



AMAZONE



Innovations at SIMA 2022



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Innovations at SIMA 2022



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Teres 300 mounted reversible plough

A new league of mounted ploughs – higher speeds with minimum wear



The Teres 300 delivers outstanding working quality at speeds from 8 to 10 km/h as a result of its outstanding plough body concept

Video of Teres 300 in use:
www.amazone.net/yt-teres-300





Teres 300 VS with STU 40 slatted mouldboard



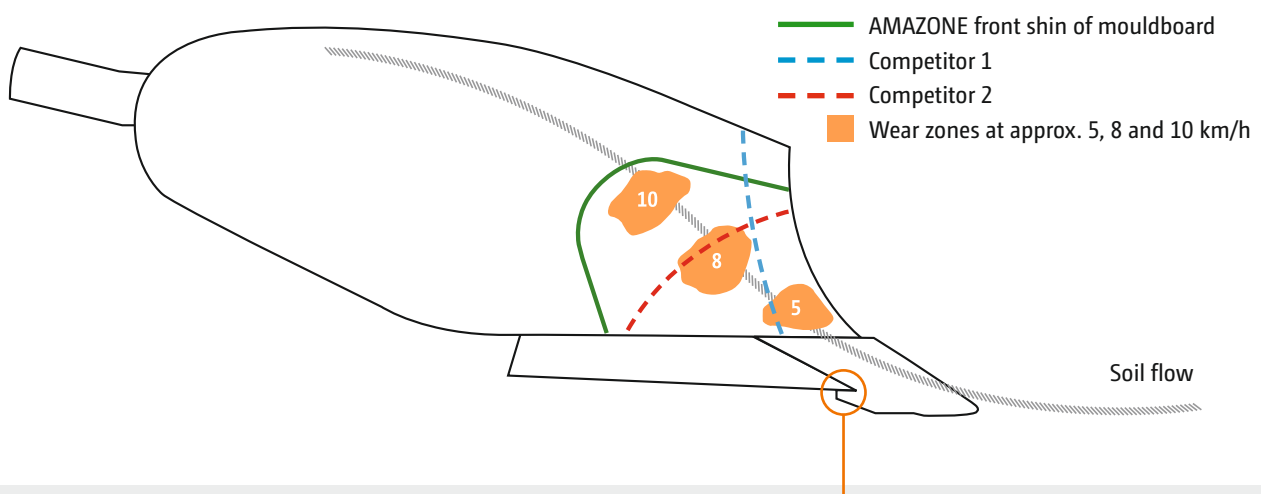
The SpeedBlade plough body ensures minimum wearing costs, even at high speeds

With the Teres 300 mounted reversible plough, AMAZONE is offering a new mounted plough with 4, 5, and 6 shares for tractors having a power rating up to 300 HP. The Teres 300 V, with hydraulic working width adjustment, or the VS with hydraulic working width adjustment and hydraulic stone release system, are equipped with the variable furrow width adjustment as standard. The plough is characterised by its simple adjustment, by its exceptional light pull and a perfect working profile. In addition, the new SpeedBlade plough bodies ensure reduced wear costs, even at higher speeds.

Plough bodies meticulously thought-through – SpeedBlade for improved performance

The new **SpeedBlade** plough body, with its patented extra-large front shin on the mouldboard, makes for minimal wear on the main mouldboard. The main wear point automatically shifts further and further back towards the centre of the plough body as the working speed increases from say 6 km/h up to 10 km/h. As a result, the main wear point of the SpeedBlade body is on the enlarged front shin of the mouldboard and not back on the main part of the slatted or solid mouldboard, even at these higher forward speeds,

SpeedBlade body with patented AMAZONE mouldboard front shin



SpeedBlade body U 40

The point covers the wing:

- ✓ The joint is therefore protected by the point
- ✓ Plant residues, baler twine, wire and root residues cannot get entangled



meaning, therefore, that only the worn front shin of the mouldboard needs to be replaced initially on the Teres when used at higher speeds. This saves enormously on wear costs when compared with traditional plough bodies.

Another detail with great effect: the point covers the wing, meaning that the joint is protected by the point. Thanks to this clever join up, no plant residues or baler twine can get entangled. In addition, the open frog prevents soil from sticking under the frog due to its profile so that the maximum ease of pull on the plough body is maintained.

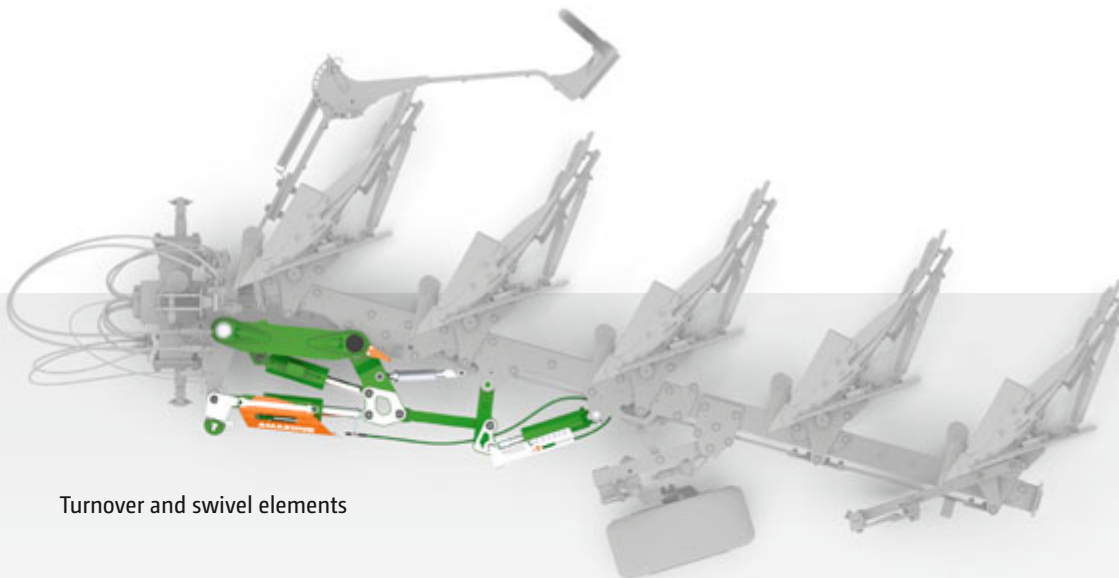
The unique **©plus hardening process** provides the basis for high quality during the manufacture of Teres wearing metal parts and is a result of the additional introduction of carbon. For example, a very high hardness and thereby a smooth surface is achieved on the front of the mouldboard which ensures a long service life. The reverse side remains, however, relatively soft and is therefore extremely tough and impact resistant.

The SpeedBlade plough body range offers a selection of different slatted and solid mouldboard profiles depending on the application and objective. The sophisticated design of the plough bodies combined with the advantages of the ©plus hardening process ensure a low pulling power requirement, thereby reducing fuel consumption.

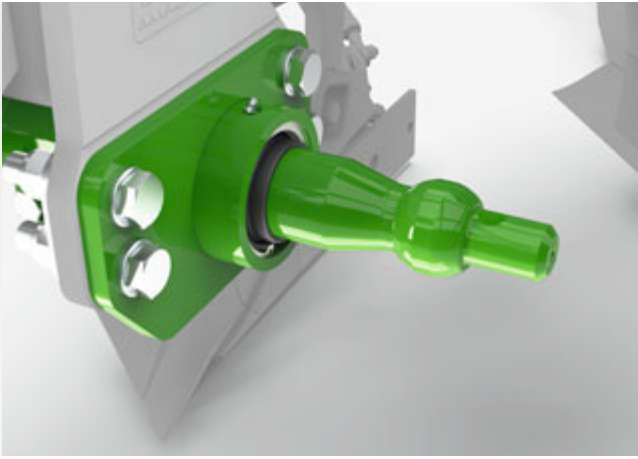
The wide furrow clearance is another big plus of the SpeedBlade bodies, especially with the increasing use of wider tractor tyres.

Simple, comfortable and precise adjustment for a perfect working profile

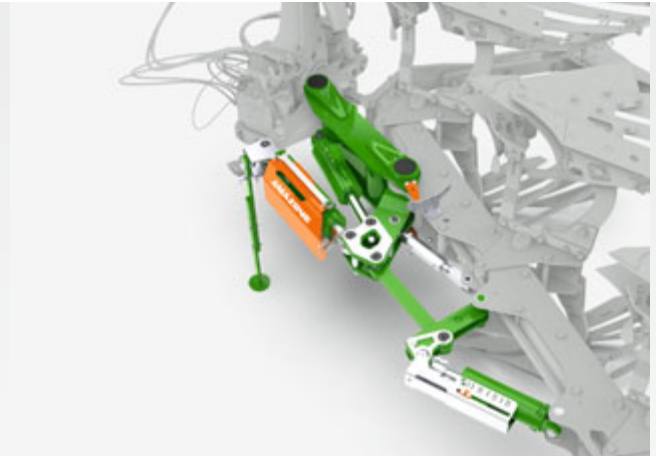
The Teres 300 V and VS is fitted with infinitely-variable hydraulic working width adjustment and front furrow adaption as standard. This means that the front furrow can both be conveniently adjusted from the cab, and also adapted to suit varying soils and when working on inclines. The driver can also very easily adjust the working width hydraulically and infinitely-variably from 33 cm to 55 cm per body using



Turnover and swivel elements



ProtectShaft cross shaft mounted in bearings with integrated balls



The main beam is connected to the headstock by means of a parallelogram

the tractor hydraulics. The new **AutoAdapt** automatic front furrow adjustment offers a huge advantage in terms of comfort and precision. This means that the front furrow is also automatically adjusted precisely when the overall working width is changed on Teres ploughs. This perfect adaption is carried out via the parallelogram and via the hydraulic connection between the working width cylinder and the front furrow cylinder. This generates perfect matching up of the ploughing when changing the working width, thus producing a tidy working profile. In addition, AutoAdapt also has a positive effect on the fuel consumption, since the pull line and the angle between the plough and the lower link cross shaft does not change.

The working depth adjustment is carried out either mechanically or hydraulically via the support wheel. AMAZONE offers the new Teres ploughs with both side-mounted pendulum support wheel and combination support wheels, as well as the pendulum support wheel at the rear. There is a range of various different tyres with differing diameters and tyre profiles in the Teres range to provide precise depth control and reliable self-propulsion.

Overload safety device for extreme applications

There are two variants for the Teres when it comes to overload safety protection. One is the shear bolt overload safety device, having a shear force of 6,200 kg. The other is the optionally available hydraulic overload safety protection

which also ensures smooth and material-protective working in arduous operating conditions. The maximum lift stroke is 40 cm, so that the bodies can also avoid large obstacles, even at a deep working depth. In addition, the bodies can also deviate to the side. The plough body is gently pushed back into the soil via the hydraulic cylinder. The trigger force decreases as the lift height increases. Trip forces of up to 2000 kg can be infinitely adjusted either centrally or separately on each individual body, depending on the operating conditions. As an additional safety feature, each plough beam also has a separate shear bolt.

Highest levels of durability and long service life

The sturdy tubular beam, 150 x 150 x 8.8 mm gives the Teres a high level of rigidity whilst maintaining a light weight. The **ProtectShaft** cross shaft, carried in bearings, with integrated lower link balls ensure low levels of wear and maximum durability. The pivot bearings have a dampening effect and protect the plough on the headland and when driving on the road. Thanks to the integrated balls, the durability of the cross shaft is increased markedly on account of the larger diameter.

The 130 mm turnover shaft, which is hollow, permits the use of two bearings of the same size. This markedly increases durability. In addition, the benefit of the hollow axle is that the hydraulic lines can be routed neatly through it.



Tidy incorporation of harvest residues and organic material

On many ploughs with larger working widths, it is necessary to swivel in the plough before turning to increase the ground clearance. The Teres therefore has a frame swivel cylinder. The gentle **SmartTurn** turning system actuates the frame swivel cylinder according to the specific working width.

Additional special equipment for perfect work

Optional soil engaging tools allow the new mounted reversible plough to be universally adapted to all operating conditions. For example, various skimmers or trash boards are available for the clean incorporation of large amounts of organic matter. Additional landside protectors can be attached to the shares to ensure better plough guidance on slopes.

An optional sword landside, which protects the edges of the front shin of the mouldboard from wear and cuts a clean furrow wall, is ideal for regions with stony and heavy soils. Disc coulters can be fitted to the last body for an exceptionally clean furrow clearance.

For simultaneous reconsolidation, AMAZONE offers the Teres 300 with a swivel press arm for working with a packer.

The advantages at a glance:

- ✔ High levels of efficiency owing to high travel speed with minimum wear thanks to the SpeedBlade with enlarged front shin of the mouldboard and ©plus hardening process
- ✔ Wide furrow clearance by the state-of-the-art plough body concept
- ✔ Perfectly matched up ploughing, even under changeable conditions, thanks to the standard hydraulic front furrow adaption ensure **AutoAdapt**
- ✔ Simple adaption of the front furrow thanks to the infinitely-variable hydraulic adjustment
- ✔ Quick but gentle and component-protecting turnover at large furrow widths using the **SmartTurn frame swivel cylinder**
- ✔ Selection of various different side-mounted and rear mounted wheels for good transport on the road and safe and tidy working on the field
- ✔ **ProtectShaft** cross shaft mounted in bearings with integrated balls



The Teres 300 VS together with the new folding KE 6002-2 Rotamix rotary harrow

Tyrok 400 semi-mounted reversible plough

New flagship in the plough range – higher speed for higher output with minimum wear



The new AMAZONE Tyrok 400 semi-mounted reversible plough generates an optimum working profile at speeds of 8 to 10 km/h due to its extremely high robustness and state-of-the-art SpeedBlade plough body concept

Video of Tyrok 400 in use:
www.amazone.net/yt-tyrok-400





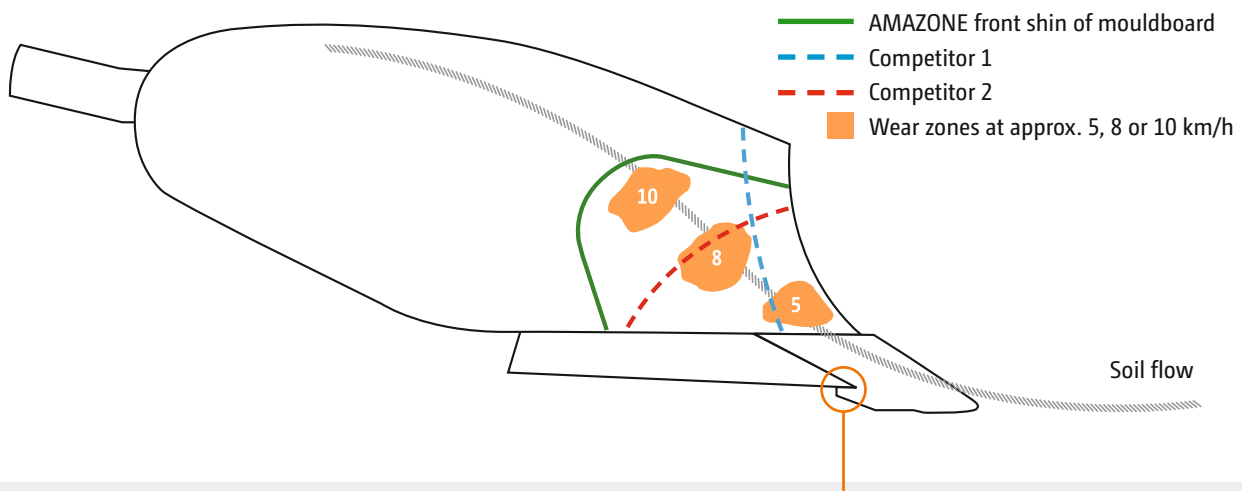
The new Tyrok 400 VS with packer

With the Tyrok 400, AMAZONE now launches a completely new semi-mounted reversible plough in a choice of seven, eight, or nine furrows for the 400 HP tractor class. The main features of this plough are its higher output, even under continuous load, perfect quality of work and outstanding robustness. At the same time, the Tyrok offers a high level of comfort thanks to its very simple, reliable and exact adjustability.

Plough bodies meticulously thought-through – SpeedBlade for improved performance

The new **SpeedBlade** plough body, with its patented extra-large front shin on the mouldboard, makes for minimal wear on the main mouldboard. The main wear point automatically shifts further and further back towards the centre of the plough body as the working speed increases from say 6 km/h up to 10 km/h. As a result, the main wear point of the SpeedBlade plough body is kept on the enlarged front shin of the mouldboard and not back on the main part of

SpeedBlade body with patented AMAZONE mouldboard front shin



SpeedBlade body U 40

The point covers the wing:

- ✓ The joint is therefore protected by the point
- ✓ Plant residues, baler twine, wire and root residues cannot get entangled



SpeedBlade plough body with its extra-large front shin on the mouldboard. The point covers the wing, meaning that the joint is protected by the point.

the slatted or solid mouldboard, even at these higher forward speeds, meaning, therefore, that only the front shin of the mouldboard needs to be replaced initially on the Tyrok when used at higher speeds. This enormously reduces wearing costs compared to other designs.

Another detail with great effect: the point covers the wing, meaning that the joint is protected by the point. Thanks to this clever join up, no plant residues or baler twine can get entangled. In addition, the open frog prevents soil from sticking under the frog due to its profile so that the maximum ease of pull on the plough body is maintained.

The unique **©plus hardening process** provides the basis for high quality during the manufacture of Tyrok wear parts and is a result of the additional introduction of carbon. For example, a very high hardness and thereby a smooth surface is achieved on the front of the mouldboard which ensures a long service life for the wear parts. The reverse side remains, however, relatively soft and is therefore extremely tough and impact resistant.

The SpeedBlade plough body range offers a selection of different slatted and solid mouldboard profiles, depending on the application and the objective. The sophisticated design of the plough bodies combined with the advantages of the ©plus hardening process ensure a low pulling power



Wide furrow clearance on Tyrok 400

requirement, thereby reducing fuel consumption. As an option for use in particularly tough conditions, HD share points can be ordered for shorter downtimes and less wear.

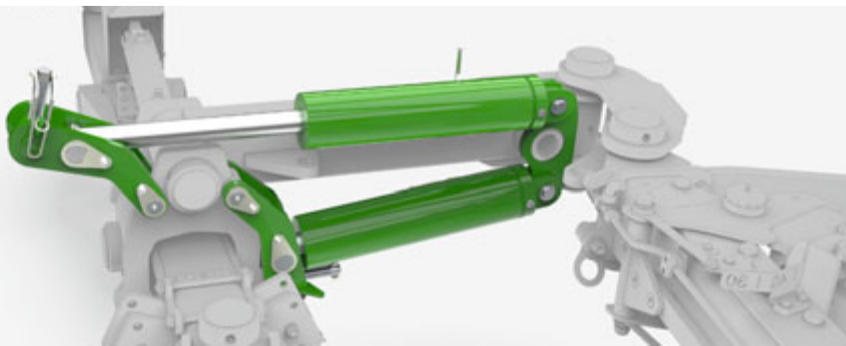
The wide furrow clearance is another big plus of the SpeedBlade bodies, especially with the increasing use of wider tractor tyres.

Pure robustness without compromises

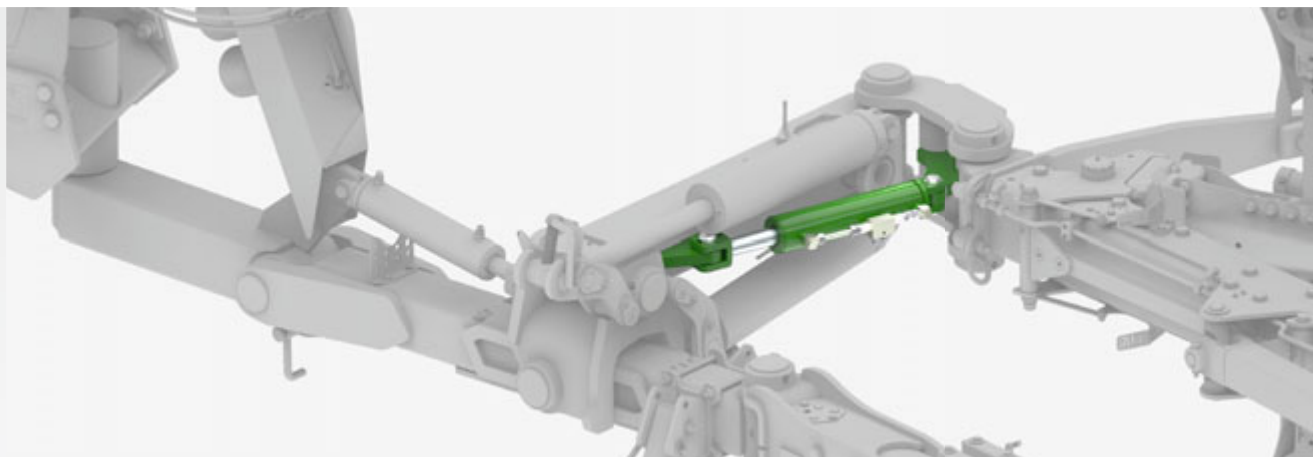
The Tyrok is particularly robust thanks to the strong, high-tensile steel rectangular tubular beam having dimensions of 200 x 150 x 10 mm. A decisive benefit over beams from other manufacturers is: the beam does not bend during work even under high loads. This ensures a uniform working depth over the entire length and working width.

The Tyrok also scores points with its new **SmartTurn** turning system. At the headland, the fast turning procedure is hydraulically slowed down twice just before the end. This results in a damping effect which reduces stress on the plough structure when the cylinder is retracted. There is no need to compromise on speed as the low-stress turnover process is completed within a period of just nine seconds.

The optionally available hydraulic overload safety protection also ensures smooth and material-protective working in arduous operating conditions. The plough body is gently



Turning cylinder with hydraulic throttle



Hydraulic cylinder for setting the front furrow width

pushed back into the soil via the hydraulic cylinder. The trigger force decreases as the lift height increases. Trip forces of up to 2000 kg can be infinitely adjusted either centrally or separately on each individual body, depending on the operating conditions.

Safe, comfortable and precise adjustment for a perfect working profile

The Tyrok is equipped with mechanical furrow width adjustment as standard. As an option, the working width can be infinitely adjusted hydraulically to suit the conditions from the comfort of the tractor cab. The new **AutoAdapt** automatic front furrow adjustment offers a huge advantage in terms of comfort and precision. The hydraulic adjustment of the overall working width automatically adapts the front furrow precisely to the changed working width using the intelligent kinematics of the Tyrok. The basic adjustment of the front furrow or possible adaption is carried out hydraulically from the cab. As a result, changing soil conditions or slopes can be responded to consistently and quickly, thereby enabling perfect matching to the last furrow.

The working depth is mechanically or hydraulically adjusted via the standard optimally damped running gear, which also absorbs large shock loads. In this respect, the substantial support wheel not only ensures precise depth control but also provides optimum soil compaction protection. In

addition, the standard hydro-pneumatic suspension of the support wheel ensures maximum driving comfort and safety on the road.

The Tyrok headstock, which can rotate through 180°, ensures an optimum pull line with the minimal lateral pull, and thus reduced pull force requirement. In addition, it also provides outstanding flexibility for attachment as a result of its various coupling alternatives. The Tyrok can also be optionally equipped with **traction control** for reduced slippage. In this case, another hydraulic cylinder transfers weight to the rear axle of the tractor. This provides maximum pulling power and fuel savings.

All hydraulic functions can be conveniently accessed with very little effort from the front of the headstock in the central SmartCenter settings centre.

Completely equipped for complete performance

Optional soil engaging tools allow the new semi-mounted reversible plough to be universally adapted to all operating conditions. For example, various skimmers or trash boards are available for the clean incorporation of large amounts of organic matter. Additional landside protectors can be attached to the shares to ensure better plough guidance on slopes.



AMAZONE has expanded the packer range via a strategic cooperation with the company Tigges for even greater efficiency on your farm. As a result, it is now possible to combine the Tyrok with packers from Tigges in an AMAZONE design. Various ring diameters as well as different ring profiles are offered. In addition, there is a choice of single or double ring packers up to a working width of 4.65 m.

An optional sword landside, which protects the edges of the front shin of the mouldboard from wear and cuts a clean furrow wall, is ideal for regions with stony and heavy soils. Disc coulters can be fitted to the last body for an exceptionally clean furrow clearance.

For simultaneous reconsolidation, AMAZONE offers the Tyrok 400 with a swivel press arm for working with a packer.

The advantages at a glance:

- ✔ Efficient, easily-adjustable and robust semi-mounted reversible plough with high operational reliability
- ✔ Durable and sturdy **SpeedBlade** plough body for higher working speeds – as a result of the extended front shin of the mouldboard and ©plus hardening process
- ✔ Precise working depth over the entire length of the plough, thanks to the large rectangular tubular frame
- ✔ Perfect matching of the ploughing, even under varying conditions, thanks to the standard hydraulic front furrow adjustment
- ✔ Automatic adaption of the front furrow to the overall working width by means of **AutoAdapt**
- ✔ Rapid and gentle turnover process as a result of the hydraulic end position damping – **SmartTurn**
- ✔ The substantial support wheel ensures an exact depth control and the optimum soil structure protection
- ✔ Maximum safety and comfort in the transport position due to the standard wheel shock-absorber
- ✔ Shear bolt or hydraulic overload safety protection for a positive re-entry into the soil
- ✔ Comfortable and central SmartCenter settings centre on the plough headstock



The Tyrok 400 has the ideal combination of a strong beam and adjustable shares for perfect field cultivation

Cobra-2TX trailed shallow cultivator

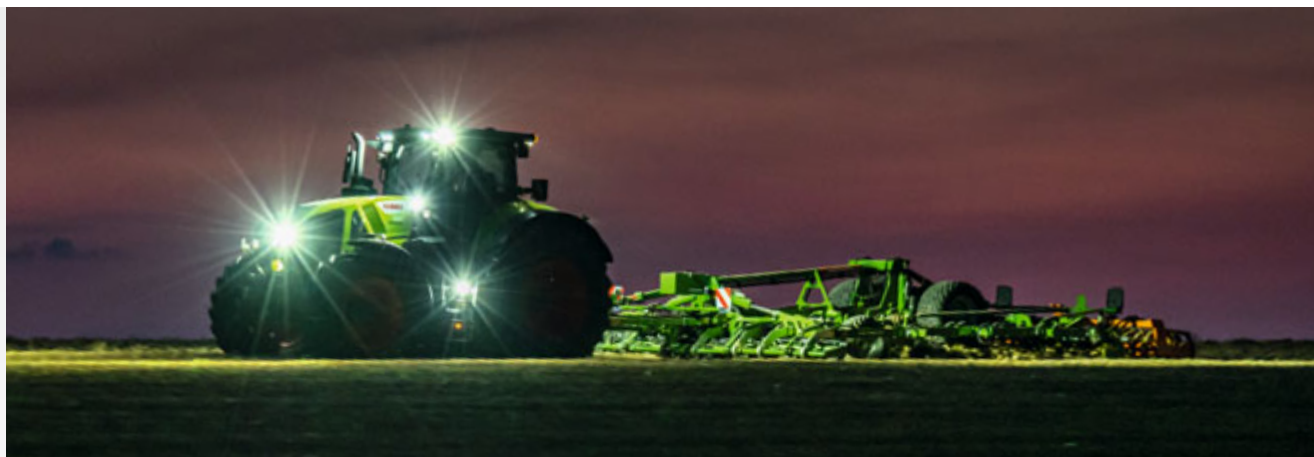
The perfect shallow working system – shredding, cutting, mixing and optionally, reconsolidating



Cobra-2TX trailed shallow cultivator carrying out surface stubble cultivating

Video of Cobra-2TX in use:
www.amazone.net/yt-cobra-2tx





Good visibility of the Cobra during the day and at night

The new Cobra 6-stagger shallow cultivator from AMAZONE is characterised by its universal use and will be available in working widths of 6 m and 7 m. AMAZONE will be offering a new method for shallow stubble cultivation, second or third pass medium-deep work, or for a catch crop changeover or even seedbed preparation, with the introduction of the trailed Cobra 6000-2TX models in the summer of 2022 and 7000-2TX in the spring of 2023.

The increase in resistance to and the reduction in plant protection agents means that mechanical weed control in the second pass is continuously growing in importance. This means that the Cobra shallow cultivator will be playing an enormous role in field hygiene.

The choice of various different pre-working tools, tine variants and following rollers or harrows allows the Cobra to provide the best combination of cultivation elements for any location and every farming process.

The best combination:

6 stagger frame with ECO leaf-spring tines

The Cobra is the specialist for shallow and medium-deep work at 4 to 13 cm working depth. Thanks to the 6 stagger frame layout of the tines, the Cobra distributes and mixes harvest residues into the soil in an optimum manner. The special tine arrangement, and its associated working length, ensures an enormous throughput of organic matter and soil, despite the very tight tine spacing of 13.3 cm. A large amount of fine soil is produced in the mix by the vibration

of the ECO leaf-spring tines. This provides optimum germination conditions, so that volunteer cereals and weed seeds establish well, which can then be combated mechanically in the next working pass. The high proportion of fine soil also has a very positive effect on seedbed preparation. In addition, the ECO leaf-spring tines can adapt very flexibly to the soil conditions and can avoid obstacles.

Full-area movement by the cultivator ensures optimum working performance

A full surface movement and thus a full surface movement of stubble and weeds is of enormous significance for a good outcome on very shallow stubble cultivating. AMAZONE offers various different 220 mm wide goose foot shares for this working pass, so that adequate share overlap and thus a full-area movement is ensured at a tine spacing of 13.3 cm under all conditions. There is also a 50 mm narrow share for mid-deep mixing and loosening work. Both types of share are available for high outputs and also as a HD variant.



Full surface movement and intensive incorporation of organic matter thanks to the 6-stagger layout



As an option, the Cobra can also be fitted with the double harrow

Also available with a levelling unit as an option

Good levelling can be achieved by mounting a levelling unit, consisting of spring-mounted drag tines, behind the tine unit. Even consolidation can be achieved thanks to this additional levelling. If there is too much organic matter, the unit can be swung up easily and without the need for tools.

Precise working depth controlled from the tractor cab

The depth adjustment of the Cobra is carried out via the following rollers and the over-sized support wheels. They are integrated into the tine segment to provide better matching to the topography. AMAZONE mounts a coupling rod at this point to connect the components mechanically, in order to keep the relationship between the support wheels and following roller constant at all times.

If you need to operate without a following roller, the depth adjustment is carried out via the transport wheels in addition to the front support wheels. A particular feature is that there are tines mounted behind the transport wheels to loosen any tracks produced by the running gear. If you are operating with a following roller, then the running gear can be fully lifted up.

The working depth can be adjusted infinitely-variably from the tractor cab, to permit individual reaction to the changing conditions within a field. An easy-to-read scale helps the orientation of the driver.

Following roller to suit

There is a selection of ten AMAZONE following rollers, as double or single units, for optimum consolidation, so that the right roller for all types of soil is available. A particular feature of the Cobra is that the roller is guided by a parallelogram. Thanks to this connection, a constant pressure is generated for the rollers, even when adjusting the working depth of the tine area. The levelling unit is, in turn, mounted on the rollers. This means that this setting does not need to be changed when changing the working depth.

AMAZONE offers a double harrow for the rear of the Cobra 6000-2TX and 7000-2TX as an alternative to the roller. The harrow demonstrates its benefit, particularly in the second or third working pass, when combating weeds mechanically. It brings the cut weeds and volunteer cereal regrowth to the surface of the soil where they dry out.



The Cobra combined with the Double U-profile roller. A suitable roller can be selected from the familiar roller portfolio to suit the specific conditions on-site.



Cobra-2TX with leading knife roller working in rape stubble



Low pulling force for high speed working and good incorporation action

Front tools for fine shredding, levelling and crumbling

As an option, the Cobra can also be fitted with the knife roller. This allows you to thoroughly cut and chop rape stubble during the first pass, for example. However, the knife roller also offers considerable benefit when incorporating catch crops, producing a perfect working quality. The knife roller has a closed roller core and double cutter blades arranged in a V shape. This ensures smooth running and reduces wear costs. In addition, the knife roller is always hydraulically pre-tensioned and thus adapts itself perfectly to the soil conditions.

As an alternative, the Cobra can also be equipped with a leading Crushboard. This chops clods and also levels. The intensity can be varied hydraulically and infinitely-variably from the tractor seat.



Knife roller (or Crushboard) as the individual up-front tool

The new Cobra shallow cultivator is characterised by its high levels of precision and its versatility under the most varied of working conditions. In order to increase the versatility even more, the Cobra can, as an option, be equipped with the GreenDrill 501 catch crop drill.

The advantages at a glance:

- ✔ Powerful and universal shallow cultivator for shallow and medium-deep soil tillage at 4 to 13 cm working
- ✔ Intensive incorporation of crop residues as a result of the 6-stagger layout with ECO leaf-spring tines
- ✔ Exact depth control via support wheels and following roller
- ✔ Full-surface movement at shallow working thanks to the large duckfoot share overlap
- ✔ Perfect cultivation of organic matter and catch crops thanks to the front knife roller
- ✔ Even, fine-crumbed seedbed thanks to the front Crushboard and levelling element in front of the roller

Project: TopCut tool carrier

Will the stubble cultivating in the future be ultra-shallow?



The TopCut tool carrier for climate-adapted cultivation. The farmer can choose various different tools to suit the conditions.

Video of TopCut tool carrier in use:
www.amazone.net/yt-topcut





We intend to have lots of combination options and trailed units to choose from in the future

The challenge:

The subject of soil tillage is gaining more and more significance in the purchasing process on farms. The bigger the problems with lack of moisture, chemical resistance and the requirement for reducing the amount of plant protection agents, the more important the correct soil tillage becomes. A particular emphasis is placed on the initial stubble cultivation. This is precisely where the biggest challenge lies. On the one hand, we need to produce the optimum seedbed for stimulating the growth of volunteer cereal and weed seeds. This means that undesirable growth can be encouraged directly after stubble chitting and then be combated mechanically in the second cultivation pass. Ultra-shallow work with optimum germination conditions for the stray cereal and weeds and grasses is of extreme importance, particularly with regard to old rape growth, and in the problem areas of black grass and loose silky bent.

In addition, rotting of organic matter is of enormous significance for field hygiene. Good rotting reduces the transfer of fungal disease and pests. It is therefore important to make sure that shredding or preparation of the organic matter be already undertaken during the initial processing.

On account of the increasing dryness of summers, it is important that evaporation be reduced and ground water conserved. For this reason, in the initial pass, it is important to work only as deep as necessary.



Instead of the harrow, the tool carrier can, as an alternative, also be equipped with various different rollers for good consolidation

The solution:

TopCut tool carrier: for ultra-shallow soil tillage

AMAZONE has started the TopCut development project to accommodate this increasing requirement for ultra-shallow soil tillage. The challenge in this project was the development of the optimum tool combination for ultra-shallow soil tillage. The following aspects were taken into account:

- ✔ Organic material should be shredded to aid the rotting process
- ✔ Adequate fine soil should be generated for optimum germination conditions
- ✔ Working should be as shallow as possible – no burying of seeds and reduction in evaporation
- ✔ Perfect soil adaption of the tools is a prerequisite
- ✔ Straw post-distribution should be carried out if required
- ✔ Under dry conditions, good consolidation is required for optimum germination conditions

Soil tillage that has a range of different tools available to the farmer to suit the operational requirements is needed to meet all these requirements in the various different cultures.

The first TopCut 12000-2 tool carrier, having a working width of 12 m and a range of tools thus entered field trials in the summer of 2021.



High output with perfect cutting effect

Various different tools for ultra-shallow processing

Alongside the classic deployment after rape, catch crops or sunflowers, where a combination of a double knife roller and a harrow or roller is used under optimum damp soil conditions, we intend also to develop tools that produce sufficient fine soil under dry conditions, and in cereal stubble, for optimum germination conditions.

The TopCut consists of three subsequent tool segments that can be equipped with various different tools to suit the customer's needs and requirements. So the toolbar may be a single knife roller, a crushboard or a wavey disc. The double knife roller then operates in the main tool area. As an alternative, however, you can use double wavey discs or a combination of wavey discs and knife rollers. We intend also to include various different spading discs and star discs in the tests. The wavey, spading and star discs cultivate the soil only to a minimum extent, but, on the other hand, they produce fine soil for optimum germination conditions.

Consolidation or harrow

Under dry conditions, it is an advantage if the lightly worked soil is pressed down again. Here we have the option of using the TopCut with a roller, such as the KWM 650 wedge ring roller with matrix profile. In addition, you can also run a single row harrow element in front of the roller. As an alternative to the roller, you can also install a three-row straw harrow as the trailing tool. This provides post-distribution of the straw and also shakes seeds out of the straw, the pods or the ears.

Successful practical experience

In 2021/2022, the TopCut 12000-2 ran with various different tool combinations on various different agricultural operations, under the most varied of conditions. This was supplemented by a field trial carried out with the University in Bernburg on rape and wheat stubble, to assess the tool combinations with regard to growth behaviour, shredding effect, working depth and other parameters.

Results so far demonstrate the benefits of the TopCut tool carrier:

- ✔ Ultra-shallow soil tillage with high proportion of fine soil for perfect germination conditions, even on cereal stubbles
- ✔ Markedly reduced evaporation as compared with other processes
- ✔ Optimum consolidation for reliable regermination
- ✔ Perfect shredding effect in rape, sunflowers, maize stubbles and catch crops
- ✔ High output with low fuel consumption

Additional machines will be built to enable more impressions and experience to be gathered by using the various tool combinations on various different farms and by touring with the machine under the most varied of conditions.



TopCut with three-row straw harrow in rape stubble

New AMAZONE KE 02 Rotamix rotary harrow – for seed drill combinations



KE 3002-190 Rotamix with Centaya 3000 Special harrow-mounted seed drill

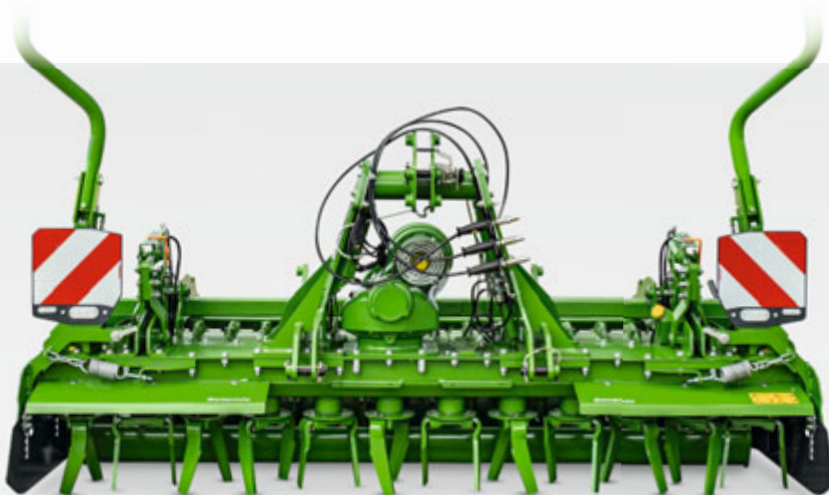
Video of the KE 3002-190 Rotamix in use:
www.amazone.net/yt-KE-3002-190



Video of the KE 3002-240 Rotamix in use:
www.amazone.net/yt-KE-3002-240-Rotamix



KE 3002-190 Rotamix with four tine carriers per meter of working width



AMAZONE has extended its new KE 02 Rotamix rotary harrow range with two new models. The new models, the KE 02-150 in working widths of 2.5 m and 3 m for tractors up to 150 hp, and the KE 02-190 in working widths 3 m, 3.5 m and 4 m for tractors up to 190 hp demonstrate their strengths, particularly with their intensive soil crumbling. The range is topped off with the KE 02-240 for the more powerful horsepower classes up to 240 hp.

The Rotamix system – close-coupled, compact and two extra tool carriers at 3 m

The KE 02 rotary harrow, with the Rotamix system, has four tine carriers per metre of working width. The incoming power is evenly distributed across these rotors. The trailing tines produce a very good crumb structure, even on heavy soils. The new rotary harrows are therefore very well suited for seedbed preparation, particularly following the plough.

The number of tine carriers enables the use of a smaller spur gear diameter. This means that the sturdy gear trough can be designed to be very compact and therefore lightweight. The short design ensures that an attached seed drill can be positioned very close to the tractor. This reduces the leverage on the tractor and so the lifting power requirement is also less than with other rotary harrows.

The tried and tested Quick+Safe system provides the 290 mm tines with an integrated stone release and the tines can be easily exchanged without the need for tools.

A higher class of performance with the DirectDrive gearbox

The Long-Life-Drive system, including the DirectDrive gearbox, ensures a long service life and maximum smooth running. The double sealing system with cassette seal and labyrinth seal protects against dust, moisture and dirt ingress.

The heart of the new rotary harrows is the DirectDrive gearbox, via which the higher power flow is transmitted directly to the spur gears of the tine carriers. On the new KE 02 Rotamix there is no power redirection thus ensuring an excellent, low-wear, power transmission. The new rotary harrows can be used with PTO speeds of 540, 750 or 1,000 rpm. Exchange gear sets allow the tine carrier speed to be adapted to different soil conditions and to the PTO speed of the tractor.

Thanks to the new drive train with the high-efficiency DirectDrive gearbox, the KE 2502-150 and KE 3002-150 are approved for tractor outputs up to 150 hp. By using the drive train with more hardened and tempered components, the KE 3002-190, KE 3502-190 and KE 4002-190 are approved for use up to a tractor output of 190 hp. The KE 3002-240 and KE 4002-240 rotary harrows are even approved for up to 240 hp thanks to their even stronger DirectDrive gearboxes.



The side plate can be opened for drilling by means of the universal tool



KE 3002-190 Rotamix with DirectDrive gearbox

Setting and tools

Using the optional hydraulic depth control, the rotary harrows can easily be adapted to the actual conditions in the field from the tractor cab on the move. A graduated scale ensures an easy monitoring of the working depth. As an alternative, the working depth can be set using an eccentric pin in a series of holes.

The KE 02-150 and 190 models have a rigid, Cat. 3N lower link cross shaft.

The levelling board for levelling the soil is guided precisely at the correct height by the packer roller and is able to be deflected upwards using the integrated overload safety protection. A universal setting tool is supplied for fine-tuning the settings, which can be used for many tasks, such as setting the height adjustment of the side plates or for setting the track markers.

Versatile roller range

Numerous roller types with different diameters for targeted reconsolidation are available for a wide range of site-specific requirements. The cage roller, as lightweight entry-level packer for controlling the depth of the rotary harrow, gives full-area but only slight reconsolidation, whereas AMAZONE offers the tooth packer roller for full-area crumbling and reconsolidation. The wedge ring roller, for light to medium soil types, reconsolidates in strips in the seed row. Optionally also with Matrix profile for an even better drive in lighter soil types. The roller programme is rounded off with the trapezium roller, also giving strip-wise reconsolidation in the seed row.



KE 3002-190 Rotamix with
TRW 500 trapezium ring roller



The rotary harrow can be equipped with marker boards and road lights for solo operation

New AMAZONE KE 6002-2 Rotamix rotary harrow

6 m folding for solo use



KE 6002-2-400 with Rotamix system for use after inversion soil tillage

Video of the KE 6002-2-400 Rotamix in use:
www.amazone.net/yt-KE6002-Rotamix



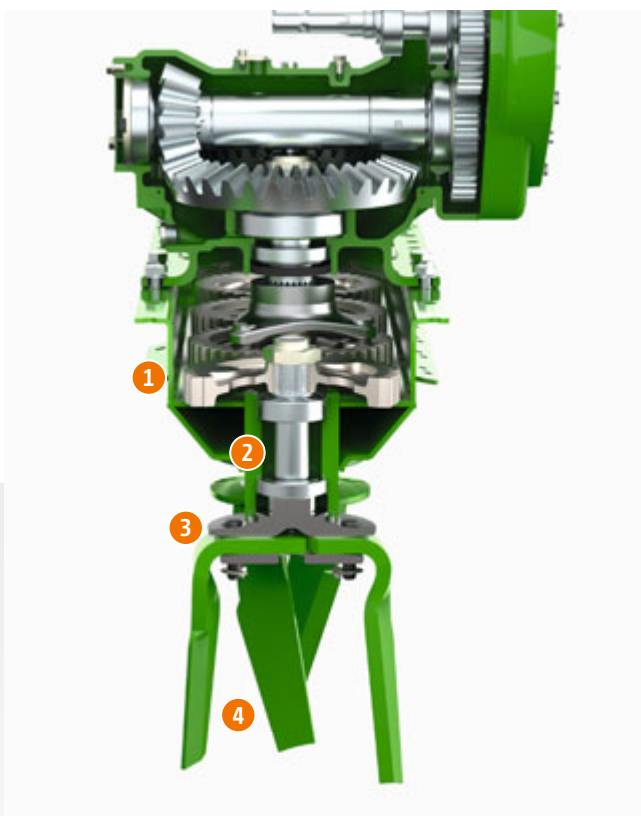


The tine carriers are fitted with the trailing tines on the KE 02-2 Rotamix which produce a very good crumb structure

AMAZONE has extended its range of new KE 02 Rotamix rotary harrows by the addition of a foldable 6 m variant. The KE 6002-2-400 Rotamix is approved for tractors up to 400 hp and is characterised particularly by its high output and very good crumbling.

High work rates

With the KE 6002-2-400, AMAZONE is offering a new machine, which has been developed primarily for high work rates. The rotary harrow is very high-performing, thanks to its working width of 6 m. Quick folding to a 3 m transport width also ensures rapid and safe transport between fields. It is designed for solo use and cannot be coupled to a seed rail.



System Rotamix –

close-coupled, compact and four extra tine carriers at 6 m

The KE 6002-2-400 rotary harrow with the Rotamix system has four tine carriers per metre working width over which the incoming power is distributed. The trailing tines produce a very good crumb structure, even on heavy soils. The new rotary harrows are therefore very well suited for seedbed preparation, particularly following the plough.

The number of tine carriers permits the use of a smaller spur gear diameter. This has allowed the design of the rotary harrow trough to be very robust, yet very compact and therefore lightweight. The short coupling ensures that the leverage effect on the tractor is reduced, and it therefore has a lesser lifting power requirement than with other rotary harrows.

The tried and tested Quick+Safe system provides the 290 mm tines with an integrated stone release and the tines can be easily exchanged without the need for tools.

- ① Compact spur gear trough in sturdy design with reduced diameter spur gears, slim design, robust 45 mm shaft diameter, 6 mm trough wall thickness and a double-skinned trough bottom
- ② Tine carriers forged from a single piece
- ③ Quick+Safe system: Quick change tine system with integrated stone release
- ④ 290 mm long KE trailing tines



Perfect seedbed after one pass with the KE 6002-2-400 Rotamix

A higher class of performance with the DirectDrive gearbox

The Long-Life-Drive system, including the DirectDrive-gearbox, ensures a long service life and maximum smooth running. The double sealing system with cassette seal and labyrinth seal protects against dust, moisture and dirt ingress.

The heart of the new rotary harrow range is the DirectDrive gearbox, via which the higher power flow is transmitted directly to the spur gears of the tine carriers. On the new KE 6002-2-400 Rotamix there is no power redirection thus ensuring an excellent, low-wear, power transmission. The gearbox is mounted on both side wings. The rotary harrow can be used with a PTO speed of 1000 rpm. Exchange gear sets enable the tine carrier speed to be adapted to the different soil conditions.

Settings and options

For precise and consistent working depth setting, the KE 6002-2-400 is adjusted via a series of holes. This facilitates a very broad setting spectrum where the working depth can, however, be adjusted mechanically, yet very precisely by an eccentric pin. The setting is designed to be simple and easily understandable for the operator.

The height of the levelling board for levelling the soil is precisely guided by the roller. The levelling board also deflects upwards thanks to the integrated overload protection. A universal setting tool is supplied for fine-tuning the precise settings, which can also be used universally for many other tasks, such as setting or the height adjustment of the side plates or for setting the track markers.

The levelling board is shortened by 100 mm for improved soil passage and for better levelling of the soil. It improves throughput between side plates and levelling board.



The new KE 6002-400 with the Rotamix system has 24 tine carriers and is characterised by its very compact design

Versatile roller range

Numerous roller types with different diameters for targeted reconsolidation are available for a wide range of site-specific requirements. AMAZONE offers the tooth packer roller for full-area crumbling and reconsolidation. The wedge ring roller, for light to medium soil types, reconsolidates in strips.

Optionally also with Matrix profile for an even better drive in lighter soil types. The roller programme is rounded off with the trapezium roller, also giving strip-wise reconsolidation.



Wide range of rollers provides for good reconsolidation across all soils.

Avant 02 – seed drill combination with mounted front tank FTender

Compact, flexible, high output



Avant 02 seed drill combination with TwinTeC coulters working after the plough

Video of the Avant 3002 in use:
www.amazone.net/yt-avant3002



Video of the Avant 6002-2 in use:
www.amazone.net/yt-avant6002-2





Avant 02 –
seed drill combination
with mounted front tank

The 2nd Generation 02 Avant 02 seed drill combinations consist of the FTender front mounted tank, the new generation of active soil tillage, and the new TwinTeC seeding system. AMAZONE also offers the RoTeC single disc coulters, alongside the TwinTeC double disc coulters. The working width range extends from the rigid 3 m and 4 m, up to folding 4 m, 5 m and 6 m. The full range will be available from 2023.

The soil tillage – new KG 02-2 rotary cultivator

With the Avant 02 folding seed drill combinations, the latest generation rotary cultivators can be used at all working widths. The rigid Avant 02 seed rails can be mounted on the KE 02 rotary harrows or on the KX 01 or KG 01 rotary cultivators.

The folding rotary cultivators provides the basis for a perfect seed bed. 3.3 tine carriers per metre of working width till the soil intensively as well as thoroughly incorporating any organic matter during the mulch sowing process. The on-grip tines pull themselves down into the soil, even under the most difficult of conditions, so that the rotary cultivator can maintain its working depth, even in extremely hard soils. The spring-loaded side plates retain the soil in the machine.

The side plates can be height-adjusted by using the standard universal tool. They can move to one side to avoid stones and other larger obstacles.

The height setting of the levelling board can be used to guide the soil flow and the intensity of the soil tillage. The seedbed is also levelled by the levelling board. The levelling board can be adjusted in height from each side using the universal operating tool. The levelling board is now guided by the roller, so that the tines of the levelling board do not need to be adjusted as the working depth varies.

The wide range of following rollers includes, for example, the wedge ring roller, the wedge ring roller with matrix tyre profile, the tooth packer roller and the trapeze ring roller and so can provide the optimum reconsolidation on different soils.

Should the farmer want to drive using track markers, the seed rail can be equipped with twin markers. These track markers are then mounted on the soil tillage tool. This keeps the weight closer to the tractor and the intensity of mark is improved in field corners. The angle of attack of the marker discs can also be adjusted using the universal operating tool.



Rapid unfolding from 3 m transport width into the working position



The high-performance TwinTeC double disc coulters for neat and precise seed placement

Accurate seed placement with the TwinTeC seed coulters

The TwinTeC double disc coulters are mounted by the seed rail onto the active soil tillage tool with roller. The TwinTeC coulters are offered with a row spacing of 15 cm. The maintenance-free, TwinTeC coulters run very smoothly through the soil at a coulters pressure of up to 60 kg/coulters and place the seed precisely. The working depth of the parallel-guided coulters can be adjusted independently of the coulters pressure. The placement depth is determined by the depth guidance rollers. The depth across all coulters is adjusted centrally from 0 to 6 cm. The adjustment of the placement depth is carried out once again using the universal operating tool. Depth setting is carried out centrally for the rigid Avant sowing combinations, and it is set separately on each wing for the folding execution. The exact setting can be read off on a scale.

Avant seeding system with RoTeC coulters

RoTeC coulters are maintenance-free and work very reliably, even where large amounts of straw and plant residues are present. The sowing disc and a furrow former create the seed furrow profile and provide optimum seed placement



The universal RoTeC single disc coulters, reliable and precise in use, pushing drilling right up to the limits

into the soil. The Control 10 depth guidance disc or the Control 25 depth guidance roller prevent the soil from sticking to the sowing disc, thereby ensuring that the pre-selected sowing depth is precisely maintained. The row spacing is 12.5 cm.

The mechanical or hydraulic coulters pressure adjustment allows very rapid and convenient reaction to varying soil conditions. The hydraulic coulters pressure adjustment enables the coulters pressure to be comfortably adjusted from the tractor cab. The coulters pressure setting is displayed to the driver on the ISOBUS terminal.

A harrow on the coulters ensures reliable seed coverage. The angle of attack of this spring-loaded tine harrow can be adjusted. It can be set aggressively for heavy soils and in trailing mode for areas where there are straw residues. The dragging up of straw residues is therefore avoided. If the harrow wears, it can be set to another one of 5 height positions. If it is not needed, it can be deactivated in the park position.



Avant 02 and Cayros XMS plough



Double transfer pipes with twin distribution heads on the Avant 6002-2



Coupling the transport chassis is a one-man operation

If a pre-cultivation just with the rotary cultivator is necessary on the headland, the coulters can also be completely lifted up using the hydraulic coulters pressure adjustment. This also makes perfect use of the rotary cultivator in the corners. The rotary cultivator with roller can also be uncoupled from the seed rail when needed for solo seedbed preparation.

Conveying system

On the 3 m and 4 m Avant, the seed travels from the FTender front mounted tank via a single conveying system whereas, on the 5 m and 6 m Avant it is via a double conveying system, to the segmented distributor head, or heads. The distribution head is mounted directly above the coulters, resulting in a short and steep line of transfer between the distribution heads and the coulters. Electrical one-sided switching is also possible in the Avant.

ISOBUS machine control

The machine control of the Avant is by ISOBUS. The software has been developed internally by AMAZONE and facilitates

facilitates intuitive operation of the Avant. The easily-comprehensible symbols and freely-programmable buttons can be used to adapt the interface of the operating terminal to the requirements of the user. Control of the seed drill combination can be performed either by the AmaTron 4 or AmaPad 2 ISOBUS terminals from AMAZONE, or by any other ISOBUS terminal from another manufacturer.

Additional transport chassis

AMAZONE offers an additional transport chassis for road transport on the Avant 5002-2 and 6002-2. The load is taken off the tractor when driving on the road and the travel comfort in transport becomes more pleasant for the driver. The chassis makes it possible to drive the Avant legally on the road with most tractors and without exceeding the rear axle load limit. Coupling and uncoupling is a one-man operation. Safe locking facilitates operation from the left-hand side of the machine.



AmaTron 4 with ISOBUS software for the Avant



Transport chassis

New Centaya 3000 pneumatic harrow-mounted seed drill



Centaya 3000 Special with TwinTeC Special double disc coulters



Centaya 3000 Special with Nautilus front packer



AMAZONE offers the Comfort-Pack with TwinTerminal 3.0 for smart calibration

For the SIMA 2022 exhibition, AMAZONE is extending its range of pneumatic harrow-mounted seed drills with the Centaya 3000 Special. The new model in the Centaya range replaces the AD-P Special harrow-mounted seed drill.

The Centaya Special is offered in hopper sizes of 1,000 l and 1,500 l and with a working width of 3 m. The pneumatic harrow-mounted seed drill can be equipped with the RoTeC single disc coulters or with the TwinTeC Special double disc coulters.

Compact, user-friendly and precise

The segmented distributor head on the Centaya Special is mounted behind the seed hopper directly above the coulters. This arrangement ensures a short conveying time for the seed. The hopper is positioned well forward and thus offers an optimum centre of gravity close to the tractor. The distributor head can be reached easily via the loading board and can then be regularly checked. Setting the tram-line system is also easy to carry out as a result of the good accessibility.

The low profile of the hopper also gives the driver a better overview of the machine. The very large 2.30 x 0.84 m hopper fill opening enables a quick and convenient fill, not just from big bags, front end loaders, but also from small sacks. The deep hopper tip and steep hopper walls reliably guide

the seed corn down to the metering unit. Furthermore, this design means that only small residual amounts are left in the hopper.

The Centaya Special harrow-mounted seed drill is controlled via ISOBUS. The in-house developed AMAZONE software allows intuitive operation by the driver. In combination with the TwinTerminal, the machine can be quickly and simply got ready for drilling.

Smart calibration

Calibration of the seed hopper can be carried out conveniently from the loading board. The easily-accessible metering unit on the bottom of the hopper ensures even seed metering. The seed is gathered in the collection bag supplied and is weighed using the scales that are included as standard.

For other seeds, or different seed rates, AMAZONE offers a variety of different metering cassettes for the Centaya Special. Only two bolts need to be released directly on the metering unit using the tool supplied, in order to change the metering cassettes.

In order to make pre-metering, calibration and residue emptying even easier, AMAZONE offers, for the Centaya Special, in conjunction with the AmaTron 4, the Comfort Pack



TwinTeC Special double disc coulters with single-arm steering

with its TwinTerminal 3.0. This terminal is fixed in place with a magnet close to the metering unit. Calibration is therefore carried out directly down on the machine and there is no need to keep getting up and down from the tractor. ISOBUS control of the seed drill combination can be performed either by the AmaTron 4 or the AmaPad 2 ISOBUS terminals from AMAZONE, or by any other ISOBUS terminal from a third party manufacturer.

Single disc or double disc coulters

The Centaya Special can be equipped either with the RoTeC single disc coulters or with the TwinTeC Special double disc coulters.

RoTeC coulters are maintenance-free and work very reliably, even where large amounts of straw and plant residues are present. The sowing disc and a furrow former create the seed furrow profile and provide optimum seed placement into the soil. The Control 10 depth guidance disc or the Control 25 depth guidance roller prevent the soil from sticking to the sowing disc, thereby ensuring that the pre-selected sowing depth is precisely maintained. Row spacings of 12.5 cm and 15 cm can be chosen.

Equipped with the high-performance TwinTeC Special double disc coulters, the seed drill offers a precise and sturdy double disc coulters. With a disc diameter of 340 mm and a coulters pressure of 40 kg, the coulters provides very precise and neat seed placement, even at higher speeds and on inconsistent soils. Thanks to the trailing depth guide roller, there is always good contact with the soil, so that optimum seed placement is ensured. The coulters impresses with its smooth running, even under the most difficult of conditions. The row spacing is 15 cm.

QuickLink quick coupling system

The Centaya Special harrow-mounted seed drill can be very easily and quickly connected without tools to the various AMAZONE soil tillage implements via the QuickLink quick coupling system. Depending on the soil conditions, it can be combined with the KE 02 rotary harrow or the KG and KX rotary cultivators. The Centaya Special can be combined with the CombiDisc compact disc harrow for use on very light soils.



The Centaya 3000 Special harrow-mounted seed drill is connected to the KE 3002-190 Rotamix rotary harrow via the QuickLink quick coupling system



The road lighting kit means that the Centaya 3000 Special meets all road traffic requirements

Centaya-C harrow-mounted seed drill for combined sowing



Centaya-C with second distributor head for the simultaneous metering of a second material



The second material is directed to an additional entry point on the TwinTeC coulters via a separate conveying section and is placed before the depth guidance roller

AMAZONE is extending the range of pneumatic harrow-mounted seed drill with the new Centaya-C. The special feature of the sowing combination is the new 2,000 l twin chamber hopper. This makes it possible to apply several materials in a single pass. The new Centaya-C Super is available in working widths of 3, 3.5 and 4 m.

Wide range of applications

As a result of the increasing challenges in professional crop establishment, the requirements for a modern seeding system as the basis for achieving the highest yields are constantly increasing. Precise seed metering and exact depth placement therefore have to have top priority. Furthermore, there is a particular focus on the simultaneous application of more than one seed type, or the parallel application of fertiliser with the seed. The twin-chamber hopper means that the new Centaya-C Super now offers the option of sowing companion crops and undersowing in addition to the main cash crop. These are of great benefit for weed suppression and for increasing erosion control and biodiversity. In addition, the simultaneous application of fertiliser is an efficient solution that leads to rapid seedling development and high field emergence. This sowing technique offers farmers and contractors a variety of agronomical methods

and a high degree of flexibility by the combination of seed and fertiliser. Moreover, fuel and time can be saved through a reduction in the number of passes.

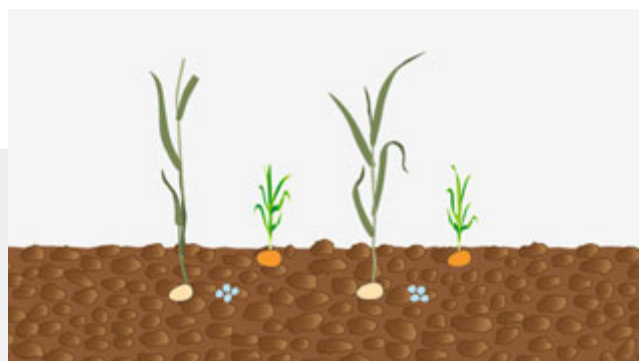
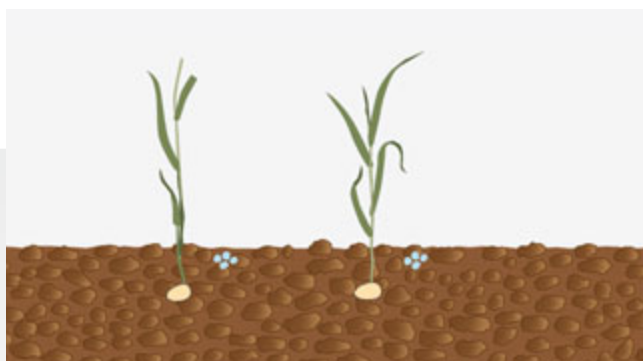
Up to three different placement points

The Centaya-C Super can be equipped with either the RoTeC pro single disc or the TwinTeC double disc coulters.

The 400 mm RoTeC pro coulters enable the application of two media utilising the single-shoot process. In this case, the individually-metered materials are brought together in the single disc coulters and fed to a single entry point using the same conveying system. This enables, for example, a small amount of fertiliser to be placed directly in the row along with the grain.

In conjunction with the TwinTeC double disc coulters, it is even possible to apply two different seed types or seed and fertiliser at two different entry points utilising the double-shoot process. In this case, the first medium is embedded in the soil via the TwinTeC coulters and the second medium is conveyed to an additional outlet on the TwinTeC coulters via a separate conveyor system and placed in the soil in front of the depth guidance roller. This offset placement means,

Two examples of the various different sowing possibilities with the Centaya-C





The high-capacity electric metering units are infinitely variable

for instance, that fertiliser can be used precisely, thereby ensuring a more comprehensive supply to the plant.

The Centaya-C Super can also be used in conjunction with the GreenDrill 200 catch crop seeder box for the simultaneous sowing of catch crops or fine seeds. This combination allows a third material to be applied to the soil surface via baffle plates. In this respect, the seed is fed directly from the 200 l mounted hopper down to baffle plates behind the seed drill.

Precise, smart and highly productive

The ISOBUS-controlled Centaya-C Super enables separate and precise metering of the various application materials via the infinitely adjustable electric metering units with sowing rates of 0.5 - 400 kg/ha. The Centaya-C Super can be used at forward speeds of up to 12 km/h with row spacings of 12.5 and 15 cm.

Filling is easy thanks to the large hopper opening. The seed hopper and the individual metering units can be easily accessed via the loading board. The SmartCenter permits user-friendly and precise calibration and machine setting. The application rates and roller speed are clearly displayed on the AMAZONE ISOBUS terminal AmaTron 4. The driver can change the seed rate from the tractor seat during work without any problems.

The drill can be equipped with a quick-emptying device for fast seed changeover between jobs. An optional storage rack is available for storing additional sacks of seed.

The 2,000 l twin-chamber hopper means that the Centaya-C Super is highly productive. The hopper can be divided individually in a ratio of either 60:40 or 70:30 depending on the customer's requirements. The special profile and the positioning of the metal hopper close to the tractor ensure a low lifting power requirement.

QuickLink quick coupling system

The Centaya-C Super harrow-mounted seed drill can be very easily and quickly connected without tools to the various AMAZONE soil tillage implements via the QuickLink quick coupling system. Depending on the soil conditions, it can be combined with the KE 02 rotary harrow or the KG and KX rotary cultivators. On very light soils, the Centaya-C Super can be used with the compact disc harrow CombiDisc.





Several materials can be applied simultaneously with the new AMAZONE Centaya-C Super using the 2,000 l twin-chamber hopper

Micro plus micro-granular applicator

For rapid seedling development of the plant



The Micro plus hopper can be easily accessed via the loading board

Video of the Micro plus micro-granular applicator in use:
www.amazone.net/yt-Mikrogranulatstreuer-Mico-Plus





The metering is conveniently carried out via an electric metering drive directly below the seed hopper



Filling is quick and simple

Two materials sown in one pass

AMAZONE offers the universal Micro plus micro-granular applicator for the AD-P 3001 Special, Centaya 3000 Special and Centaya 3000 Super pneumatic mounted seed drill combinations. The hopper capacity is 110 l.

Micro plus – combined, intelligent, compact

The Micro plus micro-granular applicator is used to apply another conveyed material during cereal sowing. The micro-granular applicator is mounted directly on the seed hopper of the drill combination and can be easily reached via the loading board. The filling opening with a diameter of 195 mm enables quick and easy filling. The separate, electrically-driven metering unit is another advantage of the new Micro plus. The desired seed rate can be precisely applied per hectare thanks to the separate control of the

metering unit. Metering cassettes from the AMAZONE pneumatic seed drills are used for metering. The metered material is delivered to the air stream of the drill combination and transported to the sowing coulters with the seed via the distributor head. Utilising the single-shoot process, the additional material is placed directly in the sowing coulters.

Clever operation

The Micro plus is operated via the seed drill terminal. The micro-granular applicator is shown on the display as an additional hopper for this purpose. The metering unit can be calibrated for seed or fertiliser via the tractor terminal or via the TwinTerminal mounted directly on the metering unit. The Micro plus is monitored via the intuitive ISOBUS software of the seed drill.



FTender 1600 in work combined with the Centaya

Precise, intuitive and highly efficient!

Everything in one pass with the Precea 6000-2AFCC



Precea 6000-2AFCC with 8 rows in work

Video of the Precea 6000-2AFCC Super precision air seeder in use:
www.amazone.net/yt-Precea-6000-2AFCC





The rotary cultivator provides an ideal seedbed even under difficult conditions

AMAZONE has extended its unique 3-point linkage precision air seeder range with the new Precea 6000-2AFCC. The optimum combination of the robust KG rotary cultivator and the precision air seeder increases performance. Now available in a working width of 6 m and 8 rows, this combination offers farmers and contractors an extremely flexible tool when used in conjunction with the FTender front mounted hopper.

Logically combined

An optimally prepared seedbed with uniform germination conditions is the basis for high field emergence. The robust KG 6002-2 Super rotary cultivator mixes the soil surface leaving it extremely even with its “on-grip” tines. The separation of the coarse clods left on the soil surface and fine soil in the area of the root horizon creates the ideal growing conditions. Forward speeds of up to 12 km/h can be achieved depending on the soil conditions and the working depth, thereby enabling an increase in the performance.

The change-over system allows fast conversion from the Precea precision air seeder to the Avant seed rail with RoTeC or TwinTeC coulters. Extended by the FTender for the supply of fertiliser or seed, the solo machines form a highly flexible and extremely manoeuvrable drill combination.

The innumerable application scenarios, and especially the amalgamation of several work steps into one pass, make the Precea 6000-2AFCC an economically-attractive machine.



Coupling point for a quick change between Precea seeding units and the Avant 02 seed rail



Precea singling units mounted on the KG 6002-2 Super ensure precise placement of the seed.

PreTeC mulch sowing coulter

The newly developed PreTeC mulch sowing coulter can be loaded mechanically with a coulter pressure of up to 220 kg. The hydraulic option enables the pressure to be adjusted up to 350 kg directly from the tractor seat whilst on the move. This ensures smooth running and uniform field emergence when used for both sowing after the plough and when mulch sowing.

The coulter unit can be quickly adapted to the specific field requirements without the need for tools. The placement depth can be individually adjusted and the sowing unit moved to the park position via a notched quadrant when the machine is set down. The contact pressure and the opening angle of the V-pressure rollers can also be adjusted very easily without the use of tools.

The complete coulter unit is easily accessible and the maintenance-free bearings and bushings are optimally protected from dust.

Precise over-pressure singling system

The singling system in the Precea is based on overpressure generated by the blower fan. Both the seed hopper and the complete metering unit are subject to an overpressure. The seed is fed from a seed hopper to a singling disc hermetically sealed by the metering unit and pressed onto the holes in the disc. Precise singling is then ensured via the following three stripper fingers. The seed then reaches the propulsion channel, where the contact pressure is stopped and the grain is shot precisely into the seed furrow and caught by the catcher roller. An optical sensor closely monitors the singling process and reports any misses and doubles to the



Precea 6000-2AFCC with FTender 2200 front mounted hopper



FTender 2200 as a fertiliser hopper for maize sowing

tractor terminal. The stripper system can then be easily adjusted. Fully automatic, electric stripper finger adjustment via SmartControl is another positive development step.

FTender mounted front hopper for optimum weight distribution

The Precea 6000-2AFCC model comes with the new FTender front mounted hopper for maximum fertilisation efficiency. Capacities of either 1,600 l or 2,200 l result in less downtime and therefore higher outputs. The FTender is equipped with electric metering drive and is controlled via the ISOBUS terminal as standard. Calibration is possible directly on the front mounted hopper via the optional TwinTerminal. In this regard, the scales and a folding bucket supplied are safely stowed near the easily accessible metering unit.

The FTender offers added value as it can also be used as a seed hopper for the Avant 02 seed drill combination. However, it can also be combined with AMAZONE soil tillage machinery, in order to apply, for example, catch crops and/or fertiliser in one pass.

Machine control

In-house developed software via an ISOBUS terminal, such as the AmaTron 4 or AmaPad 2, enables extremely comfortable machine operation for the Precea-2AFCC. The touch-optimised operation makes it easy for the operator to navigate through the software.



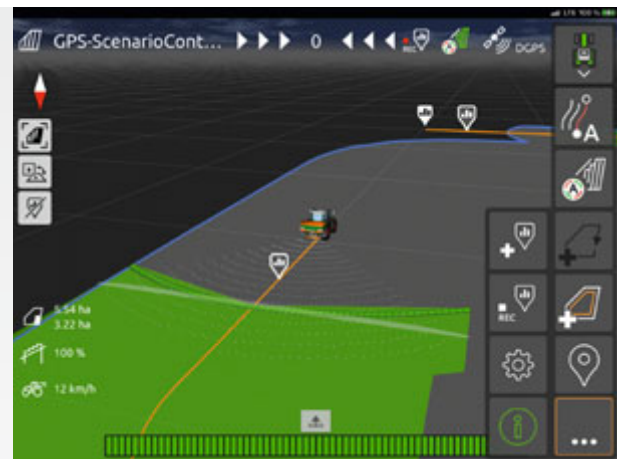
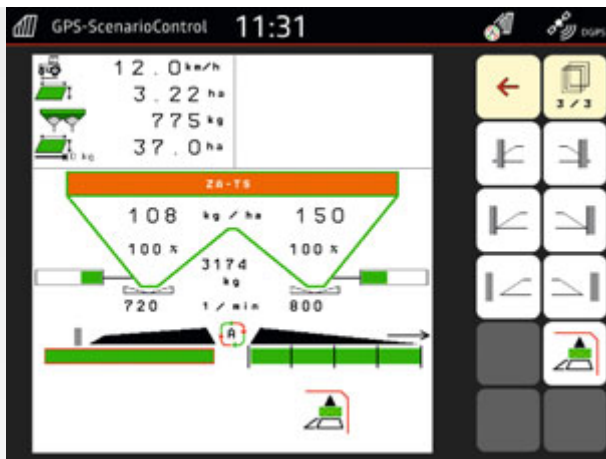
Avant 02 seed rail with KG 6002-2 Super as another combination option

GPS ScenarioControl

Terminal software for the automation of complex switching processes



GPS ScenarioControl can be used in conjunction with the AmaTron 4 ISOBUS operator terminal and the AmaTron Twin app.



Record the scenario: georeferenced application of the HeadlandControl function.

Left: Machine control view on the AmaTron 4; **Right:** GPS ScenarioControl view on the AmaTron Twin app

The precise application of mineral fertilisers just where they are required plays a critical role in saving costs and utilising resources. In this context, various border spreading procedures are used to provide legally compliant fertilisation. The GPS ScenarioControl system is used to automate certain functions of the AMAZONE fertiliser spreader based on a previously plotted scenario, preventing operator errors during subsequent applications.

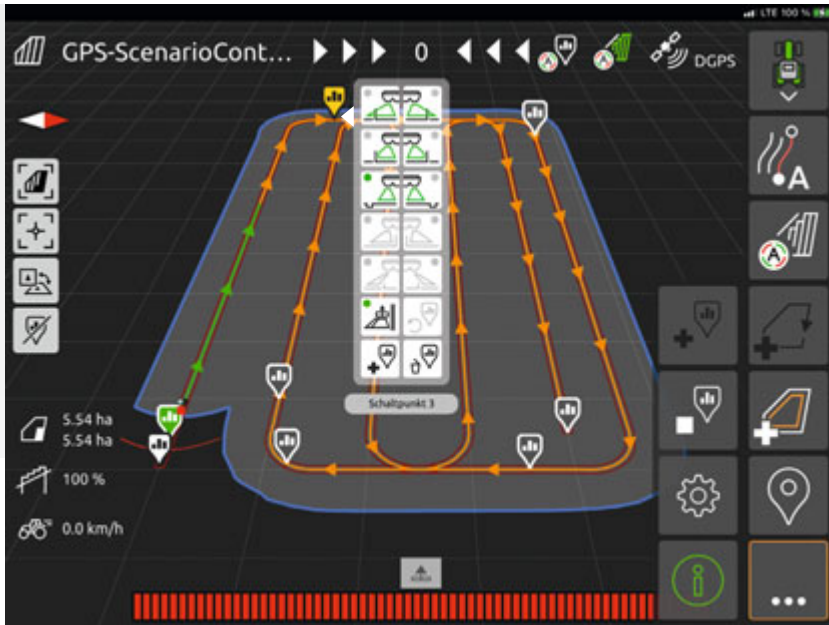
The problem: changing drivers can lead to operator error

When applying fertiliser, drivers have to juggle various tasks. Firstly, they need to ensure optimal lateral distribution of the material to be spread, as well as maintaining the desired application rate of the fertiliser. Secondly, they must ensure that the most appropriate border spreading procedure is used alongside ditches, footpaths or field boundaries, to guarantee legally compliant and precise fertilisation. This can lead to operator errors, especially when changing drivers, as the right border spreading procedure is not acti-

vated or deactivated in the right place. Lack of driver knowledge can also lead to non-compliance when applying fertilisers. In addition, there may be frequent questions about the correct application between the employee and the manager, taking up valuable working time.

Record and store the right driving strategy

When crossing the field for the first time with the fertiliser spreader, all the switching points, driving route and driving direction can be automatically plotted by an experienced driver using GPS ScenarioControl, by pushing the record button. The switching points are clearly marked on the map and the driving direction is visualised with arrows. The fertiliser spreader offers border, water-course and side spreading, as well as one-sided spreading inside the field boundary on headlands (HeadlandControl). GPS ScenarioControl is integrated in the AmaTron 4 ISOBUS operator terminal and can be viewed and operated via the AmaTron Twin display extension.



Field with complete route planning and saved, georeferenced scenarios. The activated machine functions are stored behind every switching point.

Automation of complex switching processes and reduction of driver workload

In the following application, the driver only needs to activate the previously plotted scenario and the fertiliser spreader will automatically perform the saved switching processes. GPS ScenarioControl enables the precise, resource-efficient use of fertiliser, as the various spreading procedures are performed in exactly the right places. This ensures that any subsequent applications by other drivers are legally compliant. In addition, drivers can use the pre-plotted, optimised field route as a guide. This reduces unnecessary empty trips and flattening of crops by taking a wrong turn in the tramlines. GPS ScenarioControl reduces driver workload by eliminating the need to juggle different actions and control tasks, and enables the use of multiple drivers during the fertilising season. There is no need for questions about the correct interpretation of the spreading procedure between the driver and manager, enabling an optimal workflow. For contracting companies too, GPS ScenarioControl can deliver huge time savings.

In future, GPS ScenarioControl will also be compatible with other AMAZONE ISOBUS machines. This route function is already available for crop protection sprayers from AMAZONE, where it considerably reduces the workload as well.

The advantages at a glance:

- ✔ Always the same switching processes on every pass in the field
 - Reduced workload by following a previously plotted scenario
 - Prevention of operator error
 - Optimised, resource-efficient fertiliser usage
 - Legally compliant fertiliser application guaranteed
 - Correct application in poor visibility, e.g. darkness or fog
- ✔ Always the same driving pattern across the field
 - Assists drivers who are unfamiliar with the area
 - Supports inexperienced drivers
 - Reduced driver workload
 - No flattening of crops by taking wrong turns in tramlines

The new BorderTS boundary spreading system for AMAZONE ZA-TS and ZG-TS fertiliser spreaders

Spread only where the plants will benefit from the fertiliser applied

BorderTS 



The BorderTS deflector is mounted centrally behind the spreader and can be activated hydraulically.

Animation of the BorderTS boundary spreading system:
www.amazone.net/yt-border-ts





When activated, the BorderTS deflector on the ZA-TS is swivelled into the spread fan from above. The special baffle plate construction and infinitely adjustable guide plate gently guide the granules to the ground.

Maximum amount of fertiliser right up to the field boundary

AMAZONE has developed the BorderTS deflector for the ZA-TS mounted spreader and the ZG-TS trailed spreader for even more precise fertilisation up to the field boundary when at those larger working widths. Unlike conventional deflectors, the BorderTS system is integrated into the software of the fertiliser spreader. The new deflector is used in conjunction with the disc-integrated AutoTS border spreading system and has a special baffle construction.

AMAZONE and border spreading – Precision in perfection

High-precision boundary spreading has always been an important focus for AMAZONE. It became apparent very early on how much yield potential lies in the field boundary area and that savings on fertiliser could be achieved yet whilst protecting the environment.

Border spreading systems like the Limiter help farmers to switch between side, border, water course and normal spreading from the comfort of the cab.

The advantage of AutoTS is very evident at larger working widths. A short spreading vane is activated in the disc-integrated border spreading system, so that the fertiliser is accelerated less and therefore is only applied across the required distance. AutoTS enables fertiliser to be spread much more effectively, right to the edge of the field, thereby

achieving an additional yield of up to 17% in this area, compared to conventional border spreading systems.

Both the border spreading systems work according to the principle of fertilising from the first tramline to the edge of the field.

To achieve even higher yields at the edge of the field, the new BorderTS deflector can be used in conjunction with AutoTS. BorderTS spreads the fertiliser directly from the edge of the field to the crop. When doing so, the shutter nearest the field boundary is left closed. AMAZONE has specially developed the new BorderTS deflector for the TS spreading systems, so that, when used in combination with AutoTS, can achieve excellent results in lateral distribution right to the edge of the field, without applying fertiliser across the border. This enables increased yields of up to 27% on the outer five metres of the field boundary area, in comparison with conventional border spreading systems.

Precision border spreading with the new BorderTS deflector, combined with AutoTS

In addition to the use of the new BorderTS deflector on areas with row crops or a special tramline system, the deflector can be used extremely effectively for the first application in cereals. Here it is always crucial that the full amount of fertiliser is applied exactly at the field boundary without

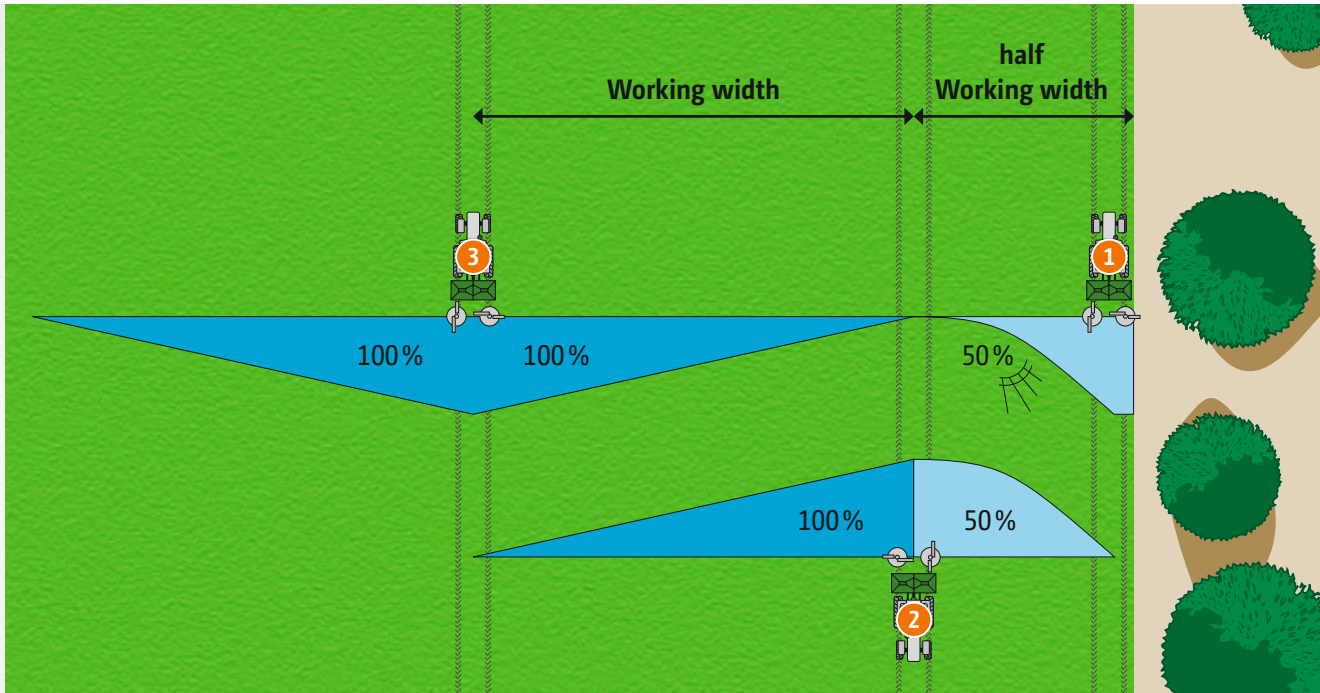


Illustration of the combined use of BorderTS and AutoTS:

- ① Fertiliser is spread from the edge of the field into the crop by the BorderTS deflector, with automatic reduction of the target rate to 50%. The shutter nearest the field boundary is left closed.
- ② AutoTS spreads at 50% from the first tramline across to the boundary side to achieve the target rate across the total field boundary area. Normal spreading to the field side with 100% of the target rate.
- ③ In the subsequent tramlines, normal spreading is resumed with 100% of the target rate to both sides.

throwing fertiliser beyond it. The growth of plants that have been driven over in the field boundary area is not permanently impaired during that first application.

All values can be stored in the spreader settings beforehand, so that the appropriate setting parameters are set automatically depending on the application situation.

Baffle plate construction and software integration

At large working widths, the fertiliser must be accelerated considerably more, in order to achieve a good area of overlap with the spread fan of the first tramline. Due to the high energy of the granules, the lateral distribution provided by conventional systems behind the tractor is often unsatisfac-

tory. The BorderTS deflector features a special baffle plate construction and a guide plate, the angle of which can be adjusted. The baffles first remove the energy from the granules, which are then gently guided to the ground by the guide plate. The guide plate is infinitely adjustable for optimal application up to the field boundary. In addition, a sensor detects the working position. When the deflector is in use, the spread rate and the delivery point of the fertiliser onto the spreading disc are automatically adjusted to ensure the best possible lateral distribution in combination with the disc-integrated AutoTS border spreading system. It goes without saying that the application rate can be manually overridden at any time in response to special situations.

The wind on your side

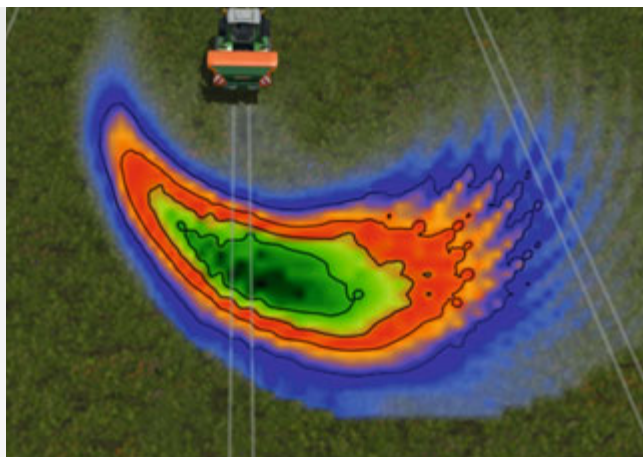
AMAZONE WindControl is now available independently of ArgusTwin



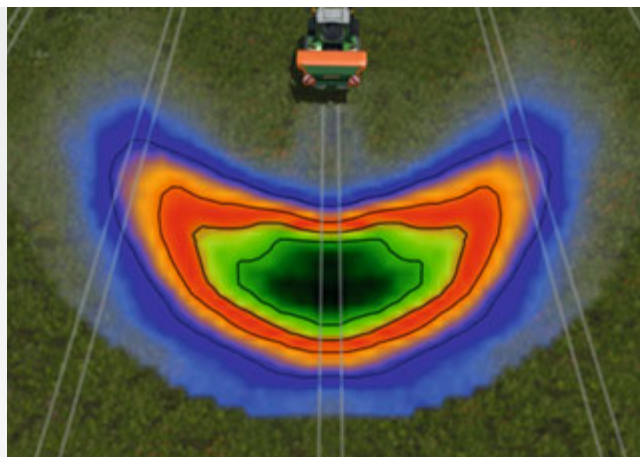
AMAZONE WindControl ensures an optimum lateral distribution even in crosswinds

Video of the ZA-TS mounted spreader with WindControl in use:
www.amazone.net/yt-windcontrol





Without WindControl: Crosswinds affect the distribution pattern and change the lateral distribution



With WindControl: WindControl counteracts the effect of a crosswind ensuring an optimum spread pattern at all times

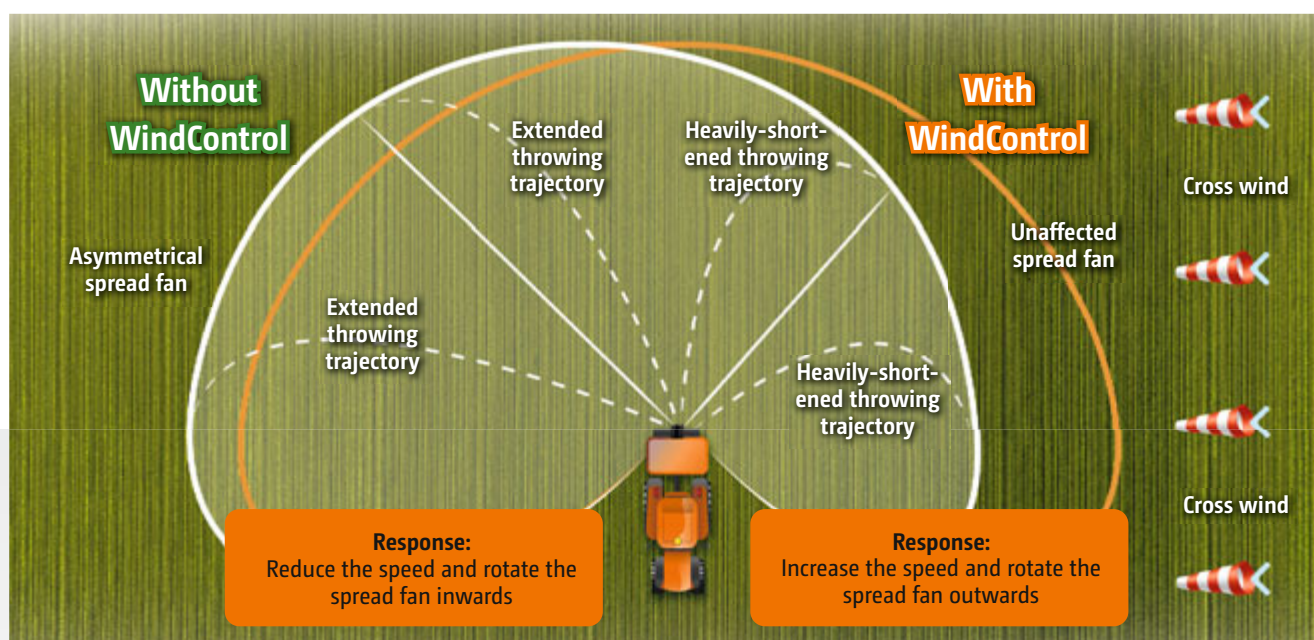
The wind is always blowing somewhere in the world and this makes accurate mineral fertilisation a major challenge in agricultural practice. According to Prof. Dr. Karl Wild of the University of Applied Sciences, Dresden, the influence of wind on the spread pattern can also be constantly monitored and automatically compensated by WindControl. WindControl can now also be specified for the ZA-TS mounted spreaders and ZG-TS trailed spreaders independent of the ArgusTwin spread fan monitoring system.

The challenge posed by the wind when spreading mineral fertiliser

Winds can be strong or light, blow from different directions or blow at a constant speed one moment and in gusts the next. As a result, the effect of the wind on the spread pattern never stays the same. The wind speed and the wind direction vary both within the tramline and in comparison to the adjacent tramline.

The wind is a parameter in fertiliser spreading which the operator cannot influence directly but they must always keep in mind. As a rule, the key period of use for a centrifugal broadcaster is during the main growing season in spring. At this time of year, the site-related probability of having to work in windy conditions is particularly high when viewed over the year as a whole.

Headwinds or tailwinds stretch or compress the distribution pattern. The lateral distribution is not affected in either case, so that the throwing distance and therefore the effective working width remain unchanged. On the other hand, crosswinds change the lateral distribution significantly. The distribution pattern is compressed on one side and stretched on the other, resulting in an asymmetrical spread pattern. So the task of WindControl is to permanently monitor the spread pattern and adjust the fertiliser spreader settings in such a way that a symmetrical spread pattern is restored.



In addition to all the important parameters for fertiliser spreading, the operator always has an overview of the current wind situation in the work menu



Windless conditions "at the touch of a button" widens the application window

A high-frequency wind sensor, mounted on the fertiliser spreader, records both the wind speed and the wind direction and transmits this information to the job computer. This processes the data with the forward speed and calculates new settings for both the delivery system and the spreading disc speed, which are then automatically adjusted. In a cross wind, the disc speed is increased on the side into the wind and the delivery system is rotated outwards. At the same time, the disc speed is decreased on the side facing away from the wind and the delivery system is turned inwards. This automatically counteracts the wind effect and ensures an accurate distribution. In addition, the use of WindControl results in larger time windows for fertilisation.

An eye on the wind

In addition to all the important parameters for fertiliser spreading, the operator always has an overview of the current wind situation such as the wind direction, wind strength and gustiness in the work menu. Traffic light colours are used to indicate the extent to which WindControl is still able to compensate for the effect of the wind. The system also issues a warning message if the limit to the amount of control is reached when the wind is too strong or if the gusting is changing too frequently.

The mast holding the wind sensor is automatically extended when the spreading discs are actuated. In doing so, the

sensor protrudes above the tractor cab so as not to measure any turbulence generated by the tractor. When the spreading discs are switched off, the wind sensor retracts to the protected position between the tractor and the spreader. Manual operation is also possible.

Perfect results in every situation

AMAZONE offers the ArgusTwin spread fan monitoring system for the ZA-TS and ZG-TS centrifugal broadcasters as an addition to WindControl. ArgusTwin enables the spread pattern from both the right and left hand disc to be monitored constantly by 14 radar sensors. If there are any deviations, the lateral distribution is automatically optimised by an adjustment via the electric delivery system. This can be carried out individually for each side, thereby ensuring optimum lateral distribution. ArgusTwin ensures a constant spread pattern even when spreading on slopes, using non-homogeneous spreading materials, or when moisture causes changes to the spreading process.



The settings for the fertiliser spreader are constantly recalculated and automatically adjusted via the high-frequency wind sensor

AmaSpread 2

Intuitive and comfortable



Thanks to the high-contrast colour display, the operator has all the spreading information available, even under variable light conditions



All the functions can be reached intuitively using one hand during the spreading process. Each button controls one function

New AmaSpread 2 control terminal – available immediately

The range of control terminals in the field of fertilisation has been revised. After the machine-specific terminal family was updated in 2019 with the entry level EasySet 2, a new control terminal is now available in the mid-range sector. The AmaSpread 2 is available immediately and replaces its predecessor, AmaSpread+. With AmaSpread 2, AMAZONE is offering an attractive and intuitive terminal for the ZA-V Profis Control weigh cell spreaders.

Modern design meets intuitive operation

The simple operation structure, combined with the high-contrast 4.3 inch colour display, guarantees high levels of operator comfort with a modern look. All the spreading information concerning application rate, residual quantity and area coverage is clearly and constantly displayed.

The terminal does not need detailed menu guidance: Each significant function has its own button. All the important functions such as application rate and the position of the border spreading device can be actuated directly and comfortably using a back-lit button. This means that one-hand operation during spreading is not a problem.



All the functions of the ZA-V Profis Control weigh cell spreader can be controlled conveniently with the new machine-specific AmaSpread 2 control terminal



The optional border spreading system Limiter V⁺ is integrated in the operating concept of the AmaSpread 2

Spreading-specific settings for up to ten different fertilisers can be stored and recalled at any time. In addition, the spread rate, covered area and working time are stored and can be utilised by the operator for easy documentation.

All features safely under control

Whilst the EasySet 2 includes the option of forward speed related spread rate regulation, AmaSpread 2 makes possible, amongst other things, the switching of up to 6 part-width sections and the use of the Profis weighing system. In addition, rapid adaption of the fertiliser rate permits reaction to the field conditions. The terminal also offers precise spread rate regulation thanks to the 200 Hz weighing system. In this way, a constant application rate is guaranteed, even with varying quality fertiliser. Combination with the optional tilt sensor guarantees precise weighing results, even under hilly terrain.



Pressing a button permits easy reaction to the various different border spreading situations side, boundary or water-course spreading. The current spreading option is clearly and constantly displayed on the control terminal

When you use the Limiter V⁺ border spreading system, the operator can switch between the differing techniques of side, boundary or water-course spreading, depending on the border situation, without leaving the tractor cab. In addition, optional low level warning sensors can inform the operator of an upcoming emptying of the hopper via the AmaSpread 2. The possibilities of the terminal are rounded off by the integration of work lighting.

In summary, the AmaSpread 2 for the ZA-V fertiliser spreader offers a new possibility of simple operation whilst including the widest range of functions.



The simple menu structure guarantees rapid actuation of all the spreading settings

7 years' manufacturer guarantee against rusting through in fertilisation

The best of both worlds – KTL cathodic dip-paint coating combined with powder coating

7 years
guarantee

against perforation corrosion



register
enregistrer
registrieren



The new painting technique, in combination with a large proportion of stainless steel components ensures a high level of operational reliability and a long service life



The KTL dip-paint priming of all components ensures virtually full-area corrosion protection. Degradation of the paint finish by rust is thus prevented as effectively as possible.

The paintwork on a fertiliser spreader is exposed to particular demands. The paintwork is intended to protect the spreader from corrosion, especially when handling fertiliser and where moisture is involved. Starting with the 2022 model year, we will use a new painting process for the ZA-V, ZA-TS and ZG-TS fertiliser spreader ranges. This involves, on the one hand, a cathodic dip painting process (known as KTL) for priming to give the best possible protection on the internal surfaces of tubes and box sections and, on the other hand, a powder coating process to create a high-quality visual finish with extra-thick paint providing increased protection against mechanical demands.

No worries – manufacturer guarantee against rusting through

Based on this optimum painting process, AMAZONE is able to offer its customers a manufacturer guarantee of seven years against rusting through, starting with the 2022 model year. From 01/01/2023, customers can apply to have the

guarantee activated for ZA-V, ZA-TS and ZG-TS models, starting with the 2022 model year. This is done very simply via the manufacturer's portal, myAMAZONE, bearing in mind the terms and conditions (www.amazone.net/7-years) stated there. After registration, they can then continue to work without any worries.

Multi-layer painting

The painting is carried out in four main steps. The particular characteristic of this multi-layer painting process is the combination of cathodic dip primer painting and powder coating. First of all, the carrier material is prepared for painting in a series of 14 stages. This includes multiple etching and degreasing operations, for example. The spreaders are then subjected to zinc phosphating in the next step, in order to prevent the formation of rust in the most effective manner. The third stage includes the thick-layer KTL cathodic dip-paint process. Then, finally, the fertiliser spreaders receive their powder coating. The application

High-quality multi-layer paint finish – the most modern from all angles:

- ① 14-stage **painting preparation** (e.g. degreasing)
- ② **Zinc phosphating** provides the most effective counteraction of rust formation
- ③ **Thick-layered cathodic dip priming** for full-surface corrosion protection even in those cavities and hard-to-reach areas
- ④ **Powder coating** for a high-quality appearance and extra thick paint for increased protection against mechanical demands



The combination of tried and tested painting techniques unites the best from all areas, resulting in a high-quality multi-layer paint finish

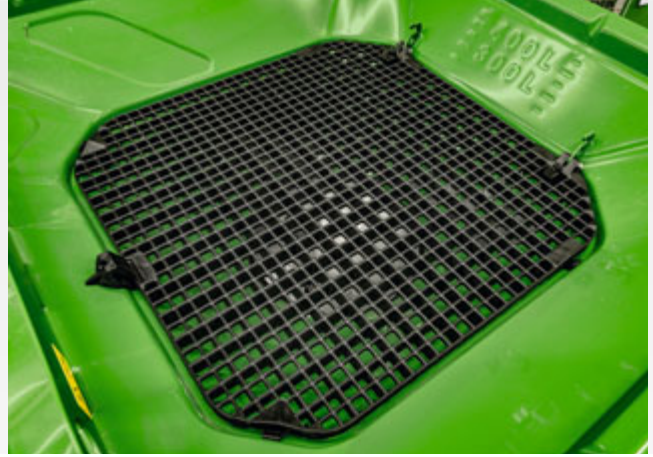


Corrosion protection is consistently the main objective. All the components on the spreading unit and all hydraulic fittings are made from high-quality stainless steel

of a particularly thick powder coating gives the spreader even better protection against mechanical demands, and they get double effective corrosion protection as a result of the stove-baking process.

Plastic mesh replaces metal mesh

Most of the paint abrasion on a fertiliser spreader takes place on the sieves in the hopper. This generally takes place



Durability is rounded up by the impact-resistant and UV-resistant plastic sieves

when filling the spreader as the fertiliser runs through the sieves, which then wears the paint away step by step. The ZA-V and ZA-TS fertiliser spreader ranges, from 2022 model year onwards, will be equipped with the most modern UV and chemical resistant plastic sieves, in order to counteract this wear factor. The sieves can be stepped on, of course, and can be folded up for cleaning, as usual.

7 years

guarantee

against perforation corrosion



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The painting standards set allow AMAZONE to provide a seven-year manufacturer guarantee against rusting through



Double protection from the additional thickly applied powder coating providing increased protection against mechanical demands

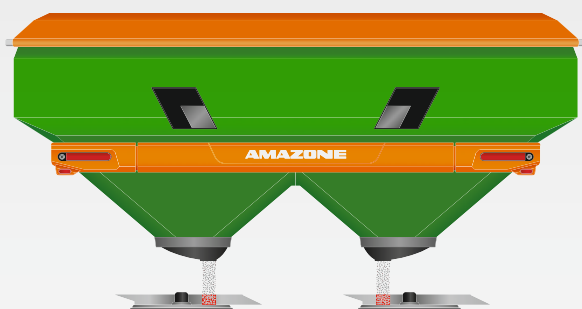


Slope spreading kit for the ZA-V

Precise fertiliser distribution on slopes



Fertiliser spreading in extremely hilly terrain presents technology with a particular challenge. Uniform lateral distribution must also be ensured even with the adverse impacts of slopes. AMAZONE offers a simple yet efficient slope spreading kit for the ZA-V fertiliser spreaders.



Graphic 1: The delivery point is set precisely when spreading in flat areas. After falling under gravity, the fertiliser lands on a pre-defined point on the disc. The slope spreading kit guides the fertiliser down onto the disc over a longer distance.

Uniform crops, even on slopes

Exact fertiliser distribution over the entire working width is the basis for uniform and resource-efficient crop management as well as exploiting the full yield potential. This does not present any difficulty for modern-day technology in flat areas. The topography has a significant impact on the spread fan and therefore on the fertiliser distribution in the field in extremely hilly terrain. To counteract this effect, AMAZONE offers a simple yet efficient slope spreading kit for the ZA-V fertiliser spreaders.

Simple special option with a high impact

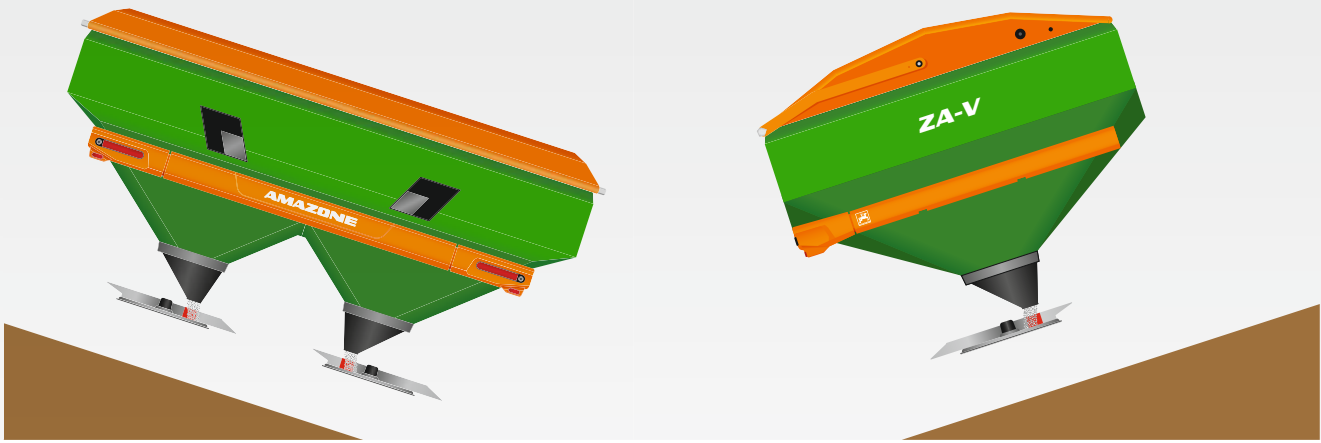
The fertiliser granule path is precisely defined in flat areas. After the shutter has opened, the material falls onto a defined point of the spreading disc under gravity. The granules are accelerated by the spreading vanes and distributed over the field.



This simple special option can fundamentally optimise the lateral distribution of the fertiliser on slopes. Application errors are reduced and a uniform crop is obtained. In this way, the yield potential can be fully exploited and the environment protected.



The slope spreading kit is simply mounted under the outlet opening of the ZA-V. The fins guide the fertiliser to the spreading vanes correctly even on slopes. The slope spreading kit can be retrofitted to the ZA-V fertiliser spreaders.



Graphic 2: The slope spreading kit ensures that correct distribution of the fertiliser over the entire working width is guaranteed both on lateral slopes (left) and when spreading uphill and downhill (right).

There are various spreading scenarios for spreading on slopes. Spread patterns in both uphill and downhill spreading are different from those on flat areas. The same applies to spreading at right angles to the slope. The material delivery points on the disc in these practical situations are changed by the inclination of the fertiliser spreader. Whereas the fertiliser strikes the spreading disc at right angles in flat areas, it is shifted in extremely hilly terrain, which in turn has a direct effect on the spread pattern. The fertiliser is guided down onto the disc over a longer distance by means of the slope spreading kit (Graphic 2), thereby minimising the impact of the slope to a considerable extent.

The kit is not only available for new machines but can also be retrofitted to existing ZA-V spreaders.

Quantifiable economic and ecological benefits

This simple special option can optimise the lateral distribution of the fertiliser on slopes. In particular, the throwing distance and the lateral distribution of the fertiliser are improved by the slope spreading kit. As a large-scale field trial at InnovationsFarm in Austria showed, the lateral distribution on extreme slopes can be optimised by a coefficient of variation of at least 5 % as a result of the slope spreading kit. This was verified both in application at right angles to the slope as well as when fertilising uphill and downhill. Apart from the economic aspects, this also has important ecological benefits for the environment.



SCHMOTZER Venterra 2K hoe

For high performance and high work rates as well as flexible working times



SCHMOTZER



Video of the Venterra 2K hoe in use:
www.amazone.net/yt-venterra





The camera and shift frame provide fully automatic control of the hoe at the rear, thereby relieving the stress on the driver.

The Venterra 2K hoes combine an unrivalled passage with a maximised lift height of the parallelograms of almost 50 cm, which opens up new possibilities for mechanical weed control, even in very late crop growth stages. As a result, damage-free hoeing right to the end is possible for crops with a height of half a metre, even when driving onto the headland, thanks to the interaction with Section Control.

The new design of the parallelograms and the attachment frame enables operation at maximum demand on large acreages as well as a very high working speeds. In combination with the continuing excellent quality of work, the Venterra 2K therefore sets new standards in the hoeing sector.

The Venterra 2K will be available in different versions for the 2022 season. Working widths of 4.5 to 6.75 m can be offered with row widths of 45, 50 and 75 cm in combination with the KPP-L parallelogram and Section Control, or KPP-M with or without Section Control.



The compact design of the Venterra reduces the requisite front ballasting of the tractor. The distance between the rear parallelograms and the lower links has been further reduced.

The Venterra 2K is guided in the row by a camera system, which guarantees precise guidance at all times, even at very high working speeds. This also underlines that the Venterra 2K is biased towards achieving even higher work rates.

Row protection elements and tools such as finger hoes on separately guided parallelograms, ridging discs or rear harrows are optionally available for all Venterra 2Ks and can be retrofitted at any time.

The compact and lightweight design means that there are no losses in yield due to any detrimental soil compaction. Precise working across slopes without tractor offset is easy thanks to the SCHMOTZER parallel shift frame. The work involved in changing the share plates is reduced to a few minutes as a result of the RAPIDO quick-change system. Trailing implements such as finger hoes or ridging discs are mounted on a separate parallelogram with separate depth control and enable direct contour following in all conditions. All hoes are integrated on every parallelogram option with maintenance-free bearings as standard.



Full compatibility with additional front mounted implements, such as the AMAZONE FT-P 1502 front tank as a band sprayer, is built in.



The hydraulic individual parallelogram lifting system enables damage-free hoeing right to the end of the row as well as the largest clearance available on the market.

FT-P 1502 self-contained front tank

The versatile partner in modern crop production!



The FT-P 1502 front tank in work with a SCHMOTZER hoe for band spraying



Operator station of the FT-P 1502 front tank with Comfort-Pack on the left-hand side

AMAZONE has developed the FT-P 1502 self-contained front tank based on the successful technology of the UF 02 crop protection sprayers.

The FT-P 1502 front tank is the ideal partner for any application of liquid products. These include hoes with band sprayers, seed drills with liquid fertiliser equipment and many others.

Large spray agent tank and high-capacity pump

The FT-P 1502 front tank with a nominal volume of 1,500 l (actual volume 1,660 l) is equipped with a hydraulically-driven 180 l/min piston diaphragm pump for self-contained use. The oil requirement for operating the pump is 35 l/min.

Simple, intelligent operation with the SmartCenter

The operator station of the FT-P 1502 front tank is positioned on the left-hand side and is easily accessible. The operator station can be equipped with the familiar Comfort-Pack of the UF 02 as an option. This includes the TwinTerminal 3.0 for operating the suction side, an automatic fill stop for suction filling, fill level dependent, auto-dynamic agitator regulation and remotely controlled, automatic cleaning programs for quick and thorough cleaning. The FT-P 1502 front tank is equipped with a 180 l fresh water tank that enables efficient cleaning.

Safe and precise metering of plant protection agents and other additives is guaranteed by the large induction device



Hydraulic pump drive, with a safety valve to prevent over-reving and incorrect hose connection to the tractor



Folding platform with access step for safe introduction of supplementary products



Fill opening in the tank dome with extra-long canister rinse nozzle for optimum cleaning results



Removable sieve for an unobstructed view into the tank

under the large easy-to-open dome cover. The additional step on the large folding platform in front of the spray agent tank makes the induction device very easy to reach. The induction device includes a cleaning pistol, a canister rinse nozzle with a dead man's handle and a removable stainless steel sieve as standard. The taps for operating the cleaning pistol and the canister rinse nozzle are located directly by the dome cover and are easily accessible. In addition, a storage facility is integrated in the operator station on the tank dome.

Gloves and other items can be safely stored in the dust- and splash-proof, lockable storage compartment on the right-hand side. A hand wash tank with an integrated soap dispenser is located directly beside this.

More safety on the road

The front tank is equipped with marker boards and integrated LED front lights as standard for road use. A TÜV-approved certified camera system, LED work lights and additional ballasting are available as options.

Precise, easy to operate and flexible in use with ISOBUS control

The application rate is controlled and regulated via independent ISOBUS control of the FT-P 1502 front tank. The ISOBUS control regulates the metering depending on the forward speed. Other functions such as automatic part-width section control or part-area, site-specific application can also be implemented. The ISOBUS terminal can also be used for the complete job management and documentation.



Lockable storage compartment and hand wash tank with integrated soap dispenser on the right-hand side of the machine



Fill level indicator clearly visible from the tractor



Part-width valve chest on the SCHMOTZER Ventera 2K hoe



Interface between the FT-P 1502 front tank and part-width valve chest on the attached implement

Part-width valve chest interface

A part-width valve chest with 2 to 6 part-width sections can be fixed on to any connected implement. The attached implement can be disconnected via a joining socket on the front of the valve chest leaving the part-width valve chest fixed to the machine. This always remains with the implement when the implement is changed. This means that any attached implements can be changed quickly and easily. The working range of the FT-P 1502 front tank covers an application rate of 5 to 100 l/min at a working pressure of 2.0 to 8.0 bar.

Applications for the self-contained front tank:

- ✔ Band spraying in conjunction with a SCHMOTZER hoe
- ✔ Liquid fertilisation during seeding with the Precea or Primera DMC
- ✔ Application of bio-stimulants during sowing or when stubble cultivating
- ✔ Other individual applications

The advantages at a glance:

- ✔ Simple intuitive operation and cleaning as well as maximum comfort
- ✔ Compact design for optimum visibility
- ✔ Comfortable induction of supplementary products via the tank dome
- ✔ Precise metering via independent ISOBUS control with forward speed-related rate regulation and part-width section control, with automatic part-width section control and part-area, site-specific metering as an option
- ✔ Maximum flexibility enables a large number of uses
- ✔ Year-round, universal and flexible use in combination with various implements thanks to the autonomous control system
- ✔ Optimised functionality for special applications:
 - Application of plant protection agents in combination with a hoe or
 - liquid fertilisation during sowing with a Primera DMC, precision sowing with a Precea or carrying out soil tillage with a Cenius cultivator

ContourControl boom guidance for UF 02 mounted sprayers

Maximum precision and output for mounted sprayers



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



Fully automatic, active ContourControl boom guidance

As an alternative to DistanceControl automatic boom guidance, AMAZONE now also offers the automatic, active ContourControl boom guidance for the UF 1602 and 2002 on working widths from 27 m.

The active ContourControl boom guidance guarantees precise application at high driving speeds for maximum work rates and yet exact, close distances to the target surface and so low drift. This is an important component in precise, efficient and environmentally-friendly crop protection, even on smaller and medium-sized farms.

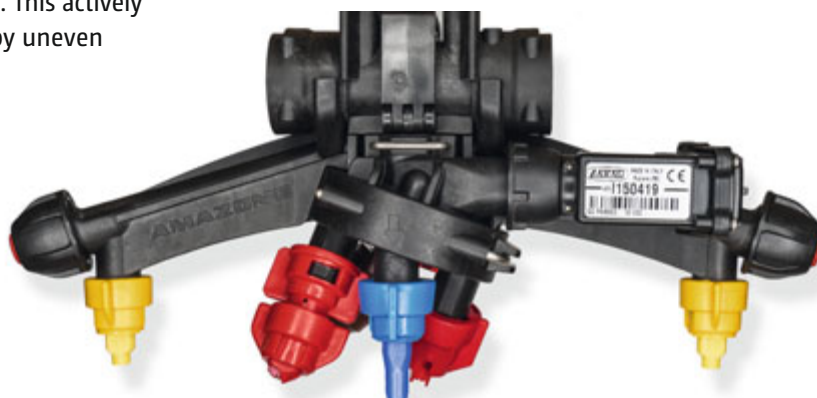
ContourControl

The AMAZONE ContourControl active boom guidance is a ground-breaking fully automatic boom guidance system that is also utilisable on three-point linkage mounted sprayers. The boom tilt is controlled by a pre-pressurised hydraulic cylinder on both sides. Rapidly-switching hydraulic valves bring the boom to the desired position. This actively eliminates any of the various effect caused by uneven

ground and other influences while driving. The cylinders for positive and negative angling of the two outer ends of the boom are controlled using the same principle. This allows the boom to follow highly uneven topography to maintain an optimal distance to the target surface across the entire working width, even on extremely hilly terrain – and at unprecedented speeds.

Less than 50 cm distance to the target surface with 25 cm nozzle spacing

Distances of less than 50 cm to the target surface can also be precisely maintained using the AmaSwitch quad nozzle body and 25 cm nozzle spacing.

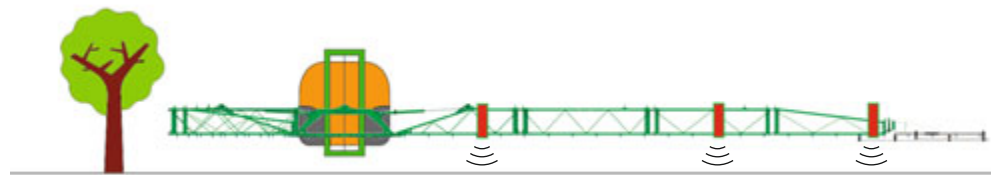


AmaSwitch with quad nozzle body and off-set kit for a perfect 25 cm nozzle spacing

Flex-fold

The standard, electro-hydraulic Flex-fold mechanism of the boom with ContourControl can control each pivot point on the boom separately. This allows the boom to be folded out to a reduced working width from the tractor cab. The overload protection within the hydraulic system is simultaneously

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



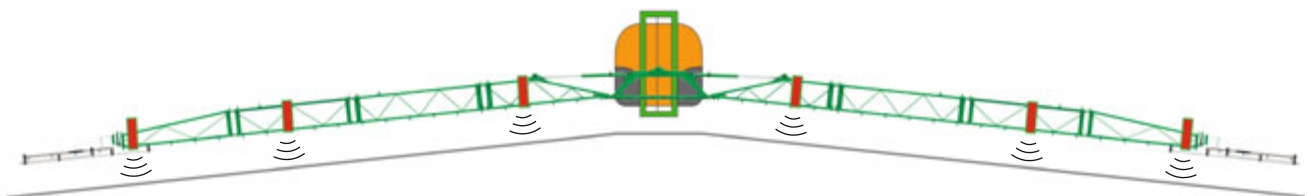
One-sided independent fold



One-sided positive angling on the right (Flex fold)



Simultaneous positive angling (Flex fold)



Simultaneous negative angling (Flex fold)



Exact distance to the target surface for less drift

Future-proof technology

New and innovative technologies, such as band application on row crops, or spot application on weeds, are now made possible for mounted sprayers.

Precise application with maximum work rates in a compact format for sustainable and environmentally-friendly agriculture

ContourControl boom guidance guarantees close distances to the target surface across the entire working width, without compromising the driving speed and work rates of the sprayer, a key feature in crop management. Farmers demand an effective, sustainable use of machinery at the right time. The active ContourControl boom guidance now delivers the required output in the compact, manoeuvrable, mounted sprayer segment, without compromising on boom guidance and application quality in small and medium field sizes. Exact distances to the target surface along the entire boom width helps to reduce drift and protects the environment. The precise maintenance of the boom height ensures optimal lateral distribution across the entire working width and high application quality.

The advantages at a glance:

- ✔ Fast and precise boom guidance for maximum work rates
- ✔ Distance of less than 50 cm to the target surface in conjunction with AmaSwitch fitted with quad nozzle bodies and 25 cm nozzle spacing for reduced drift
- ✔ Flex-fold for rapid folding procedures
- ✔ Simple changeover of boom width to reduced working widths with integrated break back protection for use in different tramline systems
- ✔ Future-proof technology, optimally equipped for band and spot application

UX 7601 Super and UX 8601 Super trailed sprayers

Maximum output in a most compact and most manoeuvrable form!



Equipped with all the innovative, future-proof AMAZONE crop protection technology, the new AMAZONE UX 7601 Super and UX 8601 Super trailed sprayers stand for the highest precision, performance and economy in operation

Video of trailed sprayer UX 7601 Super in use:
www.amazone.net/yt-ux7601





UX 7601 Super with 42 m Super-L3 boom in the transport position



UX 8601 Super with 36 m Super-L3 boom

The completely newly developed UX 7601 Super with an actual volume of 8,000 l and UX 8601 Super with an actual volume of 9,000 l provide maximum tank capacity on one axle. They feature compact overall dimensions with an extremely low centre of gravity for optimum stability and a low weight and high payload.

The frame – Super-stable and elastic

The UX 7601 Super and UX 8601 Super feature a completely newly developed frame which leads directly from the axle to the standardly equipped, lower hitch drawbar. The forward-sloping frame shape enables ideal weight distribution of the sprayer – permissible drawbar loads and axle loads are optimally utilised. The centre of gravity is very low due to the new frame profile, ensuring unrivalled stability on slopes and when cornering. The narrow profile of the spray agent tank

with the fresh water tanks mounted on either side of the frame also contributes to its excellent stability under all conditions. The machines have a comparatively low weight thanks to the one-piece frame without a separate drawbar. The maximum permissible total weight is 14 t.

Axles – stay on track at all times

Depending on customer requirements, the UX 7601 Super and UX 8601 Super can be equipped with a rigid or steered axle (up to 28° steering angle) for true track following. Due to the compact design, the sprayer is easily manoeuvrable despite the tank capacity, and there is no difference in handling compared with the smaller model sizes. The axle is unsprung as standard, but a hydro-pneumatic axle suspension is available as an option.



UX 7601 Super with a one-piece chassis without a separate drawbar for an extremely low centre of gravity



UX 8601 Super with hydro-pneumatic axle suspension and underbelly cover that provides an absolutely plant-friendly underside of the sprayer



Narrow tank – Rounded design

As in the case of the UX 4201 Super, 5201 Super and 6201 Super, the tanks all are made of polyethylene. The big advantage here is the generally very rounded form, inside and outside of the tank. Along with the absolutely smooth inner and outer walls of the spray agent tank, the sprayer is very easy to clean. The clever geometry of the tank means that there are no annoying nooks and crannies which are more difficult to clean. The narrow profile of the spray agent tank enhances stability when the tank is partially

filled. For example, the liquid cannot slosh around so much when cornering or on a slope, thereby ensuring absolutely safe driving stability, even with a partially filled tank.

High-capacity pumps without compromise

The new UX models are equipped with a 250 l/min spraying pump and a 350 l/min agitation pump as standard, both of which are piston diaphragm pumps. The dedicated agitation pump ensures sufficient agitation intensity with these larger tank capacities. The technology behind these piston diaphragm pumps enables consistently high delivery capacities, regardless of the spray pressure. The agitation intensity and application rate are always consistently high, regardless of whether the spray pressure is 2 or 8 bar. In addition, the piston diaphragm pumps are self-priming, which means that the complete spray agent circuit is a very simple set up and with the shortest possible hose routing. Apart from the spray agent tank, this also provides a solid foundation for fast and thorough cleaning. The newly developed pump generation has larger piston diameters which require a shorter stroke for the same transfer capacity. This means that the diaphragms are subjected to less mechanical stress.



Safe access to the tank opening via the large platform



Newly developed piston diaphragm pumps with hydraulic drive



Excellent road holding, also when negotiating bends, as a result of the extremely low centre of gravity

The service life is thereby significantly increased and the amount of maintenance work reduced. Depending on the customer requirement, the spray agent and agitator pumps can either be mechanically driven by a PTO shaft or hydraulically. The hydraulic pump drive, which is fully integrated in the ISOBUS control, regulates the required pump speed fully automatically depending on the operating status.

Maximum performance with HighFlow⁺

Both of the new UX models can be equipped with the optional HighFlow⁺ system so as to maximise work rates at the wider boom widths by means of higher working speeds and yet still guaranteeing effective application by maintaining an adequate water spray rate. The intelligent control technology enables both pumps to be used for spraying while maintaining a high agitation intensity. Despite the enormous application rates of 400 l/min, the machine always has sufficient agitation capacity available to maintain a homogeneous spray agent, thanks to the intelligent control technology. All components of the HighFlow⁺ system are completely integrated into the cleaning cycle.



Operator station with Comfort-Pack

Maximum operating comfort via the SmartCenter

The UX 7601 Super and UX 8601 Super are operated via the SmartCenter, which is concealed under the large, one-piece cover on the left-hand side. All machines feature a 60 l induction bowl with a rinse ring, canister rinse nozzle, mixing nozzle for the effective induction of powdery granules, spray lance, tank cover with large storage space and a function for cleaning the induction bowl with the lid closed.

Three levels of operating system are available for the SmartCenter: In addition to the completely manually operated Standard-Pack, the Comfort-Pack with TwinTerminal 3.0 complete with automatic fill stop for suction and bowser filling, remotely controlled cleaning programs and fill level dependent, auto-dynamic agitator regulation is available. The most convenient solution is the Comfort-Pack plus with a pressure-sensitive touch terminal for machine operation with fully automated filling and cleaning processes.

The advantages at a glance:

- ✔ Maximum tank capacity allowable on one axle
- ✔ Optimum weight distribution
- ✔ Low centre of gravity for maximum stability
- ✔ Compact and manoeuvrable
- ✔ Low weight for maximum payload
- ✔ High output yet easy to operate

DirectInject direct feed system

Quick, flexible and needs-based metered addition
of plant protection agents



DirectInject equipment with 50 l tank and pump unit in the storage compartment of the UX 01 Super



Activation of DirectInject in the AmaTron 4 terminal

The demands on farmers and technology are constantly increasing with regard to plant protection. Flexibility in the selection of plant protection agents in the field becomes an increasingly important point here. From a plant establishment perspective, the needs-based application of specific products and active ingredients only in sections or on individual fields is a frequent response. There are also restrictions relating to environmentally-sensitive fields and bodies of water which the farmer must consider when selecting the plant protection agents. These requirements with respect to flexibility in plant protection are in stark contrast to the structural development towards larger sprayers for high work rates and economic use.

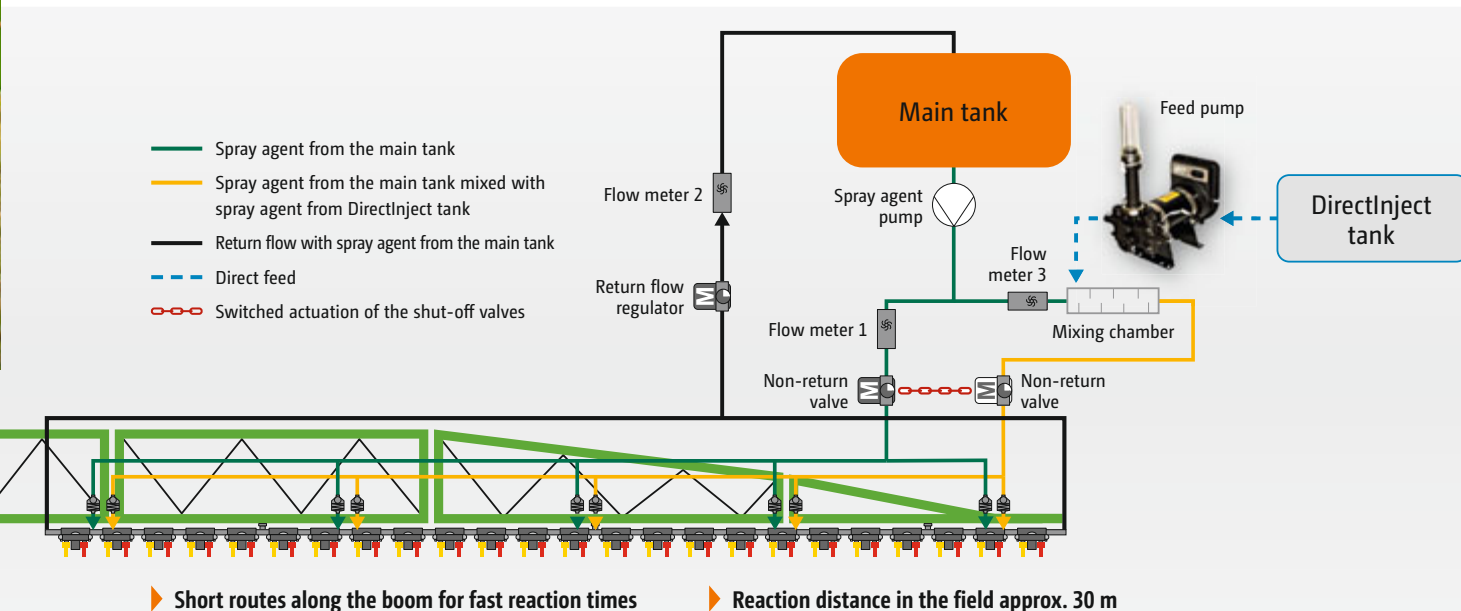
System overview

The DirectInject system has enabled AMAZONE to offer a system for the direct injection of plant protection agents which solves, for the first time, the conflicting goals described above. Plant protection agents can be injected or

stopped during application as required. The special feature of DirectInject compared to conventional systems is the fast response time of the injection process and its complete integration into the spray agent circuit and operation of the sprayer.

With DirectInject, it is possible to respond individually to the needs of the crop on the field and reduce the use of plant protection agents and the number of additional passes with the sprayer. This saves time, money and protects the environment.

DirectInject consists of an additional 50 l tank with its own metering system, which is integrated into the storage compartment of the UX 01 Super on the right-hand side of the machine. This means that the tank is also easily accessible from the ground and can be filled safely. The integration of these components into the storage compartment also provides optimum protection for all the equipment.





DirectInject tank with integrated sieve for easy and safe filling



Mechanical agitator and cleaning nozzle in the DirectInject tank

The major advantage of the technology is that DirectInject can work with undiluted plant protection agents. A mechanical agitator ensures that even plant protection agents which tend to separate remain homogeneous.

Application in the field

If the driver of the sprayer notices, for instance, a prevalence of unwanted weeds that need to be controlled in a specific part-area, he or she can activate the metering of DirectInject from the cab at the touch of a button. The supplementary product taken from the DirectInject tank, which is integrated into the storage compartment, is then added to the spray agent from the main spray agent tank in the mixing chamber. The optimised reaction time compared to conventional systems is achieved by a twin-line system. Pre-mixed spray agent from the spray agent tank and the

plant protection agent from the DirectInject tank are held in a second spray line in the boom. When the direct feed system is activated, the mixture is applied through the nozzle bodies and nozzles via several injection points in the boom. In this regard, the valve for the spray agent from the main spray agent tank is switched with the valve for the second spray line with the pre-mixed DirectInject agent so that spray agent is always only taken from one line. These short routes for the spray agent directly in the boom result in short reaction times in the field. The DUS pro high-pressure recirculation system enables the spray agent in the spray line to circulate with the pre-set spray pressure at all times, even when the nozzles are closed. Circulation is stopped when the direct feed system is activated, meaning that the spray agent from the spray agent tank is not mixed with the product from the DirectInject tank.



The boom has two separate supply lines, yellow and green, which are switched remotely



Exact input of the added quantity

Residual spray volumes and cleaning

Since DirectInject uses undiluted plant protection agents as the premix in the second spray line, any residual volume not used can be returned to the original container of the product after application. In comparison with conventional systems, the amount of plant protection agent actually needed does not have to be known before application, nor do large mixed residual amounts have to be dealt with afterwards.

The entire system can be cleaned automatically and remotely from the tractor cab after application. All components are integrated in Comfort-Pack plus on the sprayer for this purpose. This gives the user security and saves time.

Farmers who use DirectInject report that they can now react much more flexibly to individual fields and part areas with respect to plant protection. Where differentiated, immediate applications were otherwise not possible, they can now react to the situation in the field in just one pass.

Time saved, a reduction in the use of plant protection agents and optimum crops are the result.

The DirectInject direct feed system can be used with the UX 01 single-axle crop protection sprayers with standard ISOBUS communication, Comfort-Pack plus and AmaSwitch or AmaSelect single nozzle control with DUS pro high-pressure recirculation system.

The advantages at a glance:

- ✔ Flexible, fast and needs-based use of plant protection agents
- ✔ Saving of:
 - Working time and labour costs
 - Machine costs
 - Plant protection agents
- ✔ Optimum crops
- ✔ Environmentally-friendly

New AMAZONE mySprayer App

The smart control aid for AMAZONE crop protection sprayers



More comfort and safety with the mySprayer App – the convenient aid in your pocket



Your smartphone communicates directly with the machine via Bluetooth

The mySprayer App, in its basic version, provides AMAZONE crop protection sprayers with a practical and convenient aid. The App allows particularly convenient and, at the same time, safe operation of the AMAZONE crop protection sprayer.

Every AMAZONE ISOBUS sprayer in the UF 02 and UX 01 ranges can, as an option, be equipped with Sprayer Connect. Operators have control of extensive machine functions via this Bluetooth interface with the mySprayer App on a smartphone.

The mySprayer App supports the operator as an intelligent aid for a wide variety of different situations.

Reliable preparation for the start of the season

Checklists for various different aspects are made available in the mySprayer App at the start of the season, in order to ensure a perfect start to the spraying year. The checklists can be individualised on the basis of the stored machine specification, and thus guaranteeing reliable machine use. The mySprayer App is the ideal supplement to the familiar SmartLearning.

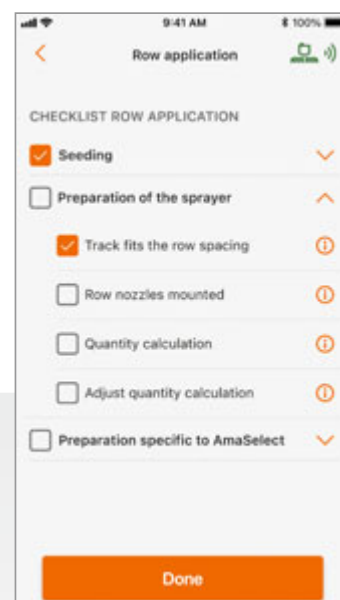
With aspects such as the AmaSelect Row, the mySprayer App provides recommendations for action to achieve optimum results.

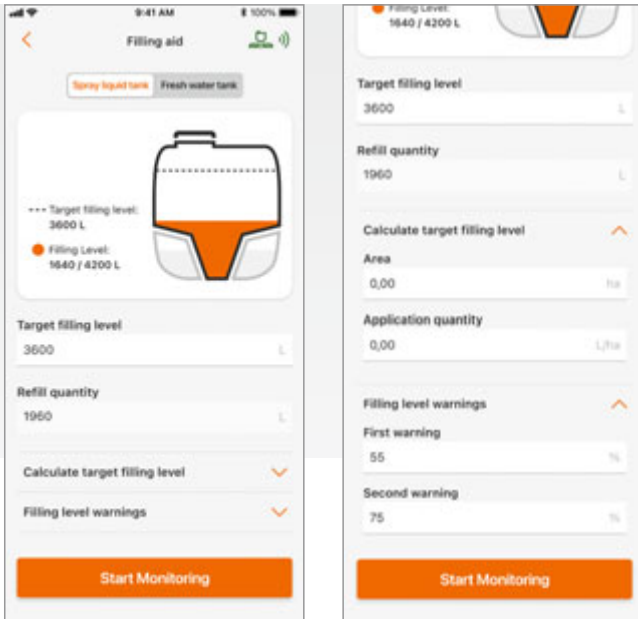
Convenient filling

The maximum quantity to be filled can be entered via the filling aid on the mySprayer App before filling. The filling aid then automatically determines the maximum area to be treated, bearing in mind the current application rate.

You can also work the other way round, depending on the situation. The operator enters the remaining area to be treated and the filling aid determines the total amount to be filled, bearing in mind the application rate per hectare.

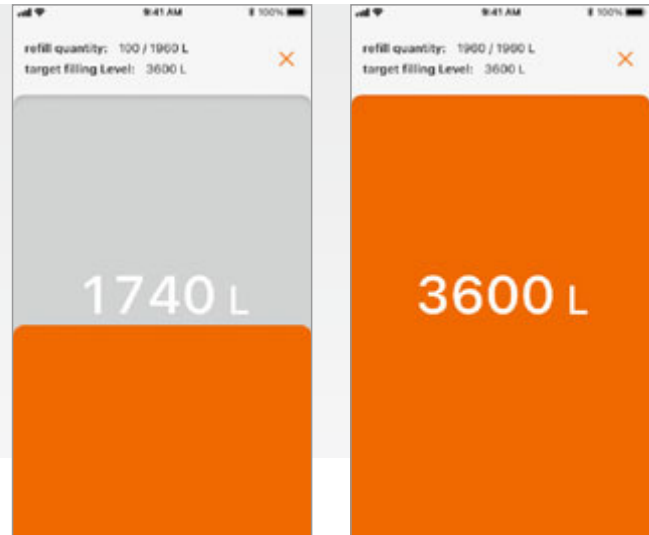
Checklist for band spraying – the most important information to hand quickly, conveniently and clearly





Filling aid with digital display of the fill level and the anticipated remaining time

Acoustic signal with vibration when the flexibly-adjustable fill level is reached



The progress of the filling process is displayed on the filling screen

For rapid and precise metering of the plant protection agent, the App automatically indicates the required quantities of the individual constituents in the mix for the determined set fill level.

The operator can monitor the current fill level during filling. The mySprayer App informs the operator of the progress of the filling programme by optical and acoustic messages.

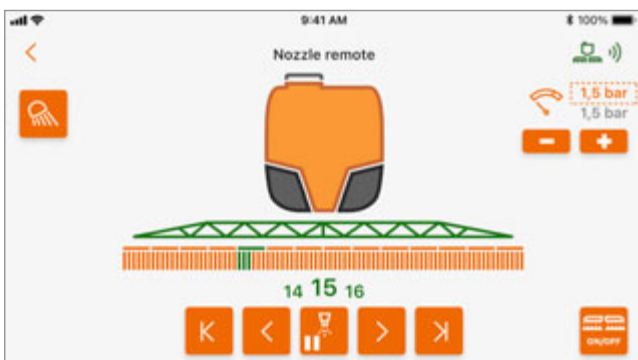
Simple checking of the nozzle functionality

Using the nozzle remote control function, you can switch individual part-width sections on and off by remote control with the mySprayer App. There are automatic sequential programmes available for sprayers with AmaSwitch or AmaSelect individual nozzle switching that are controlled

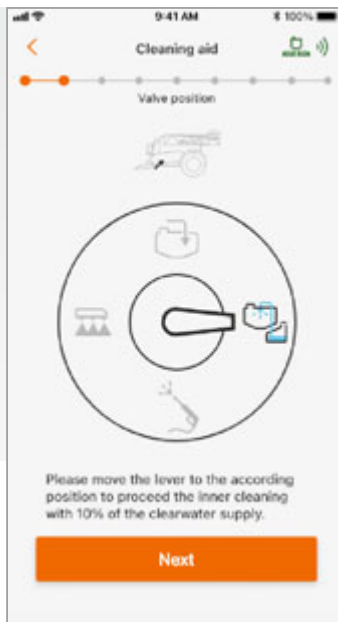
remotely via the mySprayer App. This means that the operator can check very quickly from outside the perfect functioning of all nozzles and react very quickly to nozzles that are not operating perfectly.

Comprehensive, easy-to-understand explanation of message and error codes

Message codes and error codes show comprehensive information about operating instructions and faults directly in the terminal of the machine. In combination with the mySprayer App, the operator is provided with information about the use of the machine and any error codes, with a comprehensive description of each individual code. The instructions for action to find and rectify faults are particularly helpful.



The remote nozzle control can be used to control the nozzle function simply and conveniently directly at the boom. Automatic run-through of the part-width sections can be started via the mySprayer App.



The cleaning wizard guides you through the individual manual cleaning steps and ensures an optimum result

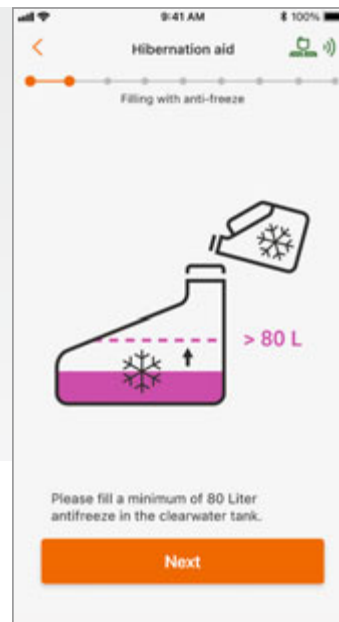
Convenient and thorough cleaning

The mySprayer App provides comprehensive individual instructions for the processes of dilution, boom flushing, quick cleaning and intensive cleaning. That guarantees consistent and good cleaning.

Based on the machine equipment level, the mySprayer App shows step-by-step instructions, modified for that individual crop protection sprayer. All the circuits in the AMAZONE crop protection sprayer are cleaned quickly and reliably in the correct sequence whilst stood.

Operator-friendly over-wintering

In order to reliably prevent frost damage to the machines over the winter, there is the over-wintering wizard on the mySprayer-App which provides support with the preparation and execution of over-wintering.



The over-wintering wizard provides information about the required amount of anti-freeze before starting the procedure

Machines without Sprayer Connect

Many functions, such as the checklists for preparation ahead of the season, a calculator for precise calculation of the quantity required of each constituent in a tank mix for a specific fill quantity, and the analysis of message and error codes, can be used with the mySprayer App, irrespective of whether the machine is equipped with or without Sprayer Connect.

The advantages at a glance:

- ✔ High levels of functional reliability, right at the start of the season
- ✔ Convenient and precise filling
- ✔ Best application results as a result of perfect nozzle choice
- ✔ Clear instructions and rapid fault analysis
- ✔ Best cleaning results
- ✔ Optimum preparation for the winter

AMAZONE UX SmartSprayer

Spot Farming at the highest level now in field use



SmartSprayer in use on sugar beet

Video of UX SmartSprayer in field use:
www.amazone.net/yt-smartsprayer





SmartSprayer – a joint project from Bosch, xarvio™ and AMAZONE

AMAZONE started practical field trials of the UX 5201 SmartSprayer trailed sprayer with its 36 metre boom during the spring season 2022. The SmartSprayers were deployed over many countries in large agricultural businesses and demonstrated the potential of part-area, specific plant protection.

SmartSprayer technology for more sustainability

The AMAZONE UX 5201 SmartSprayer trailed sprayer integrates camera technology and image processing from Bosch and crop establishment know-how from xarvio™ in a unique crop protection system. With field-specific threshold values and simultaneous full-width and spot application in a single pass, herbicide costs can be reduced by 70%.

Successful field use

The UX 5201 SmartSprayer integrates three main components for spot application: scanning, decision-making and application. The camera and image processing technology, developed by Bosch, scans the entire field, regardless of environmental influences, by day and by night, thanks to the integrated light module. The sensor systems distinguish between growing crops and weeds at working speeds of up to 12 km/h. xarvio™ selects an application in real time, based on the weed density. The xarvio™ agronomic decision-making engine takes into account the crop, the timing of application and the customer and field-specific weed treatment strategy. Pulse-wide frequency modulation valves (PWFm) with SpotFan nozzles spaced 25 cm apart enable maximum savings.



Active light source for accurate weed detection by day and night



Boom end with integrated break back protection



Extremely small application zones

SmartSprayer dual tank system

The UX 5201 SmartSprayer is a spot spraying system that can be used pre- and post-emergence, enabling greater savings. In addition, farmers can save on the number of passes and costs using the innovative dual tank system in combination with the FT-P 1502 front tank. A second spray line enables the simultaneous full-area application of ground-applied herbicides, insecticides or fungicides. As well as improved cost-efficiency and multifunctional utilisation, a major advantage of the system is its environmental friendliness.

A new generation of booms

The newly developed Hightech spray boom has the camera and light modules ready-integrated and ensures high-precision spot application. The unique boom guidance with ContourControl and SwingStop ensures optimal application results.

Exact image recognition

Bosch's image recognition system detects any weeds in milliseconds at a very early growth stage, in order to apply herbicides to the target surface with high precision and efficacy. The specially developed LED lighting technology provides support in difficult ambient conditions such as with shadows and, of course, at night. Another advantage

of the integrated SmartSprayer solution is its superiority over satellites and drones, as plants are detected to pin-point accuracy, making real-time applications possible.

xarvio™ agronomic decision-making engine

The best field-specific setting and the recommended herbicide mixture for the SmartSprayer system and when they should be used are based on the advanced xarvio™ agronomic decision-making engine (ADE) from BASF Digital Farming. Various parameters such as cropping, weed spectrum and weather conditions, are automatically taken from xarvio™ FIELD MANAGER, processed to create a decision and transferred to the SmartSpraying system in line with good agricultural practice of integrated plant protection. The UX 5201 SmartSprayer uses damage thresholds to only apply the product where weeds have a negative effect on the quality of weed management. This saves more herbicide in comparison to conventional systems, while achieving the same results.

In addition, xarvio™ simplifies the everyday workflow with crop establishment recommendations. In trials, it emerged that it is precisely this combination of know-how which ensures the successful operation of the UX 5201 SmartSprayer and which makes the system so extremely practical.

SmartSprayer with 36 m boom





Spot application via the spot nozzle bodies

Viable technology

Together with Bosch and BASF Digital Farming, AMAZONE has carried out a wide range of research activities and implemented them in a marketable product with its interdisciplinary know-how. The gradual market introduction of this pioneering SmartSprayer technology, which is unique worldwide in its technical possibilities and system approach, will take place in the coming years.

The advantages at a glance:

- ✔ Instructions for action are based on the enormous volume of data held by the xarvio™ agronomic decision-making engine
- ✔ Real-time systems for very small area spot application with integrated documentation of spot application
- ✔ Maximum precision even at large boom widths in conjunction with active boom guidance and active swing damping
- ✔ Technology ready for practical use
- ✔ Enormous potential for savings on plant protection agents



Combination of full-surface application and spot application at night

AMAZONE involved with the start-up company, AgXeed



4-Wheel AgXeed AgBot and AMAZONE KE 3001 Super rotary harrow with GreenDrill harrow-mounted catch crop seeder box



4-wheel AgXeed AgBot with SCHMOTZER Select hoeing machine

The AMAZONE Group strengthens its development cooperation with the Dutch company start-up AgXeed B.V. by taking a financial stake in the company. And, alongside other investors, another agricultural machinery partner, CLAAS is also involved via the Seed Green Innovations GmbH.

The intensification of the successful collaboration makes AMAZONE a strategic partner of the start-up company AgXeed. The aim of the partnership is the on-going development of AMAZONE attachments with regard to their autonomous use in the field. An important basis for the cooperation is the commitment to open interfaces in order to ensure comprehensive compatibility and connectivity of equipment and tractor unit, and to achieve maximum benefit for both sides. The customer and their application lies at the core. We intend that they should find the best solution in the market with the partnership of AgXeed, CLAAS and AMAZONE.

The autonomous platforms from AgXeed are an ideal match with the AMAZONE range. The combination of minimum ground pressure, ideal weight distribution, and flexible mounting places opens up new opportunities for integrated design of intelligent solutions for agriculture.

The AgBot with its tracked crawler chassis has already been used very successfully in combination with the AMAZONE soil tillage and seeding machinery in the last few years. The new 4-wheel AgBot can also be used with the SCHMOTZER hoeing technology for mechanical weed control, alongside soil tillage and sowing. In addition, the universal FTender front mounted hopper for seed and fertiliser and the FT-P front tank for plant protection agents and liquid fertiliser, can be combined, with various different mounted AMAZONE machines, depending on the application. Various different sensor systems will continuously monitor and analyse the working process. Optimised processes and working quality are the focus when considering an autonomic rig. The challenges of safety technology can be mastered particularly well with the various different experience horizons of AgXeed, CLAAS and AMAZONE.

For the farmer, farm manager and operator, the use of autonomous cultivation systems means, in the end, more time for agronomic and strategic management decisions within the business.



AgXeed AgBot with tracked crawler chassis and AMAZONE Cenio 3000 Super mounted cultivator and front-mounted double knife roller

The Dutch start-up, AgXeed offers an intelligent, sustainable and fully autonomous carrier system with scalable hardware, virtual planning tools, and comprehensive data modules, and is therefore these days one of the leading companies in this field in Europe. After the tracked crawler version with a power output of 115 kW, launched in 2020, the three-wheel AgBot for fruit and vineyard application followed in 2021, recently followed by the four-wheel AgBot each having a power of 55 kW. All the vehicles are powered by diesel-electric units. Together with AMAZONE and the other partners, AgXeed intends to continue to accelerate the development of efficient and holistic agricultural system solutions in the coming years.



AgXeed AgBot tracked crawler chassis and AMAZONE Precea 3000-FCC precision air seeder with FTender 1600 front mounted hopper

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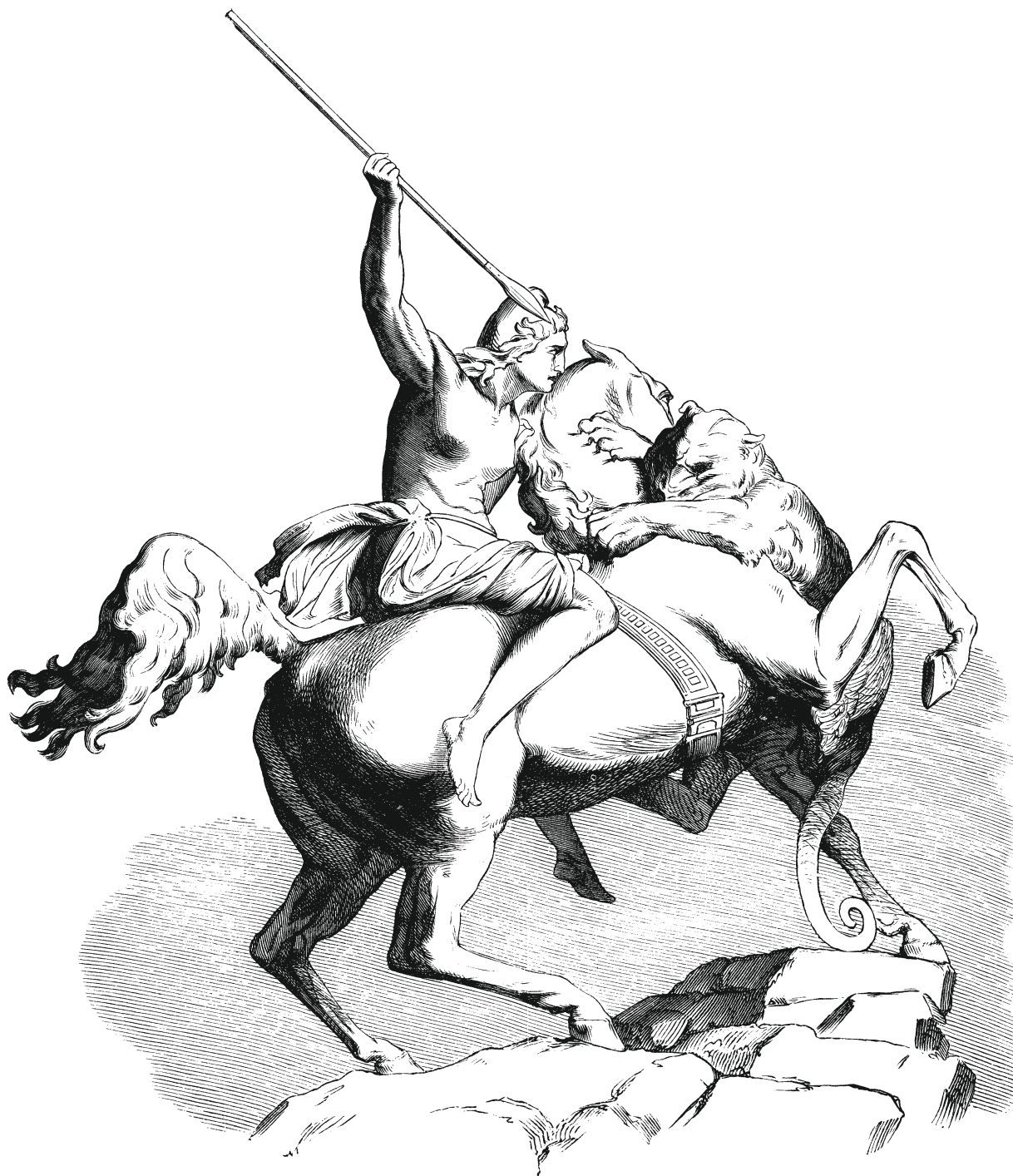
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