

### ZA-V





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



The ZA-V mounted spreader is available in hopper capacities from 1,400 to 4,200 l and it impresses with its high operational speeds of up to 30 km/h. Thanks to a high spreading capacity of up to 390 kg/min and working widths of up to 36 m, exceptionally high acreage outputs are achieved.

ISOBUS communication, weighing system, the hydraulic or electric Limiter V or V<sup>+</sup> border spreading systems plus the many other optional extras make the ZA-V one of the most modern fertiliser spreaders in its class.



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- "We liked the hopper cover very much, and above all the position for washing and drying."
- "We have spread at 30 m and travelled at 15 km/h. And we were still able to spread more than 500 kg/ha - very good." ("profi" – Practice Test ZA-V 2700 Profis Tronic fertiliser spreader · 01/2017)
- 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 spreader

The spreader for all situations

Up to 390 kg/min



Up to 36~m working width



### The benefits at a glance:

- Precise spread patterns up to 36 m working width and up to 16 part-width sections
- Maximum work rates at application rates of 390 kg/min and operational speeds up to 30 km/h
- Deep-drawn base hopper without corners and edges ensures the lowest residues and easy cleaning
- Precise monitoring and control of the application rate via the 200 Hz weighing technology and the tilt sensor
- Soft Ballistic System (SBS) for an especially gentle handling of the fertiliser and less fertiliser damage
- Intelligent, fertiliser saving agitator with speed reduction when the shutter slide is closed
- Spreading discs with exceptionally quick and precisely adjustable spreading vanes using the QuickSet system
- ♣ Hydraulically or electrically actuated Limiter V or Limiter V<sup>+</sup> border spreading device for the precise side, border and water course spreading
- Compact, tight closing, operator-friendly roll-over hopper cover or swivel hopper cover
- FertiliserService, a high-class and unique service with an experience of more than 25 years

From 1,400 | up to 4,200 |

8 different hopper sizes

Up to 30 km/h working speed







www.amazone.net/za-v

### 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 fixing pins.
- **♦ Super frame:** 3,200 kg payload, Cat. II linkage dimensions and fixing pins.
- **❸ Ultra frame:** 4,500 kg payload, Cat. III linkage dimensions with Cat. II/III fixing pins.

### Outstanding design: mounted spreader with 4,500 kg payload

#### The benefits:

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

### The deep-drawn base hopper

The base hopper has a volume of 700 l. It is deep-pressed without corners, edges and weld seams ensuring the continuous and the even flow of the fertiliser. Also the cleaning of the spreader is made easy thanks to this design.

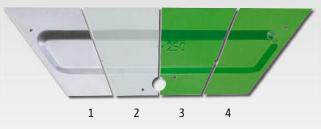
The concept: If you don't weld, then no corners, edges or seams arise."

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

### 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





- High quality multi-layer paint finish
  - 1) Sheet steel
  - 2) Zinc phosphate (galvanising layer)
  - 3) KTL priming coat
  - 4) Top coat

### The extensions

### In two widths and many sizes

#### 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 widths

With a filling width of 2.71 m and a foldable ladder



L 2200 extension



L 2700 extension



L 3200 extension



L 4200 extension

ZA-V with L 800 bolt-on extension





### He who weighs wins!

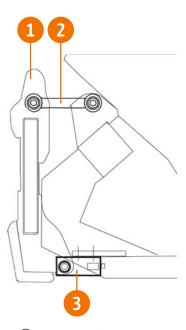
### **ZA-V** Profis with weigh cell frame

#### No calibration required; just enter in the spread rate and drive off! There is no simpler way.

The weighing system, for the Super and Ultra frames, offers controlled comfort as well as more peace of mind. With its 200 Hz weighing technology, 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 actual applied rate with the pre-determined rate. Deviations in flow behaviour, such as, for example with heterogeneous mineral fertilisers, are detected and the spreader automatically re-adjusts via the electric metering slides. The quantity applied is also precisely documented for the purpose of site-specific nutritional application.

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



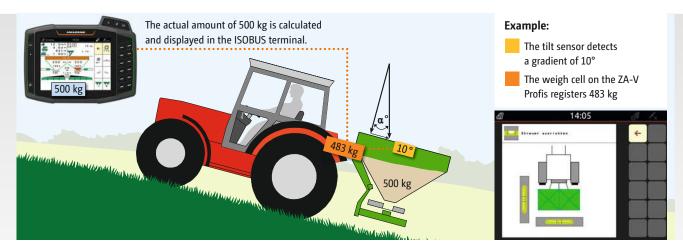


- 1 Weigh cell frame
- 2 Horizontally aligned tie bar
- 3 Weigh cells

ZA-V 2700 Profis

- (1) "Also the quantity filled and displayed in the terminal was so accurate with deviations of less than one percent."
- "In general we can confirm that the ZA-V maintains outstandingly the application rate."

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



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

### Tilt sensor for steeper sloping terrain

On the ZA-V Profis, any possible influences due to a change in the centre of gravity are taken into account by the on-the-move measuring procedure with the aid of the tilt sensor. The two-dimensional tilt sensor, which detects angles to the front and back or side to side, corrects any errors in the measuring procedure which might occur when driving up and down hills or when driving across a slope.

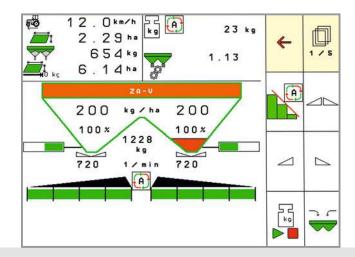
"A tilt sensor readjusts the measured accuracy in hilly terrain. In the Tronic version (ISOBUS), Amazone also displays that data via a digital spirit level in the operator terminal so that the spreader can be optimally adjusted – super."

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

#### Low level sensors

When spreading on slopes or when border spreading it can happen that one hopper tip is emptied quicker than the other. In order to check each outlet apertures individually, AMAZONE therefore additionally offers low level hopper sensors. With a premature emptying of one side, the relevant hopper tip is indicated in red in the operator terminal so that the driver is warned early enough.





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



### The spreading disc drive

### Mechanical or hydraulic, choose for yourself!

#### Mechanical drive

On the mechanically-driven ZA-V spreaders, the spreading unit and also the agitator are driven via the universal joint shaft. Here the spreader is, as standard, protected from overload via a friction clutch on the PTO shaft. The input speed from the tractor PTO is transmitted via the central gearbox resulting in an increased spreading disc speed. This allows fuel-saving fertilisation at low engine revs across the maximum working width.

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

#### **Hydraulic drive**

The hydraulically-driven ZA-V Hydro spreader makes operation possible with different spreading disc speeds, irrespective of the engine speed of the tractor. In this way a particularly comfortable and precise spreading is possible and side, border or water course spreading can be activated independently to each side. The switching over between these individual functions is conveniently possible also on the move. If the pre-set speed for spreading at the field border is not precise enough, then this can also be adjusted via the terminal on the move.

With the hydraulic spreading disc drive, up to 16 part-width sections can be actuated.

- "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 wedges: which system is suitable?" · 02/2016)
- "In addition to a fertiliser-saving, simply 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 being left making it easy to clean.

The quantity-effect free aperture 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 spreaders, the entire spreading system is made from stainless steel and high-quality glass-fibre reinforced plastic and thus provides a long service life and a high resale value.



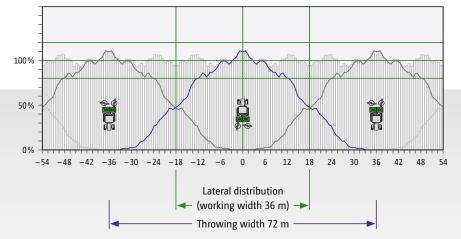
Spreading unit with V-Set spreading discs and star agitator for fertiliser saving application



Specially-shaped aperture with automatic correction for quantity effect

### SBS - Soft Ballistic System

Mineral fertilisers require an especially-gentle treatment to ensure precise distribution and transport out to the crop over the total working width. Fertiliser which has been already damaged by the spreader can no longer be reliably distributed. On the ZA-V, the agitator, shutter slides and spreading discs are optimally matched; protecting the fertiliser and ensuring yields are maintained.





✓ Double overlap at up to 36 m working width The spreading unit of the ZA-V has been developed utilising three dimensional spread patterns, ensuring the perfect lateral distribution and allowing, thanks to SBS, the generation of working widths of up to 36 m. The large overlap zones provide the perfect spread pattern.



### Spreading discs and agitator

### Precise and fertiliser protecting

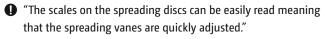
#### Spreading discs with QuickSet

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 setting system.

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

With their special shape, and several feed-on 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 different spreading vanes can be quickly and simply exchanged with the aid of an interchangeable system. The ideal solution for users with different tramline systems and multiple fertiliser types.



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



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



- 1 Spreading vane,
- 2 Spreading disc,
- (3) Clear scale positions,
- 4 QuickSet setting system for the adjustment of the vane position
- "AMAZONE has found a practical solution also for the matching of 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 intelligent agitator

The new 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, it 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

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

The adjacent field is also in a crop. In this instance a small amount of fertiliser being thrown beyond the field's border can be tolerated. The fertiliser distribution inside the field is maintained so there is still about 80 % of the predetermined quantity even at the field's edge.

Border spreading (environmentally-orientated) with Limiter V or V<sup>+</sup> If the field is positioned next to a road or a cycle path, no fertiliser should be thrown beyond the field border. In order to avoid over-fertilisation inside the field, the spread rate on the border side needs to be reduced. The border spreading procedure complies with the requirements of all fertiliser environmental legislation.

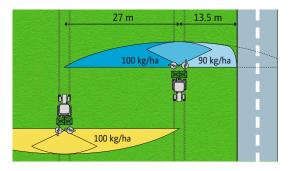
### Water course spreading (environmentally-orientated) with Limiter V or V<sup>+</sup>

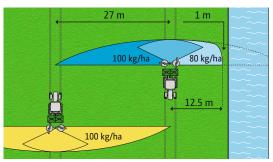
In cases where a water course is situated directly at the field's edge, the fertiliser environmental legislation prescribes the maintenance of either a distance of one metre with the aid of a border spreading device, or as much as three metres when not using a border spreading device. In order to prevent over-fertilisation inside the field the spread rate from the side of the spreader towards the border again has to be reduced.

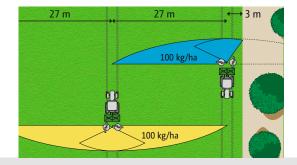
#### Border spreading with border spread deflector

If the first tramline is situated at the field's edge, border spreading (environmentally-orientated adjustment) is then achieved by the half-side shut-off of the spread fan. No fertiliser is thrown beyond the field's border and, inside the field, optimum fertilisation is maintained.

# 27 m 13.5 m 100 kg/ha 100 kg/ha

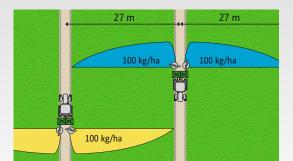






#### Bed spreading with bed spreading deflector at both sides

For spreading special crops in beds to the left and right hand side of the wheel tracks, AMAZONE offers a bed spread deflector which virtually avoids any fertiliser being spread in the centre.





### Limiter V border spreading system



### Hydraulically-actuated Limiter V

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



Limiter V hydraulic border spreading system

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



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

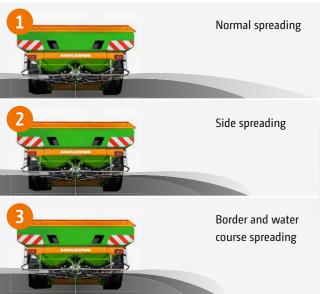
In this way, via sensitive electric adaptation of the angle of the Limiter V<sup>+</sup> in relation to field's border, a comfortable changeover between side, border and water course spreading is possible from the tractor cab. Due to the design of the Limiter V<sup>+</sup> being open at the bottom, this can be swivelled down in steps 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 of 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, lamellae provide an accurate spread pattern towards the field's border.

#### Side, border and water course spreading

For spreading next to adjacent fields, roads or water courses, the ZA-V can be equipped with the Limiter V<sup>+</sup>. The border spreading system can be lowered in small steps into the fertiliser flow. The swivelable adjustment around the centre of the spreading disc sets the Limiter V<sup>+</sup> to the different working widths and fertiliser types. In this way an accurate spread pattern at the border is ensured.







Border spreading with activated Limiter V+

### **Border spread deflector**

In the case of operation to spread directly from the field side into the inner field, the border spread deflector is available. When the border spread deflector is swivelled into work then spreading is carried out only with the field side spreading disc so that any fertiliser is deflected in such a way that it is thrown into the field and only behind the tractor, however, and not beyond the border. The border spread deflector can be utilised on both the left and right hand side. The actuation of the border spread deflector is carried out manually or, as option, hydraulically from the tractor seat. When swivelled out of work, the border spread deflector has no influence to the normal spreading.

#### Bed spreading deflector

For spreading beds to either side of the tractor, the bed spreading deflector provides the optimum fertiliser distribution without spreading any material behind the tractor. For optimising the fertiliser distribution, the telescopic end pieces on the bed spreading deflector can be adjusted to suit, depending on working width and fertiliser type. The bed spreading deflector can be utilised to either one, or both sides and actuation of the bed spreading deflector is carried out, similar to when border spreading, either manually or, as an option, hydraulically from the tractor seat. If the bed spreading deflector is swivelled upwards then again the spreader can be utilised as usual for arable farming.



Border spread deflector folded upwards



Bed spreading deflector swivelled down on both sides with telescopic end pieces

### Front-Rear duo

#### A new level of precision



The front mounted spreader with suitable lighting system for travelling on public roads

#### Two in one go

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 capacity from the additional hopper capacity yet with the benefits of a mounted machine - manoeuvrable and speedy
- Front-mounting is possible with all ZA-V and ZA-TS ISOBUS spreader models.
- The spreader duo shows its strength in its precision."
- "The combination is manoeuvrable, efficient and improves the weight distribution to the front and rear axle."

("agrarheute" magazine - test report with front mounted spreader · 09/2018)

#### 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

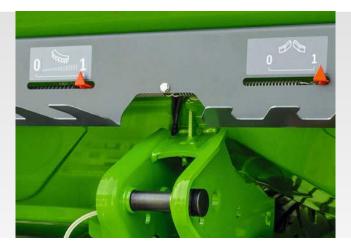
on the correct side without any problems. Even the optimum switching points for the automatic on/ off switching on the headland is matched.





### **Equipment**

#### Perfect down to the last detail



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

### SafetySet as standard

The AMAZONE ZA-V is equipped with SafetySet as standard to ensure maximum safety. The surrounding guard tube fulfils the accident prevention regulations. Large-dimensioned marker boards to the rear and the road lighting kit ensure better visibility in road traffic.

### Position indicator for the border spreading systems

For checking the position of the border spreading system from the tractor cab, AMAZONE offers a specific position indicator. Via the mechanical display which is in sight to the front of the fertiliser spreader, the position can be comfortably monitored during the spreading procedure.

#### 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 over the hopper access point and ensures, when compactly rolled in, the maximum filling opening. The roll-over hopper cover can also be combined with the bolt-on S 600 and L 800 extensions.

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



### Swivel hopper cover

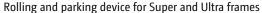
As a cost effective alternative to the roll-over hopper cover, the swivel hopper cover, with large sight windows can be chosen but only for the S extensions.



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

18 | 1







Parking stand with skids for Super and Ultra frames

### Swivel rolling and parking device

The swivel rolling and parking device eases both the coupling and the uncoupling of the spreader and for when manoeuvring the spreader off the tractor in the yard. The castor wheels are quickly folded up and down and are optimally protected from dirt.

The spreader is supported on robust, easy to operate castor wheels."

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

### **Parking device options**

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

### Rolling and parking device for Special frame

The robust rolling device eases the mounting and dismounting of the spreader and is handy for manoeuvring in the yard. The castor wheels can be quickly removed.

#### Calibration device

So that spread rate can be conveniently checked without having to remove the spreading disc, a secondary calibration device on the left or right hand side is available. In conjunction with the ZA-V Control and ZA-V Tronic spreading systems, an automatic time measurement is also possible.



Special frame with rolling and parking device



Calibration device



### One spreader – so many possibilities

### Decide for yourself!

	ZA-V	ZA-V Easy	ZA-V Control	ZA-V Profis Control	ZA-V Tronic	ZA-V Profis Tronic	ZA-V Profis Hydro
Mechanical spreading disc drive	Х	Х	Х	Х	Х	Х	
Hydraulic spreading disc drive							Х
Hydraulic shutter actuation	Х						
Electric shutter actuation		Х	Х	Х	Х	Х	Х
Forward-speed dependent application rate regulation			Х	Х	Х	Х	Х
Weigh cell technology				Х		Х	Х
Tilt sensor (optional)				Х		Х	Х
Low level sensors (optional)			Х	Х	Х	Х	Х
Border spreading via the Limiter V (optional)	Х	Х	Х	Х	Х	Х	
Border spreading via the Limiter V <sup>+</sup> (optional)		Х	Х	х	Х	Х	
Border spreading via Hydro drive							Х
Maximum number of part-width sections	2	2	6	6	8	8	16
GPS-Switch ready					Х	Х	Х
Required terminal		EasySet	AmaSpread <sup>+</sup>	AmaSpread <sup>+</sup>	ISOBUS terminal	ISOBUS terminal	ISOBUS terminal



### 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 product models, this version is also equipped with the precision spreading system for working widths from 10 to 36 m and which includes the SBS Soft Ballistic System. It is available in hopper capacities from 1,400 to 4,200 l.

Via individual setting levers for each side of the spreader, the complete shutter slide assembly underneath of the aperture can be adjusted. The position of the shutter slide assembly is fixed via an additional clamping lever. The peculiarity of this model, with 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 necessary
- Individual hydraulic shutter control of each actuation via two double-acting spool valves
- **◆** Alternatively also with the simple 3-way control unit

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**

### Convenient electric adjustment and control

The electrically-actuated EasySet terminal ensures an exceptionally simple and comfortable control of the ZA-V.

With the aid of the EasySet terminal, both the left hand or right hand aperture can be adjusted individually by key pressure independently of one another and they can also be adjusted on the move. This also allows the rate to be individually adapted to the left and right hand side.

For operating the Limiter V+, initially the desired working height for the relevant setting is pre-selected via the "+/-" keys on the in-cab terminal. The activation is done via the specific Limiter button. Any change in the Limiter function, for instance when moving from field side to border or water course spreading, is also done via the "+/-" keys. Depending on the application, such as, for example, during water course spreading, the spread rate can also be reduced in the direction of the edge of the field.

As no hydraulic connections are necessary, the ZA-V Easy can be mounted and dismounted more quickly. So, before commencing operation with the spreader,

it is just a 3-pin power supply cable and PTO shaft that have to be first coupled to the tractor.



EasySet in-cab operating terminal

- The EasySet terminal is tidy. All important functions can be operated via a thumb."
- "The spreader doesn't need any hydraulic connections. A PTO shaft and the 3-pin power cable are sufficient." ("dlz agrarmagazin" - Field test ZA-V fertiliser spreader · 03/2017)



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

### Equipped as standard with the machine-specific AmaSpread<sup>+</sup> in-cab terminal

As standard the ZA-V Control is equipped with the machine-specific AmaSpread<sup>+</sup> in-cab terminal.

All the important functions are controlled directly via the illuminated function keys. These function keys, and the back-lit 5.7" display with its large icons and figures, show all aspects of operation clearly and unmistakably. The simple operating structure and menu guidance for AmaSpread<sup>+</sup> ensures a high level of operational comfort.

AmaSpread<sup>+</sup> can switch up to 3 part-width sections on each disc to the left or right hand side. The complete settings for a total of 20 different fertiliser types can be stored and recalled at any time directly in the terminal. With documentation of the worked area, the applied quantity and the time taken, AmaSpread<sup>+</sup>, in addition, features a job management system of up to 99 jobs.

The ZA-V Profis Control models with AmaSpread<sup>+</sup> also feature a forward speed-related spread rate regulation as well as the most up to date 200 Hz weighing system with two weigh cells. As an option, a tilt sensor is also available for

the ZA-V Profis Control resulting always in a precise weight monitoring, even in undulating terrain.

In addition, the ZA-V Control offers the option of low level sensors which display a warning message in the terminal individually for the left and right hand hopper tips as soon as the pre-set minimum fill level has been reached.

The Limiter V<sup>+</sup> border spreading device is also operated via the AmaSpread<sup>+</sup>. In the fertiliser menu, separate pre-set adjustments can be saved for any individual fertiliser type including, for instance, the settings for side, border and water course spreading and these can be accessed directly via the individual function keys on the operator interface. In this way, when using the mechanically-driven ZA-V in conjunction with AmaSpread<sup>+</sup>, the farmer can now, depending on the border spreading situation and quite simply at the press of a button, changeover from normal spreading to side, border or water course spreading on the move from the tractor seat.



AmaSpread<sup>+</sup>
in-cab terminal



### **ZA-V Tronic/ZA-V Profis Tronic**

### The mechanically-driven ISOBUS spreader

The mechanically-driven ZA-V Tronic spreader features, as standard, ISOBUS and an 8-fold part-width section control via application rate adjustment.

Due to the spreading unit of the ZA-V with its quantity effect-free aperture and consistent, triangular shaped spread patterns, very good results can be achieved when spreading in short work and in wedge shaped fields. Via the quantity effect free outlet aperture of the ZA-V spreader, the lateral distribution of the fertiliser is always maintained even with varying application rates.

In its Profis Tronic format, the spreader features forward speed related application rate regulation and a state-of-the-art 200 Hz weighing system via two weigh cells. As an option, a tilt sensor is also available for the ZA-V Profis Tronic resulting always in a precise weight monitoring, even in undulating terrain.

For the comfortable side, border and water course spreading, the Limiter V<sup>+</sup> can be operated through any ISOBUS terminal.



### **ZA-V Profis Hydro**

### The hydraulically-driven ISOBUS spreader

The ZA-V programme is upgraded and supplemented with the hydraulically-driven ZA-V Hydro. With the ZA-V Hydro, the "Profis" weighing technology and the ISOBUS communication come as standard.

The hydraulic spreading disc drive enables side, border and water course spreading to either side. For spreading at the field's side the switching over between these individual functions on the move is possible. In case the pre-set disc speed for the accurate spreading at the side does not suit it can be adjusted via the terminal on the move. These changes are then automatically stored in the terminal for the relevant border situation.

In addition to a fertiliser-saving, simply 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.

For spreading in short work and in wedges, the ZA-V Hydro in total can actuate 16 part-width sections in automatic mode via the AMAZONE GPS-Switch section control software or 8 part-width sections in manual mode.

"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 wedges: which system is suitable?" · 02/2016)





### ISOBUS -

### Machine operation in the digital age



### One language, many benefits!

AMAZONE offers state-of-the-art technology with virtually unlimited possibilities with every ISOBUS-compatible machine. It makes no difference whether you use an operator terminal by AMAZONE or an existing ISOBUS terminal in your tractor. ISOBUS indicates a global standard for communication between the operator terminal, tractors and connected implements, on the one hand, and agricultural office software on the other.

### Operation with a wide variety of ISOBUS terminals

This means that you can control all your ISOBUS-compatible equipment using a single terminal. You only have to connect the machinery to the respective ISOBUS terminal and the usual operator interface appears on the monitor in your tractor cab.

#### **Benefits of ISOBUS:**

- International standardisation provides uniform interfaces and data formats, meaning that compatibility with other vendors is ensured
- Plug and Play between the machinery, tractor and other ISOBUS equipment



### **AMAZONE** – more than just ISOBUS

Improved control, more yield! Precision Farming 4.0

#### Our competence in electronics

To increase the operational convenience, AMAZONE implements and operator terminals feature a function scope far beyond ISOBUS standards.

#### The benefits of more than just ISOBUS:

- Highest compatibility and safety function of your ISOBUS equipment
- No additional modules on the machine. All ISOBUS machinery by AMAZONE is already equipped as standard with the necessary ISOBUS functions.
- MiniView display with all AMAZONE terminals and additional ISOBUS terminals. See, for instance, the machine data in the GPS view.
- ◆ The possibility of using the tractor terminal or in a twin terminal solution to separate the functionalities of tractor and connected implement.

- ✔ Unique operation concept. Freely-configurable displays and individual user interfaces in the operator terminal
- Up to 3 user profiles are possible. Establish for each driver or operation an individual user profile!
- Freely-configurable machine operation as, for instance, the folding procedure of the booms of your AMAZONE crop protection sprayer
- Intelligent tractor-ECU function evaluation. Automatic motion sequence detection such as the automatic locking of a steering axle when reversing.
- ✓ Integrated TaskController data logger. As a matter of principle, every ISOBUS telemetry solution is possible (for example, TONI telemetry by CLAAS).
- **▼** Freely-configurable part width sections





# Make full use of the possibilities

#### Job management and documentation

All ISOBUS terminals by AMAZONE can record and save both machine data and location-based data via the Task Controller, as standard. The collected data can then be used in your Farm Management Information System.

- Create or load jobs with ease
- Processing jobs
- Occument and export the work done
- Processing of application maps in an ISO-XML format

### **GPS-Maps**

GPS-Maps enables uncomplicated part-area site specific management because this software module provides easy use of application maps in a Shape file format. Here, either the required rate of the actual material to be spread or also the required active ingredient rate can be directly processed.

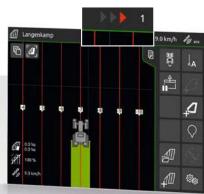
- ✓ Intuitive system to process application maps
- Automatic part-area, site specific regulation of the application rate
- Optimum crop management via need-oriented application
- Equipped as standard for AmaTron 4 and AmaPad 2

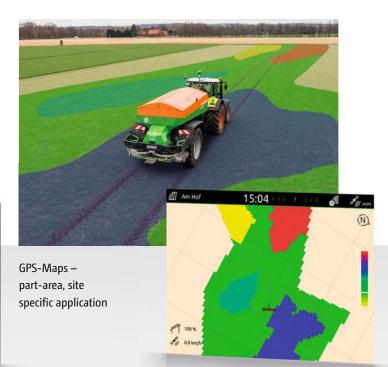
#### **GPS-Track**

The GPS-Track parallel steering aid proves to be an enormous aid for orientation in the field, especially also on grassland or fields without tramlines. It features various track modes such as A-B line and contour line driving. The deviation from the ideal line is graphically displayed via an integrated light bar. Thanks to the clear steering recommendations with exact tramline distances you always remain in the track.

- With a virtual light bar in the status line
- Equipped as standard for AmaPad 2
- Optional for AmaTron 4

GPS-Track – your parallel driving aid in the field





### agrirouter –

### The independent data hub for agriculture



#### Simple and secure data exchange

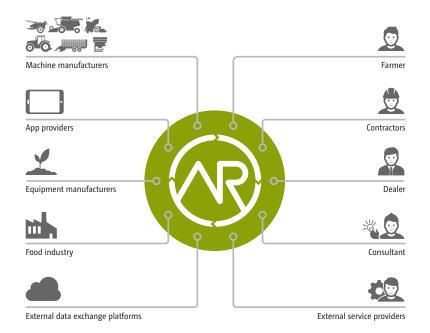
AMAZONE opens the way to universal data exchange by means of the manufacturer-independent agrirouter. The agrirouter enables data to be exchanged between AMAZONE machinery, agricultural software, manufacturers and companies both securely and without any complications.

#### Benefits of the agrirouter:

- Uncomplicated and easy handling
- Convenient and high-speed transmission
- **▼** Full control of your data
- Data is transported, not stored
- **▼** Manufacturer-independent use

### Full control -**Decide for yourself!**

The agrirouter simplifies data exchange by allowing job data and application maps to be exchanged wirelessly with AMAZONE machines. This simplifies operational procedures, reduces administration time and improves efficiency. In this respect, you are the only one who has data sovereignty and can decide who receives which data and to what extent.















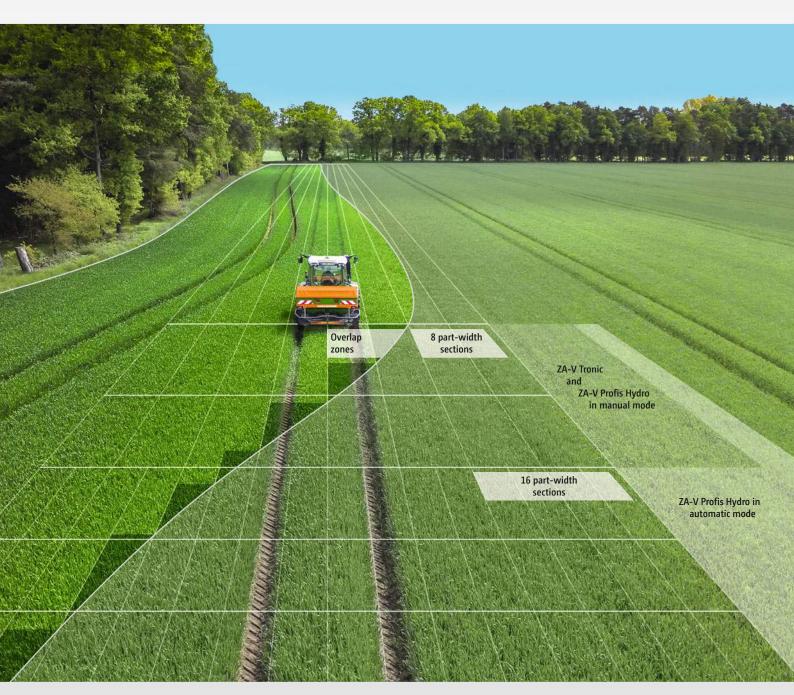




AMAZONE implements the connection to the ISOBUS machinery via the AmaTron 4



# **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 solely the outer part-width sections.

#### Automatic part-width section control

If the terminal to be operated features Section Control, such as, for example, GPS-Switch part-width section control from AMAZONE, the switching of the part-width sections can be carried out completely automatically and in relation to the GPS position. Once a field has been established by the driver, then, in the automatic mode, they can fully concentrate on handling the vehicle whilst the switching of the part-width sections in wedges and on the headland is carried out automatically.

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

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

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

#### **GPS-Switch**

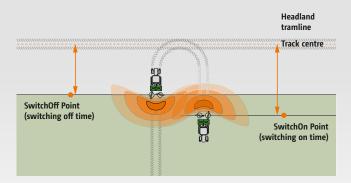
With GPS-Switch, AMAZONE offers a GPS-based, fully automatic, part-width section control for all AMAZONE operator terminals and ISOBUS compatible fertiliser spreaders, crop protection sprayers or seed drills.

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

- Automatic part-width section control of up to 16 part-width sections
- Optional for AmaTron 4

#### **GPS-Switch pro**

- Automatic part-width section control for up to 128 part width sections
- Creation of a virtual headland
- Creation of Point of Interests (POI)
- Automatc boom lowering on an AMAZONE crop protection sprayer
- Equipped as standard for AmaPad 2
- Optional for AmaTron 4



#### SwitchPoint

SwitchPoint allows, when utilising GPS-Switch, to re-adjust the on/off switching points depending on the fertiliser type and the working width. Both values can be taken from the setting chart and entered into the relevant operator terminal.



### **ISOBUS terminals from AMAZONE**

Intuitive, comfortable, better – workday made easy

### From simple to high-tech – everything is possible

With the ISOBUS-compatible AmaTron 4 and the AmaPad 2, AMAZONE offers two extremely convenient operator terminals for your ISOBUS machinery. In addition to the pure machine operation, even more application possibilities are available, such as, for example, the automatic GPS-Switch (Section Control) part-width section control.

- All applications come pre-installed and can be initially tested free of charge.
- Intuitive and clear actuation

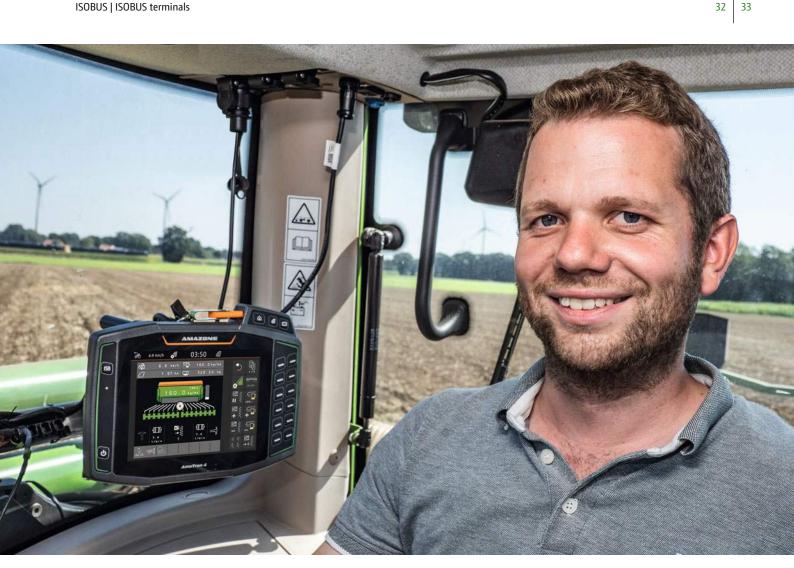
### **Everything in view** with the 2 terminal solution

In addition to the possibility of operating the AMAZONE ISOBUS machinery via the tractor terminal, there is the practical alternative of separating the functions of the tractor and the connected implement and operating them via two terminals. The tractor terminal can continue to control the tractor or also display the GPS applications whereas the additional operator terminal in its UT display mode is fully utilised to monitor and control the machine.





Terminal	AmaTron 4	AmaPad 2			
Display	8" multi-touch colour display	12.1" multi-touch colour display			
Operation	Touch and 12 soft keys	Touch			
Interfaces	1 x Ethernet 2 x RS232 (GPS & ASD) 2x USB interfaces	1 x Ethernet 2 x RS232 (GPS & ASD) 2x USB interfaces with WLAN stick			
Job management and processing of application maps (ISO-XML and Shape)	GPS-Maps&Doc with integrated Task Controller	Task Controller			
Parallel steering aid	GPS-Track * with virtual light bar	GPS-Track pro with virtual light bar			
Automatic track guidance	-	GPS-Track Auto for the Pantera self-propelled crop protection sprayer			
Automatic part-width section shut-off (Section Control) Note: Bear in mind the max. no. of part-width sections of the implement!	GPS-Switch basic * with up to 16 part-width sections or GPS-Switch pro * with up to 128 part-width sections	GPS-Switch pro with up to 128 part-width sections			
Camera connection	1x camera connection * with AmaCam automatic reversing detection	2x camera connections *			



### All from a single source!

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



#### The benefits of AmaPilot+:

- Perfect ergonomics
- Almost every function directly controlled via 3 levels
- Adjustable palm rest
- Freely-programmable, individual key layout
- "The joystick rest comfortably in the hand." ("dlz agrar magazine" – Test report Pantera 4502 · 02/2016)



• "The ISOBUS control is an in-house development from AMAZONE and has been designed clearly and is easily understandable. If desired, some keys can be freely allocated. Also the multi-function display can be freely selected."

("agrarheute" magazine – test report Centaya seed drill · 06/2018)



### AmaTron 4

Manager 4 all



### Simple and convenient operation as intuitive as your tablet

Why not handle a terminal as intuitively like a tablet or a smartphone? With this in mind AMAZONE has developed the highly intuitive and operator-friendly AmaTron 4 which offers a noticeably smoother operational process, especially when it comes to job management. AmaTron 4, with its 8" multi-touch colour display, meets the highest demands and offers you maximum user-friendliness. Via a finger swipe or via the App carousel, one quickly gets from application to application and to the clearly and simply structured operator terminal. The practical MiniView, a freely configurable status bar and an integrated light bar make the AmaTron 4 exceptionally easy and convenient to use.

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

- Automatic full screen mode when not being touched
- Practical MiniView concept
- Operation via touch display or via soft keys
- Especially intuitive and user-friendly
- **▼** Field-related documentation
- ✔ Practice-oriented and intelligent menu navigation
- Day-night mode

Equipped as standard with:

### GPS-Maps&Doc



- ✔ The AmaCam automatic reversing detection system provides direct access to the reversing camera and prevents dangerous situations
- Machine operation (UT, Universal Terminal) in day and night mode

ISOBUS | ISOBUS terminals 34 | 35

### AmaPad 2

An especially comfortable method of controlling agricultural machinery



### The new dimension of control and monitoring

With AmaPad 2, AMAZONE offers an especially high performance operator terminal. The 12.1" multi-touch colour display is particularly comfortable and fulfils the highest demands on Precision Farming. The operation of AmaPad is carried out solely via touch.

With the practical "MiniView concept", applications which aren't being actively operated at that moment but need to be monitored are clearly displayed at the side. If needs be, these can be enlarged by "fingertip" widening. The possibility of individualising a "dashboard panel" with the displays of choice rounds up the user ergonomics.

In addition to GPS-Switch pro, part-width section control with GPS-Track pro also a professional parallel steering aid with integrated light bar is installed as standard.

#### **Benefits of AmaPad 2:**

- ✔ Large 12.1" multi-touch colour display
- Expanded MiniView concept
- Upgrade to automatic steering is possible thanks to the automatic GPS-Track Auto track guidance
- Day-night mode

Equipped as standard with:

GPS-Maps pro GPS-Track pro GPS-Switch pro



### **Spreader Application Center**

### Exemplary – for more than 25 years

### The settings are crucial!

With the Spreader Application Centre, AMAZONE offer even better customer service. 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 relevant "Knowledge transfer".

The two last areas are accompanied by a reorganisation that caters for 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.



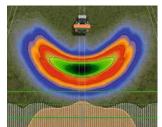
Fertiliser laboratory



Spreading hall



**Test and Training** 



Data management and knowledge transfer

### FertiliserService – you can contact us via:

The FertiliserService works beyond limits. Because no matter whether your fertiliser spreader is 1 or 50 years old, we are always by your side with competent and reliable assistance.

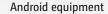
Internet: www.amazone.de

E-mail: duengeservice@amazone.de

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

Also available via an App for iPhone and other Smartphones.







iOS equipment

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

The AMAZONE FertiliserService closely cooperates with well-known manufacturers of spreading material – world-wide 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.

"Depending on the area applied, a theoretical gain of 100 to 1,000 euros per hour can be achieved with a perfectly adjusted fertiliser spreader."

("agrarheute" magazine - Set out the trays and earn money - 02/2019)

### EasyCheck

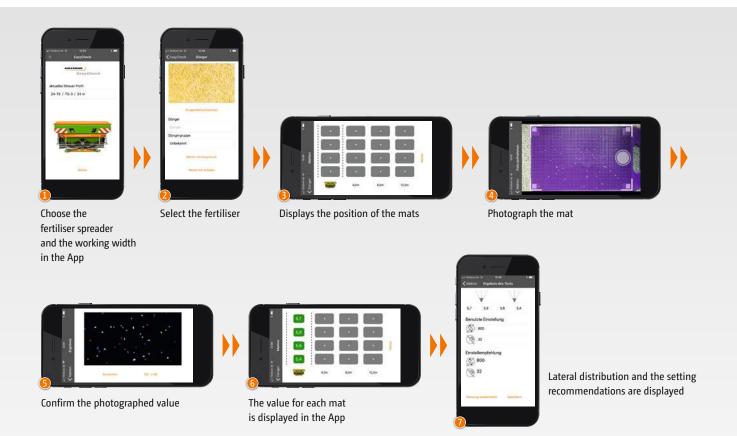
Precise spreading made easy

### Digital, mobile test kit for the easy optimisation of the lateral distribution

Instead of testing trays, such as those found in the normal mobile test kit, the EasyCheck system consists of just 16 lightweight test mats made from rubber and the EasyCheck App for Smartphones. The test mats are positioned in pre-determined distances away from the tramline. Then the relevant tramline is spread and the mats with the fertiliser granules laying on them are photographed. The App now compares automatically how much fertiliser has been collected on each test mat and sets the results of the individual rows to an average. In cases where the spreading results are not the optimum, the App suggests readjustments for the setting of the relevant fertiliser spreader.



The new EasyCheck rubber mats from Amazone offer so many advantages. They are smaller and easier to handle." ("agrarheute" magazine - Set out the trays and earn money - 02/2019)





Verschleißteilkatalog

Catalogue pièces d'usure

Wearing parts catalogue

Каталог изнашиваемых деталей

### **AMAZONE** – always in your vicinity

Your satisfaction is our challenge



**SmartSupport:** Direct local support from the service technician

via Augmented Reality (AR) and mobile terminal equipment.







### The satisfaction of our customers is the most important objective

For this we rely on our competent sales partners. Also for service queries they are the reliable contact partner for farmers and contractors. Due to continuous training, our sales partners and service technicians are always up to date when it comes to looking after the state of the art technology.

### We provide you with a first class spare parts service

The basis for our worldwide spare parts logistics is the central spare parts depot in Leeden. This ensures the maximum availability of spare parts, even for older machines.

Parts which are available in our central spare parts depot in Leeden, ordered up until 17.00 hours, are dispatched the same day. 40,000 different line items of spare parts and wearing metal are located in our highly modern store and daily, up to 800 orders are sent to our customers.

### Better to choose the original right from the start

Your equipment is exposed to extreme demands. The quality of AMAZONE spare parts and wearing metal offers you the reliability and safety you need for efficient soil tillage, precise sowing, professional fertilisation and successful crop protection.

Only original spare parts and wearing metal are perfectly matched to AMAZONE machinery in their functionality and durability. This ensures the optimum operational performance. Original parts at a fair price pay off in the end. Therefore, make your decision the original!

#### The advantages of original spare parts and wearing metal

- Quality and reliability
- Innovation and efficiency
- Immediate availability
- Higher resale value of the used machine

### SmartLearning – The new way of driver training via a PC

With the "SmartLearning" on-line portal, AMAZONE has expanded its service offering with a very useful tool, find it on the homepage at www.amazone.de/smartlearning "SmartLearning" is an interactive driver training function that allows the operation of complex machinery online or offline via a PC or tablet. This new service offering provides drivers with the possibility to get, prior to the initial use of a new machine, acquainted with its operation. However, even proficient drivers can refresh their knowledge to even better utilise the potential capacity of their machinery.





### **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 widt	h (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
Filling height (m)		1.13	1.23	1.32	1.31	1.48	1.42	1.54	1.77
Filling width (m)		2.22	2.22	2.22	2.71	2.22	2.71	2.71	2.71
Total width (m)		2.55	2.55	2.55	2.92	2.55	2.92	2.92	2.92
Total 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! Technical data may deviate according to the level of equipment. Machine illustrations can vary due to country-specific traffic legislation.





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



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