

# ZA-TS ZG-TS





# ZA-TS mounted and ZG-TS trailed fertiliser spreaders

The new high output spreaders from AMAZONE



(profi – Driving impression ZA-TS 4200 Profis Hydro

fertiliser spreader- 06/2013)

The ZA-TS mounted spreaders and ZG-TS trailed spreaders are available in hopper capacities from 1,400 to 8,200 l and are both equipped with the new TS spreading unit. The TS spreading unit is designed for working widths of up to 54 m and, at the same time, offers particularly excellent border spread patterns. This makes the ISOBUS ZA-TS and ZG-TS the highest performing of spreaders.

The reliable weighing system, the precise AutoTS and ClickTS boundary spreading systems as well as innovative ArgusTwin and WindControl technology and many other options make these fertiliser spreaders the most modern in their class.



### **ZA-TS and ZG-TS**

### precise - quick - convenient

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**①** "The application rate of the weigh cell spreader was always correct. We also liked the lateral and longitudinal distribution."

(dlz agrar magazine - Long term test ZA-TS "Wide throwing master" · 01/2016) "Anyone who operates in sloping terrain or that has to struggle against heavily deviating fertiliser properties, or on very large working widths with poor throwing fertilisers, will be grateful for this new precision."



Working widths of up to

54 m

**ISOBUS** communication

Outputs up to

50 ha/h

Up to 30 km/h operational speed

From **1,400** to **4,200** litres

8 different hopper sizes

Fertiliser-protecting

agitation

with automatic shut-off

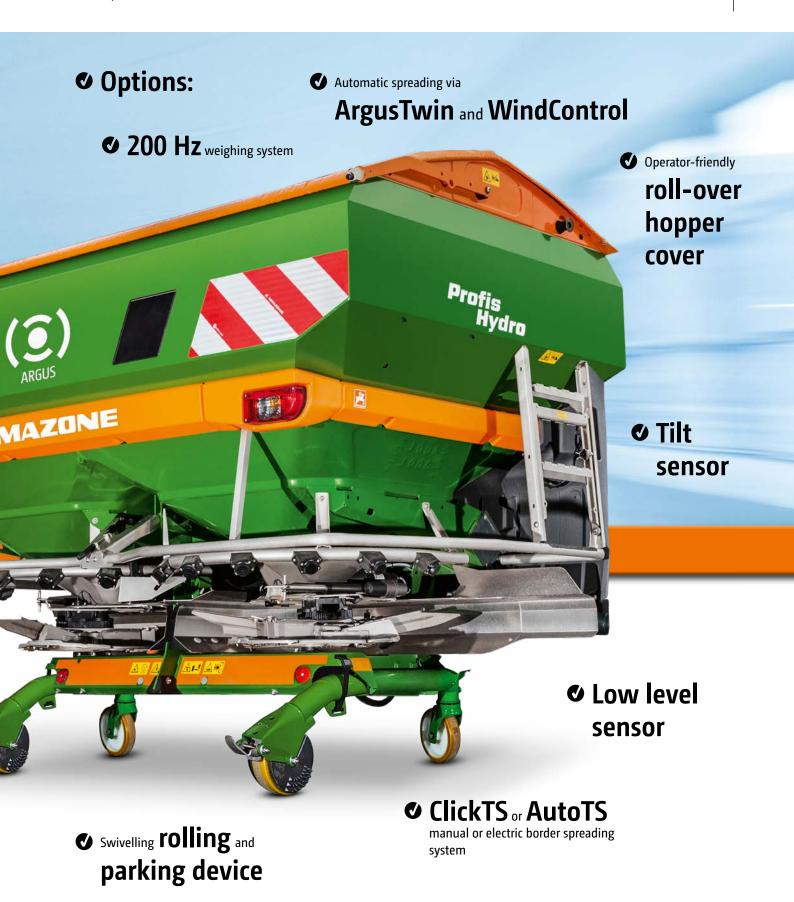
Up to 650 kg/min



### **Top features:**

- Precise spread patterns at working widths of up to 54 m
- As standard ISOBUS communication with the most modern operator terminals
- Monitoring and control of the application rate via the optional 200 Hz weighing system
- Soft Ballistic System pro (SBS pro) for an especially gentle handling of the fertiliser
- AutoTS and ClickTS, the disc-integrated border spreading system, electric or manual
- Electrically-driven and fertiliser protecting agitation system with automatic shut-off
- Automatic adjustment of the lateral distribution via ArgusTwin possibly the most comfortable way of spreading fertiliser
- For areas where wind is always a problem, WindControl supplements the ArgusTwin system to compensate for the influence of the wind
- Compact, tightly-closing and operator-friendly roll-over hopper cover
- FertiliserService, top-class quality, unique service with more than 25 years' experience

ZA-TS top features









# The frames and hoppers

Robustness is the key



ZA-TS 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
- "For Amazone, their payload of up to 4.5 t is the highest." (profi – PracticeTest "Four fertiliser spreaders in comparison" · 01/2016)

#### The frames

- **✓ Super frame:** 3,200 kg payload, Cat. II linkage dimensions and fixing pins.
- **◆ Ultra frame:** 4,500 kg payload, Cat. III linkage dimensions and Cat. II/III fixing pins.

#### The deep-pressed base hopper

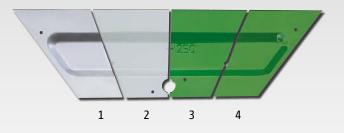
The hopper features hardly any corners and the cover is conveniently rolled back (and is fertiliser tight at the front) "

(profi – Practice Test "Four fertiliser spreaders in comparison" · 01/2016)

# The benefits to the shape of the design

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.





- ✔ 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 1400 extension (filling width 2.22 m)

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, seen in the left hand direction of travel



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



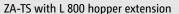
L 4200 extension (filling width 2.71 m) with foldable ladders

#### **Additional hopper extensions**

For a subsequent increase in hopper capacity for the ZA-TS, AMAZONE offers for both the S and L base machines a suitable bolt-on extension. The volume of the extension is 600 l for S hoppers and 800 l for L hoppers. Needless to say, the roll-

over cover can be fitted on to these extensions. This enables the spreader to simply grow together with the farm or to take into account any subsequent increase in size of the husbandry tractor on the farm.

◆ 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.







### **Equipment**

#### Perfect down to the last detail



"The roll-over cover is superb: it closes cleanly to, keeps the water out during a shower and does not interfere with the filling operation when open."

(dlz agrar magazine – Long term test ZA-TS "Wide throwing master"  $\cdot$  01/2016)

### SafetySet as standard

The AMAZONE ZA-TS is equipped with SafetySet as standard to provide maximum safety. Implements that are mounted to high-speed tractors need to be clearly visible in road traffic. AMAZONE has incorporated these strict safety requirements

into the modern design. The peripheral guard tube fulfils the health and safety requirements. Large dimensioned marker boards to the rear and the road lighting kit ensure better visibility when in amongst road traffic.

#### Ladders that ensure a safe access

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

### Licence plate holder

The licence plate holder with lighting offers the possibility to attach a machine-mounted number plate.





"Even with the ladder Amazone sets the standard: fitted to both sides, the steps (from stainless steel!) are well integrated and do not protrude."

(profi – Practice Test "Four fertiliser spreaders in comparison"  $\cdot$  01/2016)



Licence plate holder with lighting



The direct filling from a tipping trailer or from big bags is no problem. And, especially when using wide loading shovels, the wide L-extension is of great benefit.



Calibration device

### Roll-over hopper cover

The manually or hydraulically actuated roll-over hopper cover ensures that the spreading material is kept dry even in wet weather conditions and allows you to continue spreading even in bad weather. The roll-over hopper cover is available for all S and L extensions.

Calibration device

For a comfortable spread rate check without having to dismount the spreading disc, a hopper-mounted calibration device on either the left or right hand side is available.

### Rolling and parking device

The swivel rolling and parking device facilitates the easy mounting on and off the tractor and manoeuvring in the yard. The castor wheels are quickly folded in and out and optimally protected from dirt. They are permanently mounted on the spreader – so no need to search for them between one location and another.



• "The robust (and steered at the front) rollers with brakes are swivelled in or out with a bold kick. There is no better way." (profi – Practice test "Four fertiliser spreaders in comparison" · 01/2016)

### **Parking stands**

As an alternative to the swivel rolling and parking device, a cheaper parking set with integrated stands is also available.



Parking set with integrated stands



### Who weighs wins

ZA-TS Profis Tronic and ZA-TS Profis Hydro weighing system spreaders

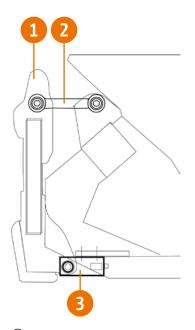


# No calibration: enter the spread rate and drive off! There is nothing simpler.

The weighing system provides controlled convenience and more safety enabling an on-line determination of the different spreading material properties with two 200 Hz weigh cells – with high measuring accuracy. It automatically compares the actually applied rate with the pre-determined rate. Deviations in the flow characteristics, for example when spreading blended mineral fertilisers, are detected and the spreader is re-adjusted automatically via the electric metering shutter slides. In addition, for field-related nutrient application, for example, the applied rate is precisely documented.

For a well-balanced nutrient supply, the application rate can be changed via the ISOBUS terminal at the touch of a button.



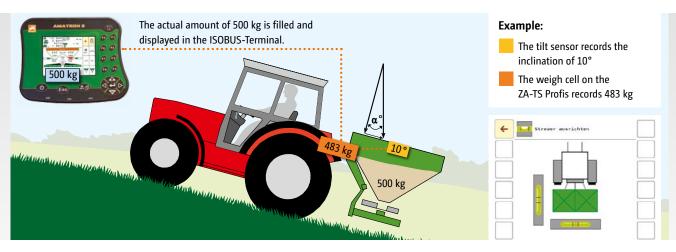


- 1 weighing frame
- (2) horizontally aligned tie rods
- 3 weigh cells

The keyword is safety: with regard to lighting and mudguards we liked the spreader from Amazone with its all round wellprotected lights and marker boards best"

(profi – Practice Test "Four fertiliser spreaders in comparison"  $\cdot$  01/2016)

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# Tilt sensor for heavily undulating terrain

With the Profis, possible changes in the centre of gravity are taken into account during the measuring procedure whilst on the move via the tilt sensing technology: the two-dimensional tilt sensor which records the angle, both to the front and the rear and to the left and right hand side, corrects the measuring inaccuracies which might arise when driving up and down hill or that might occur when driving on sloping ground.

For simplifying the mounting of the ZA-TS onto the tractor in the horizontal position, the angle of the ZA-TS Profis is comfortably displayed in the ISOBUS terminal.

In this way, in combination with the intelligent weighing algorithms, deviations in the flow characteristics when working with blended mineral fertilisers are even better detected and the spreader is automatically re-adjusted via the electric metering shutter slides.

# FlowCheck – for monitoring the spreader aperture

With FlowCheck, AMAZONE offers a system that continually monitors the shutter apertures against blockage or should they run empty. The flow pressure within the hydraulically-driven spreading disc motors is measured via sensors in the hydraulic system and if this changes, due to a blockage in the aperture and thus a reduction in the application rate, the system detects this and sends an alarm to the driver

via the terminal. This is monitored for both the right and left hand sides individually. Whereas FlowCheck ensures that the application rate to either side is the same or, when there is any deviation, informs the driver, the total application rate of the spreader is monitored and regulated via the weighing system. In addition, the driver is always informed via the weigh-cells of the actual fill level in the hopper.





### Soft Ballistic System pro

### For an even gentler fertiliser treatment



### 4 decisive advantages with SBS pro

Mineral fertilisers require an especially gentle treatment to ensure a precise distribution and accurate transport to the crop. Fertiliser which has been already damaged in the spreader can no longer be reliably distributed.

For peace of mind, AMAZONE's Soft Ballistic System pro is integrated as standard into the mounted ZA-TS and trailed ZG-TS spreaders. This means that the agitator, metering components and spreading discs are all optimally matched thus protecting the fertiliser and ensuring better yields.

#### 1. Gentle guidance

The electrically driven star agitators in the hopper bottoms ensure an even fertiliser delivery onto the spreading discs. The slowly rotating, star shaped segments of the agitator evenly deliver the fertiliser to the relevant outlet opening. When the delivery system is adjusted, the agitator star rotates as well so that it is always perfectly positioned above the aperture. The agitator switches off automatically when the shutter slide is closed.



Spreading system with delivery system, brush kit and spreading disc

SBS pro 12 | 1.



SBS pro for ZA-TS and ZG-TS

#### 2. Gentle delivery

Due to the delivery system, adjustment to the throwing width and throwing direction can be regulated. In addition, the working width can be adjusted each side individually by changing the disc speed. The fertiliser is fed on centrally at a low peripheral speed resulting in little fertiliser damage. The concentric delivery system adjustment results always in a gentle treatment of the fertiliser.

#### 3. Gentle acceleration

With a standard disc speed from 600 rpm up to 900 rpm, the AMAZONE's Soft Ballistic System pro gently accelerates the fertiliser. Even fertiliser types with minimal breaking strength maintain their spreading properties and provide a clean, even spread pattern.

#### 4. Gentle ejection

With the AMAZONE Soft Ballistic System pro, as little energy as possible is given to the fertiliser for an optimum trajectory and a precise spread pattern. So, the spreading vanes are optimally adjusted to a laid-back position.



### The benefits of electric agitation

- two slow-running, fertiliser saving agitators; turning at just 60 rpm
- which switch off automatically as soon as the shutter slide is closed, also just to the one side and independently of each other
- that reverse automatically when blocked by a foreign object

- "A 12V motor drives the agitator which rotates at 60 RPM. It switches off when the shutter is closed and it reverses as soon as a foreign object blocks the agitator."
  - (dlz agrar magazine Long term test ZA-TS 3200 Profis Hydro · 02/2017)
- The electric agitators operate independently left or right and only when that shutter is opened"
  - (profi Practice Test "Four fertiliser spreaders in comparison" · 01/2016)



### The AMAZONE delivery system

With utmost efficiency: up to 650 kg/min and 50 ha/hour

#### Top Speed – spreading at up to 30 km/h

The delivery system with its electrically-driven star agitators in the hopper bottoms ensure an even fertiliser flow onto the spreading discs. The slowly rotating star shaped segments of the agitator deliver the fertiliser evenly to the relevant shutter outlet. In case of lumps in the spreading material, the agitator operates automatically in the opposite direction to clear the outlet so that an optimum fertiliser flow is maintained.

The two quick-reacting electrically-controlled metering shutters ensure an immediate opening and closing so that the fertiliser is available at the full amount right from the start. Simultaneously the shutter slides are responsible for the metering of the fertiliser rate plus they can be operated

independently from one another. For forward speed related spread rate control, such as, for example via AMATRON 3, or via any other suitable ISOBUS terminal, the metering shutter slides are actuated by the electric setting motors to match the application rate and speed.

The big outlet opening can cope with a high fertiliser flow so that the delivery system, with easy flowing fertilisers, is able to go spreading at operational speeds of up to 30 km/h.

The brush kit ensures a clean delivery of the fertiliser on to the spreading disc without splatter and without losing any "granules".

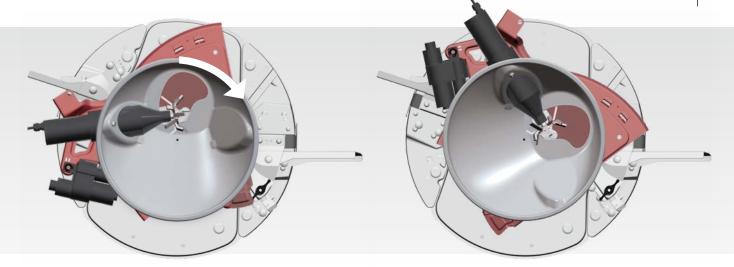




**♥** Quick-reacting electric actuators

Brush unit for a clean delivery onto the spreading discs

Delivery and agitation 14 | 15



The delivery system swivels around the centre of the disc

#### Concentric delivery system adjustment

Via the delivery system, the fertiliser is gently fed-on extremely close to the centre of the spreading disc. At this point, close to the centre of the disc; the peripheral speed is low resulting in a particularly gentle treatment of the fertiliser. For setting the spreader to different working widths and fertiliser types, the delivery system is pivoted electrically (concentrically) around the centre of the discs. The distance between the feed-on point of the fertiliser and the centre of the disc always remains the same. The agitator is firmly fixed to the delivery system and thus always maintains the same position above the aperture.

The swivelling of the delivery system provides you with a wide range of possible working widths; just three sets of spreading vanes cover working widths from 15 m to 54 m.

### Mechanical delivery system adjustment

Due to the quantity effect-free aperture, the ability to mechanically adjust the delivery system for the ZA-TS often is sufficient as the delivery system only requires moving when either the working width or the fertiliser type is changed. When varying spread rates and forward speeds no adjustment is necessary.

#### Quantity effect-free aperture design

Due to the specific shape of the outlet and the shutter the spread pattern is always maintained, even at varying operational speeds. The position of the delivery system is independent and does not require any readjustment.

This is the decisive difference to normal adjustment of the feed-on point.



Every TS spreading unit with electric delivery system adjustment is Argus-ready

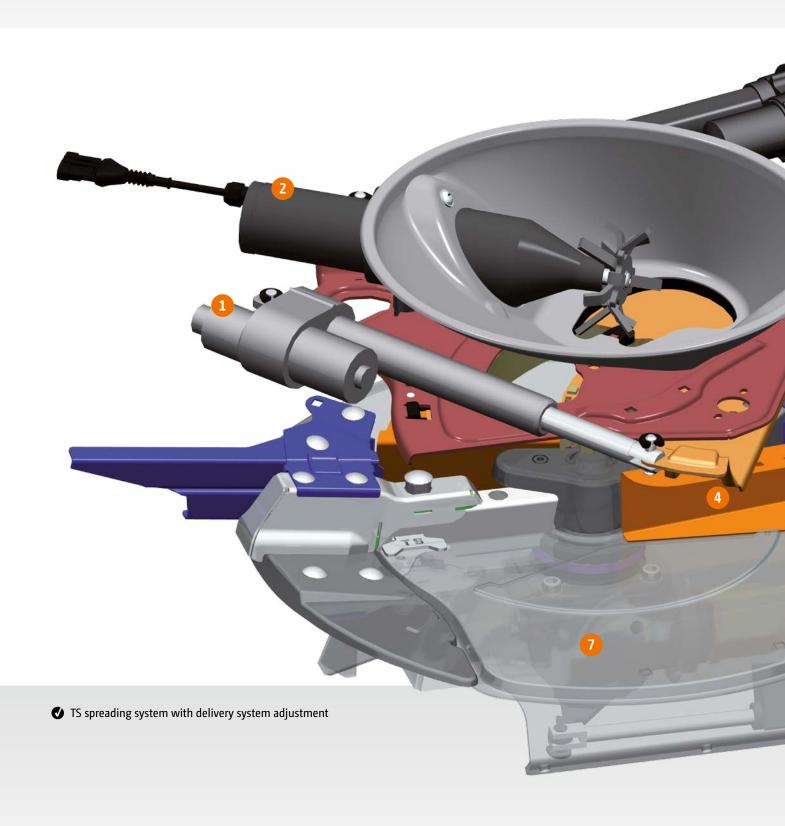


Mechanical delivery system adjustment

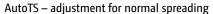


# TS spreading system

Designed for efficiency and high longevity









AutoTS – adjustment of the delivery vane for boundary spreading



- High throwing width, still double-overlapping even at 36 m
- **▼** Integrated boundary spreading system
- ♦ High application rates (up to 10.8 kg/sec or 650 kg/min)



### **Composition of the TS spreading system**

- 1) electric setting motor for the fertiliser metering
- 2) electric agitator drive
- 3) electric setting motor for rotating the delivery system
- 4) delivery vane
- 5) boundary spreading vane
- 6) normal spreading vane
- 7) AutoTS actuation
- 8) electric setting motor for AutoTS including function check

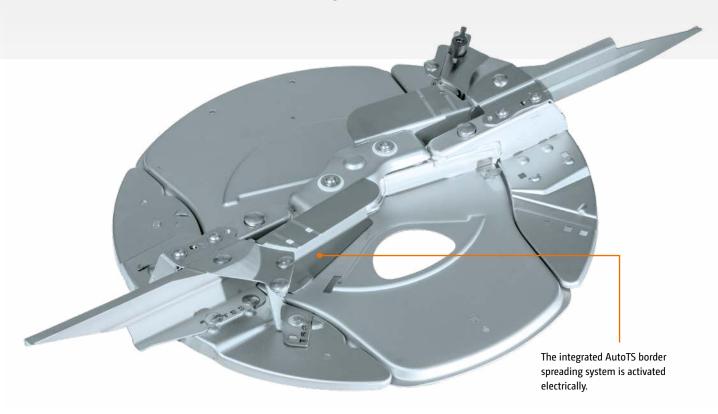


**▼** Every TS spreading unit with electric delivery system adjustment is Argus-ready



## TS spreading discs

For the utmost precision at all spreading widths up to 54 m



# Stainless steel for a prolonged operational life

The entire spreading system of the ZA-TS spreaders is made from stainless steel providing a prolonged operational life.

The vane change system enables the quick and easy change of just the spreading vane tips. The ideal solution, for example, for agricultural contractors.

The drive to the spreading discs is available from choice as either mechanical (ZA-TS Tronic) or hydraulic (ZA-TS Hydro). Different spreading vanes are activated for normal spreading (utilising a large throwing width) than for the boundary spreading width (reduced throwing width to one side) via the so-called AutoTS. This means a disc change is not necessary.

# Hard-coated spreading vane

The spreading vanes are coated with a special long-lasting anti-wear protection. This is made possible by an especially hard structure to the metal. This finish is produced through a high-speed flame heating process that develops an ultra-hard coating to protect the spreading vanes against abrasive wear. Consequently, the result is a three-fold increase in lifespan.

#### **Spreading vane sets**

**▼** TS 1=15 m – max. 24 m

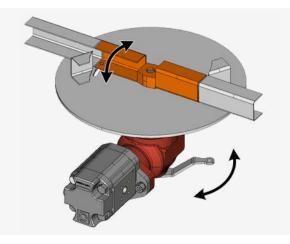
**⊘** TS 2 = 21 m − max. 36 m

**▼** TS 3 = 24 m − max. 54 m

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### AutoTS + ClickTS

# The disc integrated boundary spreading system



AutoTS - adjustment of the delivery vane for boundary spreading

## AutoTS – for optimum spreading right up to the field border

Significantly new is the disc integrated boundary spreading device enabling its electrical activation from the tractor cab whilst spreading. This makes for a perfect drop off of the fertiliser right up to the field border to ensure a precise lateral distribution.

#### AutoTS – an ingenious principle

The setting motor moves the delivery vane forwards by approximately 10°. In this way the fertiliser is guided for side, border or water course spreading round onto the shorter border spreading vanes.

### **Border spreading with ClickTS**

As an alternative to having the AutoTS system on both sides that can be controlled remotely from the tractor cab, there is now the option of AutoTS just on the one-side alongside the manually-adjusted ClickTS on the other.

Customers, who always travel around the headland spreading to the same side, now also have the possibility to order the AutoTS remotely controlled border spreading

system to that side only. On the other side then the ClickTS version is automatically fitted. So, with this version, border spreading to both sides still is possible but with one side remotely controlled and the other side manually-actuated. As a further option, the manual ClickTS system can be also ordered on both sides.





ClickTS manual border spreading actuation



# Optimised spread pattern



### **Normal spreading**

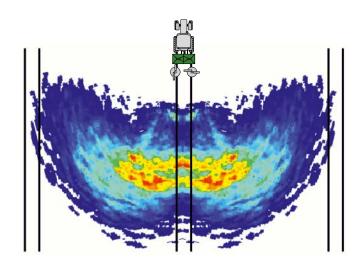
By the adjustment of the delivery system, the feed-on point of the spreading material on to the spreading disc is changed and in this way the spreading width and the lateral distribution are regulated. In addition, the working width can be adjusted even more individually by a spreading disc speed change.

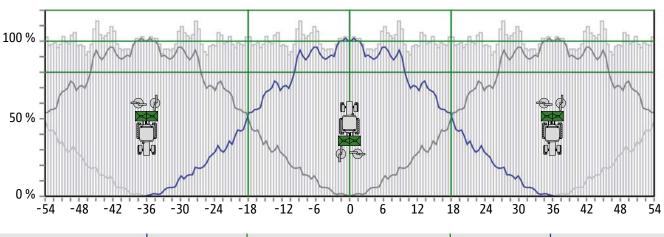
### Three-dimensional spread pattern

The spreader unit has been designed with the aid of three dimensional spread patterns to perform the perfect lateral distribution. Thanks to SBS pro, working widths of up to 54 m can be generated. The wide, overlapping spread fans provide the perfect spread pattern.

# Non-sensitive spread pattern via the multi-sectional spread fan

Due to the special profile and the angle of the spreading vanes on the ZA-TS, the multi-sectional spread fan has been widened. This means that the long and short spreading vanes do not influence the spread pattern to either side and an optimum trajectory is maintained.

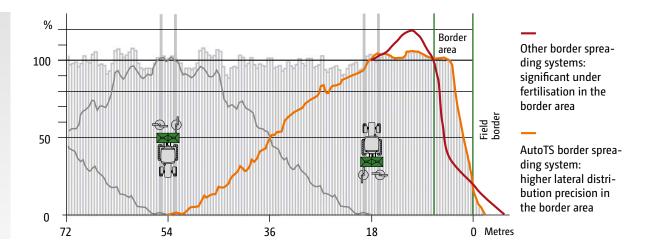




Lateral distribution
(working width 36 m)

Throwing width 72 m

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### Increased yield on the border thanks to AutoTS and ClickTS

The AutoTS and ClickTS border spreading systems generate a steep border spread pattern and thus the ability to provide the optimum growth conditions close to the field's border. Compared to other border spreading systems, a significant increase in yield is possible.

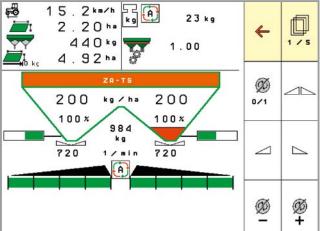
The AutoTS spreading system makes use of an automated rate reduction when boundary spreading with the spread rate setting in freely-selectable percentage steps. As the two spreading discs can be operated independently from one another, the change to one or both sides can be adjusted.

#### Low level sensor

The application rate is reduced to the one side when boundary or watercourse spreading. Therefore the hopper tip furthest away from the field edge will empty faster.

For monitoring both apertures AMAZONE offers low-level sensors for the ZA-TS. So, the driver is alerted early enough, via the terminal, by an alarm signal to show that one hopper tip is almost empty. In addition, a warning message is displayed if the sieve become s blocked with fertiliser lumps





Low level sensor for the ZA-TS

The driver receives an early warning, via the terminal, that one hopper tip is almost empty.



### Border and bed spread deflectors

#### **Border spread deflector**

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

When the border spread deflector is swivelled down, spreading is carried out only from the field side spreading disc. The fertiliser from this spreading disc is deflected in such a way that it is only thrown directly behind the tractor 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 wheel tracks in between. For spreading beds to the left and right hand side of the tractor, the bed spreading deflector provides the optimum fertiliser distribution just across the beds. When the bed spreading deflector is swivelled downwards, however, then behind the tractor where there are no plants, no fertiliser is spread.

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.







Bed spreading deflector swivelled downwards on both sides with telescopic end pieces.

### Active environmental protection – border spreading systems from AMAZONE

#### Side spreading (yield oriented setting)

The neighbouring field is an area that is used agriculturally. In this case it is tolerable for a small quantity of fertiliser to be thrown over the border of the field. The fertiliser distribution inside the field boundary is still 80% of the desired application rate at the edge of the field.

# **Boundary spreading (environmentally oriented setting)**

If the field is adjacent to a road or cycle path, no fertiliser must be thrown beyond the border of the field. The spread rate must be reduced on the border side so that no over-fertilisation occurs within the boundary of the field. A small amount of under-fertilisation occurs up to the edge of the field. The border spreading procedure complies with fertiliser application legislation requirements.

#### Water course spreading (environmentally oriented setting)

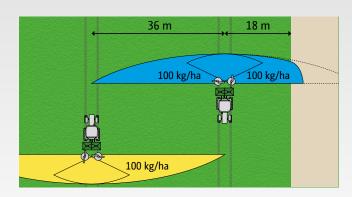
In case of a water course right against the side of the field, the fertiliser decree requires, with a boundary spreading system, a distance of one metre left fertiliser-free around the border and, without a boundary spreading system, as much as three metres. In order to avoid the over-fertilisation inside the field, the spread rate has to be reduced on the field's border.

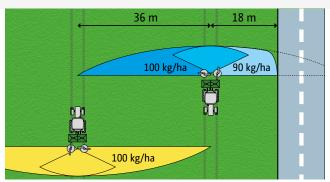
#### Border spreading with the border spread deflector

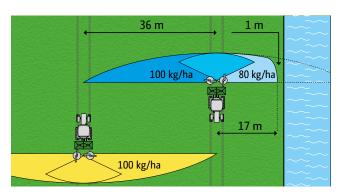
If the first tramline is situated at the field's edge, border spreading (environmentally-orientated adjustment) is then achieved by the half-side shut-off of the spread fan. No fertiliser is thrown beyond the field's border and, inside the field, optimum fertilisation is maintained.

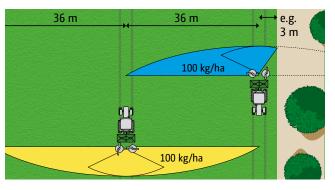
#### Bed spreading with bed spreading deflector to both sides

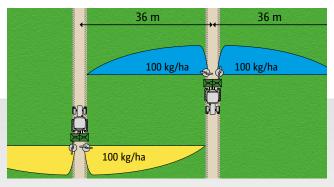
For spreading specialist crops in beds to either side of the tractor AMAZONE offers the bed spreading deflector. It keeps the track virtually free from fertiliser.







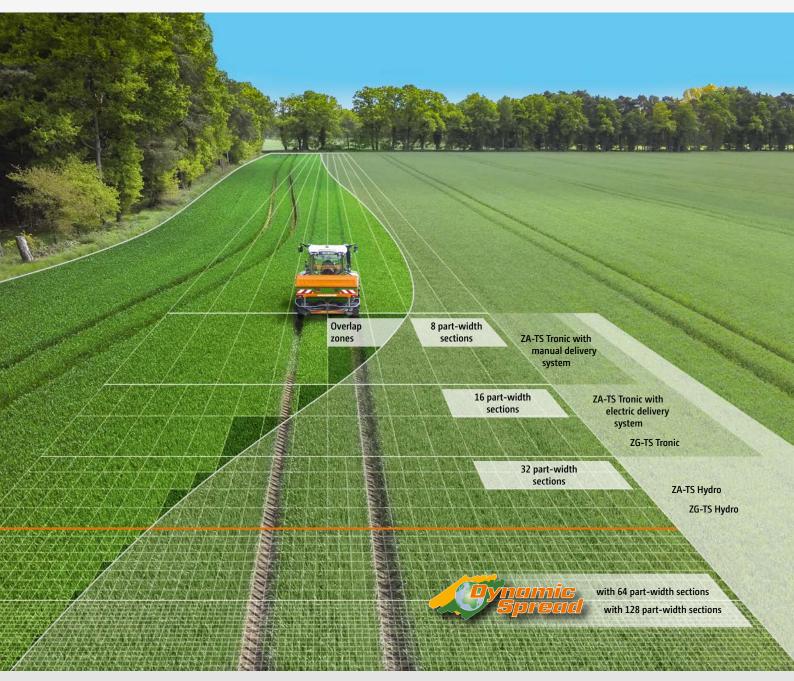






# Dynamic part-width section control DynamicSpread for fertiliser spreaders

ZA-TS Hydro and ZG-TS Hydro now DynamicSpread-ready



With DynamicSpread, individual outlying part-width sections can also be controlled. Part-width section control 24 | 25

 ZA-TS Profis Hydro in automatic mode –
 16 outer sections active



# Mechanical drive with Tronic Pack and up to 16 part-width sections

As ZA-TS/ZG-TS fertiliser spreaders feature a separate, disc integrated, border spreading system (ClickTS/AutoTS system) the spread patterns are designed to ensure very wide throwing widths when spreading normally. This offers the farmer the benefit that the spread patterns are significantly more consistent when facing external influences, such as side wind, slope inclination, humidity and changeable fertiliser quality, resulting in wide, flat, triangular spread patterns.

Especially-large working widths require additional control of the spread pattern in wedge shaped fields and in short work. To respond to such situations even more sensitively, the mechanically-driven ZA-TS/ZG-TS Tronic, with its optional electric delivery system adjustment, can alter the position of the delivery system as well as being able to adapt the spread rate. In this way, even outer part-width sections can be controlled individually as well. Due to the combined work of the part-width section control via spread rate change and adjustment of the delivery system, the accuracy of fertiliser distribution in short work is significantly improved at these larger working widths.

# Hydraulic drive with Hydro Pack and up to 128 part-width sections

Apart from just adapting the application rate and the delivery system, the ability to control the speed of either the left or right hand side spreading disc individually means that the ZA-TS/ZG-TS Hydro models, again along with the electric delivery system adjustment, offer the additional benefit of being able to reduce the throwing width from the outer edge to the middle. Particularly when working at larger widths, and in long, shallow wedge shaped fields, the Hydro version offers additional benefits in comparison to the mechanically-driven machines ensuring the perfect spreading of wedge shaped fields and when in short work.

The ZA-TS/ZG-TS Hydro features, in manual mode, 8 partwidth sections which are controlled by simple hand pressure on a key. In automatic mode via GPS-Switch or Section Control, the part-width section switching is actuated across up to 128 part-width sections.

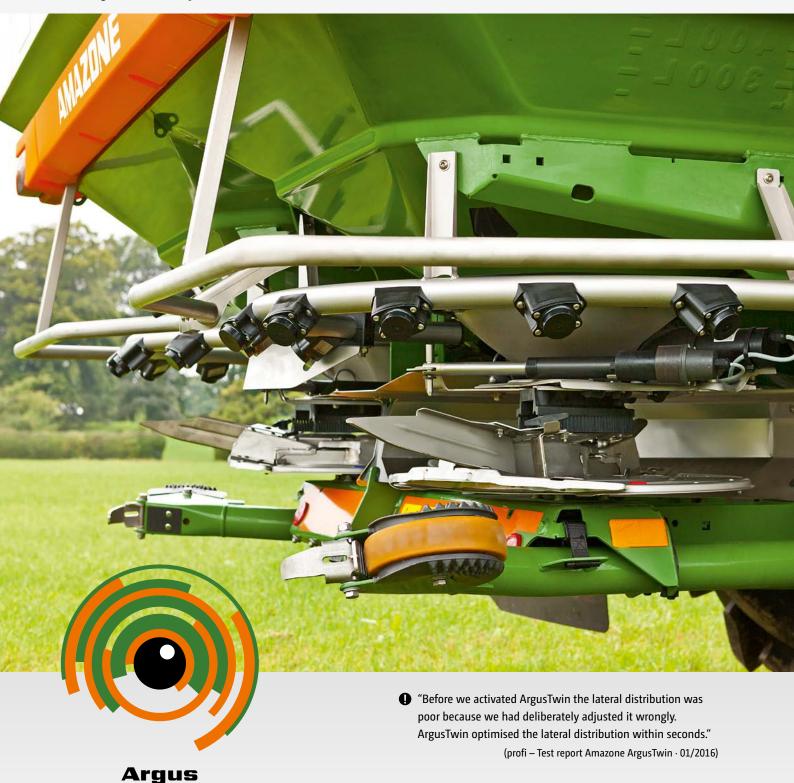
Apart from the benefit of these additional part-width sections, the ZA-TS/ZG-TS Hydro also offers the big advantage of being able to be operated independently from the engine speed of the tractor, saving fuel and providing, if necessary, additional reserve in hilly terrain.

Part-width section control for ZA-TS ISOBUS fertiliser spreaders	ZA-TS Tronic	ZA-TS/ZG-TS Tronic	ZA-TS Hydro	ZA-TS/ZG-TS Hydro
isobos ierulisei spredueis	Manual delivery system adjustment	Electric delivery system adjustment	Manual delivery system adjustment	Electric delivery system adjustment
Spread rate regulation	Х	Х	Х	Х
Setting the delivery system		Х		X
Matching the spreading disc speed			Х	X
Number of part-width sections	8	8	8	8
Manual mode via key pressure     Automatic mode via	In manual and automatic mode	In manual mode	In manual mode	In manual mode
SectionControl/GPS-Switch		16 In automatic mode	up to 128 In automatic mode	up to 128 In automatic mode
Possible working widths	15-54 m	15-54 m	15-54 m	15-54 m



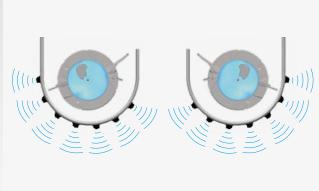
# ZA-TS and ZG-TS spreaders with ArgusTwin

The eyes of the spreaders



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ArgusTwin is completely integrated into the overall dimensions of the ZA-TS

Monitoring of the spread fan via 14 radar sensors

## Automatic adjustment to the optimum lateral distribution

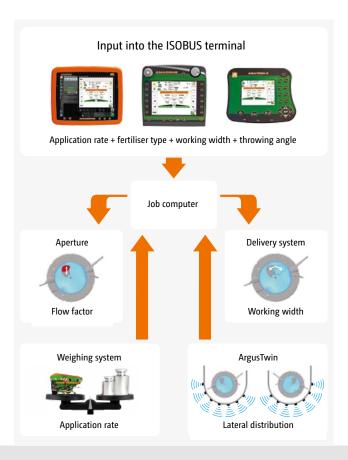
The Argus system represents an innovation that offers far-reaching improvements in operational comfort and in the quality of work.

The Argus system, which checks the spread fan and automatically regulates the lateral distribution, is based on radar technology that is independent of dust and pollution and thus provides reliable results in practice. ArgusTwin constantly monitors, via radar sensors mounted on both the sides of the spreader, the left and right hand spread fans simultaneously and re-adjusts the electric delivery system independently of each other if necessary.

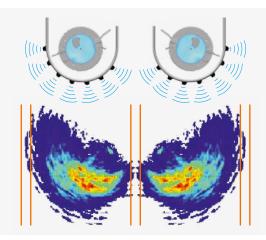
### Automatic delivery system adjustment

Via the ISOBUS terminal, the application rate and any further relevant data for the fertiliser to be spread are entered from the setting chart. For the Argus system, the spreading chart has been updated to include the throwing angle that gives the optimum lateral distribution. Utilising this value, ArgusTwin constantly checks whether the predetermined direction of throw for that fertiliser is in fact being maintained by the spreading discs. When the actual throwing width deviates from the "desired" throwing width due to inconsistencies within the fertiliser, worn spreading vanes, working across slopes or during starting and stopping procedures, the spreader readjusts, on its own, the setting for the delivery system — and that of each side individually.

The only pre-condition for its use is the electric delivery system adjustment. ArgusTwin can be operated both with a mechanically-driven ZA-TS Tronic or ZG-TS Tronic as well as with a ZA-TS Hydro or ZG-TS Hydro with hydraulic spreading disc drive.

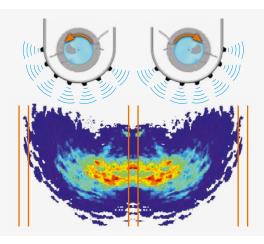


Concept of the ZA-TS and ZG-TS fertiliser spreader with ArgusTwin and weighing system









The delivery system is positioned relevant to the spread fan – too little fertiliser in the middle

Argus automatically changes the position of the delivery system ensuring the optimum spread pattern

Both on the ZA-TS mounted spreader and ZG-TS trailed spreaders, ArgusTwin ensures always, via continuous on-line monitoring and the readjustment of the delivery system, the optimum lateral distribution for that fertiliser. This leads to a more effective fertiliser use and forms the basis for optimum crop management.

The system is immediately live and operates even when border spreading and if part-width sections are switched off and on. In hilly terrain, Argus even provides slope compensation of the spread pattern via the automatic readjustment of the delivery position of the fertiliser.

Due to the rigid fixing, the system avoids any moving components and is thus extremely robust and is completely maintenance-free.

Whilst Argus optimises the lateral distribution, the optional weighing system on the ZA-TS and ZG-TS ensures that the correct spread rate is being maintained. Thanks to the optionally-available tilt sensor for the weighing system on the ZA-TS, the application rate can be monitored continuously and maintained with the same precision even on sloping terrain



### Top features of ArgusTwin:

- The system is ready for immediate operation, no calibration necessary
- Occupant on-line monitoring of both spread fans
- Maintains an optimum lateral distribution of the fertiliser even with changeable fertiliser quality
  - · Basis for optimum crop management
  - · More effective use of the fertiliser

- The system is also active when border spreading or if a part-width section is switched on or off
- Automatic slope compensation of the spread pattern by readjustment of the delivery system position
- Rigidly attached to the spreader: no moving parts completely maintenance-friendly and free of wear

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### WindControl

for areas where wind is always a problem



Both the wind speed and wind direction are displayed in the terminal

#### **Optimal distribution**

In areas that are particularly windy, AMAZONE now offers WindControl (in accordance with Prof. Dr. Karl Wild, HTW Dresden) as a supplement to the ArgusTwin system. Via WindControl, the influence of wind on the spread pattern can also be constantly monitored and automatically compensated for.

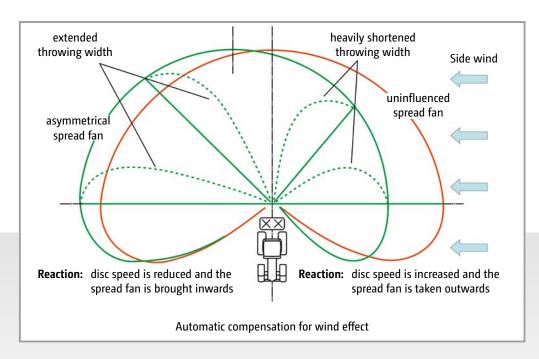
Mounted on the machine, a high frequency measuring wind sensor, registers both the wind speed and also the direction of wind. According to this data, the job computer then calculates, in conjunction with the information from ArgusTwin, any new settings for the delivery system and the spreading disc speed which are then automatically

acted upon. For side winds, the disc speed to the windward side is increased and the delivery system advanced whereas, at the same time, the disc speed on the leeward side is reduced and the delivery system retarded.

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



Wind sensor





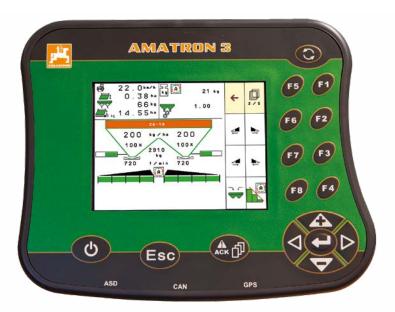




### ISOBUS terminals

ISOBUS is the name for a communication standard, valid world-wide, between operator terminals, tractors and implements on the one hand and agricultural office software on the other hand. That means with one terminal you can control all ISOBUS compatible implements.

## ZA-TS or ZG-TS spreaders can be operated via different AMAZONE ISOBUS terminals:



AMAZONE AMATRON 3 5.6" size screen



AMAZONE CCI 100 8.4" size touchscreen

#### Other ISOBUS terminals

Apart from using an AMAZONE ISOBUS terminal, ZA-TS or ZG-TS spreaders can be operated with ISOBUS terminals of other manufacturers.



e. g. Fendt Vario terminal



e. g. John Deere GreenStar



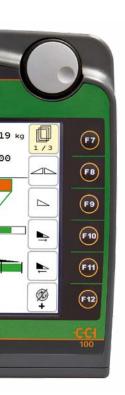
e.g. Müller COMFORT terminal

ISOBUS terminals 30 | 31

#### The benefits of AMAZONE ISOBUS spreaders:

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 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, 20 different fertiliser types can be entered, processed and managed.





AMAZONE AMAPAD

12.1" size touchscreen

#### 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.

"We did OK with the operation of the ISOBUS spreader as the Fendt ISOBUS harmonised well with that from Amazone. It was a simply a case of plugging them together and the systems identified each other. That's the way it should be."

### 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.

#### Low level sensors

For monitoring both apertures, AMAZONE offers a low-level sensor system for the ZA-TS. 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.

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#### Precise metering and simple operation

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 backlit keys and a high-contrast, low-reflection display. 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 detailed view.

AMATRON 3 is fully downward compatible to AMATRON<sup>+</sup> 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<sup>+</sup> (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 operator terminal is especially versatile. The very compact shape of the terminal means it requires little space in the tractor cab.

# The terminal features the following functions:

- **▼** ISOBUS machine operation
- AMABUS machine operation
- Tractor ECU function (Interface for speed and PTO shaft)
- ▼ TaskController job management for documentation
- **▼** Import/Export of field data via a USB stick
- GPS-Switch automated part-width section control (optional) with up to 64 part-width sections via DynamicSpread
- GPS-Track parallel guidance system (optional)
- ◆ Optional external light bar display for GPS-Track parallel guidance
- GPS-Maps application map module (optional)
- ASD interface via RS232 (nominal rate transfer), e.g. for N sensors



**◆** 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

## Even more precision with 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.

For the ZA-TS, SwitchPoint has been integrated into the spreader software which bears in mind the extent to which the spread fan falls behind the machine. When utilising GPS-Switch, SwitchPoint means the automatic adjustment of the switching on and 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.



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

In addition to the ISO-XML-data management, the job management of the terminal (TaskController) is also able to process application maps (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.

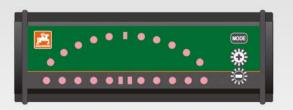


#### **GPS-Track for AMATRON 3**

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 an 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.



## 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-TS 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 Crop-Sensor, 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.



### **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 Center ISOBUS e.V (CCI). With CCI, AMAZONE and its partners have laid the foundation to introduce ISOBUS into practice. The CCI 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.
- The input is carried out from choice via the operatorfriendly touchscreen or via the soft keys.
- Fatigue-free operation at night is assisted by the back-lighting 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 high-quality 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
- Tractor ECU function (Interface for speed, PTO shaft and lower link position
- CCI.Control job management for documentation
- CCI.Command (optional):
  - CCI.Command SC automatic section control with up to 64 part-width sections via DynamicSpread
  - parallel guidance aid CCI.Command.PT
- Application maps supported in ISO-XML format
- USB interface for data exchange
- Interface for the connection of a GSM modem
- ASD and LH5000 interface via RS232 (nominal rate transfer), e.g. for N sensors
- Camera function CCI.Cam



External light bar for CCI.Command.PT parallel driving aid As a possible addition, an external lightbar is available which can comfortably be coupled with CCI Comand PT. The external lightbar 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.

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### **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" touchscreen. With the unique "Mini-View" 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 "finger tip" 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 can also be upgraded to an automated steering system.

#### The characteristics of AMAPAD:

- screen made from toughened glass
- housing made from impact-proof plastic
- extra-narrow rim for maximum visibility
- flush finish, no penetration of dust / humidity

### The terminal includes the following functions:

- **▼** ISOBUS implement operation
- **▼** TaskController job management for documentation
- GPS-Switch pro automatic section control with up to 128 part-width sections via DynamicSpread
- ▼ Integrated light bar for GPS-Track pro parallel steering aid
- **3** as an option: upgradable to automatic steering
- GPS-Maps pro application map module
- RS232 interface via SCU adapter (for data exchange)
- ▼ Two USB interfaces for data exchange
- WLAN mode (via USB adapter)
- GPS output







Working widths of up to

54 m

**ISOBUS** communication

Outputs up to 50 ha/h

Up to 30 km/h operational speed

Hopper capacities of **5,500** or

**8,200 litres** 

Fertiliser-protecting

agitation

with automatic shut-off



Up to 650 kg/min

### **Top features:**

- Precise spread patterns even at working widths of up to 54 m
- As standard ISOBUS communication utilising the most modern of operator terminals
- Monitoring and control of the application rate via the weighing system
- Soft Ballistic System pro (SBS pro) for an especially gentle handling of the fertiliser
- AutoTS and ClickTS disc integrated border spreading systems, electric or manual
- Electrically-driven, fertiliser-protecting agitation with automatic shut-off
- Automatic adjustment of the lateral distribution with ArgusTwin: possibly the most comfortable way of spreading
- Compact, tight and operator-friendly swivel hopper cover
- FertiliserService, the top quality, unique spreader support service with more than 25 years experience

ZG-TS top features 38 | 39



### Weighing system







# **ZG-TS** high output trailed spreader

Outstanding precision meets the highest demands



High output trailed spreader ZG-TS 8200

40

The ZG-TS trailed spreader, in hopper capacities of either 5,500 l or 8,200 l, is equipped with the new TS spreading system. With the TS spreading unit, working widths of up to 54 m are possible and yet, at the same time, superb border spread patterns are achieved making these ISOBUS spreaders rank among the absolutely highest capacity spreaders.

The ZG-TS impresses with its outstanding precision as well as offering the ultimate in work rates via the TS spreading unit which allow outputs of up to 650 kg/min.

### Outstanding precision meets the highest demands

For large farms, agricultural contractors and farm overlapping operations, AMAZOME offers, with its ZG-TS, a high-capacity large area spreader for the quick and precise application of mineral fertilisers. The ZG-TS impresses with the outstanding accuracy and huge work rates provided by the TS spreading unit with its integrated AutoTS boundary spreading system. Convenient operation is made possible via the ISOBUS operator terminal, such as, for example, AMATRON 3, CCI 100 or AMAPAD and is available with 2 hopper sizes – 5500 and 8200 l.

As standard, the ZG-TS Tronic is equipped with 16 fold part-width section control which is carried out by matching the application rate and the delivery system to the width of spread. However, the ZG-TS Hydro comes equipped DynamicSpread ready making possible the control of up to 128 part-width sections via of mixture of application rate, delivery system and matching the disc speed.

Needless to say, the part-width section control for the ZG-TS can be also controlled via GPS.

### Large volume hoppers – saving on driving and loading times

- hopper volume: 5500 litres and 8200 litres
- large filling opening enables the easy filling from a tank or with a loader
- steep hopper walls ensure the perfect flow of the spreading material even in hilly terrain
- the rubber floor belt suffers little wear due to the centralised, automated belt control even under uneven conditions



High output trailed spreader ZG-TS 5500



### **ZG-TS 5500 and ZG-TS 8200**

The giants with High Speed genetics



#### Maximum comfort for the highest of outputs

- Stable and robust chassis technology, designed for speeds of up to 50 km/h
- Payload of up to 9.8 t on public roads
- Oversized tyres reduce the ground pressure and allow operation even under the most difficult of conditions
- For tyres with an AS profile, track widths of 1.80 to 2.25 m are possible (up to 3.0 m track width unbraked)
- Increased driving comfort from the sprung suspended and height adjustable drawbar systems
- More safety in road traffic thanks to over-dimensioned axles and brakes

With

- Hydraulic braking system or twin-line air braking and both with parking brake
- Swivel hopper cover with hydraulic actuation
- Mudguards (required for 40 km/h execution)
- **⊘** Large ground clearance
- **▼** Large-dimensioned parking jack
- Foldable ladder

2

As a "Fertiliser Protection Package" the AMAZONE Soft Ballistic System pro is already integrated as standard into all ZA-TS mounted spreaders and the ZG-TS trailed spreader. Agitation, metering system and spreading discs are optimally matched.



### Well thought through spreading system technology – first class spread results

- All the components made from stainless steel are also resistant to heavy abrasion from the fertiliser
- Agitator, metering components and spreading discs are optimally matched to provide an even fertiliser distribution
- High-quality stainless steel joint connections for the hydraulics within the fertiliser contact area
- **▼** ZG-TS Tronic with 16 part-width sections
- ZG-TS Hydro with up to 128 part-width sections via DynamicSpread
- Maintenance-free and robust oil bath gearbox with integrated overload safety device

#### Spreading vane sets

- **⊘** TS 1=15 m − max. 24 m
- **▼** TS 2=21 m − max. 36 m
- $\checkmark$  TS 3 = 24 m max. 54 m

#### Transport box

As an option, a plastic-moulded storage box, which is suitable for transporting the mobile fertiliser test kit, is available.

### Reliable and accurate application of the desired spread rate

The weighing system, which can be used for determining the hopper contents (fill level check) and for monitoring the application rate via the offline weighing procedure, provides the utmost comfort and convenience.

For ZG-TS spreaders, a calibration device for carrying out a spread rate check is optionally available. The calibration device includes three measuring buckets and is equipped with a sensor for monitoring the time. The measured values are actuated via the ISOBUS terminal.



#### Camera system for ZG-TS and ZA-TS

The optionally available camera system mainly serves as a means of ensuring safety when manoeuvring. This is possible at any time due to its night vision compatibility and heated lens. The high resolution and anti-reflective monitor is backlit and can also display two cameras simultaneously.

### **FertiliserService**

for more than 25 years

# 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 25 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, very comprehensive data is available enabling us to offer setting recommendations to all AMAZONE customers, who have unknown fertilisers and new fertiliser products, free of charge.

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



### 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"











# 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 world wide — to be able to provide you as quickly as possible with the best setting values.

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 spreader is mounted on a revolving podium which spins around its vertical axis. 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 50,000 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

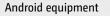
Telefon: +49 (0)5405 501-111 Telefax: +49 (0)5405 501-374

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

Optimum fertilisation not only requires fertiliser and a spreader, it requires also, and just as importantly, competent advice for difficult 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.







iOS equipment



Catalogue pièces d'usure

### **AMAZONE** Service – always in the vicinity

Your satisfaction is our challenge



the creation and provision of learning contents by utilising Augmented

Reality (AR).







### 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 for farmers and agricultural contractors. Due to continuous training, our sales partners and service technicians are always up to date when it comes to looking after this state of the art technology.

#### We provide you with a first-class spareparts service

The central spareparts store in our headquarters at Hasbergen-Gaste forms the basis of our world-wide spare parts logistics. This ensures the optimum availability of spareparts, even for older machines.

Parts, are available in our central spareparts store in Hasbergen-Gaste and which have been ordered up until 17 hours, are dispatched the same day. 34,000 different spareparts and wearing metal are held in our ultra-modern stores system. Daily, up to 800 orders are dispatched to our customers.

# Better to choose the original, right from the beginning

Your equipment is exposed to the most arduous of demands. The quality of AMAZONE spareparts 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 spareparts and wearing metal is 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 spareparts and wearing metal

- Quality and reliability
- Innovation and efficiency
- **▼** Immediate availability
- ♥ High resale value of the used machine

# AMAZONE "E-Learning" – the new way of driver training via a PC

Via the Internet "E-Learning" portal, AMAZONE has extended its service offering on its homepage www.amazone.de/e-learning with a very useful function. "E-Learning" offers interactive driver training, which enables the driver to practice the operation of complex machinery on his own, both online and offline, via a PC or tablet. The new service offers drivers the possibility to get acquainted with a new machine prior to its initial operation. However, experienced drivers can also refresh their knowledge enabling them to utilise better still the full potential of their machinery.





#### **Technical data**

ZA-TS		1400	1700	2000	2200	2600	2700	3200	4200
Working width (m)		15–54							
Hopper volume (I)		1,400	1,700	2,000	2,200	2,600	2,700	3,200	4,200
– with S 600 hopper extension (I)		2,000	2,300	2,600	_	_	_	_	_
– with L 800 hopper extension (I)		_	_	_	3,000	_	3,500	4,000	_
Payload (kg)	ZA-TS Super	3,200	3,200	3,200	3,200	3,200	3,200	3,200	_
	ZA-TS Ultra	-	_	_	4,500	_	4,500	4,500	4,500
Filling height (m) without rolling & parking device		1.13	1.23	1.31	1.30	1.49	1.42	1.54	1.76
Filling width (m)		2.23	2.23	2.23	2.72	2.23	2.72	2.72	2.72
Total width (m)		2.55	2.55	2.55	2.92	2.55	2.92	2.92	2.92
Total length (m) without weighing system		1.48	1.46	1.46	1.55	1.46	1.55	1.55	1.68
Drive		mechanical/hydraulic (ZA-TS Hydro)							
Weighing system		optionally with Profis weighing system							
Regulating electronics		ISOBUS communication via AMATRON 3, CCI 100, AMAPAD or other non-Amazone ISOBUS terminals							
Lower linkage	ZA-TS Super	Cat. II linkage dimensions and fixing pins							
	ZA-TS Ultra	Cat. III linkage dimensions, fixing pins Cat II or III							
Tractor valves required	ZA-TS Tronic	Not necessary, (1 d/a valve for hyd. rollover cover)							
	ZA-TS Hydro	1 s/a valve + pressure-free return or load sensing for drive (oil capacity 70 l/min), (1 d/a valve for hyd. rollover cover)							
Min. weight (kg) (with spreading vane set TS 2)		471	480	489	539	528	555	573	685
ZG-TS					5500			8200	
Working width (m)			15-54						
			5,500			8,200			
Hopper volume (I) Permissible total weight (kg)			max. 12,000			max. 12,000			
Payload on pubic roads (kg)			max. 10,000			max. 9,800			
Filling width (m)			3.45						
Total length (m)				6.60					
Height (m), depending on the tyres fitted				2.51-2.62 2.84-2.95					
Width (m), depending on the tyres fitted			2.48–2.55			2.48–2.55			
Drive				mechanical / hydraulic (ZG-TS Hydro)					

Illustrations, content and technical data are not binding! Deviations of technical data are possible depending on the equipment. The illustrations may deviate from the requirements for local road traffic regulations.

### ZA – the spreader



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