## ZA-M ZA-M Profis



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## There is never a better time for all-round safety

#### **Contents:**

Introduction	
The right time for all-round safety	p 2/3
The comprehensive spreader range	
Added safety across the range	p 4/5
ZA-M 1001 Special	
In compact size	p 6/7
ZA-M 1201 and ZA-M 1501	
In flexible sizes	p 8/9
Big extensions for ZA-M	
For large field sizes	p 10/11
ZA-M Ultra	
The high-output spreader	p 12/13
SBS – Soft Ballistic System	p 14/15
Spreading system and drive line	
Top quality achieved	p 16/17
Adjusting the spread rate	
Double shutter system, HyClick	p 18/19
Adjusting the working width	
OM Omnia Set spreading discs	p 20/21
Side, boundary, water-course and wedge-shape	ed spreading
Active protection for the environment	p 22/23
AMAZONE Limiter	p 24/25
The safety measures	
AMADOS <sup>+</sup> and AMATRON 3	p 26/27
Hydraulic drive	p 28
Automatic field-related documentation	p 29
GPS-Switch/GPS-Track/GPS-Maps	p 30/31
Fertiliser service	p 32/33
All-round safety	p 34/35
Technical data	p 36

Today, farmers and agricultural contractors need fertiliser spreaders more than ever – and in particular ones where safety comes first. And safe in every respect: on the road, during adjustment and when spreading. It is not just a case of saving money but also protecting the environment and ensuring maximum safety on the roads. AMAZONE gives you that all-round protection.



## **Trust in AMAZONE!**

AMAZONE have designed safety into the new ZA-M series as standard and the ZA-M therefore now offers the safest spreader with a state-of-the-art fertiliser back-up service.

The ZA-M can be specified with any of the equipment options that are currently available:

 Limiter remote-controlled border spreading device

- Forward speed-related spread rate control with AMADOS<sup>+</sup> or AMATRON 3
- Weigh cell with automated calibration for ZA-M Profis spreaders
- Hydraulic drive with integrated boundary spreading system and 6-section partwidth shut off on ZA-M Profis Hydro spreaders
- GPS-Switch for automatic and accurate part width section control



Watch it on TV: www.amazone.tv

## Many spreaders, one range – added safety across the range

#### AMAZONE provides the right spreader for any size of operation!

#### ZA-M 1001 Special

Working width:	10 m to 36 m
Electronic rate control:	upgradeable with Control package
Hopper capacity:	1000 I to 1500 I (pay- load of up to 1800 kg)
Extension option:	with 1 x S 500



ZA-M 1001 Special

#### ZA-M 1201

Working width:	10 m to 36 m
Electronic rate control:	upgradeable to Control or Tronic package
Hopper capacity:	1200 I to 2700 I (pay- load of up to 3100 kg)
Extension options:	with 1 x S 500 or with 2 x S 500 or with 3 x S 500 or with 1 x L 1000 or with S 500 + L 1000



ZA-M 1201

#### ZA-M 1501

Working width:	10 m to 36 m
Electronic rate control:	upgradeable to Control or Tronic package with AMATRON 3
Hopper capacity:	1500 I to 3000 I (pay- load of up to 3100 kg)
Extension options:	with 1 x S 500 or with 2 x S 500 or with 3 x S 500 or with 1 x L 1000 or with S 500 + L 1000



#### Weighing spreader ZA-M 1001 Special Profis

Working width:	10 m to 36 m
Electronic rate control:	weigh cell with Tronic package and AMATRON 3 as standard.
Hopper capacity:	1000 I to 2000 I (payload of up to 2100 kg)
Extension options:	with 1 x S 500 or 2 x S 500 or 1 x L 1000



ZA-M 1001 Special Profis with Limiter boundary spreading device (option)

## Weighing spreader ZA-M 1501 Profis

Working width:	10 m to 36 m
Electronic rate control:	weigh cell with Tronic package and AMATRON 3 as standard. <b>ZA-M Profis Hydro</b> option with hydraulic drive and Comfort package for GPS-Switch ready
Hopper capacity:	1500 I to 3000 I (payload of up to 3100 kg)
Extension options:	with 1 x S 500 or 2 x S 500 or 3 x S 500 or 1 x L 1000 or S 500 + L 1000



ZA-M 1501 Profis



## In compact size: ZA-M 1001 Special

#### For small to medium-sized farms



Hopper capacity: 1000 I With extension: 1500 I Working width: 10 m to 36 m

#### The advantages come as standard:

- Spreader system with mechanical drive
- Robust frame construction with maximum payload of 1800 kg
- Can be fitted with an extension up to 1500 I
- Low filling height
- Double tipped hopper with optimum hopper shape for continuous flow monitoring
- Fine-mesh filling sieves prevent problems when spreading and are easy to fold and lock in position for cleaning the machine
- Fill level indication via the large inspection windows
- Complete spreading system made from stainless steel

- Convenience and reliability due to simple and easily accessible adjustment of spread rate and working width
- Maintenance free oil bath gearboxes with integrated overload protection – tried and tested over 100,000 times
- Perfect double shutter control system; one for rate setting and one for opening and closing
- Safety set with lighting system, warning signs and safety bracket as standard
- Hose cabinet protects the hydraulic connectors from dirt
- Calibration set, setting chart and calculating disc rule as standard

#### The electronic options:

- ZA-M Control package with AMADOS<sup>+</sup> for forwardspeed related spread rate control
- HyClick electric 3-way changeover switchbox
- AMADOS<sup>+</sup> has a serial interface for documentation and the connection of N-sensors and GPS-terminal supplied application maps for site-specific fertilisation

Frame for payload of up to 1800 kg

#### Safety-Set as standard with all ZA-M

The AMAZONE ZA-M with the new Safety-Set provides additional safety. Working equipment that is hitched to fast-moving tractors must be clearly recognisable in road traffic. AMAZONE has integrated the strict safety requirements into a modern design.

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Safety for all road users



The additional mud flaps (optional for ZA-M 1001 Special Profis) ensure that no dirt can be thrown onto the spreading discs from the tractor wheels.

Large warning signs at the rear and the lighting system make the tractor and spreader combination more noticeable.

The surrounding safety guard complies with the accident prevention regulations.

## In flexible sizes: ZA-M 1201 and ZA-M 1501

#### For medium-sized operations



 Hopper capacity:
 1200 | or 1500 |

 With extension:
 1700/2000/2200/2500/2700/3000 |

 Working width:
 10 m to 36 m

#### The additional benefits come as standard:

- Robust frame construction with maximum payload of 3100 kg
- Future-proof: can be retrofitted with extensions up to 3000 I
- Low filling height, large filling width with the L-extensions

#### The electronic options:

- ZA-M Control package for electronic forward-speed related spread rate control with AMADOS<sup>+</sup>
- ZA-M Tronic package for electronic forward-speed related spread rate control with AMATRON 3
- HyClick electric 3-way unit

 AMADOS<sup>+</sup> and AMATRON 3 have a serial interface for documentation and the connection of N-sensors and GPS-terminal supplied application maps for site-specific fertilisation



Frame for payload of up to 3100 kg

#### **Optional equipment**

A sensible accessory: the robust **castor wheels** make it easier to attach and detach the spreader and manoeuvre in the farmyard. The wheels can



Castor wheels with parking brake

be quickly removed. It is even easier to attach and detach the spreader using the "Tele-Space" telescopic PTO shaft.



"Tele-Space" PTO shaft

### He who weighs, wins: ZA-M Profis weigh cell spreader



ZA-M Profis	
Hopper capacity:	1000/1500/2000/2500/3000 I
Working width:	10 m to 36 m
As standard:	weigh cell with Tronic package and AMATRON 3
Spread disc drive:	mechanical or hydraulic (hydraulic drive only for ZA-M 1501 Profis)
Electronic option:	HyClick electric 3-way unit
	ZA-M Profis Comfort:
	The optional Comfort package provides maximum operating convenience by

#### The benefits:

- Robust frame design with integrated weighing system (maximum payload of 2100 and 3100 kg)
- On-line weighing technology in parallelogram-guided frame – advantageous as the lowest loading on the weigh cell
- No lateral loading of weighing cell when working on a slope, as the hopper, frame and spreader form one unit
- Convenience and reliability due to simple adjustment of spread rate and working width

means of electro-hydraulic control of all the operating functions via AMATRON 3

 AMATRON 3 has a serial interface for documentation and the connection of N-sensors and GPS-terminal supplied application maps for site-specific fertilisation No calibration required. Enter the spread rate and drive off! It couldn't be simpler



The weighing frame of the ZA-M Profis with a payload of up to 3100 kg gives you even more precision and capacity.

#### We weigh in safety!

The **weighing system** offers controlled comfort and even more reliability. It determines the different properties of the spreading material on-line using a weigh cell – and extremely accurately. It automatically compares the actual quantity that has been spread with the specified quantity. Differences in flow behaviour, e.g. with heterogeneous mineral fertilisers, are detected and the spreader automatically readjusts itself via the electric dosing shutter. The quantity applied is also precisely documented for the purpose of fieldrelated nutritional balance. The sturdy weighing frame is integrated in such a way that neither the centre of gravity distance nor the filling height are increased.

For a balanced nutrient supply, the spread rate calibration value can be adjusted via the AMATRON 3 on-board computer at the push of a button. The quantity can also be adjusted automatically according to the quantity of pure nitrogen already absorbed using additional on-line N-sensor technology.

## Safely assembled: the sizes with the wide extensions

ZA-M 2201, 2501, 2701 and 3001 fully assembled in the factory. Attach, fill, set off and spread!



#### Expand in the future with the extensions for ZA-M

The hopper volume can be quickly upgraded or retrofitted with the **S and L extensions**. The narrow S-extension gives you a smaller transport width.

Direct filling from a tipping trailer or out of big bags is no problem.

The wide L-extension is particularly recommended when large industrial front loading shovels are being used.



Filling with tipping trailer



Filling with big bags



Extension S 500 - narrow



Extension L 1000 - wide



Filling with a loading shovel

## Hopper capacity: 2200/2500/2700/3000 I

The large filling width of 2.76 m provides you with adequate safety when loading with wide buckets.



The **hopper cover** is simply swivelled open before filling. When closed it allows fertiliser spreading to continue, even during bad weather.

According to the StVZO, **front lights** are required for the wide L-extension if there is an excess width. The **ladder integrated on the left-hand side** provides a better view into the hopper and therefore makes inspection and cleaning easier.





### The concept: Gentle fertiliser treatment means more precision

#### SBS – Soft Ballistic System

Mineral fertiliser needs to be gently handled to ensure a precise distribution and an exact placement to the plant over the entire working width. Fertiliser, which has been damaged whilst going through the spreader, will not be precisely distributed. The AMAZONE **S**oft **B**allistic **S**ystem is integrated into all ZA-M mounted spreaders where the agitator, metering components and spreading discs are all optimally matched to protect the fertiliser and ensure yield.





## More reliability, more innovation from SBS!



The AMAZONE **S**oft **B**allistic **S**ystem is incorporated into the agitators which are shaped in such a way that the fertiliser is taken from across the whole width of the hopper alleviating problems of the formation of a fertiliser funnel in the centre of the hopper and maintaining homogeneity.



The delivery of the fertiliser directly onto the centre of the spreading disc is especially advantageous because of the low peripheral speed of the spreading disc in this sector.



The AMAZONE **S**oft **B**allistic **S**ystem gently accelerates the fertiliser via the spreading discs rotating at 720 r.p.m. making sure that even very fragile fertilisers keep their spreading properties.



With the aid of the AMAZONE **S**oft **B**allistic **S**ystem the fertiliser is provided with the energy required for the optimum trajectory and a precise spread pattern.

## Stainless steel spreading system

## Outstanding machines made from outstanding materials

## The entire spreading system of the ZA-M spreaders is made from stainless steel:

- the hopper tips and agitator spirals
- the entire base plates with setting rate slides and hydraulic shutters
- the spreading discs with the spreading vanes
- the fully enclosed deflector plates

#### SBS – Soft Ballistic System

Perfect "teamwork" of:

- agitator
- hopper tips
- base plates
- double shutters
- spreading discs and deflector plate



#### The benefits:

- Easy to maintain due to open design of spreader
- Perfect functionality due to the maintenance-free oil bath gearboxes, stainless steel chain drive for agitator shaft, hydraulic cylinder and robust frame

## ZA-M at the highest level of quality

#### **Decades of reliability**

The oil bath gearboxes have proven to be the indestructible heart of the AMAZONE twin disc centrifugal spreader.

The AMAZONE gearboxes have proven themselves by the 100,000 times, are maintenance free and provide integrated overload safety to prevent gearbox damage.

#### Perfect production: active protection for the environment right from the start

- Energy saving due to optimised manufacturing processes in large batches
- Best possible utilisation of raw materials due to CNC processor-controlled cutting and bending technology
- Modern electrophoretic dipping procedure for top quality corrosion protection (car standard)



#### **Multi-coat painting**

#### **AMAZONE** electrophoretic coating (KTL)



Edges are subjected to particularly heavy loads and are the first areas to be damaged. Normal paint dipping processes that are frequently used in the agricultural machinery industry only deposit a minimal layer of paint onto the edges. The electrophoretic coating that has been specially developed for AMAZONE, on the other hand, even deposits a thick coat of paint onto the sharp edges of a razor blade.

### Rate adjustment: simple - reliable - precise

Simple, tool-less spread rate adjustment.



The spread rate and the working width are preselected from the extremely comprehensive setting chart.

Clear, easy to read scales help you to set the spread rate exactly using the shutter slide.



The checking the spread rate is extremely easy using the **calibration kit** for determining the material characteristics (flow behaviour etc.). If you do not wish to perform a calibration test, simply choose our ZA-M Profis weigh cell spreader.



This **hose cabinet** protects all tractor connections from soiling.



#### The AMAZONE double shutter control system provides maximum safety.



The **double shutter control system** with rate and on/off shutters can be operated independently of each other. The double acting hydraulic slides ensure an instantaneous opening and closing of the shutters at the ends of the field.



This means that the full rate of fertiliser application is immediately available when starting. With forward-speed related rate control via AMADOS<sup>+</sup> or AMATRON 3, only the rate shutters are operated by the electric actuator motors in order to make quantity or forward speed corrections.



The **HyClick electric 3-way unit** can be used as a convenient preselection isolator for the Limiter and right or left hand double shutter functions for tractors with only one control valve.



Simple **2-way and 3-way control units** are also available for tractors without enough hydraulic facilities.

## Adjusting the working width: simple - reliable - precise

#### OM OmniaSet spreading disc for the ultimate precision

The OM OmniaSet spreading discs are equipped with pivoting spreading vanes that generate a spread pattern that is extremely precise and safe. With the aid of an easily readable scale that is in the user's field of view, the spreading vanes can be adjusted easily and exactly, without tools. AMAZONE provides comprehensive setting charts for all kinds of fertiliser, seed and slug pellets. The OM OmniaSet spreading discs are made from stainless steel and are easy to fit.

Late top dressing is advantageous for generating quality crops. With the AMAZONE spreading discs this procedure is extremely easy to do without tools by just tilting up the standard equipped swivel tips on the spreading vanes.







Optimum lateral distribution in four sectors

#### ZA-M spreading discs

OM 10-12 (for small field sizes)	OM 10-16	OM 18-24	OM 24-36
			With hard metal
			coating

#### Maximum working widths

	CAN	potash	Granular urea	Prilled urea
ZA-M OM 24-36	36 m	36 m	32 m	30 m

# Mobile test rig for even more peace of mind with difficult kinds of fertiliser

- Perfect control in the field
- Simple to use and safe
- Checks the lateral distribution
- top agrar Test 06/2011 quoted: "A very user friendly system"





Simple, safe and reliable operation!

The proof: extremely good and good in all tests! According to independent international testing of mineral fertiliser spreaders by DLG, SJF and IMAG.





The ZA-M is the first spreader for which the DLG has certified conformity with the new EU environmental standard (EN 13739).



The ZA-M model series has been successfully tested in the DLG focus tests. The relevant test approvals were issued by the DLG.

#### Optimum lateral distribution (example: working width 24 m)



The flat side edges of the OmniaSet spread pattern make it insensitive to side wind and the different spreading properties of the kinds of fertiliser. This triangular spread pattern with its long, low flat spread and therefore large overlapping zones is decisive for providing additional safety and optimum precision.

## Active protection for the environment – border spreading systems

Economical, and in particular, extremely ecologically sensitive mineral fertilising requires responsible minded actions. According to new environmental directives, environmentally harm-less fertilisation on the field edge is not possible without modern border spreading systems.



#### Side, boundary and water course spreading

**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 at the border side so that no over-fertilisation occurs within the boundary of the field. A small amount of under-fertilisation occurs before the edge of the field. The border spreading procedure complies with the fertiliser decree requirements.



Water course spreading (environmentally oriented setting). If there is surface water at the edge of the field, a distance of one meter must be maintained using a border spreading device according to the fertiliser ordinance, and even three metres without a border spreading device. In order to prevent over-fertilisation inside the field, the spread rate must be reduced at the boundary side.



#### Side spreading – first tramline at the field edge

If the **first tramline is at the edge of the field**, side spreading (yield-oriented adjustment) is achieved by shutting off one side of the spread fan. Only a little fertiliser goes beyond the boundarry of the field, and optimum fertilisation takes place within the boundary.



The one-sided, manually folded spread deflector is a low-cost solution for carrying out boundary spreading on the left side in the direction of travel.

#### ZA-M

Side, boundary, water course and wedge-shaped spreading

#### Tele-Set disc

### from AMAZONE

All of the requirements of the current fertiliser ordinance can be perfectly met with AMAZONE boundary spreading equipment.



You can change over from normal spreading to side, boundary or water course spreading by means of a tool-less disc change.

#### Side, boundary and wedge-shaped spreading with the ZA-M Profis Hydro



Wedge-shaped spreading provides even, nonoverlapping spreading in short work. By reducing the throwing width and reducing the flow rate at the same time the actual spread rate (in kg/ha) remains constant over the entire area. Hydraulic drive of the spreading system in combination with AMATRON 3 offers every possibility e.g.:

- Side and boundary spreading on both sides in accordance with the individual preselection of disc speed and spread rate
- 6-section part width shut off with automatic spread rate adjustment
- All procedures can be readjusted as required whilst working
- Use of GPS-Switch with automated, position-accurate shut-off





#### Border spread deflector for ZA-M

#### ZA-M border spread deflector for both sides

- Keeps the wheel marks virtually free from fertiliser
- Usable on either side, left or right (and simultaneously)
- Also suitable for specialist crops such as Christmas trees
- Adjustable for different fertilisers
- The border spread deflector can be mounted and demounted, without tools (non-folding)

# Convenient border spreading without stopping and dismounting with the AMAZONE Limiter

#### Perfect boundary and side spreading

The Limiter is a modern boundary spreading system that is used if the first tramline is half the working width of the fertiliser spreader in from the edge of the field. It is used for side, boundary and water course spreading.

The decisive advantage with the Limiter is that there is no need to stop, interrupt the spreading operation or dismount from the tractor. With AMADOS<sup>+</sup> and AMATRON 3, the quantity is automatically reduced on that side during boundary and water course spreading when the Limiter is swivelled down.



The Limiter can be hydraulically folded up out of the spread fan from the tractor

seat.

Boundary spreading 10/03 with working width of 18 and 24 m



"Limiter" method of operation



#### **AMAZONE** Limiter, right or left hand

With the ZA-M there is a choice: Limiter to the right or left hand side.

Modern tractors have most of the controls on the right next to the driver's seat. In this case, border spreading is convenient and comfortable using the new right Limiter.

The all-stainless steel Limiter is simply folded down into the spread fan. The lamella block then produces a direction change for part of the flow of fertiliser. An optimum spreading pattern is formed up to the border. The Limiter can be moved on a fixed frame within a generously dimensioned swivel range. This sets the Limiter to the required position for side, boundary or water course spreading, depending on the type of fertiliser. Exact details of this can be found in the setting chart and on a sticker on the machine. If the Limiter is not being used, it is conveniently swivelled up via a hydraulic cylinder.



## The comfortable operation of fertiliser spreaders: electronic control with AMADOS<sup>+</sup>

#### ZA-M with Control package

For the ZA-M with mechanical spreading disc drive there is the Control package with AMADOS<sup>+</sup> for electronic control of the spread rate, independent of the forward speed.

Spreader electronics – an investment that pays for itself.

#### Benefit from AMADOS<sup>+</sup> and AMATRON 3:

- The preselected spread rate always remains the same whatever the optimum working speed selected. This is particularly beneficial with tractors with a variable transmission
- Quantity changes can be made variably to both sides or just one side with this modern operator control terminal in order to save money and protect the environment
- Robust actuator motors on the rate shutters adjust the spread rate
- The hydraulic shutters of the double shutter control system are operated independently of the electronic rate shutter. This is quicker, and protects the electronic actuator motors
- All electronic components are protected from water ingress and corrosion
- The speed is recorded using sensor systems or the tractor signal socket

- Simple calibration program with independent rate setting determination
- Robust sensor equipment for function monitoring, e.g. of the shutter position
- Can be extended to other applications, e.g. as a hectare counter during manure spreading, cultivation or mowing with a separate working position sensor
- 100 % button for convenient the home position locating
- Serial interface available for documentation and the connection of N-sensors and GPS-terminal supplied application maps for site-specific fertilisation
- Job memory for up to 99 field records

# The encompassing accuracy measure: electronic control with AMATRON 3

#### ZA-M with Tronic package

The ZA-M Tronic package with mechanical or hydraulic drive of the spreading system is available for forward-speed related independent rate control (kg/ha) and control operation of the Limiter border spreading device and the weigh cell.

Because of its large display and its clear, simple and logical operation, the AMATRON 3 is extremely user-friendly. All functions can be operated with the one hand whilst the other hand stays on the steering wheel. Also, the AMATRON 3 is capable of taking over the monitoring of the Limiter with integral automatic spread rate control during boundary spreading and can also be used for other AMAZONE machinery such as a field sprayer or seed drills due to its multifunctionality.

#### ZA-M Profis with Comfort package

The optional Comfort package provides maximum operating convenience by means of electrohydraulic control of all operating functions using AMATRON 3.

## 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 is fully downward compatible to AMATRON<sup>+</sup> and upwardly compatible to the ISOBUS Standard providing a bridge between the AMABUS and the ISOBUS world.



# Hydraulic drive with Hydro package and 6 section part-width control

#### ZA-M Profis Hydro

The ZA-M Profis Hydro weigh cell spreaders with hydraulic spreading disc drive provide complete independence from the engine speed and the forward speed. The spreading discs and agitator shaft speeds are electro-hydraulically regulated and monitored. Modern tractors with load-sensing hydraulics management systems can always be driven in the optimum speed range and therefore save fuel when in operation. The main benefits of this drive system are evident when using the variable working width control at the edges of the fields and when spreading in wedges.

A pre-programmed 6 section part-width section control prevents major over-fertilisation

or under-fertilisation.

All ZA-M Profis Hydro spreaders are:

#### The benefits:

- ZA-M Comfort package with AMATRON 3 as standard
- Working speeds in the optimum engine speed range with consistent working width to save fuel
- 6 section part-width control and automatic spreading quantity adjustment for accurate side, boundary, water course and wedge-shaped spreading
- Spread rate (rate shutter position) and spread width (spreading disc speed) are also individually adjustable on both sides
- Hydraulic supply of ZA-M Profis Hydro drive unit directly via electro-magnetic valve block with either load-sensing or constant flow systems

- Only two hydraulic pipes are required (feed and return). Oil requirement 55 l/min at 180 bar
- AMATRON 3 has a serial interface for documentation and the connection of N-sensors and GPS-terminal supplied application maps for site-specific fertilisation
- All hydraulic functions operated via AMATRON 3

## **ASD – Automatic field-related documentation**

#### Reliable, quick and simple



Automatic field-related documentation (ASD) is a product and manufacturer-encompassing documentation concept for transmitting field-related data between the AMATRON 3 and AMADOS<sup>+</sup> on-board computers and an electronic field data management system. The digital interface used is published and accessible to other manufacturers. ASD provides the farmer with the possibility of simply and economically integrating all machines in the documentation chain.



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

#### **Optional equipment for AMATRON 3 on ZA-M Profis Hydro**



#### **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.



#### **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 on 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.



GPS-Switch - the easy way of spreading fertiliser



#### **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, 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.

## Nitrogen sensor technology – "Listen to the plants"

#### N-sensors for precise, plant-controlled application

On-line sensors are currently the best way of providing a requirement-oriented nitrogen supply. They measure the amount of fertiliser that is being supplied to the plants during fertiliser spreading. The amount of fertiliser that is needed for optimum plant growth is then calculated on the basis of the values that are obtained.

All ZA-M spreaders with AMADOS<sup>+</sup> or AMATRON 3 provide an optimum connection to all of the on-line sensors on the market (e.g. Yara N-Sensor, MiniVeg N-Sensor, Cropmeter) via the serial interface (RS 232). The fertiliser quantities that are calculated are immediately transferred to the machine's controller via the AMAZONE on-board computer. The actual amount of fertiliser that is spread is recorded for documentation purposes.



ZA-M with Yara N-sensor



Adapted growth control Requirement-oriented nitrogen fertilisation

Data recording: Basic data, geographicaj data, variable data, soil sampling



# Fertiliser service – fertiliser is only worth its weight in gold if it is properly spread

The AMAZONE fertiliser service makes it possible to use fertiliser in an economic and environmentallyfriendly manner.

The results that have been acquired domestically and abroad in the AMAZONE spreading hall over the last 15 years are stored in a computer database. It is not just the spread patterns and setting values that are recorded for the fertilisers that are tested, but also the critical mechanical material data for lateral distribution. A considerable amount of data is therefore available that allows us to provide all AMAZONE customers with free advice regarding the setting values for unknown types of fertiliser and new fertiliser products.



Only comprehensive and continuously updated setting charts, which are a matter of course at AMAZONE, lead to an optimum spreading result.

#### New fertiliser service with the most modern spreading hall in the world

AMAZONE now has a fertiliser spreader testing hall for research, development and series production management that is even more modern.

It is now possible using the new on-line weigh cells to analyse not only the lateral distribution but also the spatial distribution of every spreading test. Although this has enormous benefits for developing new fertiliser spreaders in particular, this new information, however, is also required in order to perform automatic switching operations (GPS).

AMAZONE has also opted for new innovative technology for the chosen measuring system. The fertiliser spreader now stands on a rotating platform and rotates around a vertical axis. With this measuring system, all conceivable working widths can be determined at any given time.



#### From the source to the spreader

The AMAZONE fertiliser service works closely together with all well-known spreading material manufacturers – worldwide, in order to provide the best settings as quickly as possible.

#### The exclusive service for the users of AMAZONE fertiliser technology



The fertiliser service works beyond boundaries. And not just geographical boundaries, because, regardless of whether your fertiliser spreader is 5 or 50 years old, we are always competently and reliably at your side.

Internet:www.amazone.deE-mail:duengeservice@amazone.dePhone:+49 (0)5405 501-111Fax:+49 (0)5405 501-374

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



**FertiliserService App for Android or iOS equipment** Our FertiliserService App has been downloaded more than 25,000 times; a service that no other fertiliser spreader manufacturer offers.

Optimum fertilisation does not just involve fertiliser and spreaders! Competent advice about critical types of fertiliser is just as important.

You can obtain the latest setting values for lateral distribution and spread rates for the AMAZONE fertiliser spreaders from our database on the Internet at **www.amazone.de**, 24 hours a day and free of charge. To do this, just select your machine model and the spreading material. Now also as App for iPhone and other phones.

Android equipment



iOS equipment



#### We put your fertiliser under the microscope

The best way of determining setting values for fertiliser spreaders is spreading in a spreading hall. It is not always possible to provide us with the necessary quantity of fertiliser. For this reason, AMAZONE has developed a reliable laboratory test for examining the physical properties of a fertiliser sample weighing just three kilograms, and giving customers recommended settings based on our experience and the information that has been acquired.





#### "AMAZONE provides all-round safety"

#### On the road – in your settings – in your work

#### Safety starts on the road

The machines are on the road with complete safety at any time of day or night with the standard safety set equipment. Integrated lighting systems and warning signs protect the operator and all other road users.

#### And carries on with the machine

Safety equipment that is integrated as standard such as the safety guard and the sieve locking mechanisms gives the operator the necessary protection from injury during adjustment work on the spreader. This equipment is now prescribed for all spreaders throughout the EU.

The Soft Ballistic System SBS and the ease of adjustment of the double shutters and OM spreading discs provide the certainty that mineral fertilisers – frequently the biggest proportion of arable farming variable costs – are always used sparingly and are in the ground in the right place at the right time and available to the plants.





#### And at work: convenient and reliable

The latest hydraulic and electronic equipment makes the work easier, giving the confidence of working more precisely, saving money and protecting the environment. AMAZONE also provides a fertiliser service: continuously updated setting charts are a matter of course. Direct contact with AMAZONE reliably provides a certainty in all matters concerning spreader settings for known and unknown fertiliser types. The AMAZONE fertiliser service is available 24 hours a day on the Internet, free of charge.

#### And later on: Safety built in by AMAZONE

Innovative technology and top-class quality make the new ZA-M fertiliser spreaders future-proof, offering a long service life and giving a high resale value.

Therefore saving money and protect the environment

### **Technical data:**

Model	Hopper content	Max. payload	Filling height	Filling width	Width	Length
ZA-M 1001 Special	1000 I	1800 kg	1.07 m	2.15 m	2.44 m	1.42 m
with 1 x S 500	1500 l	1800 kg	1.21 m	2.15 m	2.44 m	1.42 m
ZA-M 1201	1200 I	3100 kg	1.07 m	2.15 m	2.44 m	1.42 m
with 1 x S 500	1700 I	3100 kg	1.21 m	2.16 m	2.44 m	1.42 m
with 2 x S 500	2200 I	3100 kg	1.35 m	2.16 m	2.44 m	1.42 m
with 3 x S 500	2700 I	3100 kg	1.49 m	2.16 m	2.44 m	1.42 m
with 1 x L 1000	2200 I	3100 kg	1.35 m	2.76 m	2.93 m	1.42 m
with S 500 and L 1000	2700 I	3100 kg	1.49 m	2.76 m	2.93 m	1.42 m
ZA-M 1501	1500 l	3100 kg	1.14 m	2.15 m	2.44 m	1.42 m
with 1 x S 500	2000 I	3100 kg	1.28 m	2.16 m	2.44 m	1.42 m
with 2 x S 500	2500 I	3100 kg	1.42 m	2.16 m	2.44 m	1.42 m
with 3 x S 500	3000 I	3100 kg	1.56 m	2.16 m	2.44 m	1.42 m
with 1 x L 1000	2500 I	3100 kg	1.42 m	2.76 m	2.93 m	1.42 m
with S 500 and L 1000	3000 I	3100 kg	1.56 m	2.76 m	2.93 m	1.42 m
ZA-M 2201	2200 I	3100 kg	1.35 m	2.76 m	2.93 m	1.42 m
ZA-M 2501	2500 I	3100 kg	1.42 m	2.76 m	2.93 m	1.42 m
ZA-M 2701	2700 I	3100 kg	1.49 m	2.76 m	2.93 m	1.42 m
ZA-M 3001	3000 I	3100 kg	1.56 m	2.76 m	2.93 m	1.42 m
74-M 1001 Special Profis	1000	2100 kg	1.06 m	2 15 m	2 // m	1 /18 m
with $1 \times S 500$	1500 1	2100 kg	1.00 m	2.10 m	2.44 m	1.40 m
with $7 \times 0.500$	2000 1	2100 kg	1.20 m	2.10 m	2.44 m	1.40 m
with 1 x L 1000	2000 1	2100 kg	1.34 m	2.76 m	2.93 m	1.48 m
ZA-M 1501 Profis	1500	3100 kg	1.13 m	2.15 m	2.44 m	1.48 m
with 1 x S 500	2000 I	3100 kg	1.27 m	2.16 m	2.44 m	1.48 m
with 2 x S 500	2500 I	3100 kg	1.41 m	2.16 m	2.44 m	1.48 m
with 3 x S 500	3000 I	3100 kg	1.55 m	2.16 m	2.44 m	1.48 m
with 1 x L 1000	2500 I	3100 kg	1.41 m	2.76 m	2.93 m	1.48 m
with S 500 and L 1000	3000 I	3100 kg	1.55 m	2.76 m	2.93 m	1.48 m
ZA-M 2501 Profis	2500 l	3100 kg	1.41 m	2.76 m	2.93 m	1.48 m
ZA-M 3001 Profis	3000	3100 kg	1.55 m	2.76 m	2.93 m	1.48 m

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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