressed air	■	■	■	■
LED individual nozzle lighting	■	■	■	■

Nozzle switching – systems overview ■ = standard ■ = optional – = not possible

New Super-L3 boom in 36 m working width

For UX trailed and Pantera self-propelled sprayers

New 36 m Super-L3 boom with aluminium end sections



36 m Super-L3 boom, can be reduced to 24 m and 12 m

With the 36 m Super-L3 boom, AMAZONE introduces a completely new boom generation to the market. In a working width of 36 m, each side has only three folding elements in comparison to the existing 36 m Super-L2 booms where there are four. The outer and middle boom sections each feature a length of 6 m. In this way, the new 36 m Super-L3 boom can be utilised at a reduced working width of 24 m and 12 m. To be able to carry the two outer sections, each of which are 6 m long, the upper profiles of the inner and middle boom sections are noticeably wider. The end booms consist entirely of an aluminium design with additional transverse profiles, ensuring a very high rigidity but, at the same time, a low actual weight. The hydraulically pre-tensioned break back device on the end boom can, as standard, give way in three dimensions – backwards, forwards or upwards. The advantage of the hydraulically pre-tensioned break back device, which operates on a saloon-door principle, is that the release forces are always maintained at a high level over the complete release travel. In addition, this guarantees a reliable return back to the neutral position and with the lowest amount of wear.

As on all the booms from AMAZONE, the Super-L3 boom has also been designed using an aircraft wing design principle, meaning superbly light and superbly robust. The folded profiles and the double braces provide the highest robustness and torsion resistance. Thanks to the hardened conical pin, the pivot points remain completely tolerance and maintenance-free even after a very long operational period and often repeated folding.

The cathodic dip-paint coat of the steel parts, the use of stainless steel screw joints and the maintenance-free pivoting points help keep the booms and the entire sprayer still looking good even after many years.

Due to the 3-section folding of the 36 m boom, the UX trailed spreader now is even narrower so that, when folded, it only has a transport width from 2.55 m – depending on track width and tyres of the sprayer.

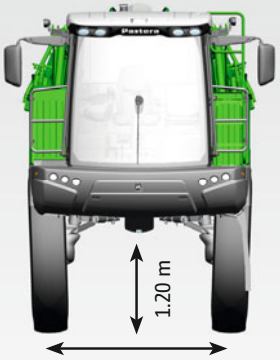
For the Super-L3 boom, the DistanceControl automatic height guidance and DistanceControl plus or the active ContourControl boom guidance with or without SwingStop are available.

Hydraulically pre-tensioned swivel joint at the end boom with saloon-door-principle

The new Pantera 4503 self-propelled sprayer

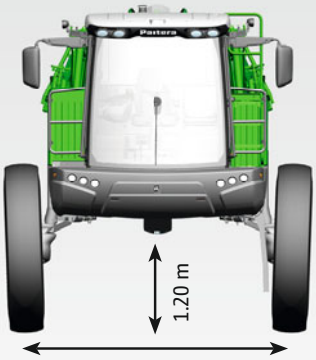
Pantera 4503 self-propelled sprayer

Pantera 4503



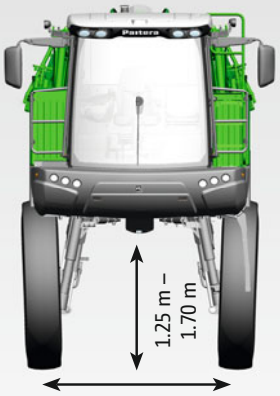
Track width adjustment:
1.80 – 2.40 m at a height of 1.20 m

Pantera 4503-W



Track width adjustment:
2.25 – 3.00 m at a height of 1.20 m

Pantera 4503-H



Track width adjustment:
1.80 – 2.40 m at a height of 1.25 m
2.10 – 2.60 m at a height of 1.70 m

The AMAZONE Pantera range is designed to ensure that large farming enterprises and contractors are perfectly prepared to meet all of the challenges in crop protection application. This self-propelled sprayer combines state of the art technology with modern management systems and, for the 2019 model year, the whole of the range – Pantera, Pantera-H and Pantera-W – will get new features. With the new Pantera 4503, AMAZONE introduces to the market a self-propelled sprayer with the new Comfort-Pack 1 and an innovative new boom guidance system.

Efficient and economical engine technology with exhaust emissions Stage 5

At the heart of the Pantera 4503 is the proven 6-cylinder Deutz engine with a power output of 218 HP. The in-line, turbo-charged and charge-air cooled engine, with its optimum overall performance, ensures, thanks to the intelligent ECO mode engine management control, the minimum in fuel consumption. If, however, additional power is required, for instance when working at steep slopes, then POWER mode is available for the driver.

Pantera 4503 fulfils exhaust emissions Stage 5 and, for an exhaust after-treatment, AMAZONE relies on exhaust gas recirculation with diesel oxidation catalyst and diesel particle filter to help protect the environment. During operation, the diesel particle filter is continuously regenerated. With the aid of the Diesel Exhaust Fluid (DEF) injection, the SCR catalyst reduces the level of nitrogen oxide. The 20 litre DEF tank is positioned next to the 230 litre diesel tank. The DEF consumption is approximately 2.5 % of the fuel consumption, meaning that the DEF requires a refilling only every three to four tank fills.

SmartCenter operator station with the new Comfort-Pack 1 or Comfort-Pack 2

Found under the cover on the left hand side, the SmartCenter is hidden away with the induction bowl and the complete operator station alongside the fill ports for suction filling. The use of Comfort-Pack 1 on the new Pantera, with the TwinTerminal 3.0 down at the operator panel, makes the operation of the machine even more comfortable. As standard, it includes automatic fill stop for suction filling.

Convenient step up to the easily-accessible diesel and DEF tanks

SmartCenter operator station with induction bowl and well laid-out valve chest

Entering of the desired fill level for the spray liquid tank via the TwinTerminal in conjunction with Comfort-Pack 1

Entering of the desired fill levels for the spray liquid and fresh water tanks via the TwinTerminal with Comfort-Pack 2

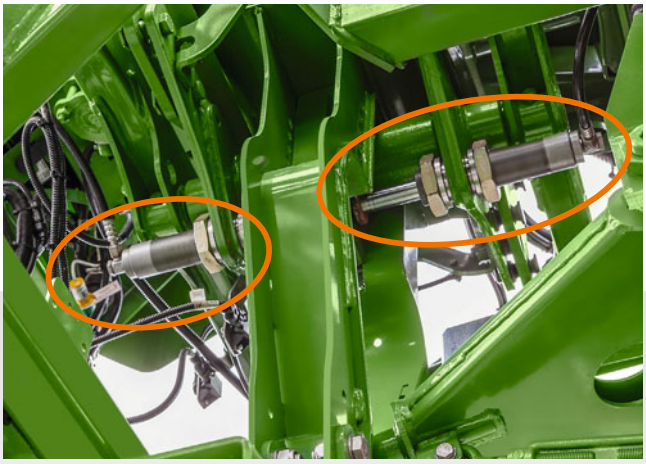
As option, this is also available on the bowser fill port as well. In this way, during the filling process, the sprayer achieves exactly the desired fill level and any foaming in the spray liquid tank is reliably prevented. The desired fill level can be entered either in the cab via the ISOBUS terminal or down at the operator station through the TwinTerminal.

During application, the agitator control regulates the agitation intensity depending on the tank fill level. As the fill level decreases, the agitator capacity is automatically reduced down – eventually switching off to avoid the formation of foam at a low fill level and to minimise the residual spray volumes. After application, the Comfot-Pack facilitates the automatic clean out which can be controlled completely remotely from the tractor cab.

Alternatively, the Pantera can also be equipped with Comfot-Pack 2 which includes an additional fresh water pump. With this Pack, the machine can be cleaned continuously via the additional fresh water pump and during the suction filling procedure, the fresh water tank can also be filled in addition to the spray liquid tank. In addition to being able to programme the fill level of the spray liquid tank, with Comfot-Pack 2 also the desired fill level of the fresh water tank can be entered either from the cab via the ISOBUS terminal or down at the operator station via the TwinTerminal.

ContourControl boom guidance with SwingStop
Now as option for the Pantera, the new ContourControl boom control with its active SwingStop pendulum limitation for boom widths up to 40 m is available. In addition, the Super-L2 and the new Super-L3 booms – in conjunction with the ContourControl boom control – include the new Flex-fold. The new Flex-fold makes the folding procedure 40 % quicker. Thanks to this intelligent boom folding, non-productive times during field changes can be noticeably reduced. With the new active ContourControl boom guidance, AMAZONE offers an innovative technology, which fulfils the demand of higher operational speeds and at highest precision during application.

Entering of the desired fill level via the ISOBUS terminal



SwingStop features two actively-operated hydraulic rams in the boom centre

Dust-proof storage compartment under the access ladder

New LED rear road lighting

As special optional equipment AMAZONE offers, for the ContourControl boom guidance, the active SwingStop horizontal boom movement limiter to match also the capabilities of horizontal boom position to the highest demands. Due to external influences such as ground undulations, driving round bends, acceleration forces and increasing operational speeds, the boom is subject to an enormous strain in the horizontal direction. To reduce these vibrations, today in the market mainly passive systems are used that consist of springs and dampers. With SwingStop, AMAZONE offers an innovative active pendulum limitation in horizontal direction. The two actively operating hydraulic rams in the boom suspension equalise out these vibrations and thus provide a very smooth horizontal boom position.

ContourControl can also allow the boom tips to angle below the horizontal and thus always maintains exactly the distance to the target surface. Whereas ContourControl is excellent in looking after the vertical boom movement, SwingStop optimises, which is particularly useful with wider booms, the horizontal movement. The instantly-reacting and precisely operating hydraulic boom guidance makes for, of course, higher operational speeds during application. In conjunction with the electric AmaSelect individual nozzle control, a level of output – yet that is still at the highest degree of precision – is achieved that has never been reached before.

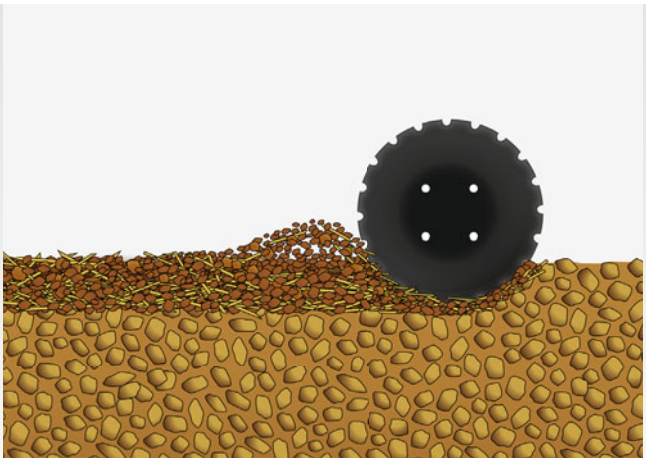
Alternatively, the self-propelled Pantera can be also equipped with Flex-fold and with the automatic DistanceControl height guidance with two or four sensors. With this level of equipment, the damping of the boom movement at the pendulum is carried out passively using a mixture of springs and dampers.

In addition to the up-to-date amendments to the exhaust system, the innovative boom guidance system and Comfort-Pack, there are further changes and improvements to the Pantera 4503 which also receives new dust-proof storage compartments under the cab access ladder and new LED rear lights.

CombiDisc 3000 compact disc harrow

CombiDisc 3000 compact disc harrow in solo operation with KWM wedge ring roller with Matrix tyre profile

Centaya 3000 Super pack top seed drill
with CombiDisc 3000 compact disc harrow



CombiDisc discs, 4 mm thick, 410 mm diameter (fine serrated)

Up until now, an AMAZONE harrow-mounted, seed combination was always made up of a rotary harrow or rotary cultivator, a consolidation roller and a pack top seed drill. As, however, not all areas and cultivation methods require the intense crumbling effect of a rotary harrow or rotary cultivator, AMAZONE introduces to the market the new CombiDisc 3000 compact disc harrow in a 3 m working width. This can be utilised as a solo machine for seedbed preparation or, in combination with a seed drill, as a sowing combination. Via the QuickLink quick coupling system, the CombiDisc can be combined both with the conventional Cataya Super and Cataya Special and the Centaya Super pneumatic seed drill in 3 m working width.

The disc segment
The disc segment consists of 24 discs arranged in two rows. The 410 mm disc diameter allows a working depth of 3 to 8 cm. Due to the small disc diameter, a high disc rotation speed is achieved which guarantees a very good crumbling effect. Each pair of discs are fixed to one arm which is mounted to the frame via four sprung rubber buffer blocks, providing a maintenance-free stone protection and a good soil contour following of the disc pairs. The disc arms in the pulling vehicle tracks and at the sides can be adjusted individually, so that, for instance the discs in the tractor track can be adjusted deeper. Alongside the Catros compact disc harrows, the CombiDisc features the same aintenance-free disc bearing with slide ring face seals and life-long lubrication.

Seed bed preparation after conservation soil tillage

CombiDisc 3000 with mounted track markers in solo operation

The working depth can be adjusted mechanically or, as an option, hydraulically. For the mechanically-adjusted machines, the depth can be set centrally at the left hand side by swivelling spacer elements. With the hydraulic adjustment, the working depth can be comfortably adjusted from the tractor seat. An easily-visible scale on the machine eases the adjustment.

During the setting of the working depth, the front or rear disc rows are pivoted to the front or to the rear. So, on the one hand, the base frame always remains parallel to the ground so that the setting of the working depth has no influence on the entire machine whereas, on the other hand, when working deeper, the space between disc and roller is increased so that even the increased earth flow can pass optimally through the machine.

Hydraulic depth adjustment with large scale

Side guide plate
For a clean matching up to the next bout, an adjustable side guide plate is attached at the side of the CombiDisc. For road transport this plate is telescoped in without tools and then pulled out for operation in the field. For an optimum following of the ground contours, the side guide plates are provided with a floating suspension.

Available roller programme
Like the active soil tillage implements, the CombiDisc can be equipped with a diverse range of rollers. For reconsolidation, AMAZONE offers the PW 600 tooth packer roller, the KW 580 wedge ring roller, the KWM 600 with Matrix profile and also the TRW 500 and TRW 600 trapezium ring rollers. So, for a wide range of soil types, the ideal roller is available for optimum reconsolidation.

Special optional equipment
Optionally the CombiDisc can be equipped with bout markers which are attached to the frame. In addition, tractor wheel mark eradicators are offered which can be, from choice, equipped with narrow, diamond or wing shares. These can, especially on pressure sensitive soils, help to eradicate the tractor wheel tracks.

Cataya 3000 Super harrow-mounted seed drill
with CombiDisc 3000 compact disc harrow

The new AmaDrill 2 machine-specific operator terminal

For Cataya and Centaya seed drills

Electric metering drive via AmaDrill 2

Control of the work lights via AmaDrill 2

Up until now the new conventional Cataya Special and Cataya Super harrow mounted seed drills and the pneumatic Centaya Super have been only available with the ISOBUS communication system. However, AMAZONE now offers for these seed drills the cost-effective AmaDrill 2 operator terminal. As oppose to the AmaTron 3, AmaTron 4 or AmaPad ISOBUS terminals, the new AmaDrill 2 is a machine-specific terminal for seed drills. The terminal features a high level of functionality, such as electric metering drive but is still, nevertheless, very simply and logically designed in regard to operation and monitoring.

Electric metering drive via AmaDrill 2
Just like the ISOBUS option, the Cataya and Centaya seed drills, which are equipped with the AmaDrill 2, also feature electric metering drive, enabling the very precise, stepless metering of different seeds. The additional benefits of this drive are the simple setting of the seed rate via the AmaDrill 2 and the possibility to vary the seed rates at the touch of a button and to pre-meter the seed in field corners.

Also calibration is again very easily done at the press of a button in conjunction with the AmaDrill 2 operator terminal and the electric drive.

Clear display and simple operation
AmaDrill 2 features a clear display with an easily-readable 4.7" screen. There, the most important information, such as, for example, forward speed, hectare meter, seed rate, blower fan speed and the turning speed of the metering unit, tramline rhythm and the position of the track markers, is clearly displayed. Machine operation then is carried out directly via these soft keys. So, for instance, by touching a button, the seed rate can be increased or reduced or the tramline rhythm can be advanced or retarded. Thanks to the electric metering drive, again at the touch of a button, pre-metering in corners is possible so that, when driving off, seed is already available at the coulters. Also the optional LED work lights can be directly switched on and off again via a key on the AmaDrill 2.

Thanks to the ergonomic hand rest, control of the drill via the soft keys is very convenient.

For machine adjustment, there isn't a complex menu structure because every function can be carried out very quickly and directly via the soft keys. In this way, just one touch gets into the job menu or into the calibration menu and any adjustments can be very easily and simply carried out via the navigation keys.

Display of the track marker position in AmaDrill 2

Cataya 4000 Super harrow-mounted seed drill

Cataya 4000 Super with GreenDrill seeder box

Precis metering system

SmartCenter

With the conventional Cataya 4000 Super harrow-mounted seed drill, AMAZONE introduces the second machine in the Cataya Super series. The machine, in a 4 m working width, has been designed for farms who require maximum work rates to achieve the highest acreage outputs but, at the same time, want to work very precisely and have a drill that is operator-friendly.

The seed hopper
The large seed hopper has a capacity of 1,180 l and, via an extension, can be increased by 550 l to 1,730 l. The lid of the seed hopper serves as a loading aid when filling with a front end loader or when filling with big bags.

Exact metering with the Precis metering system
The harrow-mounted seed drill is equipped with the Precis metering system, which, in addition to the precise metering, is characterised by its simple conversion from fine seed to normal seed. The discharge funnels of the metering housings leave minimal residues and thus a quick seed change. The metering drive of the Cataya 4000 is electrically-driven. The ElectricDrive electric metering drive allows the very precise, stepless metering of different seeds. The desired seed rate is simply entered via the terminal and also, very conveniently, can be adjusted manually on the move from the tractor cab or be automatically matched, site-specifically, using application maps. From choice, this drive can be carried out from one or both sides.

Easy adjustment via the SmartCenter
Via the centralised SmartCenter operator station, the Cataya 4000 Super can be centrally adjusted comfortably from the left hand side of the machine. Here, in addition to the adjustment of bottom flap and calibration flap, the complete

Calibration via calibration button or via TwinTerminal

Universal setting tool

calibration can also be carried out via the calibration button or via the optional TwinTerminal. So, the Cataya can be calibrated completely from the left hand side. The calibration bucket and the digital weigh scales are stored behind a door on the SmartCenter. The sowing depth of the TwinTeC double disc coulters can be centrally adjusted with the universal setting tool via the SmartCenter. With this tool, the track markers, the levelling board and the pre-emergence markers, etc. can also be adjusted.

Precise seed placement

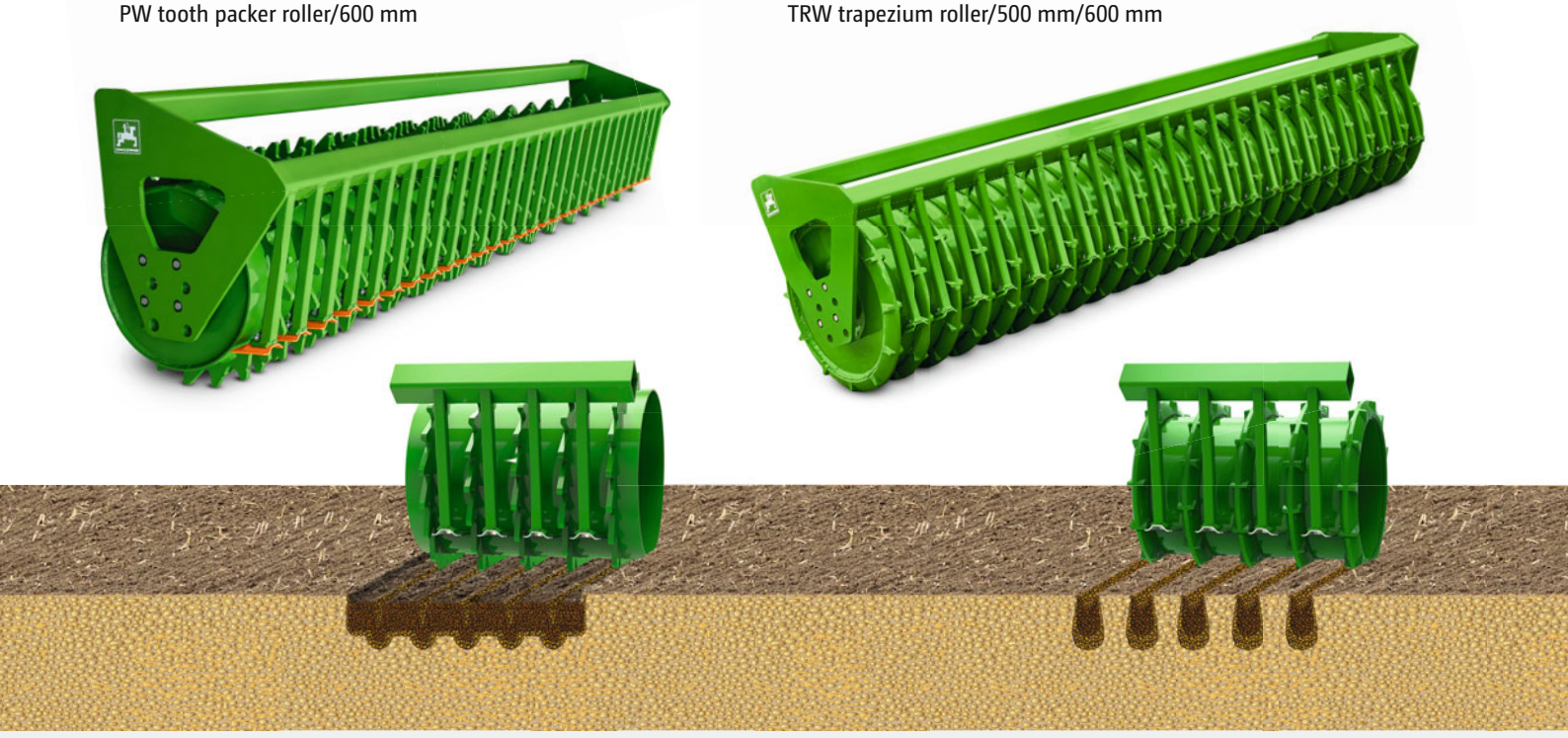
AMAZONE offers the conventional Cataya 4000 Super harrow-mounted seed drill, from choice, with either the TwinTeC double disc or the RoTeC single disc coulters on 12.5 cm or 15.4 cm row spacings.

The TwinTeC provides the clean seed placement at a coulter pressure of up to 60 kg/ha. As standard, it can be matched hydraulically to the changing soil conditions conveniently from the tractor cab.

The alternative RoTeC single disc coulters show their strengths especially where there is a large amount of harvest residue and on moist heavy and sticky soils.

PW tooth packer roller/600 mm

TRW trapezium roller/500 mm/600 mm



Cataya 4000 Super with TwinTeC coulter

Harrow for best seed embedment
As required, the Cataya 4000 Super can be equipped with a choice of following harrows. In conjunction with the TwinTeC double disc coulter, the choice between the coulter harrow and an Exact following harrow is possible. For RoTeC models there is just the Exact following harrow available for the optimised seed coverage.

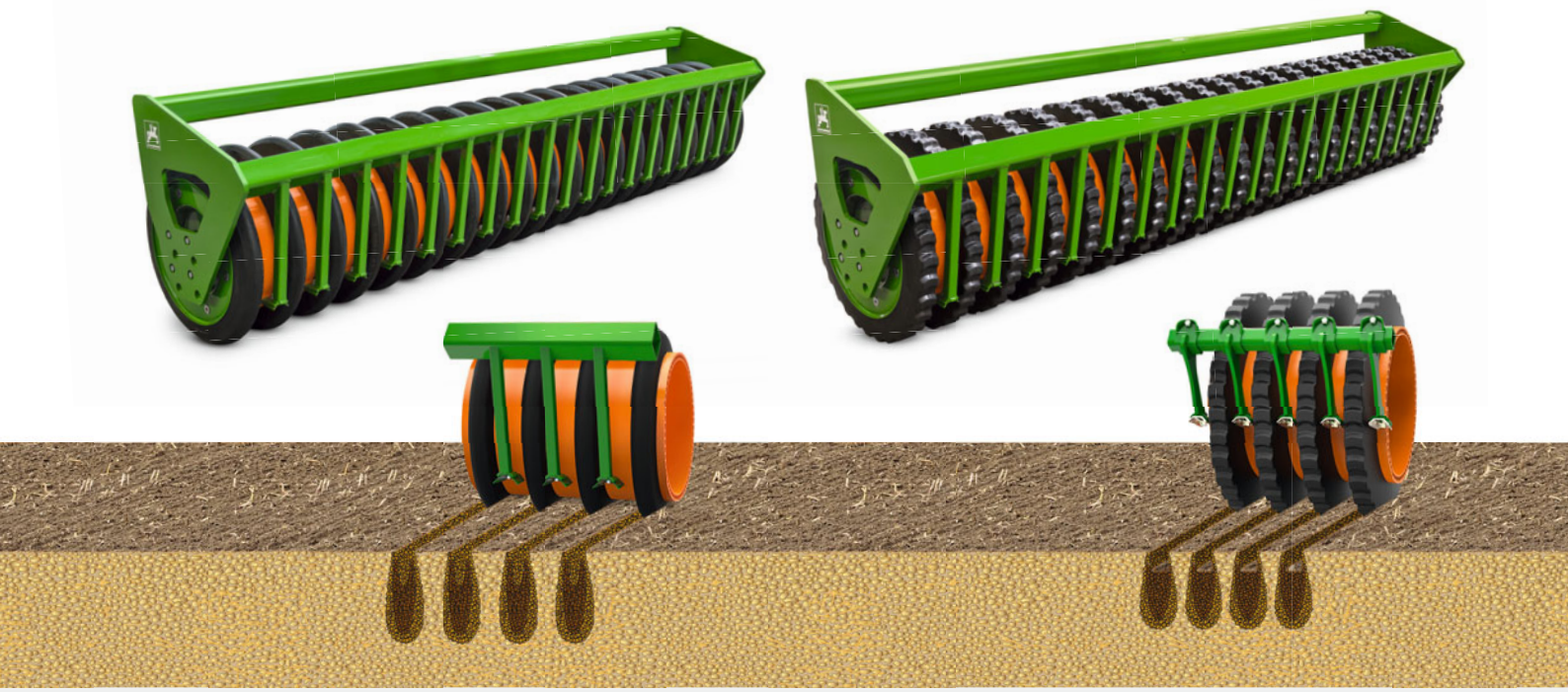
Active soil tillage
The Cataya product range is based on the new generation of KE & KG 01 active soil tillage implements and, via the QuickLink quick coupling system, the drill can be separated simply and without tools from the rotary harrow or rotary cultivator.

For this new generation of active soil tillage implement, the levelling board is guided by the roller and thus is independent of the working depth of the cultivator. This allows the optimum utilisation of the optional hydraulic working depth adjustment.

With these new soil tillage tools, the extended depth control roller programme, which includes the Trapezium roller or the Matrix wedge ring roller ensures the optimum reconsolidation across a diverse range of soil conditions.

KW wedge ring roller/520 mm/580 mm

KWM wedge ring roller with Matrix tyre profile/600 mm



Centaya 3500 Super and Centaya 4000 Super harrow-mounted seed drills

Centaya 4000 Super harrow-mounted seed drill
with KG 4001 Super rotary cultivator

Seed hopper, easily-accessible from the loading board

Segmented distributor head with electric half-side shut-off

At SIMA 2019, AMAZONE introduces, with the Centaya 3500 and 4000 Super, two further models in 3.5 m and 4 m working widths. This supplements the range of rigid, pneumatic harrow-mounted seed drills at the top end.

The seed hopper

Like the Centaya 3000 in 3 m working width, the Centaya 3500 and 4000 can also be, from choice, equipped with either a 1,600 l or 2,000 l seed hopper. The large hopper opening allows convenient filling via big bags or from a front end loader. In addition, the hopper is also easily accessible for filling via sacks via a loading board and steps on the left hand side of the machine. The hopper, made from plastic, is positioned well forward thus keeping an optimised centre of gravity near to the tractor. Thanks to its deep hopper tip and steep hopper walls, the seed is safely delivered to the metering system.

Exact electric metering

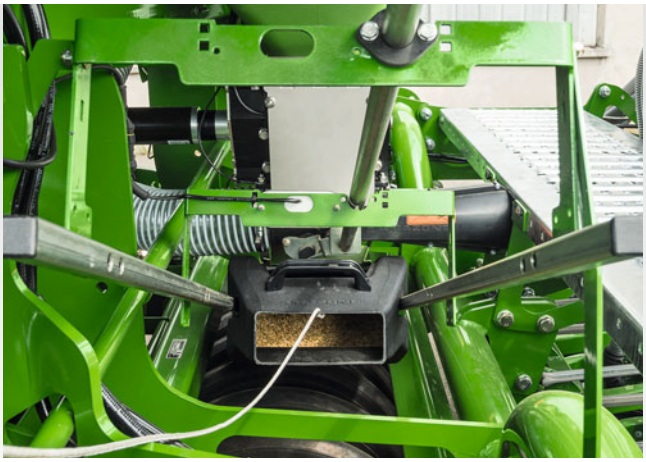
The electric metering drive allows the very precise, step-less metering of different seeds. For the different seed types, a variety of metering cassettes are available which can be quickly exchanged without tools.

The electric drive allows the simple setting of the seed rate via the terminal in the tractor cab. Alternatively, this can be done fully automatically via application maps. In addition, calibration at the press of a button or the pre-metering of seed in field corners are standard features.

The seed is delivered to the coulters over a short conveying distance from the metering unit via the segmented distributor head. The segmented distributor head is located directly above the coulters to the rear of the Centaya resulting in short conveying times and thus in a clean switch on/off

Centaya 3500 Super harrow-mounted seed drill with KG 3501 Super rotary cultivator

SmartCenter operator station



Via rails, the calibration tray is lowered underneath the metering unit

point on the headland. Via the segmented distributor head, the Centaya can, as an option, be switched over from left to right to be able to sow half the working width. During this half-side control, and when tramlining, the seed rate is automatically reduced via the electric metering drive.

Comfortable SmartCenter operator station
Via the SmartCenter, located on the left hand side of the machine, the Centaya Super can be conveniently adjusted and calibrated. For calibration, the driver lowers the calibration tray on a rail underneath the metering unit and then can carry out the procedure via the calibration button or via the optional TwinTerminal. The technical aids such as digital weigh scales and calibration bucket are stored in the transport box in the SmartCenter.

By use of the universal setting tool, central adjustment of the sowing depth for the TwinTeC double disc coulters can also be carried out via the SmartCenter.

Precise seed placement
The Centaya 3500 Super and 4000 Super, from choice, can be equipped with the RoTeC pro single disc coulter or with the TwinTeC double disc coulter. Depending on coulter type and working width, row spacings of 12.5 cm and 14.6 cm (on a 3.5 m working width) or 15.4 cm (4.0 m working width) are available.

For the TwinTeC coulter, the sowing depth is determined via the depth guidance roller and thus can be centrally adjusted across all coulters from 0 cm to 6 cm. With a coulter pressure of up to 60 kg, the TwinTeC coulters run very smoothly through the soil.

The alternative RoTeC pro single disc coulters show their strengths particularly where there are large amounts of harvest residues and on moist, sticky soils.

Harrow for the best seed embedment
If necessary the Centaya can be equipped with different following harrows. In combination with the TwinTeC double disc coulter, one can choose between the coulter harrow and the Exact following harrow. In the RoTeC pro execution, just the Exact harrow is available.

Active soil tillage
The Centaya product range is based on the new generation of KG 01 active soil tillage implements and, via the QuickLink quick coupling system, the drill can be separated simply and without tools from the rotary cultivator.

For this new generation of active soil tillage implement, the levelling board is guided by the roller and thus is independent of the working depth of the cultivator. This allows the optimum utilisation of the optional hydraulic working depth adjustment.

With these new soil tillage tools, the extended depth control roller programme provides the optimum reconsolidation across a diverse range of soil conditions.

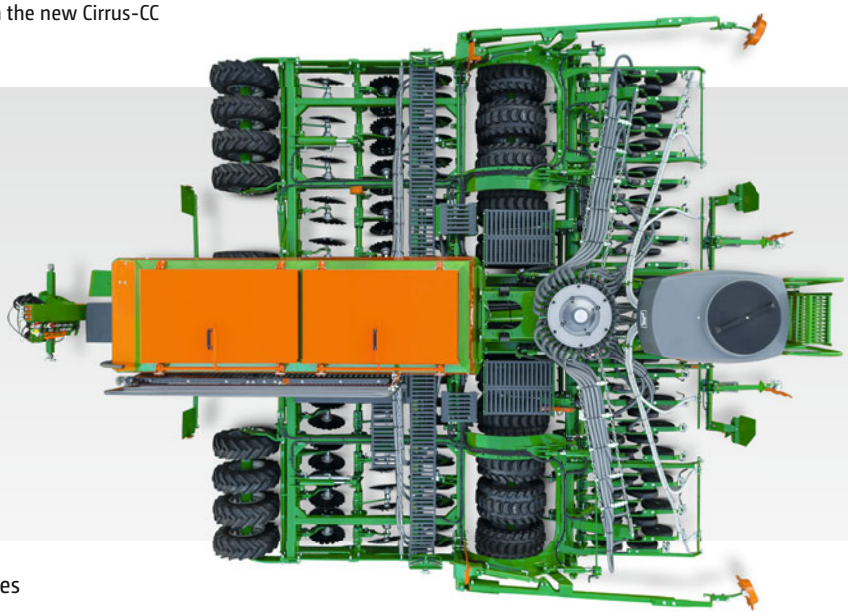
Centaya 3000 Super harrow-mounted seed drill with CombiDisc 3000 compact disc harrow

Precise seed placement with the TwinTeC double disc coulter

Double-Shoot with the new Cirrus-CC

The new conveying system that meets the demands of modern arable farming

1) Pre-running tyre packer
2) Disc segment
3) FerTeC single disc coulter
4) Matrix tyres
5) TwinTeC double disc coulter
6) Seed baffle plate of GreenDrill

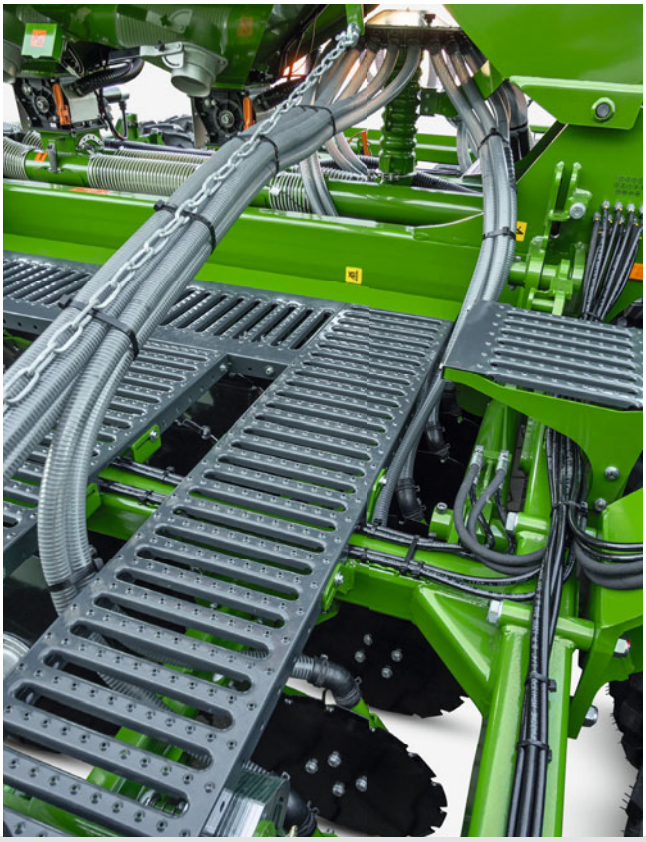


Excellent accessibility from both sides via the safe access gangways

Cirrus with single seed tank or double seed tank
For sowing just a single crop, AMAZONE offers the Cirrus with an open seed hopper and individual metering unit. If it is also intended to sow, for instance, fertiliser as well, the Cirrus-C offers the possibility to meter two different materials simultaneously. The Cirrus-C features a 4,000 l pressurised tank divided in a 60:40 ratio. On these models, the second crop or the fertiliser, is placed in Single-Shoot mode where it is sown directly in a single seed furrow together with the primary seed.

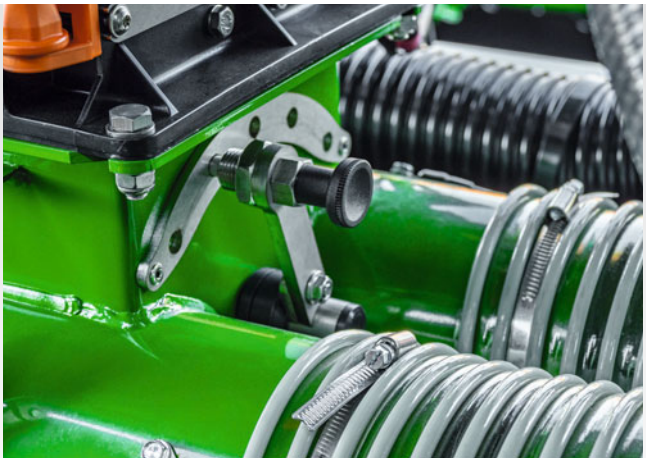
The high flexibility of the Cirrus-CC
The new Cirrus-CC models, in working widths from 4 m to 6 m, offer an additional conveying concept which enables the individual placement of two different materials. The Cirrus-CC also features the 4,000 l pressurised tank with its two electric metering units but, in addition to the Single-Shoot system on the Cirrus-C, the new Cirrus-CC is equipped with a second conveying line and the additional FerTeC single disc coulters in front of the tyre packer. So, the two different materials being conveyed can be sown at different seed rates and placed in different seed furrows.

FerTeC single disc coulter in front of the tyre packer



Tidy routing of the conveying hoses to the FerTeC coulters

The FerTeC coulters are located in between the rows of the sowing coulters.

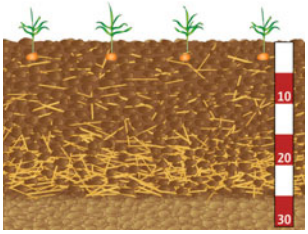


Deflection of the seed flow between the FerTeC and sowing coulters

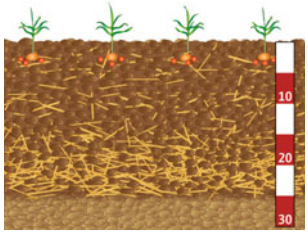
With the Cirrus-CC, the following combinations are possible:

- Sowing of just one seed variety via the RoTeC pro or TwinTeC coulters
- Sowing seed and fertiliser (or a second crop) in the same seed furrow via the Single-Shoot system
- Sowing seed and fertiliser (or a second crop) in two different seed furrows utilising Double-Shoot mode
- A combination of both Single-Shoot and Double-Shoot modes

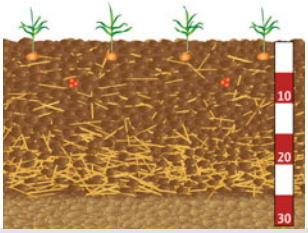
For the end user, these different combinations result in a variety of options that can be utilised in modern arable farming. Due to the alternative placement position, for instance, significantly larger amounts of fertiliser can be applied in addition to the seed. Especially in areas where there is a short growing season, where there is a higher water deficit during the growing season and during spring sowing, this principle plays an increasingly important role worldwide. But also the possibility of combining the fertiliser application in both Single-Shoot and Double-Shoot is an interesting opportunity. So, for instance, a small amount of fertiliser can be placed directly with the grain which promotes enormously the growth of the plant. The remainder then is placed via the specific coulter to the side and underneath of the seed row to avoid any burning of the seed. Furthermore, due to the additional sowing coulters, a mix of seed sizes can be established significantly easier. Using this technology, fine seeds can be kept separate from coarser seeds and light dependent germinating seeds can effectively be sown separately at different placement depths from



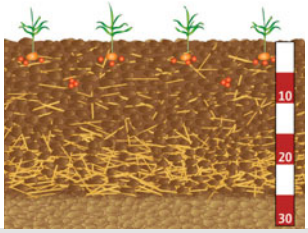
Seed only



Single-Shoot



Double-Shoot



Single-Shoot + Double-Shoot

The distributor head for the conveying system to the FerTeC coulters is located so that it is easily accessible and space saving by being underneath the tank.

Clear display of the application rates and rotation speeds of the double tank metering units in the AmaTron 4

TwinTerminal 3.0

darkness dependent germinating seeds. With the Cirrus-CC, feed crop mixtures, seed mixes and differing soil coverages are effectively utilised for an efficient weed and erosion management. If needed, a third crop can also be metered and applied via the on-board GreenDrill 500.

Simple handling of the double tank machine
Exactly the same as on the Cirrus-C, the double seed tank with its two metering units is also very simply handled on the Cirrus-CC. So, for example, calibration of the two metering units is done very easily with the aid of the optional TwinTerminal 3.0 located on the machine. This takes away the need to have to permanently climb up and down from the tractor as both metering units can be calibrated directly on the machine. Also the application rates and the rotation speeds of the two metering units are very clearly displayed on the ISOBUS terminal. A change in seed rate of either metering units is possible by the driver during operation from the tractor cab.

Thus the Cirrus-CC offers extremely flexible usage and with the highest comfort.

Cirrus with Minimum TillDisc

The new set-up for changing arable farming concepts

Cirrus 6003-2C with Minimum TillDisc –
sowing cereals into an established catch crop

Minimum TillDisc corrugated disc segment with easily-readable setting scale

Cirrus 6003 with Minimum TillDisc corrugated disc segment

With the Minimum TillDisc corrugated disc segment, the Cirrus gets a new special option in place of the cultivation discs. On a row spacing of 16.6 cm, the ground, the harvest residues and also any green crop can be cut directly in front of the sowing coulters for a clean seed/soil contact. With the corrugated discs significantly less soil is moved than with the conventional 2-row cultivation disc segments. In problematic areas with increased chemical resistance and weed infestation (e.g. black grass or common silky bent), this disc segment can be an effective alternative as a means of “minimum disturbance” establishment.

Following on from the primary soil tillage and subsequent crop protection measures to promote and control the emergence of volunteer grain and weeds, the soil in between the intended seed rows is left uncultivated. The timing for sowing the following crop is pushed back in direction of the dormancy period and thus the germination rate of weeds is minimised. During the sowing operation with Minimum TillDisc, as little soil as possible is moved and loosened and is cut only in the area ahead of the sowing coulters to prevent any renewed germination of weeds.

After the establishment of a green bridge as an effective weed and erosion management tool, Minimum TillDisc also helps as a less aggressive operating technique. It is only in the area around pre-running discs that previous or living crop populations are cut ahead of sowing the seed with the following disc coulters. Also, in previously established feed mixtures, with this method, an additional crop can be reseeded or overwintered damage minimised.

In dry areas, the use of the Minimum TillDisc ensures a water saving cultivation as only the strip directly in front of the sowing coulter is worked. Under moist and sticky soil conditions, due to the Minimum TillDisc corrugated disc segment, less clods are transported to the surface than with the usual disc segment. In addition, with the operation of Minimum TillDisc the Cirrus is made easier to pull still resulting in a positive effect on fuel consumption.

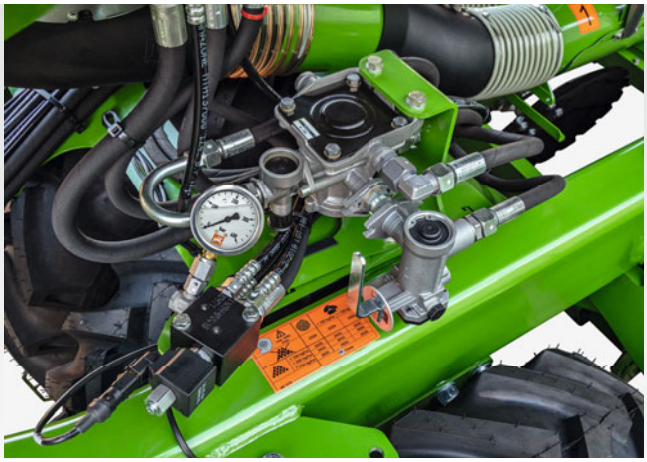
So the Cirrus now offers, depending on the customer’s desire, a wide selection of pre-running tools. In addition to the standard disc segment with a 460 mm rough serrated or, alternatively, a fine serrated disc, the Cirrus can now feature the new Minimum TillDisc corrugated disc segment or can be delivered completely without a disc segment at all.

Cultivation in strips via Minimum TillDisc corrugated discs

Part-area, site specific, automatic coulter pressure control via application map

Part-area, site specific adjustment of the coulter pressure

AmaTron 4 ISOBUS terminal with GPS-Maps&Doc software module for part-area, site specific cultivation



Proportional valve remotely controlled from the tractor cab

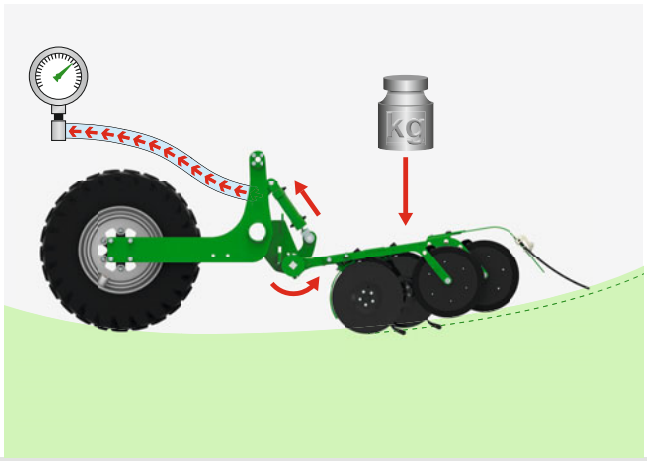
TwinTeC+ double disc coulter

Part-area, site specific adjustment of the coulter pressure
Available from now on, as a special option for Cirrus drills with TwinTeC+ double disc coulters, is the automated part-area, site specific matching of the coulter pressure. With this option, the depth of sowing can be matched in relation to the kind of soil and the penetration resistance of the soil. Especially when trying to shallow sow light-dependent germinating crops, the field emergence, even in very variable soils, can be improved. In this way seed can be effectively saved and an even crop can be established. In addition, apart from the coulter pressure, also the seed rate can be matched specifically to a part-area.

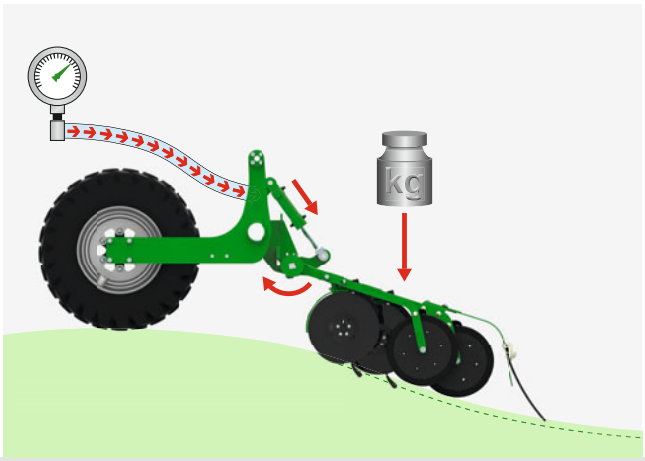
Coulter pressure adjustment on the TwinTeC+ double disc coulters
The coulter pressure is adjusted via a pressure relief valve which is integrated into the oil circuit of the hydraulic fan drive. In this way, the coulter safely maintains its pre-set pressure. This is of special advantage when shallow sowing in heavily undulating terrain.

When passing through a hollow the coulters are pressed down more into the soil, resulting in an excess pressure in the coulter pressure ram which is then released directly back to the oil circuit. The coulter pressure remains constant.

When passing over the brow of a hill the coulters drop resulting in a vacuum in the coulter pressure ram which is immediately compensated for by additional oil from the circuit. The coulter pressure remains constant.



Passing through a hollow



Passing over a hill

Citan, Condor and Primera DMC with electric metering drive and ISOBUS control

Primera DMC 12001-2C

Primera DMC in operation with AmaTron 4

Precise and comfortable calibration via TwinTerminal for Primera DMC, Citan and Condor.

Citan and Condor – all the metering units are easily accessible from the left hand side.

Efficient, precise and cost-effective
In addition to the Primera DMC in working widths from 3 m to 12 m, the optional electric metering drive, together with state-of-the art ISOBUS control and documentation, is now also available on the Citan and Condor large area seed drills in working widths of 12 m and 15 m.

All the metering units can be calibrated individually and be adjusted on the move. In this way, the Primera DMC, Citan and Condor are equipped with the precise part-area, site specific matching of the seed rates to better counteract any field related yield differences and to exploit those economical saving potentials. The fully automatic electric half-side shut-off with part-width section switching offers large savings especially in heavily contoured field shapes. From now on, the Citan and Condor are also available with the automatic AutoPoint switch-time matching which results in a considerable increase in accuracy of the on/off switching on the ins and outs of the headland.

Needless to say that these machines are provided with all the proven features of the AMAZONE ISOBUS software:

- AEF certification for a continuously uniform display and functionality across any ISOBUS terminal, even those that are not from AMAZONE
- MiniView display for terminal independent presentation of the most important machine parameters on all screens
- User management and freely-programmable soft key management for individual and user-oriented operation
- Obstacle function for the automatic folding in/out of the track markers when negotiating obstacles
- Waterhole function for blockage free sowing in wet holes
- Tank management for sequential emptying and maximum traction
- Start-up ramp for an even seed metering within the acceleration and deceleration zone on the headland

Condor 12001-C

Catros+-2TX pro

For the incorporation of liquid manure

Catros+ 8003-2TX pro with mounted liquid manure distributor

Electric central lubrication

Additional greasing points on the fold points

The direct incorporation of liquid manure and fermented substrate help reduce nutrient loss and protects the environment. The losses during application are reduced to a minimum and the availability of any nutrients for the plants is maximised. For the direct incorporation of liquid manure and fermented substrates, the compact disc harrow has to be specially protected against the aggressive properties found in liquid manure. With this in mind, AMAZONE offers, specifically for these conditions, the pro-Pack. This system, which has been successfully implemented for some years on the Catros+ models in 5 m and 6 m working width, is now also available on the trailed Catros+ 7003-2TX, 8003-2TX and 9003-2TX in working widths of 7 m, 8 m and 9 m. The pro-Pack includes specific seals for the disc bearings and additional greasing points on the bearings of the fold points. So, during long-term incorporation of liquid manure, the machine's bearing and grease points are better protected resulting in a higher operational reliability and a longer service life. Also available, as an option for the Catros when used under these exceptional operating conditions, is a centralised lubrication system and a strengthened 600 pro cage roller. In addition, coupling parts for liquid manure distributors and for the relevant outlet tubes can be ordered.

The hydraulic working depth adjustment of the disc segment allows the incorporation of organic farmyard manure into the soil at a depth of between 3 cm and 14 cm. Due to the ContourFrame on the Catros-2TX where the wings are operated in float position, the disc segments always follow the ground contours perfectly. The full surface area of the soil is cultivated and thus a comprehensive mixing in of the manure is ensured. The combination of the Vogelsang liquid manure distributor on a AMAZONE compact disc harrow provides large farms and agricultural contractors with the optimum solution for the simultaneous application of liquid manure and soil tillage, e.g. via self-propelled applicators or large slurry tankers. So, professional farms can, with the aid of the AMAZONE Catros+-2TX compact disc harrows realise a cost-effective and nutrient efficient application of liquid manures which at the same time complies with all the current legislation.

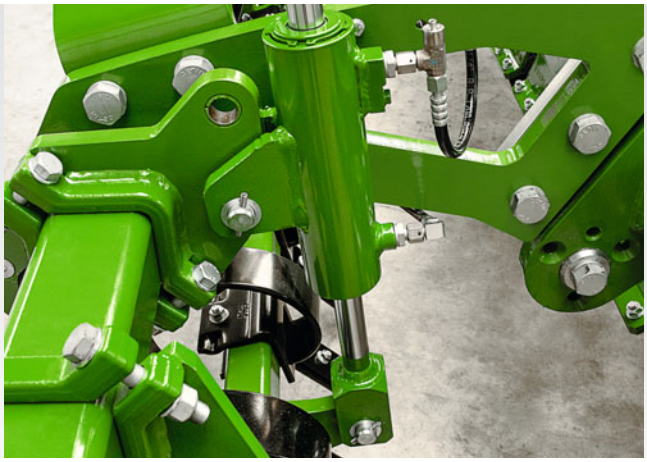
Reinforced 600 pro cage roller

The liquid manure is delivered in front of the first disc row.

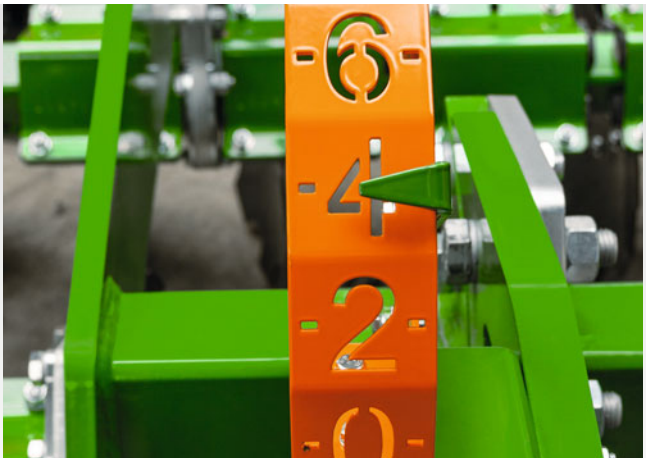
Front mounted frame with Crushboard or tractor wheel mark eradicators

for Catros Special or Catros^{XL}

Catros Special with Crushboard on the front mounted frame



Hydraulic working depth adjustment of the Crushboard



Easily-visible scale

For the Catros Special and Catros[XL] compact disc harrows in working widths of 3 m, 3.50 m and 4.00 m, AMAZONE now optionally offers a front mounted frame with Crushboard. This option makes these compact disc harrows ideally suited to seedbed preparation as the Crushboard achieves a strong crumbling and levelling effect. However, also during stubble cultivation, this version offers certain advantages, such as, for instance, where the Crushboard presses the rape pods thus strongly stimulating the volunteer rape seeds to germinate. Also rape, sunflower and maize stubbles are pushed over so that subsequent straw rotting is promoted.

The front mounted frame is mounted in front of the discs and so the Crushboard can be adjusted irrespective of the working depth. The adjustment of the working depth – and thus also the aggressiveness of the Crushboard – can be carried out, from choice, either mechanically or hydraulically on the move. With the hydraulic adjustment option, the driver can match the setting to the relevant conditions, conveniently from the tractor seat and is assisted by the easily-visible scale. As an alternative to the Crushboard, the front mounted frame can be also equipped with wheel mark eradicators, which can, on pressure sensitive soils, help to alleviate the tractor wheel tracks once more.

As an alternative, the front mounted frame can be equipped with tractor wheel mark eradicators.

Front mounted frame with Crushboard

XTender 2200 mounted hopper

for fertilising and sowing with passive soil tillage implements

Fertiliser application with the Cenius 5003-2TX Super
and the XTender 2200

Seed baffle plates

Fertiliser supply tines with C-Mix 40 shares

With the XTender mounted hopper, AMAZONE offers the ideal solution for farmers, who, during soil tillage, want to simultaneously carry out the placed application of mineral fertiliser as well as maybe the efficient sowing of a catch crop. In addition to the XTender 4200 mounted hopper and the trailed XTender 4200-T hopper, the range is extended by this smaller model. With the XTender 2200, AMAZONE now also provides a solution for tractors in the medium horsepower bracket that suits the lifting power of those tractors, especially when used for fertiliser application. The pressurised hopper of XTender 2200 features a capacity of 2,200 l. Like the XTender 4200, it is also optionally available as a double tank so that fertiliser and a catch crop can be metered individually and placed in the soil. Customers, from choice, can have the XTender equipped with either one or two conveying lines so that, for instance, on the Cenius-TX cultivator, fertiliser can be supplied to the tine segment and the catch crop distributed in front of the roller. The fertiliser placement is carried out directly behind the tines where the fertiliser can be placed in different depths.

The deep drawn, base hopper has no edges or welded seams ensuring an even seed and mineral fertiliser flow.

Due to the loading board on both sides and the large opening the hopper can be quickly and comfortably filled.

Again on the smaller XTender, an electrically-driven metering unit operates underneath each hopper tip enabling the farmer to carry out a comfortable calibration and a flexible seed rate adjustment via the operator terminal during operation. Special optional equipment, such as the TwinTerminal 3.0, the large transport box, LED work and hopper lights or a camera system for monitoring and the easy coupling and uncoupling of the trailed soil tillage implement can also be included. With the machine control via ISOBUS, the XTender then is suited also for part-area, site specific application of fertilisers, making the machine the ideal supplement for farms which have adopted Precision Farming techniques.

The XTender 2200 and 4200 can be used in conjunction with the trailed Cenius-2TX mulch cultivator in 4 m to 8 m working widths, the Ceus-2TX disc harrow cultivator combination in 4 m to 7 m and the trailed Catros-2TS in 4 m to 6 m, Catros-2TX in 7 m to 9 m and Certos-2TX in 4 m to 7 m. The 12 m Catros-2TS can be used only with the XTender-T.

XTender 2200 mounted hopper

XTender 4200 mounted hopper

XTender-T 4200 trailed hopper

New AmaTron 4 from AMAZONE

Manager 4 all

AmaTron 4 – robust, reliable and ergonomic

With the aid of the App carousel, any changes between individual applications are accomplished very comfortably.

By a simple tap of the screen, the MiniView display, with all its important parameters, can be made to appear or be left hidden.

Hardware for real work!
AMAZONE, with its AmaTron 4, introduces an innovative and completely new, in-house developed tablet style ISOBUS terminal. This fourth generation of AmaTron offers the ultimate in operational comfort and leaves nothing to be desired. Thanks to the 8" multi-touch colour display, comfortable operation, even of complex machines, is just a matter of course. The low reflection display enables easy readability and easy handling. The operation can be carried out both, either via the 12 backlit soft keys or via the switch areas on the touch display. In addition, with the three one-touch keys, the quick navigation between the desired applications is possible.

Your comfortable and reliable assistant
Via a finger swipe or via the App carousel, the operator quickly navigates from application to application and accesses the clear and simply structured operator menu. A freely-configurable status bar along the top of the screen constantly displays the individually chosen parameters, such as, for example, speed, time or the GPS status, no matter in which menu or which sub-menu one is in. A light bar is integrated as standard into the status bar. Thanks to the quick start menu, also changes to the most important settings are made within seconds and any job data can be imported or exported. In addition, the practical MiniView display helps always to have in sight the most important machine settings, exactly there where it matters. Via a finger swipe, this can appear or be hidden at any time. To enable the full utilisation of the 8" multi-touch colour display so that it displays the entire screen surface, the switch areas in the touch display automatically appear or hide. Via a proximity sensor located at the front of AmaTron 4, the screen detects a hand approaching the screen and so the 12 switch areas are shown. A light sensor in the Amatron 4 automatically matches the display brightness to the ambient conditions.

Machine operation (UT, Universal Terminal) in day and night mode

A variety of information, such as time, GPS status or parallel driving display can be located in the status bar.

With the completely new operating philosophy of Task Controller, GPS-Maps&Doc offers field-related and geo-referenced documentation.

To meet all demands, AMAZONE offers the following variety of fee-based software licences for AmaTron 4:

GPS-Switch basic and GPS-Switch pro
The GPS-Switch basic and GPS-Switch pro are GPS based fully automatic part-width section control licences for ISOBUS compatible machines such as fertiliser spreaders, crop protection sprayers and seed drills. GPS-Switch basic makes available the full scope of function of the ISOBUS TC-SC (Task Controller Section Control). Equipped with GPS-Switch basic, the operator terminal offers up to 16 part-width sections. With GPS-Switch pro, based on GPS-Switch basic, then up to 128 part-width sections are possible. In addition, GPS-Switch pro provides additional applications, such as, for example, automatic boom lowering on AMAZONE crop protection sprayers. The possibility to create a virtual headland as well as logging obstacles and points of interest (POI) is also supported.

GPS-Maps&Doc
With GPS-Maps&Doc, AMAZONE offers an outstandingly comfortable and precise solution with which to process application maps. Thanks to this, a trouble-free data exchange between the AMAZONE terminal and the field mapping file is ensured and so, not only precise part-area, site specific application, but also full documentation can be achieved. When all the tasks have been completed, those jobs can be stored on a USB stick in ISO-XML file format for later processing. It is in particular that all aspects of documentation and job management using GPS-Maps&Doc have been comprehensively developed and support a practice-orientated operation with which jobs can be processed quickly and efficiently.

GPS-Track
The GPS-Track parallel steering aid proves to be an enormous help for orientation in areas of grassland or, such as, in fields where there are no tramlines. It features various track modes such as A-B lines and contour line driving. Any deviation from the ideal line is indicated on the display via an integrated light bar.

GPS-Track parallel steering aid – clear steering recommendations via the integrated light bar in the status bar keep you in the track.

The AmaCam automatic reversing detection provides direct access to the reversing camera and prevents dangerous situations.

AmaCam
Also the new AmaCam licence proves to be an intelligent way of reducing stress in daily work, in as much as anything, thanks to the automatic reverse driving detection. As soon as tractor and machine are reversing, the optional reversing camera automatically appears on the display.

The aforementioned licences are pre-installed as a test version free of charge. One can then decide later as to a possible permanent activation.

Via a finger swipe, one intuitively navigates through the clearly and simply structured operator menu.

New Profihopper 1500 SmartLine

The high class, high performance self-propelled mower

Profihopper 1500 SmartLine self-propelled mower

For mowing, scarifying, mulching and collecting

SmartCut out-front mowing unit with PowerCompactor

More performance, more efficiency from that unique technology

From mowing and mulching to scarifying and collecting – the Profihopper 1500 SmartLine is the tool for use in any situation. As a fine flail mower, the all-season machine provides an excellent cutting quality in both short and long grass. By having the ability to mow, mulch or scarify and to collect grass, leaves, horse droppings or rubbish in just one pass, valuable time is saved. Maximum output can be achieved from the 1.50 m wide, out-front mower. In addition, it is equipped with the SmartCut exact cut rotor with a chevron-shaped blade arrangement for improved cutting and pick-up quality.

PowerCompactor conveyor system

The robust PowerCompactor auger conveyor system consists of both a longitudinal and a transverse auger. This enables the Profihopper to have higher conveying rates, and thus forward speeds, than comparable machines, even in long grass. The grass is compacted immediately after being picked up by the PowerCompactor system and is force-fed into the hopper. This compaction means that over 1,600 litres of uncompressed grass can be collected in the 1,100 litre collecting hopper. As a result, time wasted due to hopper emptying is immediately reduced and the productivity of the machine, and thus the work rate, is increased in parallel. The PowerCompactor system requires no air assistance and is therefore quiet and largely dust-free. Simple unloading into high-sided transport vehicles is possible by utilising the Profihopper's hydraulic high-tip emptying at 2.50 metres.

The all year-round machine offers powerful arguments

The modern, high-performance engine technology (45.6 HP / 34 kw) is today Stage V ready, and without the need for DEF (Diesel Exhaust Fluid). The 50 l diesel fuel tank ensures long uninterrupted working days. Ground-breaking performance at working speeds of up to 10 km/h guarantee maximum efficiency. The Profihopper 1500 SmartLine is equipped with intelligent 4WDi all-wheel drive. Via this 4WDi technology, drive to the rear wheels is only engaged when the front wheels need assistance. In bends, on slopes and in wet conditions, the strengths of the machine become particularly obvious. The system works in both forward and reverse gear. The intelligent all-wheel drive and electronic control of the machine provide massive fuel savings in normal operation. The compact design enables 0-turning circle steering and thus offers greater manoeuvrability and safety off-road. The ultimate in frame robustness and reliability in operation make the machine stand out from other mowers.

High levels of operational comfort and optimum ergonomics

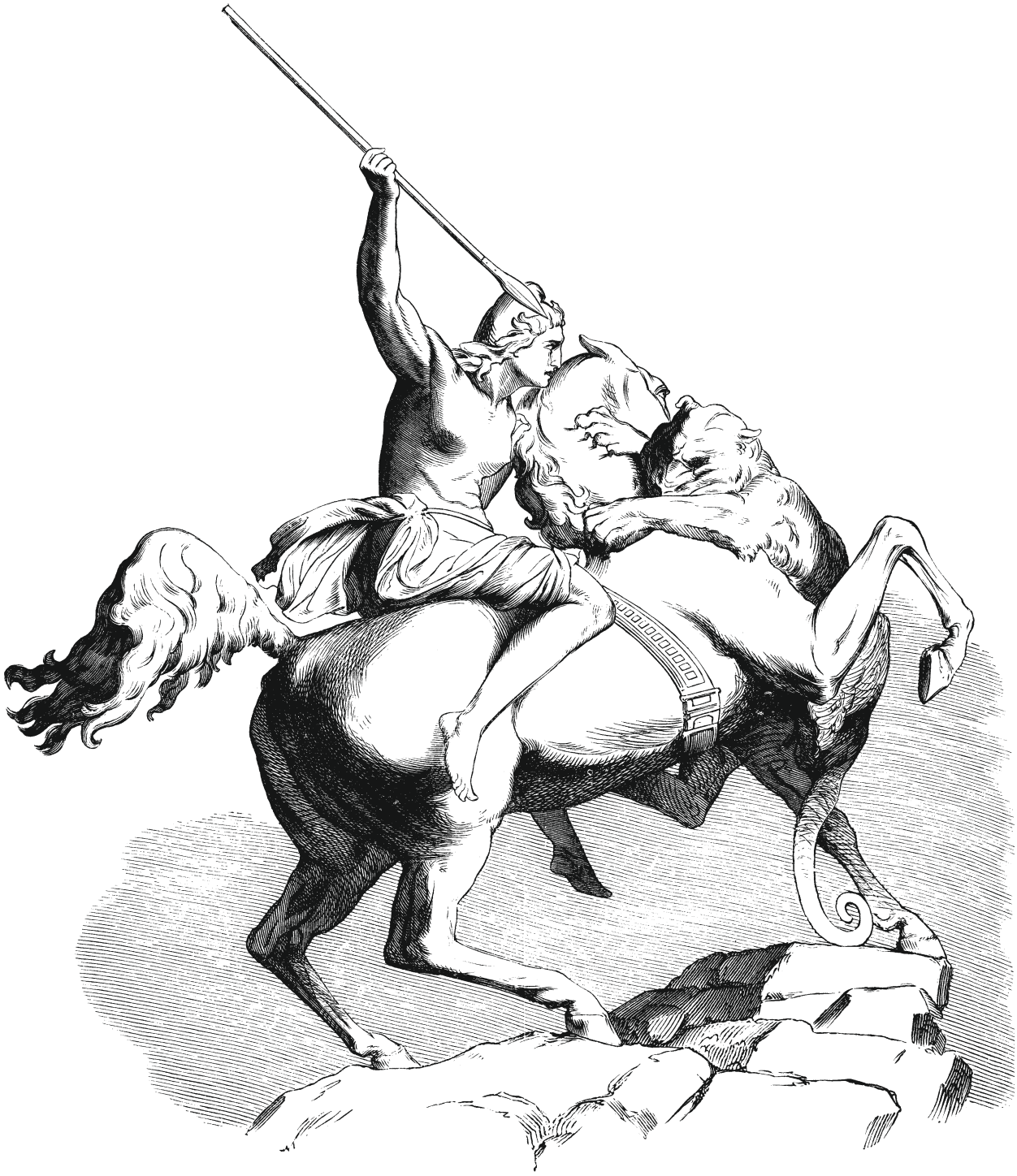
The high levels of operational comfort offered makes every job considerably more relaxed, fatigue-free and safer. The ergonomic adjustment of all driver controls guarantees stress-free operation. This machine even has a cup holder and a storage compartment. In addition, valuable job data showing work rates and levels of efficiency is constantly shown on the digital info display during use.

Personal notes

Published by:
AMAZONEN-WERKE H. Dreyer GmbH & Co. KG
49205 Hasbergen-Gaste

www.amazone.de

Responsible:
Christoph Laumann, AMAZONE Product marketing
E-Mail: christoph.laumann@amazone.de
Phone: +49 (0)5405 501-339
Dirk Brömstrup, AMAZONE Marketing and Communication
E-Mail: dirk.broemstrup@amazone.de
Phone: +49 (0)5405 501-116



Amazone

AMAZONEN-WERKE H. Dreyer GmbH & Co. KG
P. O. Box 51 · 49202 Hasbergen-Gaste/Germany · Phone: +49 (0)5405 501-0 · Fax: +49 (0)5405 501-193

AMAZONE LTD
Blyth Road · Harworth · Doncaster · South Yorks, DN 11 8NE
Phone: +44(0)1302 751200 · Fax: +44(0)1302 751202 · www.amazone.co.uk · E-Mail: sales@amazone.co.uk

MI7180 (en_GB) 02.19 Printed in Germany www.amazone.de E-Mail: amazone@amazone.de