

# ZA-V





# **ZA-V** – the spreader for all situations



#### In the fast lane with the ZA-V

With the ZA-V AMAZONE introduces a highly efficient fertiliser spreader which has been designed specifically for high operational speeds of up to 30 km/h. ISOBUS communication, weigh cell technology and many other innovations make the ZA-V one of the most state-of-the-art fertiliser spreaders in its class.

The high outputs of up to 390 kg/min and a maximum working width of 36 m allow areas of up to 33 ha/h to be covered.



# **ZA-V**

#### for more speed

	Page
The benefits at a glance	4
Frame and hopper   Extensions	6
Equipment	8
Spreading unit   Spreading discs and agitator	10
Border spreading systems with the ZA-V	12
Limiter V <sup>+</sup> border spreading system   Border spread and bed spreading deflector	14
Weigh cell frame   Tilt sensor   Low level sensors	16
ZA-V Easy   ZA-V Control	18
ZA-V Tronic	20
ISOBUS terminals	22
AMATRON 3	24
GPS-Switch   GPS-Maps   GPS-Track   CCI terminal	26
AMAPAD   Sensor technology	28
FertiliserService   Mobile fertiliser test kit	30
Technical data	32

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





# Up to 33 ha/h

# Up to 390 kg/min

Up to 30 km/h working speed

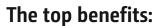
200 Hz weigh cell technology



Hopper sizes from

1700 to 4200 litres





- Precise spread patterns at working widths of up to 36 m
- ♣ Tronic models standard with ISOBUS communication
- Monitoring and control of the spread rate via the optionally available 200 Hz weighing system
- Soft Ballistic System (SBS) for an especially gentle handling of the fertiliser
- ♣ Spreading unit for application rates of up to 390 kg/min
- Intelligent, fertiliser saving agitator with automatic speed reduction when the shutter slide is closed
- Spreading discs with exceptionally quick and precisely adjustable spreading vanes using the QuickSet system
- **◆** Limiter V<sup>+</sup>, electrically-controlled border spreading device; able to be lowered variably into the fertiliser fan for precise side, border and watercourse spreading
- Compact, tight closing, operator-friendly roll-over hopper cover

The top benefits 4 | 5

Up to  $36\ m$  working width

State of the art **ISOBUS** communication



# Limiter V<sup>+</sup>

electrically variable border spreading device



# Frame and hopper

Stength pays dividends



ZA-V 2000 Profis Tronic

# Outstanding design: mounted spreader with 4500 kg payload

#### The benefits

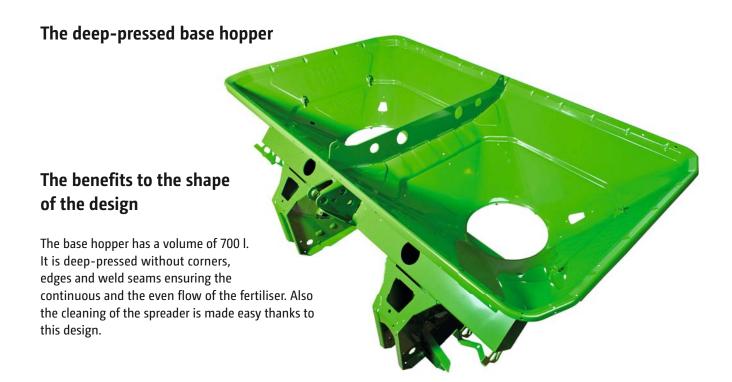
- Lightweight frame design with excellent rigidity
- Optimised centre of gravity and yet plenty of space for hitching up

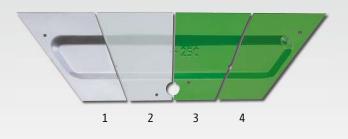
#### **Super frame**

The Super frame combines a payload in excess of 3200 kg and Category II linkage dimensions.

#### Ultra frame

The Ultra frame features a payload of more than 4500 kg and a Category III linkage.





- ✔ 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



S 1700 extension (filling width 2.22 m)



S 2000 extension (filling width 2.22 m)



S 2600 extension (filling width 2.22 m) with foldable ladder on left hand side



L 2200 extension (filling width 2.71 m) with foldable ladders



L 2700 extension (filling width 2.71 m) with foldable ladders



L 3200 extension (filling width 2.71 m) with foldable ladders



L 4200 extension (filling width 2.71 m) with foldable ladders

#### **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. Of course, these extensions can also be equipped with the roll-over hopper cover. So, the spreader can simply grow together with the farm or the size of the husbandry tractor available.

ZA-V with L 800 bolt-on extension



# **Equipment**

Perfect down to the last detail



◆ 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.

#### SafetySet

The AMAZONE ZA-V is equipped as standard with SafetySet to provide more peace of mind. Implements which are mounted on the back of fast moving tractors require clear visibility on the road. AMAZONE has incorporated these strict safety requirements into its modern design. 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.

#### Roll-over cover

The manual or hydraulically controlled roll-over cover ensures dry spreading material in wet weather and enables you to continue spreading even when the weather conditions are against you. The roll-over hopper cover is available for all S and L extensions. Needless to say that the roll-over cover can be also combined with the S 600 and L 800 bolt-on extensions.

#### Number plate holder

The licence plate holder with lighting offers the possibility to mount a secondary licence plate.





Number plate holder with lighting

Equipment 8





Rolling and parking device

Parking stand with skids

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

#### Ladder for safe access

For comfortably accessing the hopper from outside and matching the ladders on the wider L extensions, a ladder is also available for the narrow extensions which can be fitted on the left and/or the right hand side.

#### **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.





Foldable ladder for the ZA-V with S 2600 extension



Calibration device



The precision spreading system

For maximum efficiency

#### Spreading system with Soft Ballistic System

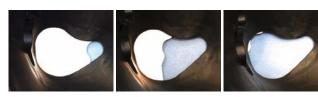
Due to its large aperture, the ultra-modern spreading system on the ZA-V can achieve application rates of up to 390 kg/min. The hopper tip, which tapers down to the shutter slide, prevents any residues being left making it easy to clean.

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.



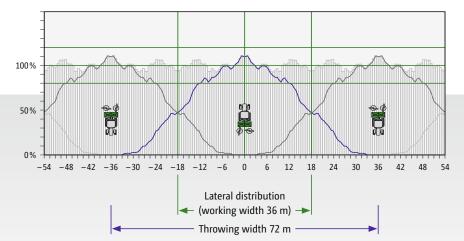
Spreading unit with V-Set spreading discs and star agitator for fertiliser saving application



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 spreading disc speed is always maintained 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 perfect solution, e. g. for the agricultural contractor.



- 1 Spreading vane
- 2 Spreading disc
- (3) Clear scale positions
- 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 · 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.



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)





# Perfect border spreading systems with the ZA-V

**Precise and comfortable** 



ZA-V 2000 Profis Tronic with Limiter V<sup>+</sup>

12

# Active environmental protection – border spreading systems from AMAZONE

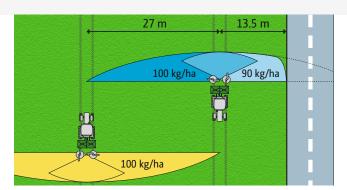
#### Side spreading (yield orientated) with Limiter V+

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.

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

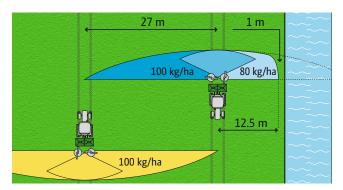
### Border spreading (environmentally-orientated) with Limiter V<sup>+</sup>

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.



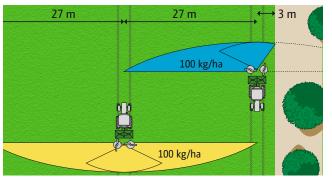
#### Watercourse spreading (environmentally-orientated) with Limiter V<sup>+</sup>

In cases where a watercourse 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.



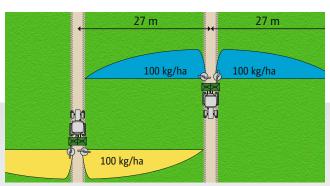
#### Border spreading with border spread deflector

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.



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



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

In this way, via the sensitive electric adaptation of the angle of the Limiter V<sup>+</sup> in relation to the 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 spread and bed spreading deflectors

#### **Border spread deflector**

For cases where there is a need to spread directly inwards from the edge of the field towards the middle, there is a border spread deflector available for the ZA-V.

When the border spread deflector is swivelled down, spreading is carried out only from the inside spreading disc. The fertiliser from this spreading disc is deflected in such a way that it is only thrown directly behind the tractor and into the field but, however, not out across 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. If the border spread deflector is left swivelled upwards then the spreader can be utilised for normal arable farming situations without limitation.

#### **Bed spreading deflector**

Within the sector of specialist crops, often beds are created with paths in between. For spreading beds to the left and right hand side of the tractor, the bed spreading deflector provides the optimum fertiliser distribution across just the beds. When the bed spread deflector is swivelled downwards then, behind the tractor where there are no plants, no fertiliser is spread. For optimising the fertiliser distribution, the telescopic end piece of 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. In the fully-up position, the bed spread deflector has no influence when spreading normally.



Border spread deflector folded upwards



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



# He who weighs wins!

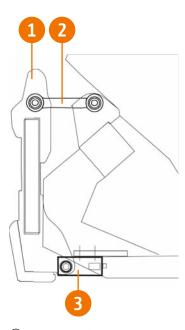
ZA-V Profis with weigh cell frame

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

The weighing system 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.

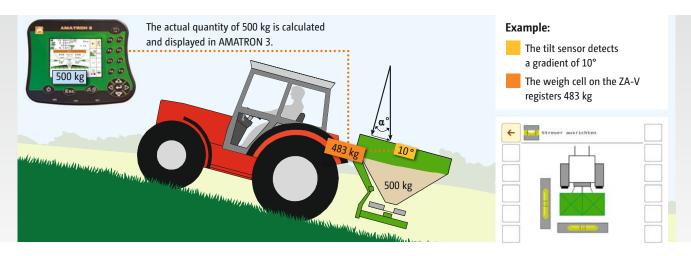




- 1 Weigh cell frame
- 2 Horizontally aligned tie bar
- 3 Weigh cells

ZA-V 2700 Profis

16



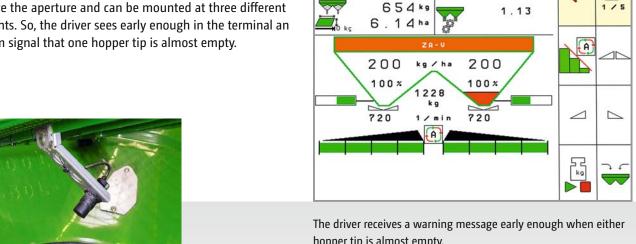
So that the alignment of the ZA-V can be successfully kept in the horizontal position, the angle of the ZA-V Tronic is displayed comfortably in the ISOBUS terminal.

#### Tilt sensor for steeper sloping terrain

On the ZA-V, 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 twodimensional 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. In this way, in combination with the intelligent weighing algorithms, deviations in the flow characteristics of heterogeneous mineral fertilisers are more accurately detected and the spreader is automatically re-adjusted via the electric metering slides.

#### Low level sensors

For monitoring both apertures, AMAZONE offers a low-level sensor system for the ZA-V. These can be positioned if desired above the aperture and can be mounted at three different heights. So, the driver sees early enough in the terminal an alarm signal that one hopper tip is almost empty.



12.0 km/h

2.29 ha

hopper tip is almost empty.



# **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, either 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<sup>+</sup>, 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.



EasySet in-cab operating terminal

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.



18

# **ZA-V 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 inch 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.

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+ in-cab terminal



# **ZA-V** Tronic – the ISOBUS spreader

Equipped as standard with 8 fold part-width section control



20

- "Especially in small to medium working widths, the simple spread rate reduction of the ZA-V readily achieves good results in its lateral distribution in wedge shaped fields. Thanks to the large throwing width, the triangular spread pattern is maintained for a prolonged period."
  - (top agrar System comparison "Automatic spreading in wedges: which system is suitable?" · 02/2016)
- (1) "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?"  $\cdot$  02/2016)

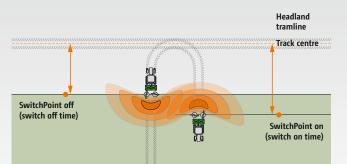
# Mechanical drive with Tronic Pack and 8 fold part-width section control

The mechanically-driven ZA-V Tronic spreader features an 8 fold part-width section control via spread rate adaptation.

Due to the spreading unit of the ZA-V with its quantity effectfree aperture and consistent, triangular shaped spread patterns, very good results can be achieved when spreading in short work and in wedge shaped fields. Due to the quantity effect-free aperture of the ZA-V spreader, the lateral distribution of the fertiliser is always maintained at different application rates. So, individual part-width sections can be switched via spread rate adaptation.



In addition to AMAZONE ISOBUS terminals, the ZA-V Tronic can be also operated with ISOBUS terminals from other manufacturers.



#### SwitchPoint

When utilising GPS-Switch, SwitchPoint means 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.



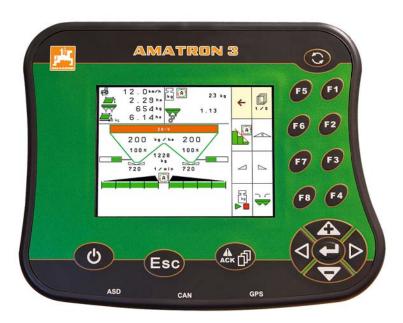




# **ISOBUS** terminals

ISOBUS features the worldwide recognised communication Standard between operator terminal, tractor and mounted implements as well as farm office software. That means with one terminal you can control any ISOBUS compatible implement.

# The ZA-V Tronic can be operated via different AMAZONE ISOBUS terminals:



AMAZONE AMATRON 3 5.6" size screen



AMAZONE CCI 100 8.4" size touch screen

#### **Further ISOBUS terminals**

In addition to the AMAZONE ISOBUS terminals, the ZA-V Tronic can also be operated with ISOBUS terminals from different manufacturers.



e.g. Fendt Vario terminal



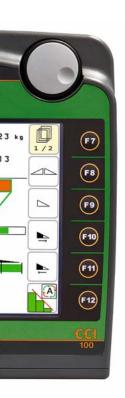
e.g. John Deere GreenStar



e.g. Müller COMFORT terminal

Machine operation, job management, documentation and part-width section control of these AMAZONE spreaders is possible with all common ISOBUS terminals. By utilising several ISOBUS terminals, individual functions can be assigned to each screen to suit.

- The AUX-N function means that various elements of the tractor can also be used for operating an AMAZONE spreader.
- Additional AMAZONE components, such as, for example, the AmaPilot multi-function joystick, can be used with any ISOBUS tractor.
- Freely-programmable operator interfaces for machine operation and an individually-assignable information menu of the status of the fertiliser spreader results in a higher degree of operator-friendliness.
- In the fertiliser menu, settings for up to 20 different fertiliser types can be stored, processed and managed.





AMAZONE AMAPAD

12.1" size touch screen

#### Important information

Please note that when working with other ISOBUS terminals, additional section control software, for example, from the tractor manufacturer, is normally necessary. This is not usually included in the standard version of other ISOBUS terminals.

#### 2-terminal solution

A twin-terminal solution with the simultaneous use of a tractor ISOBUS terminal and AMATRON 3 or CCI 100 is recommended if the tractor terminal does not support the section control function or if you intend to use the spreader via AMATRON 3 or CCI 100 and a separate screen.



# **AMATRON 3**

#### The ISOBUS terminal that offers complete functionality



#### MATRON 3

The terminal features a job management function (Task Controller) and connection to the ASD (automated field related documentation system). AMATRON 3 is equipped with a serial interface for the connection of a GPS terminal and Nitrogen sensors.







#### AMATRON 3 ISOBUS operator terminal – modern and future oriented

By using the practical and clearly designed AMATRON 3, you only need one terminal for the control of different fertilising functions. With the AMATRON 3, all relevant data is clearly displayed and the few necessary inputs are entered very conveniently.

AMATRON 3 features back-lit keys and a display with high resolution and contrast. All the information regarding the control of the fertiliser spreader is shown on the one screen. Depending on the driving situation and your personal preference, you can select either the fertiliser spreader overview or the GPS functionality as a detailed view.

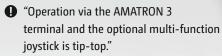
AMATRON 3 is fully downward compatible to AMATRON+ and upwardly compatible to the ISOBUS standard providing a bridge between the non-ISOBUS and the ISOBUS world. With AMATRON 3, the end user can safely and conveniently operate any AMAZONE implements fitted with AMATRON+ (AMABUS) and also all implements conforming to the ISOBUS standard. Needless to say, this is also possible on non-AMAZONE implements.

AMATRON 3 allows the fully automated regulation of the predetermined application rate. Defined rate changes are quickly and precisely carried out in % increments.

Due to its clear, simple and logical menu guidance, this modern operator terminal is especially versatile. The very compact shape of the computer means it requires little space in the tractor cab.

#### The terminal features the following functions:

- **▼** ISOBUS machine operation
- AMABUS machine operation
- **▼** Task Controller job management for documentation
- ▼ Import/Export of field data via a USB stick
- GPS-Switch automated part-width section control (optional)
- GPS-Track parallel guidance system (optional)
- Optional external light bar display for GPS-Track parallel guidance
- GPS-Maps application map module (optional)
- ASD interface for serial port communication, for example, with N sensors
- Tractor ECU function



(profi - Test report ZA-V 2000 Profis Tronic fertiliser spreader · 03/2015) AmaPilot multi-function joystick

All the functions in the operation menu can also be actuated via the AmaPilot multi-function joystick or other ISOBUS joysticks (AUX-N).



# GPS-Switch, GPS-Maps and GPS-Track

Automated headland and part-width section control, part-area site specific application map functions and clear steering guidance for the ZA-V Tronic

# Even more precision from GPS-Switch, GPS-Track and GPS-Maps

Available as optional equipment: GPS-Switch automated headland and part-width section control, GPS-Track parallel guidance and GPS-Maps part-area site specific application map function.



#### **GPS-Switch for AMATRON 3**

This GPS assisted on-board computer system automatically calculates the accurate position for switching on and off the machine on the headland, at the field's edge and in wedge shaped short work.

GPS-Switch automated part-width section control gives you comfort and peace of mind. Just select the desired degree of overlap and set the switching on and off to automatic. Furthermore you save on fertiliser as well as the environment plus the driver can fully concentrate on its monitoring.

On the ZA-V spreader, a module has been integrated which bears in mind the three-dimensional aspect of the spread fan behind the machine. So, for example, the machine is switched on at a different position when driving into than when driving out of the headland (SwitchPoint).



#### **GPS-Maps for AMATRON 3**

In addition to the ISO-XML-data management, the job management of the terminal (Task Controller) is also able to process application maps (in Shape file format), meaning, depending on the objective and the terminal, several possibilities for a part-area site specific application – according to a map or to a sensor. Which system is most suitable and will best serve the individual demands and requirements is just up to you as the user.

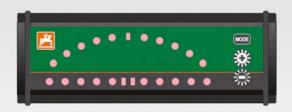


#### **GPS-Track for AMATRON 3**

The GPS-Track parallel guidance system proves to be a huge help for orientation within the field. It features different track modes, such as A-B line, contour following and an obstacle function. The tracks are clearly numbered all the way through. The deviation from the ideal line is graphically shown in the display; clear steering recommendations keep you in the track. Also the distance to the next bout is accurately displayed – for the ideal orientation.

Of course, GPS-Track also works as a "stand-alone" system, even without an implement attached.

External light bar for GPS-Track parallel driving aid As a possibility, an external light bar display is available which can be easily used in conjunction with GPS-Track. The external light bar display can be freely positioned anywhere in the cab.



26

## **CCI** terminal

#### The benefits:

The CCI ISOBUS terminal from AMAZONE is the result of the cooperation with several other manufacturers of agricultural machinery who are joint participants in the Competence Centre ISOBUS e.V (CCI). With CCI, AMAZONE and its partners have laid the foundation to introduce ISOBUS into practice. The CCI 100 is the basis to convert all AMAZONE machinery and implements successively to the ISOBUS standard.

- The bright 8.4" colour display with its high screen resolution and ambient light sensor matches the brightness automatically to the light conditions. This avoids the driver in twilight or at night being blinded by too bright a display.
- Inputs can be entered either, from choice, via the operatorfriendly touch screen or via the soft keys.
- Fatigue-free operation at night is assisted by the backlighting of the keys which are also connected with the light sensor.
- The proven AMAZONE one-handed operation is still possible because the function of the "soft keys" can be simply mirrored.
- For intuitive menu guidance and the convenient input of values and text, the terminal is provided with a highquality touch screen.



For the direct quick, input and adjustment of the input values, a scroll wheel with actuating function is ergonomically integrated in the housing.

# The terminal includes the following functions:

- ISOBUS machine operation
- CCI.Control job management for documentation
- CCI.Command (optional): automatic part-width section shut-off CCI.Command.SC parallel guidance aid CCI.Command.PT
- Application maps supported in ISO-XML format
- Serial interface, e.g. for N sensors
- Tractor ECU function
- Camera function CCI.Cam



External light bar for CCI.Command.PT parallel driving aid

As a possible addition, an external light bar is available which can
comfortably be coupled with CCI.Command PT. The external light bar
Can be positioned freely in the tractor cab. The only precondition for
its utilisation is the activation of the Parallel Tracking module in
CCI.Command.



### **AMAPAD**

# An especially comfortable method of controlling agricultural machinery

# The new dimension in control and monitoring

With the AMAPAD operator terminal, AMAZONE offers an entirely new and high-class solution for GPS application such as automated GPS based part-width section control and Precision Farming applications.

AMAPAD features an especially ergonomic, 12.1" touch screen. With the unique "MiniView" concept, applications that do not need to be actuated but which, however, need to be monitored, are clearly shown at the side. If needs be, these can be enlarged by "fingertip" widening. The possibility also exists to customise the display, a feature which rounds off the exceptional layout of this operator terminal.



In addition to GPS-Switch pro part-width section control, a high-quality professional manual light bar guidance system is also installed as standard. GPS-Track pro can also be upgraded to an automated steering system.

# The terminal includes the following functions:

- ISOBUS implement operation
- **▼** Task Controller job management for documentation
- ◆ Automated GPS-Switch pro part-width section control
- GPS-Track pro parallel guidance system
- As an option: upgradable to automatic steering
- GPS-Maps pro application map module

#### The characteristics of AMAPAD:

- Screen made from toughened glass
- **❸** Housing made from impact-proof plastic
- **▼** Extra-narrow rim for maximum visibility
- Flush finish, no penetration of dust / humidity







# Nitrogen sensor technology

#### Listen to your plants

# Optimum plant growth thanks to the correct nitrogen supply

Actually on-line sensors are the ideal tool for supplying the appropriate amount of Nitrogen. During fertiliser application, they measure the supply available at the plant. Within the restraints of the pre-determined values, the required amount of fertiliser for an optimum plant growth is then calculated.

Via the serial interface (RS 232) all ZA-V spreaders with AMATRON 3, CCI 100 and other compatible ISOBUS terminals offer an optimum access to all on-line sensors available

in the market (e.g. YARA N-Sensor, FRITZMEIER ISARIA, CLAAS CropSensor, CropCircle, OptRx, GreenSeeker). Via the AMAZONE operator terminal, the calculated amount of fertiliser is directly entered in to control the machine. For documentation purposes, the actual applied amount of fertiliser applied is recorded.



# **FertiliserService**

Only the detailed and continuously updated setting charts, obviously obligatory from AMAZONE, result in an optimised spreading result.



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

The FertiliserService from AMAZONE enables an economical and environmentally friendly use of fertiliser. For more than 20 years test results of fertilisers from Germany and abroad, determined in the AMAZONE test hall, are stored in a computer databank. It is not only the spread patterns and setting values which are recorded for these tested fertilisers but, in addition, the physical material characteristics which are also important for the lateral distribution. So, extremely comprehensive data is available that enables us to advise all AMAZONE customers with regard to any setting recommendations; both with any previously unknown fertilisers and any new types of fertiliser free of charge.

# We critically evaluate your fertiliser

The best possibility to determine the setting values for fertiliser spreaders is by calibration in the test hall. However, it is not always possible to send us the required amount of fertiliser and so, for this reason, AMAZONE has developed a reliable laboratory test enabling us to test just a five kilo fertiliser sample and to pass on the setting recommendations to the customer based on our experience and the collected information.

# Optional equipment: mobile fertiliser test kit



Simple, safe and reliable handling!

#### For even more peace of mind with difficult fertiliser types

- Perfect check in the field
- Simple and safe
- Measures the lateral distribution of the fertiliser
- top agrar Test 06/2011: "Very user-friendly system"







30





# FertiliserService with modern spreading hall

For research and development as well as series support, AMAZONE has, at its disposal, a modern fertiliser spreading test hall. Here the AMAZONE FertiliserService works closely together with all major spreading material manufacturers – and this is worldwide – to be able to make available to you the best setting recommendations – and as fast as possible.

With the on-line weigh cell system, it is possible not only to analyse every spread test with regard to the lateral distribution, but also to the spatial distribution. This is of big benefit, not only in the new development of fertiliser spreaders, but also in fine-tuning of automatic switching systems (GPS-Switch) where the information is also required.

In its selection of the measuring system, AMAZONE has relied on new innovative technology. The fertiliser spreaders are positioned on a revolving platform which spins around its vertical axle. With this measuring system, all imaginable working widths can be determined.



FertiliserService App for Android Smartphones or iOS equipment

Our FertiliserService App has been downloaded more than 40,000 times.

# The exclusive service for the users of AMAZONE fertilising technology

The FertiliserService works beyond limits. Because no matter whether your fertiliser spreader is 5 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 Fax: +49 (0)5405 501-374

# The best way: FertiliserService on the Internet at www.amazone.de

Not only are fertiliser and the spreader necessary for optimum fertilisation! Equally as important is the competent advice for crucial fertiliser types.

On the internet you can recall from our databank, 24 hours a day, free of charge, at www.amazone.de, the actual setting recommendations for the lateral distribution and the spread rate for AMAZONE fertiliser spreaders. Just select your machine model and the material to be spread. This data is also available via an App for iPhone and other Smartphones.





Android equipment

iOS equipment



#### Technical data: ZA-V

-		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)		1700	2000	2200	2600	2700	3200	4200
– with bolt-on extension S 600 (I)		2300	2600	-	-	_	-	-
– with bolt-on extension L 800 (I)		-	_	3000	_	3500	4000	-
Payload (kg)	ZA-V with Super frame	3200	3200	3200	3200	3200	3200	-
	ZA-V with Ultra frame	4500	4500	4500	4500	4500	4500	4500
Filling height (m)		1.23	1.32	1.31	1.50	1.42	1.54	1.77
Filling width (m)		2.22	2.22	2.71	2.22	2.71	2.71	2.71
Total width (m)		2.58	2.58	2.92	2.58	2.92	2.92	2.92
Total length (m)		1.68	1.68	1.68	1.68	1.68	1.68	1.68
Drive line (rpm)		Mechanical spreading disc drive at 720 rpm						
Min. weight (kg) (with PTO shaft, V-Set 2)		357	366	444	404	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



#### AMAZONEN-WERKE H. DREYER GmbH & Co. KG

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