## Mounted spreaders **ZA-V**



## **ZA-V** mounted spreaders



- We liked the hopper cover very much and, above all, the position for washing off and where it can dry."
- "We spread at 30 m and travelled at 15 km/h. And yet we were still able to spread at more than 500 kg/ha − very good."

  ("profi" − Practice Test ZA-V 2700 Profis Tronic fertiliser spreader · 01/2017)
- "Our time using the ZA-V was only short but very convincing." ("profi" Test report ZA-V 2000 Profis Tronic fertiliser spreader · 03/2015)

The ZA-V mounted spreader, with a hopper capacity of 1,400 to 4,200 l, reaches impressively high working speeds of up to 30 km/h. Thanks to its high application rate of up to 390 kg/min and a working width of up to 36 m, it achieves exceptionally high work rates.

ISOBUS communication, weighing system, the hydraulic or electric Limiter V or  $V^+$  border spreading systems plus the many other optional extras make the ZA-V an ultra-modern fertiliser spreader.



	Page
The advantages at a glance	4
High-quality, multi-layer paint	6
Frame and hopper   Extensions	8
Profis weighing system   Tilt sensor	10
Low level sensor   Slope spreading kit   Spreading disc drive	12
Spreading unit   Spreading discs and agitator	14
Border spreading systems   Border spreading	16
Limiter V or V <sup>+</sup> border spreading system   Border spread deflector	18
Innovation Farm border spreading field trial	20
Equipment – perfect down to the last detail	22
Front-mounted spreader	25
Overview of the ZA-V models   ZA-V with hydraulic shutter actuation	26
ZA-V Easy   EasySet 2	28
ZA-V Profis Control   AmaSpread 2	30
ZA-V Tronic   ZA-V Profis Tronic   ZA-V Profis Hydro	32
ISOBUS – one language, many benefits!	34
ISOBUS terminal AmaTron 4	39
Spreader Application Center   mySpreader App	42
Technical data	44

• "Working in the field with the ZA-V Profis Tronic is pleasingly 'unspectacular'. Just fill up with fertiliser and off we go." ("profi" − Practice Test ZA-V 2700 Profis Tronic fertiliser spreader · 01/2017)

## **ZA-V** mounted spreaders









2 to 16 part-width sections



Mechanical or hydraulic

The advantages at a glance 4



# The advantages at a glance:

- Deep-drawn base hopper without corners and edges ensures the lowest residues and easy cleaning
- Durable, thanks to a high-quality, multi-layer paint finish, combined with the many stainless steel components
- Intelligent, fertiliser saving agitator with speed reduction when the shutter slide is closed
- Modern precision spreading unit with a large aperture for application rates of up to 390 kg/min
- ♣ Electrically-controlled Limiter V<sup>+</sup> border spreading device for precise side, border and water course spreading
- Precise monitoring and control of the application rate, thanks to the 200 Hz weighing system and tilt sensor
- Simple configuration of the fertiliser spreader using the intuitive mySpreader App

### **MORE INFORMATION**

www.amazone.net/za-v



PRODUCT FILM Find out more



**DOWNLOADS** mySpreader App

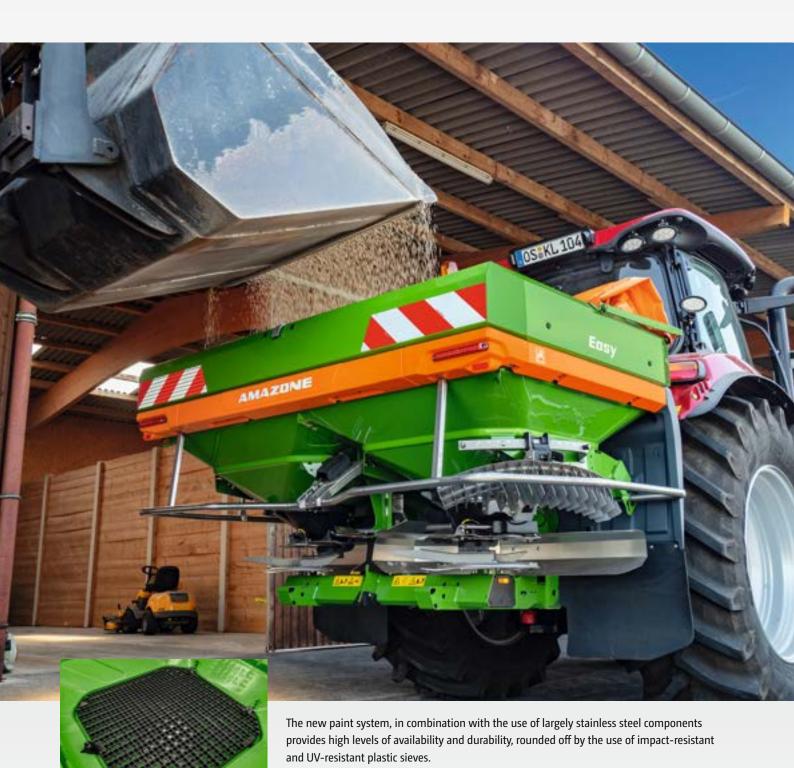


SMARTLEARNING www.amazone.net/ smartlearning

# The best of both worlds



Cathodic dip painting (CDP) combined with powder coating



High-quality, multi-layer paint



The KTL dip-paint priming of all components ensures virtually full-area corrosion protection.



Double protection through the additional thick powder coating, providing increased protection against mechanical wear and tear.

### High-quality, multi-layer paint

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, there is a new painting process for the ZA-V, ZA-TS and ZG-TS fertiliser spreader ranges. This involves, one 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.

### 7-year manufacturer guarantee

Based on this optimum painting process, AMAZONE is able to offer its customers a manufacturer guarantee of seven years against rusting through. From 01/01/2023, customers can apply to have the guarantee activated for ZA-V, ZA-TS, and ZG-TS models, starting from the 2022 model year.

This registration 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, one can continue to work without any worries.

### The benefits

### Cathodic dip painting process

- Suppression of rust infiltration
- Best possible protection, even on the inner surfaces of tubes and box sections

#### Powder coated top coat

- Double protection through additionally applied powder coating
- · Improved resistance against everyday wear and tear

### Quality and reliability

- All the components on the spreading unit and all the hydraulic fittings are made of stainless steel
- Impact, UV and chemical resistant plastic sieves

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

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



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

## Frame and hopper

### Strength pays dividends



ZA-V 1400 with Special frame and payload of up to 2,200 kg

### The frames

Special frame: 2,200 kg payload,
Cat. II linkage dimensions and hitch pins.

Super frame: 3,200 kg payload,
Cat. II linkage dimensions and hitch pins.

✔ Ultra frame: 4,500 kg payload, Cat. III linkage dimensions and Cat. II or III hitch pins.

### The deep-drawn base hopper

The base hopper has a capacity of 700 l. It is deep-drawn, meaning that it does not have any corners, edges, and welded seams. This provides a continual and even flow of the fertiliser. Also the cleaning of the spreader is made easy thanks to this design.

### The benefits of the design

- No corners and edges
- **▼** Even and constant flow of the fertiliser
- Less danger of bridging
- Corrosion resistant
- Simple cleaning procedure

## Outstanding design: mounted spreaders with up to 4,500 kg payload

#### The benefits

- **▼** Lightweight frame design with excellent reliability
- Optimised centre of gravity and yet plenty of space for hitching up





#### Quick Hitch Adapter

Mounted spreaders with Ultra or Ultra Profis frames for a payload up to 4,500 kg can also be mounted on the tractor using the Quick Hitch quick-coupling system. This involves replacing the 3-point mounting frame by a Quick Hitch Adapter.

### The extensions

### In two widths and many volumes

### The narrow ones

with a filling width of 2.22 m



S 1400 extension S 1700 extension



S 2000 extension



S 2600 extension with foldable ladder

#### **Additional bolt-on extensions**

For subsequent increases to the hopper capacity of the ZA-V, AMAZONE offers, for the S and L base hopper extensions, a further suitable bolt-on extension.

The volume of these bolt-on extensions is 600 l for the S hopper width and 800 l for the L hopper width.

The hopper is equipped each side with two large windows to the front and rear, meaning that the fertiliser was easily visible, even when the cover was closed."

("profi" – Practice Test ZA-V 2700 Profis Tronic fertiliser spreader · 01/2017)

### The wide ones

with a filling width of 2.71 m and foldable ladders



L 2200 extension



L 2700 extension



L 3200 extension



L 4200 extension

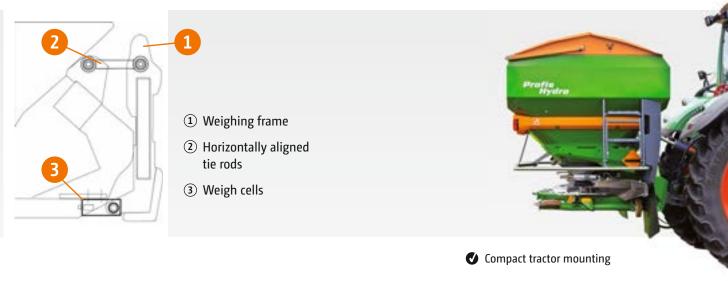


ZA-V with L 800 bolt-on extension

## He who weighs wins!

ZA-V Profis with weigh cell frame





### No calibration. Top the spreader hopper up and off we go! There is nothing simpler.

The weighing system for the Super and Ultra frames provides controlled convenience and increased safety. With its 200 Hz weighing system, it works on-line to determine the different characteristics of the spreading material – and all this with the highest degree of measuring accuracy. It automatically compares the actually applied rate with the pre-determined rate. Deviations in the flow characteristics, for example when spreading blended mineral fertilisers,

Tilt sensor for steeper sloping terrain

On the Profis system, any possible effects of gravity on the measuring of the hopper contents are taken into account during work with the help of a tilt sensor: A twin-axis tilt sensor that assesses the front and back tilt as well as to the left and right, corrects measurement errors that may arise when going up and down hills or when driving across a hillside.

are detected and the spreader is re-adjusted automatically via the electric metering shutter slides. In addition, for field-related nutrient application, for example, the applied rate is precisely documented.

For a balanced nutrient supply, the spread rate can be changed at the touch of a button via the terminal.

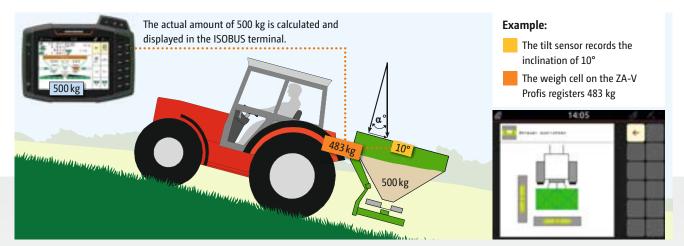
### The benefits

### Regulating/calibrating under all operating conditions:

- Side, border and water course spreading
- Spreading in wedge-shaped fields
- Using application maps/N-sensors

### Absolute weight assessment:

- Residual volume display
- Residual area and residual hopper level display
- Documentation of the total volume spread



So that the alignment of the ZA-V can be successfully kept in the horizontal position, the angle of the ZA-V Profis Tronic and ZA-V Profis Hydro is displayed comfortably in the ISOBUS terminal.

### Reliable down to the last detail

### Low level sensors

When spreading on slopes, or when border spreading, one hopper tip can empty quicker than the other. In order to check each outlet apertures individually, AMAZONE therefore additionally offers low level hopper sensors. If uneven emptying occurs, the empty hopper tip is graphically displayed on the operator terminal in red, so that the driver is warned in good time.



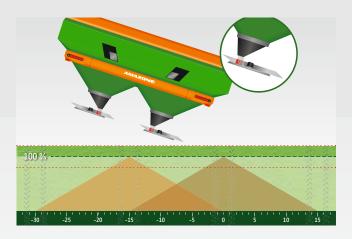
The driver receives a warning message early enough when either hopper tip is almost empty.

## Slope spreading kit

### Precise fertiliser distribution on slopes

### 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. On hilly terrain, the topography has a significant impact on the spread fan and thus fertiliser distribution in the field.



#### Simple special option with a high impact

The point the material is delivered onto the disc in practice is changed by the inclination of the fertiliser spreader. The fertiliser is guided down onto the disc over a longer distance by means of the slope spreading kit, thereby minimising the impact of the slope to a considerable extent. Trials by the Innovation Farm in Austria have confirmed the ZA-V's precise lateral distribution, even on hilly terrain.

- "Apart from the economic aspects, this also has important ecological benefits for the environment."
- "Lateral distribution using the slope spreading kit: the variation with the slope spreading kit achieved [...] a coefficient of variation (CV) of 4.9%."

("Landwirt" – Spreading fertiliser with precision, even on slopes  $\cdot$  11/2022)

**Travelling across the slope – with the slope spreading kit:**Perfect distribution, no distortion of the spread pattern at the sides

## The spreading disc drive

### Mechanical or hydraulic, choose for yourself!

### Tronic – mechanical spreading disc drive

On the mechanically-driven ZA-V spreader, the spreading unit and agitator are driven by the PTO shaft. In this case, the spreader is protected from overload, as standard, by a universal drive shaft with friction coupling. The input speed from the tractor PTO is transmitted via the central gearbox resulting in an increased spreading disc speed. This allows spreading at low engine revs across the maxi-

With mechanically-driven spreaders, between two and eight part-width sections are switchable, depending on the operator terminal.

mum working width.

### Hydro – hydraulic spreading disc drive

The hydraulically-driven ZA-V Hydro spreader enables operation at different spreading disc speeds, irrespective of the tractor's engine revs. In this way, extremely comfortable and precise spreading is possible, and side, border or water course spreading can be activated independently to each side. The driver can conveniently switch between these individual functions whilst driving. If the pre-set speed is not suitable for precise side spreading, it can also be adjusted via the terminal during operation. These changes are automatically saved in the terminal for the respective border situation.

- The side-independent regulation of the spreading disc speed permits even more precise spreading on wedge-shaped fields. Up to 16 part-width sections are possible in combination with SectionControl.
- With pressure filter as standard
- "Simple and cost-effective part-width section control. Even with the spread rate reduction system of the ZA-V, good results can be achieved at the common working widths." ("top agrar" - System comparison "Automatic spreading in wedge-shaped fields: Which system is best?" · 02/2016)
- In addition to fertiliser-saving, easily interchangeable and adjustable spreading at the field's border, the ZA-V Hydro also provides the benefit that this spreader operates completely independently from the tractor engine speed, thus saving fuel." ("AGRARTECHNIK" - Practice Test ZA-V 2700 Profis Hydro · 06/2017)



Schematic representation of the mechanically-driven ZA-V



Schematic representation of the hydraulically-driven ZA-V

The precision spreading system

For maximum efficiency

### **Spreading system with Soft Ballistic System**

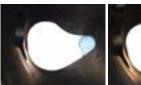
Due to its large aperture, the ultra-modern spreading system on the ZA-V can achieve application rates of up to 390 kg/min. The hopper tip, which tapers down to the shutter slide, prevents any residues collecting, thereby making the machine easy to clean.

The quantity-effect-free outlet is positioned freely above the spreading disc. The position is very close to the centre of the spreading disc, offering the advantage that the fertiliser is taken up extremely gently by the spreading discs at the lowest circumferential speed. The fertiliser is then accelerated very gently. The spread pattern is maintained at all application rates and at all forward speeds and is completely independent to the spread rate.

On ZA-V mounted spreaders, the entire spreading system is made from stainless steel and high-quality glass-fibre-reinforced plastic, thus providing a long service life and high resale value.



Spreading unit with V-Set spreading discs and star agitator for fertiliser-protecting application





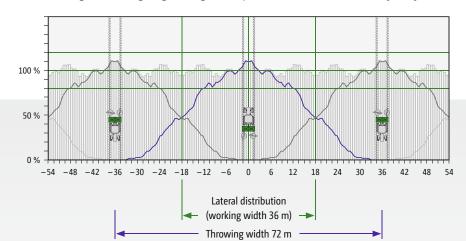


Specially-shaped aperture with automatic correction for quantity effect

### SBS – Soft Ballistic System

Mineral fertiliser needs to be gently handled to ensure a precise distribution and an exact placement to the plant over the entire working width. Fertiliser, which has been damaged whilst going through the spreader, will not be

precisely distributed. The agitator, metering components and spreading discs of the ZA-V are optimally tailored to each other. This protects the fertiliser and secures your yields.





Double overlap at up to 36 m working width The spreading unit of the ZA-V has been developed using three-dimensional spread patterns to achieve perfect lateral distribution. SBS enables working widths of up to 36 m. Large overlap zones ensure a perfect spread pattern.

## **Spreading discs and agitator**

### Precise and fertiliser protecting

### **Spreading discs with QuickSet**

Only 3 pairs of spreading discs cover the entire operational range from 10 m to 36 m. The working width is simply, quickly and safely adjusted via the spreading vane position. Setting of the spreading vanes is carried out without any tools via the QuickSet adjustment system.

The standard spreading disc speed is at a fertiliser-protecting 720 rpm.

With their special shape, and several delivery points at both the upper and lower end of the spreading vane, the newly developed spreading vanes of the ZA-V provide an especially good lateral distribution.

The V-Set disc system enables the quick change of the complete spreading disc. The perfect solution for users with different tramline systems and multiple fertiliser types.



- 1 Spreading vane,
- 2 Spreading disc,
- 3 Clear scale positions,
- 4 QuickSet setting system for adjustment of the vane position
- "AMAZONE has found a practical solution for adjusting the throwing width. It is carried out without tools directly on the spreading vanes, which are swivelled around a pivot point and locked via a spring-loaded lever."

("profi" – Test report ZA-V 2000 Profis Tronic fertiliser spreader  $\cdot$  03/2015)

### The setting scales on the spreading discs can be easily read, meaning the spreading vanes are quickly adjusted."

("dlz agrarmagazin" – Field test ZA-V fertiliser spreader · 03/2017)



- Working width ranges:
  - V-Set 1: 10 m 21 m
  - V-Set 2: 18 m to 28 m (spreading vanes with hard metal coating)
  - V-Set 3: 24 m to 36 m (spreading vanes with hard metal coating)

### The intelligent agitator

The mechanical star agitator of the ZA-V is positioned directly above the deep aperture and in this way provides a reliable and consistent fertiliser flow at all application rates. Turning at just 45 rpm, the agitator makes for a fertiliser-protecting operation. When the shutter slides are closed on both sides, the agitator speed is reduced to prevent unnecessary damage to the fertiliser.





## **Border spreading systems**

Spreading fertiliser right there; just where it is of benefit to your plants

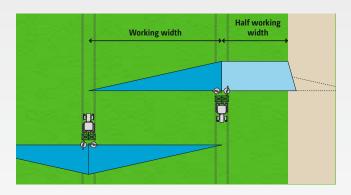


**◆** AMAZONE offers setting recommendations for all border spreading techniques

## Effective and precise – spread only where the fertiliser will benefit plants

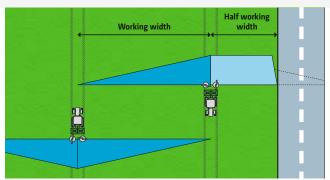
### Side spreading (yield-orientated) with Limiter V or V+

The neighbouring field is an area that is used agriculturally. In this case it is tolerable for a small quantity of fertiliser to be thrown over the field border. The full target rate is applied right up to the field boundary.



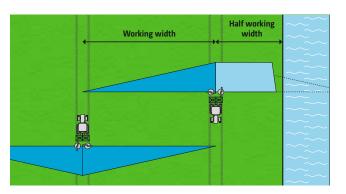
### Border spreading (environmentally orientated) with Limiter V or V<sup>+</sup>

If the field is adjacent to a road or cycle path, no fertiliser may be thrown beyond the field border. In this case, the throwing distance is adjusted in combination with the shutter slide.



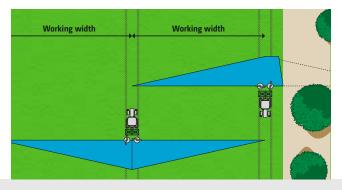
### Water course spreading (environmentally orientated) with Limiter V or V<sup>+</sup>

If there is a body of water directly at the edge of the field, a defined distance away from the water must be maintained when fertilising according to the fertiliser regulations. For this purpose, the throwing distance is further reduced in combination with the shutter slide.



### Border spreading with border spread deflector

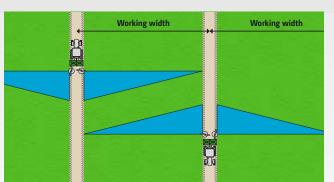
If the first tramline is at the edge of the field, border spreading (environmentally-oriented adjustment) is provided by shutting off one side of the spread fan. No fertiliser goes beyond the boundary of the field, and optimum fertilisation takes place inside of the boundary.



### Bed spreading with bed spreading deflector at both sides

For spreading specialist crops in beds to either side of the tractor, AMAZONE offers the bed spreading deflector. It keeps the track virtually free from fertiliser. The bed spreading deflector is actuated manually or, as an option, hydraulically from the tractor cab.





## Limiter V<sup>+</sup> border spreading system



### Electrically-adjustable Limiter V<sup>+</sup>

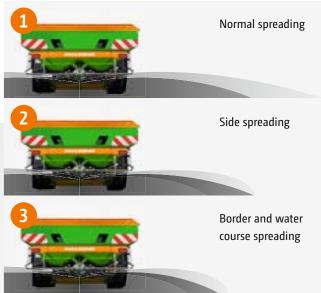
The electrical fine-adjustment of the Limiter V<sup>+</sup> border spreading device to the respective field boundary enables comfortable switching between field-side, border and water course spreading from the tractor cab during fertiliser application. Due to the design of the Limiter V<sup>+</sup> being open at the bottom, this can be swivelled down gradually from above into the spread fan diverting what is going towards the field's border.

- ① With just a slight lowering of the Limiter V<sup>+</sup>, only the fertiliser flow from the long vane is deflected.
- (2) If the Limiter V<sup>+</sup> is lowered further, the fertiliser flow from both spreading vanes is deflected.
- ③ In the completely lowered position, the lamellae provide an accurate spread pattern towards the field's border.



### Side, border and water course spreading

For spreading adjacent to fields, roads or water courses, the ZA-V can also be equipped with the Limiter V<sup>+</sup> border spreading device. The border spreading device can then be smoothly lowered into the fertiliser flow at differing heights. The swivelling adjustment around the centre of the spreading disc sets the Limiter V<sup>+</sup> to the different working widths and fertiliser types. This ensures an accurate spread pattern at the border.



# Limiter V border spreading device and border spread deflector



Limiter V hydraulic border spreading system



Border spread deflector folded upwards

### **Hydraulically-actuated Limiter V**

For side, border and water course spreading, the hydraulically-actuated Limiter V border spreading system is available. Prior to spreading, the recommended working height of the Limiter V is fixed via a pin, depending on the border situation. Around the field's edge, the Limiter V can then be hydraulically lowered to that pre-selected position and raised again in the field.

### **Border spread deflector**

For the case of spreading directly from the field side into the inner field, the border spread deflector is available. When the border spread deflector is swivelled down, spreading is carried out only with the field side spreading disc, so that any fertiliser is deflected in such a way that it is only thrown behind the tractor and into the field, but not beyond the border. The border spread deflector can be utilised on both the left and right hand side. The border spread deflector is actuated manually or, as an option, hydraulically from the tractor cab. When swivelled up, the border spread deflector has no influence on normal spreading.



ZA-V 1400 with Special frame, rolling and parking device and Limiter V border spreading system

## **Proven precision!**

**Innovation Farm border spreading field trial** 





Large-scale field trials, by Innovation Farm in Austria, compared different border spreading systems under practical conditions.

Additional revenue per hectare of cropped area and per year with the use of the different border spreading systems at a width of 18 m, in comparison to a reference point without a border spreading system

Average field size	2 ha	4 ha	12 ha
Limiter	€ 7.85	€ 5.56	€ 3.18
Hydro	€ 2.06	€ 1.46	€ 0.83

(top agrar 07/2022, Source: Innovation Farm)

#### **Calculation basis:**

CAN: 650.00 €/t Ø Wheat yield: 7.8 t/ha Profit: 350.00 €/t

## Field trials prove the best border spreading results

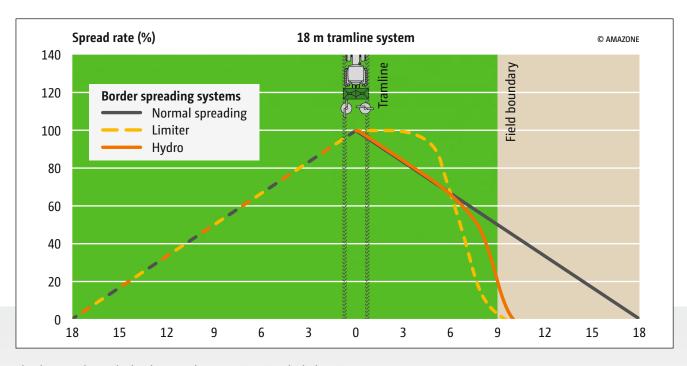
The aim of the field trial was to demonstrate that border spreading systems and equipment not only offer ecological benefits, but also have a great influence on the potential yield in the field boundary area. Precise technology is required to spread the full rate of fertiliser right up to the field boundary, as well as avoiding any fertiliser losses outside the field boundary.

The Limiter provides a simple and precise introduction to border spreading systems. Especially with the Limiter V<sup>+</sup> electric border spreading device, it is possible to harness the full potential of the field by responding to changing border situations from the tractor cab.

### Key statements of the trial

- "A wider working width or smaller field size increases the size of the return on a boundary spreading system."
- "All border spreading systems can significantly reduce the amount of fertiliser thrown outside the boundary."
- With the 'Lamella block' and 'Hydro' systems, the percentage outside the field boundary is reduced to only 2.5%."

(top agrar - "Precision goes boundary spreading" - 07/2022)



The diagram shows the border spreading operation, in which the aim was not to spread any fertiliser beyond the field boundary if possible.

## **Optional equipment**

Perfect down to the last detail



Position indicator for the Limiter (left) and bed spreading deflector or border spread deflector (right)



### Holder for the GPS receiver on the fertiliser spreader

The holder, including a 12 m GPS connecting cable, serves to mount a GPS receiver on the fertiliser spreader

instead of on the tractor. The GPS receiver can remain on the spreader if the tractor is changed frequently, such as with machine cooperatives. In use, the GPS receiver is always located clearly above the fertiliser spreader.

## Position indicator for the border spreading systems

In order to check the position of the border spreading system from the tractor cab, AMAZONE offers a specific position indicator. The position can be comfortably monitored during the spreading procedure via the mechanical display within the line of sight at the front of the fertiliser spreader.

### Roll-over cover

The roll-over hopper cover, either manually operated or hydraulically actuated from the tractor, is available for all S extensions and L extensions. It safely covers the whole of the hopper access area and ensures, when compactly rolled up, the maximum filling opening. The roll-over hopper cover can also be combined with the bolt-on S 600 and L 800 extensions.

Direct filling from a tipping trailer or big bags is no problem. Especially when using large loading shovels the wide L extension is of major benefit.



### Swivel hopper cover

As a cost-effective alternative to the roll-over hopper cover, the swivel hopper cover, with large sight windows can be chosen but only for the S extensions.



Swivel hopper cover, in its maintenance position for a simpler internal cleaning







Parking stand with skids for Super and Ultra frames

### Swivel rolling and parking device

Rolling and parking device for Super and Ultra frames

The swivel rolling and parking device facilitates the easy mounting on and off the tractor and manoeuvring in the yard. The castor wheels are quickly folded in and out and optimally protected from dirt.

• "The spreader is supported on robust, easy-to-operate castor

("profi" – Practice Test ZA-V 2700 Profis Tronic fertiliser spreader · 01/2017)

### **Rolling and parking device for Special frame**

The robust rolling device makes it easier to mount and demount the spreader and manoeuvre it in the yard. The castor wheels can be quickly removed.

### Parking device options

Special frame with rolling and

parking device

As an alternative to the swivel rolling and parking device, there is also a cheaper parking stand with integrated skid available.

### **Calibration device**

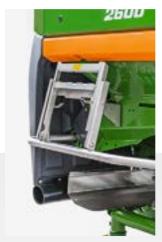
For the comfortable spread rate check without removal of the spreading disc, the lateral calibration kit, left or right hand side, is available. In conjunction with the ZA-V Control and ZA-V Tronic spreading systems, automatic time measurement is also possible.

### Ladders that ensure safe access

For optimum access to the hopper from outside, even on the narrow extensions, a ladder is available which can be fitted to the left and/or right hand side. For the wide L extensions though, ladders are provided to both sides as standard.



Calibration device





The stainless steel ladders are perfectly integrated

## Let there be light

Multiple benefit of the working lights



The lighting for spreading unit is integrated securely in the lighting carrier – shown here on the ZA-TS with BorderTS deflector and ArgusTwin.

## Spread fan, spreading unit and hopper internal lighting

An optional work light kit is available as a supplement to the standard LED lighting for the ZA-V mounted spreader.

LED work lights are mounted in the hopper above the spreading discs and at the sides of the spreader. This ensures that the user has an overview of the fill level in the hopper at night, and has adequate lighting for changing the spreading discs and for setting the spreading vanes.

The controls of the work lights are fully integrated in the software of the fertiliser spreader and can therefore be operated remotely from the tractor cab via the AmaSpread 2 or ISOBUS terminal.

The two side-mounted LED work lights provide perfect illumination of the spread fan to the left and right in the dark.

### Filling aid

Practical users will particularly love the filling aid provided by the work lights and the Profis weighing system. Initial flashing followed by continuous illumination of the work lights signals that the fill level has been reached. A second person, or frequent dismounting for checking, are no longer necessary.



Lighting for the inside of the hopper





The pre-set capacity is achieved when the work lights comes on continuously.

### Front-Rear duo

### A new level of precision



A road lighting kit is available for safe road use when in transport with the front-mounted spreader.

### Two into one goes

For customers who intend to accurately spread two different mineral fertilisers in just one pass, AMAZONE offers the unique possibility of a front-mounted spreader. Other than when utilising blended fertilisers in one fertiliser spreader, this option allows the optimal setting of each spreader according to the properties of the relevant fertiliser. In this way, the perfect lateral distribution for both fertilisers is achieved. Also spreading with two different application maps is possible.

### The benefits of front-mounting

- Possibility to accurately spread two different types of fertiliser in just one pass
- More output from the additional tank capacity, with the benefits of a mounted machine easily manoeuvrable and speedy
- Front-mounting is possible with all ZA-V and ZA-TS ISOBUS spreader models

### Comfortable and reliable

To enable the use of a "reversed" fertiliser spreader on the front of the tractor, intelligent software has been employed that reliably mirrors the spreading function, thus allowing for work without a switch in thinking.

In this way, even normal, side, border and water course spreading can be actuated on the correct side without any problems. Even the optimum switching points for the automatic on/off switching on the headland is matched.



The spreader duo shows its strengths in its precision."

**①** "The combination is manoeuvrable, efficient and improves the weight distribution on the front and rear axle."

("agrarheute" magazine – test report with front mounted spreader  $\cdot$  09/2018)

## One spreader – so many possibilities

### Decide for yourself!

	ZA-V	ZA-V Easy	ZA-V Profis Control	ZA-V Tronic	ZA-V Profis Tronic	ZA-V Profis Hydro
Mechanical spreading disc drive	•	•	•	•	•	_
Hydraulic spreading disc drive	_	_	_	_	_	•
Hydraulic shutter actuation	•	_	_	_	_	_
Electric shutter actuation	_	•	•	•	•	•
Forward-speed dependent application rate regulation	-	•	•	•	•	•
Weighing system	-	_	•	_	•	•
Tilt sensors	_	_	0	_	0	0
Low level sensors	_	_	0	0	0	0
Border spreading via the Limiter V	0	0	0	0	0	_
Border spreading via the Limiter V <sup>+</sup>	_	0	0	0	0	_
Border spreading via Hydro drive	_	_	_	_	_	•
Maximum number of part-width sections	2	2	6	8	8	16
GPS-Switch ready	_	_	_	•	•	•
Required terminal	_	EasySet 2	AmaSpread 2	ISOBUS	ISOBUS	ISOBUS

● Standard O Option — not available



### ZA-V

### with hydraulic shutter actuation



### Simple, direct actuation

If equipped with the hydraulic shutter actuation, AMAZONE offers the simple possibility to operate the shutters via two double-acting hydraulic spool valves on the tractor. As with all ZA-V models, this version is also equipped with the precision spreading system for working widths from 10 to 36 m, which includes the SBS Soft Ballistic System. It is available in hopper capacities from 1,400 to 4,200 l.

The complete shutter slide assembly underneath the outlet opening can be adjusted via individual setting levers for each side of the spreader. The position of the shutter slide assembly is fixed via an additional clamping lever. The special feature of this model and its hydraulic shutter slide adjustment is that the hydraulic cylinder for the shutter slide actuation always opens or closes completely. The position of the setting lever only serves as a fixing for the shutter slide assembly, not as a stop to the shutter slide, and thus is not pressurised. In this way, any unintentional opening or adjustment of the application rate is avoided.

### The benefits of the hydraulic shutter slide actuation

- No operator terminal required
- Individual hydraulic shutter actuation via two double-acting tractor spool valves
- Alternatively also with a simple 3-way control unit

**①** "The notched quadrant and scale are punched. Advantage: the driver quickly finds the correct position and there is no sticker to come loose after several years of work."

("dlz agrarmagazin" - Field test ZA-V fertiliser spreader · 03/2017)



Accessible holder for the hydraulic hoses



Simple adjustment of the shutter assembly with large, easily visible scales

## **ZA-V Easy**

With the machine-specific EasySet 2 in-cab terminal



ZA-V Easy: "Easy" isn't just in the name!

### Convenient electric adjustment and control

The EasySet 2 in-cab terminal provides the option for automatic spread rate regulation at varying forward speeds. In this respect, the size of the apertures are adjusted by automatically setting the shutter position in such a way that the application rate always remains the same. All that is needed is a 12 V power connection for the in-cab terminal. The operator has the option of using an X-sensor (pulse counting), a signal cable (transmission of the tractor speed) or a GPS antenna to transmit the speed signal.

In conjunction with electrical shutter actuation, EasySet 2 has the advantage that the application rate can be adjusted in very small steps. The desired application rate is simply entered into the in-cab terminal to the exact kilogram and this can be easily increased or reduced from the cab to both sides, or to either side, during the spreading operation.

To operate the Limiter V<sup>+</sup>, the desired working height for the relevant setting is initially pre-selected using the "+/-" keys on the in-cab terminal. The system is activated via the designated Limiter button. Any changes to the Limiter function, for instance when moving from field side to border or water course spreading, are also made using the "+/-" keys. If the situation requires it, e.g. during water course spreading, the spread rate can also be reduced towards the edge of the field.



Machine control is rounded off by a convenient function for semi-automatic rate calibration and the emptying of any fertiliser residues.

### The benefits

- Forward-speed dependent application rate regulation
- Comfortable electrical operation and adjustment of the application rate from the tractor cab
- Simple in-cab terminal without menus, only direct function keys
- **⊘** Integrated hectare meter with total area counter
- Border spreading via Limiter V<sup>+</sup> with remotely controlled spread rate reduction

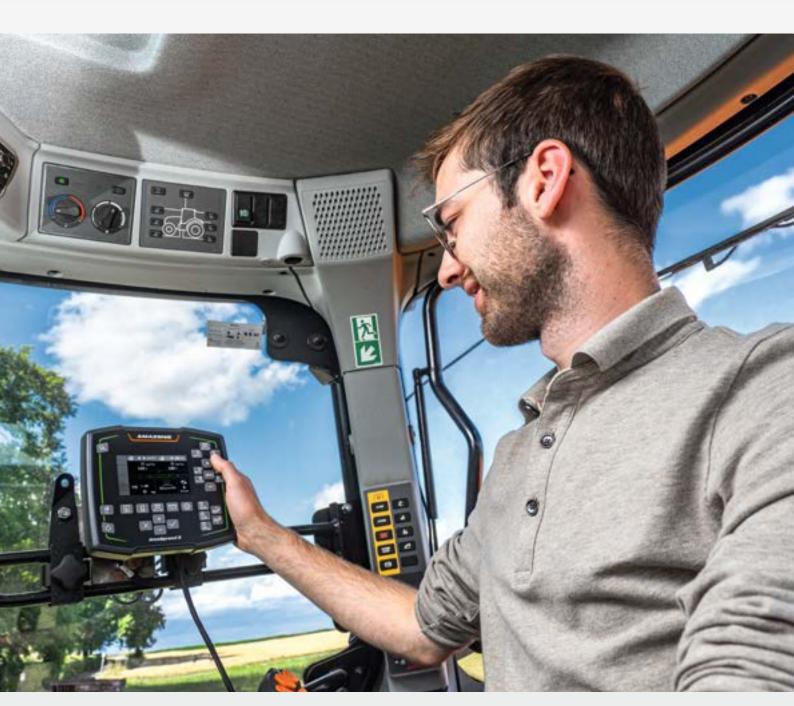
- The EasySet 2 in-cab terminal is undoubtedly the highlight of the new fertiliser spreader."
- "You only need a few settings to adjust the spreader for a new spreading material."
  - (top agrar Test report "Convenient and easy spreading" · 09/2021)
- There are no menu levels. This makes all the settings clear."
- "It is also possible to adjust the rate for both sides together or separately. All of this can be understood without much explanation."

(top agrar – Test report "Convenient and easy spreading" · 09/2021)



### **ZA-V Profis Control**

With the machine-specific AmaSpread 2 in-cab terminal



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

30

## Modern design meets intuitive operation

With AmaSpread 2, AMAZONE offers an intuitive terminal for the ZA-V Profis Control weigh cell spreader. The simple operating structure combined with the high-contrast 4.3 inch colour display guarantees high levels of operator comfort. All the important functions such as the 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.

Material-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.

Apart from the forward-speed-related spread rate regulation, AmaSpread 2 also allows manual switching of up to six part-width sections and the use of the Profis weighing system. In addition, rapid adaptation of the fertiliser rate enables the timely reaction to field conditions. The terminal also offers precise spread rate regulation, thanks to the 200 Hz weighing system.

When using the Limiter V<sup>+</sup> border spreading device, the operator can switch between side, boundary or water-course spreading, depending on the border situation, without leaving the tractor cab.



Optional low level sensors give the operator an early notification of an upcoming emptying of the hopper via the AmaSpread 2. The functions of the terminal are rounded off by the integration of work lights.

### The benefits

- Forward-speed dependent application rate regulation
- ✓ Integration of weighing function for precise quantity
   ✓ control
- Comfortable electrical operation and adjustment of the application rate from the tractor cab
- Switching of up to six part-width sections
- Automatic positioning of the Limiter combined with spread rate reduction for side, border and water course spreading
- Simple operation without detailed menu guidance

## **ZA-V** mounted spreaders with ISOBUS

ZA-V Tronic | ZA-V Profis Tronic | ZA-V Profis Hydro



"Simple and cost-effective part-width section control. Even with the spread rate reduction system of the ZA-V, good results can be achieved at the common working widths." ("top agrar" – System comparison "Automatic spreading in wedge-shaped fields: Which system is best?" · 02/2016)

32



## The complete functional scope of the ISOBUS world

The ZA-V mounted spreader range is rounded off with the even more advanced ZA-V Tronic, ZA-V Profis Tronic and ZA-V Profis Hydro mounted spreaders. On this models, ISOBUS communication is integrated by default.

Thanks to the quantity-effect-free aperture and the consistent, triangular-shaped spread pattern from the ZA-V's spreading unit, excellent results can be achieved through part-width section control via spread rate adaptation when spreading in short work and in wedge-shaped fields.

The mechanically-driven ZA-V Tronic offers eight-fold part-width section control as standard. The hydraulic spreading disc drive of the ZA-V Profis Hydro also allows the combination of spread rate adaptation and spreading disc speed. This enables even more precise spreading in wedge-shaped fields. Up to 16 part-width sections are possible in combination with Section Control.

The Profis spreaders feature forward-speed-related rate regulation and a state-of-the-art 200-Hz weighing system with two weigh cells. As option for the ZA-V Profis Tronic and ZA-V Profis Hydro, a tilt sensor is also available which continually ensures a precise weight, even in hilly terrain.



For the comfortable side, border and water course spreading, the Limiter V<sup>+</sup> can be operated through any ISOBUS terminal. The material-specific, final settings for the respective border situation are conveniently stored in the fertiliser menu.

### The benefits

- Convenient operation with a wide variety of ISOBUS terminals
- Integration into the tractor operation
- Settings made easy optional Bluetooth connection of the mySpreader App
- **♂** GPS-Switch automatic part-width section control
- **♥** Use of application maps with GPS-Maps&Doc
- **◆** Job-related documentation in the Task Controller





## ISOBUS as the basis for intelligent communication

### One language, many benefits!

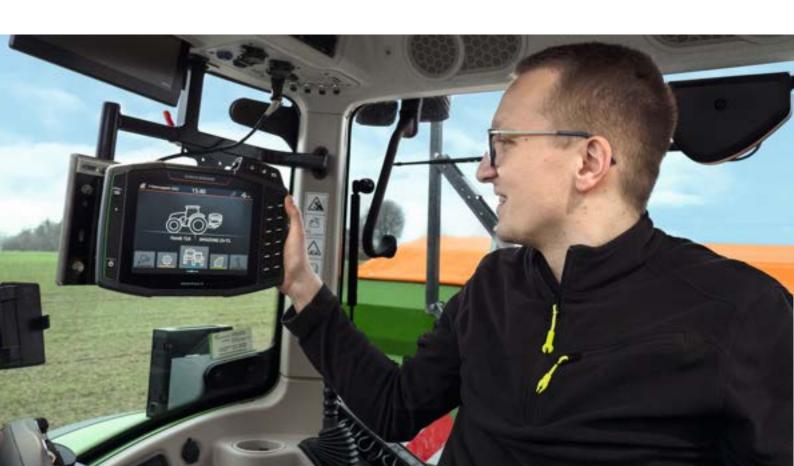
Each ISOBUS-enabled machine from AMAZONE comes with the latest technology and almost unlimited possibilities. It makes no difference whether you use an operator terminal from AMAZONE or an ISOBUS terminal fitted directly in the tractor. ISOBUS is an internationally recognised standard for communication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

### Operation with a wide variety of **ISOBUS** terminals

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

### Benefits of ISOBUS at a glance:

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



# Perfectly developed machine operation from AMAZONE

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

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



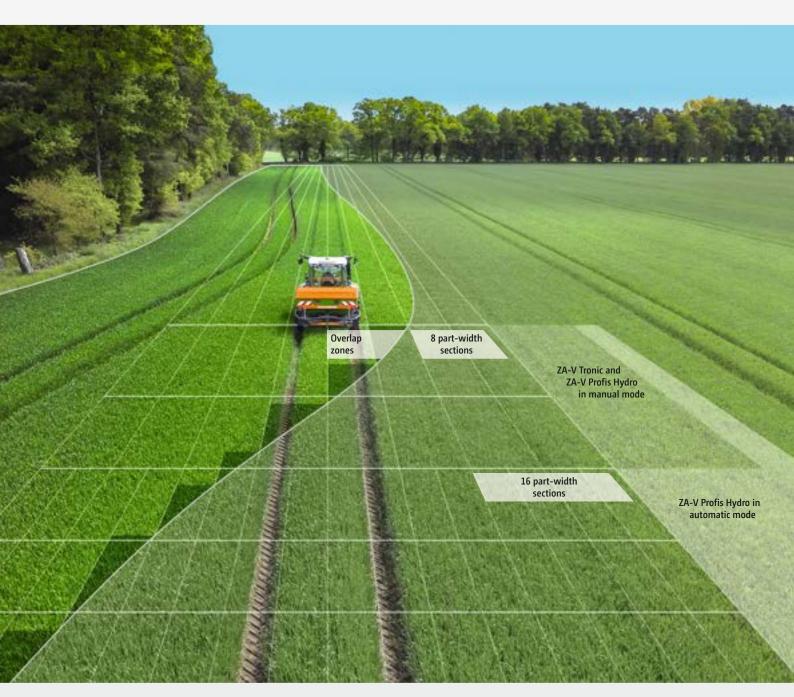
Clearly-structured AMAZONE machine operation

### Advantages of the AMAZONE machine software:

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



# **Automatic GPS-Switch part-area shut-off with Section Control**



♦ Via the part-width section control, the ZA-V Tronic and ZA-V Profis Hydro can spread just the outer part-width sections.

36

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

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

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

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

### **GPS-Switch**

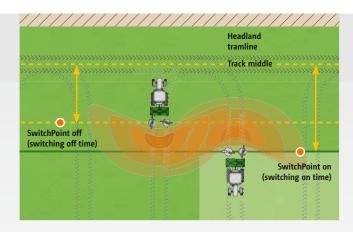
With GPS-Switch, AMAZONE offers GPS-based, fully automatic, part-width section control for all AMAZONE operator terminals and ISOBUS-compatible fertiliser spreaders, crop protection sprayers or seed drills.

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

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

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

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



### SwitchPoint

When using GPS-Switch, SwitchPoint enables the adjustment of the switch-on and switch-off points, depending on fertiliser type and working width. Both values can be taken from the spreading chart and entered into the relevant operator terminal.

## Workday made easy –

Make the most of the possibilities!

### GPS-Maps&Doc

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

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

### GPS-Track

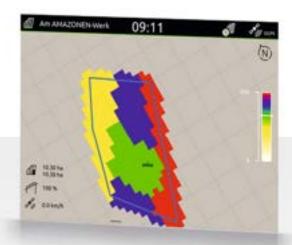
The GPS-Track parallel guidance greatly helps with orientation in the field, especially on grassland or in areas without tramlines.

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

### **AmaCam**

Software licence for displaying a camera image on AmaTron 4.

 Automatic display of the camera image on AmaTron 4 when reversing



Display of the application map in AmaTron 4

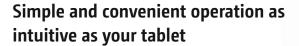


Display of the camera image in AmaTron 4

38

### AmaTron 4

Manager 4 all



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



I R O

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

Equipped as standard with:

### GPS-Maps&Doc



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

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

### Advantages of AmaPilot+:

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

### **AmaTron Connect**

## New ways of comfortable networked operation

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



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

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



Everything in view at all times with the AmaTron Twin App and the holder kit for a tablet for rigid mounting on the AmaTron 4

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

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



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

## agrirouter –

## the independent data exchange platform for agriculture



### Secure data exchange

agrirouter is an independent data exchange platform for farmers and contractors. It enables simple and crossmanufacturer data exchange between machines and agricultural software applications, thereby reducing administration. The user retains full control over the data at all times.

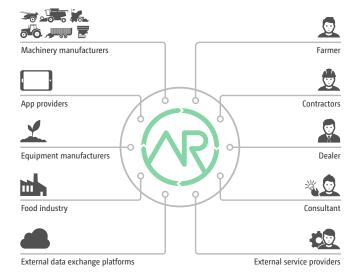
### myAmaRouter App

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

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







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

### Benefits of agrirouter:

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

### Uncomplicated data transfer. Transparent and secure!



## **Spreader Application Center**

### Exemplary – for more than 25 years

### The settings are crucial!

AMAZONE is providing even better customer service with the Spreader Application Centre. In addition to the already well-established fertiliser laboratory and spreading hall, the Spreader Application Centre now also includes the areas of "Test and Training", "Data management" and the associated "Knowledge transfer".

The last two areas are accompanied by a restructuring to address the increasing globalisation and digitalisation of agriculture. The aim of the Spreader Application Centre is to offer to the customer an even better service with regard to fertiliser application.



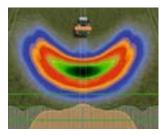
Fertiliser laboratory



Spreading hall



**Test and Training** 



Data management and knowledge

## Only when properly spread is your fertiliser worth its weight in gold

The AMAZONE FertiliserService closely cooperates with well-known manufacturers of spreading material — worldwide to be able to make available to you the best setting values as quickly as possible. AMAZONE is the name for precise spreading charts, worldwide.



AMAZONE fertiliser spreaders can be optimally set up using the free mySpreader App:

## FertiliserService – you can contact us via:

The FertiliserService works across borders, but not only geographically. This is because no matter whether your fertiliser spreader is 1 or 50 years old, we are always by your side with competent and reliable assistance.

Internet: www.amazone.net

E-Mail: duengeservice@amazone.de

Telefon: +49 (0)5405 501-111
WhatsApp: +49 (0)175-488 9573





Modern fertiliser spreader testing hall

## mySpreader App

The all-in-one package for perfect spreader adjustment

### Comfortable fertiliser spreading

The mySpreader App bundles all the App functions for AMAZONE fertiliser spreaders into a single App. The intuitive operation and convenient adjustment of the fertiliser spreader lies at the heart of the all-in concept.



### **FertiliserService**

The FertiliserService App conveniently generates precise adjustment recommendations for AMAZONE fertiliser spreaders directly in the field, depending on the model of spreader, working width, fertiliser type and application rate. Thanks to the many samples sent in annually by farmers, fertiliser suppliers and fertiliser manufacturers, the App is constantly kept up-to-date so that the end user has access to current information at the start of every season. A special feature of the mySpreader App: the operator can search for fertilisers by entering the fertiliser name, the chemical composition, the granule size or bulk density, for example.

### **EasyCheck**

The second element of the mySpreader App is the digital and mobile EasyCheck test kit. In this test kit, plastic mats are simply placed in the field at defined intervals, spread over and then photographed. EasyCheck then calculates the degree of coverage of each mat. Based on these values, the App suggests improved settings for the lateral distribution of fertiliser by the AMAZONE spreader, allowing the operator to rapidly optimise the accuracy of their crop care.

All the settings for the spreader can be transferred from the mySpreader App to the AMAZONE fertiliser spreader via a Bluetooth adapter. This saves time and avoids setting errors, whilst, at the same time, being much more convenient.



### **Technical data:**

### **ZA-V** mounted spreaders

		ZA-V 1400	ZA-V 1700	ZA-V 2000	ZA-V 2200	ZA-V 2600	ZA-V 2700	ZA-V 3200	ZA-V 4200
Working width (m)			10-36						
Hopper capacity (I)		1,400	1,700	2,000	2,200	2,600	2,700	3,200	4,200
– with bolt-on extension S 600 (I)		2,000	2,300	2,600	_	_	_	_	_
– with bolt-on extension L 800 (I)		_	_	_	3,000	_	3,500	4,000	_
Payload (kg)	with Special frame	2,200	2,200	2,200	_	_	_	_	_
	with Super frame	3,200	3,200	3,200	3,200	3,200	3,200	3,200	_
	with Ultra frame	_	_	_	4,500	_	4,500	4,500	4,500
Fill height (m)		1.13	1.23	1.32	1.31	1.48	1.42	1.54	1.77
Filling width (	width (m) 2.22 2.22 2.71 2.22 2.71 2.71		2.71	2.71					
Overall width	width (m) 2.55 2.55 2.55 2.92 2.55 2.92 2.92		2.92						
Overall length (m)		1.68	1.68	1.68	1.68	1.68	1.68	1.68	1.68
Drive mechanical / hydraulic (ZA-V Profis Hydro)									
Min. weight (kg) (with PTO shaft, V-Set 2)		351	357	366	444	420	463	481	579

Illustrations, content and technical data are not binding and may differ depending on the level of equipment. Country-specific road traffic regulations apply and must be complied with, meaning that special approval may be required. The permissible axle loads and total weights of the tractor should be checked. Not all the listed combination options are possible with all tractor manufacturers.





Ahead in the field and safe on the road: ZA-V ZA® – the spreader



AMAZONEN-WERKE H. DREYER SE & Co. KG

P. O. Box 51 · 49202 Hasbergen-Gaste/Germany Phone +49 (0)5405 501-0 · Fax +49 (0)5405 501-193

MI9117 (en\_II) 06.23 Printed in Germany www.amazone.net E-Mail: amazone@amazone.net