

***Target > Precision farming***







## Precision farming is already here!

*For spraying and spreading there is a multiplicity of innovative machinery available today that utilises modern control and regulation technology. This “more” precision on the one side means “less” cost on the other, with the ability to use less fertilisers, pesticides and seed yet still maintaining or even improving yield potential that bit more. The economic advantages, that make for a fast recuperation of any machinery investment, have the added advantage of bringing the potential to help, yet further, in the protection of the environment and also to reduce the stress on the driver.*

*Furthermore, advances, such as the weigh-cell systems used on fertiliser spreaders today or Distance-Control, the automatic boom height guidance system for sprayers are prime examples of how the latest technology can help with achieving those aims and have become a common prerequisite when purchasing new equipment. And who would have thought years ago, that the GPS-Switch technology would provide a fully automatic part-width shut off control for fertiliser spreaders and sprayers? In reality, precision farming is already up and running in the field.*

*Find out in this insert which potential fertiliser spreader and sprayer, either mounted or trailed, will offer you the benefits of the AMAZONE 3C “Cost-Cutting-Concept.”*

*This desire to offer farmers and contractors quality farm machinery was again recognised at AGRITECHNICA 2009 with one more gold and two silver medals to add to previous years successes of now 21 medals from the last 7 shows and so reap the benefit of the innovative research and development programme at AMAZONE. As we always say; AMAZONE machinery generates profit!*

Kind regards

Christian Dreyer  
Joint Managing Directors AMAZONEN-Werke

Dr. Justus Dreyer  
Joint Managing Directors AMAZONEN-Werke

### Cost Cutting Concept



### More with Less!



Less  
diesel



Less  
working time



Less  
seed



Less  
fertiliser



Less  
pesticides





## ZA-X mounted fertiliser spreader

### The practical solution for mixed farming applications

A high specification machine at a sensible price: the machine is fully equipped as standard with filling sieves, hydraulic half side shut-off and calibration kit for maximum effectiveness. Working widths up to 18 m and hopper capacities of up to 1,750 litres ensure that high work rates are possible with the minimum of non-productive time. Cleaning and maintenance are soon done and dusted.



« The spread pattern is very good – even with grass seed and I like the way it is so simple to set up – with all adjustments at the back it is a lot easier. I ran my previous AMAZONE for about 12 years and so I know longevity and reliability are no problem. Having a 2 bag machine saves so much running about. »

Tim Prichard, Llantrisant, Cardiff · ZA-X 1752

### Boundary or side spreading using the Limiter border spreading device

- Comfortable boundary and side spreading with the hydraulically actuated border Limiter option for ZA-X and ZA-M



More		
Output	Precision	Comfort
↑↑↑	↑↑	↑↑↑
Hopper capacities up to 1,750 litres. Working widths up to 18 m.	Fully adjustable spreading vanes for optimum spreading accuracy. Simple "Tele-Quick" border blade for maximising headland yield.	All controls grouped at the back of the spreader for easy access. Hydraulic half side shut-off as standard.



Less		
Passes	Fertiliser	Set-up time
↓↓↓	↓↓	↓↓
Working widths of up to 18 m. Bigger hopper capacities.	Calibration kit provided as standard to ensure correct rate is applied. User-friendly system so that is no hassle to carry out.	Machine always runs level at 540 rpm. Simple blade angle adjustment for spread pattern change. Feed-on point is automatically adjusted when the spread rate is set without additional settings.





**Trend** Forward speed-related spread rate for higher daily work rates!

## ZA-M mounted fertiliser spreader

### New look ZA-M 01 series with Safety-Set: setting the standard for fertiliser spreaders

- New range of ZA-M twin disc fertiliser spreaders: 1,000 to 3,000 l hopper capacity, working widths up to 36 m
- ZA-M 1001 Special up to 1,500 l
- Hopper capacities up to 2,700 l (ZA-M 1201) or 3,000 l (ZA-M 1501)
- Extremely precise longitudinal and lateral spread pattern
- ZA-M and ZG-B: gentle fertilising handling assured with the SBS Soft Ballistic System
- Equipped as standard with integrated Safety-Set comprising of:



ZA-M 1001 Special

Large clear warning marker boards to the rear with built-in road lighting for improved visibility.

Integrated guard tube for the utmost operator safety.



### Electronic Control with AMADOS+: an easily justified investment

The AMADOS+ Control pack offers forward-speed related application rate control for improved daily work rates with the ability to spread in any tractor gear and thus at any practical forward speed makes for more acres covered per day. AMADOS+ can also be used in conjunction with GPS-terminals for site-specific spreading via an application map with full documentation possible via the terminal back to the farm PC.

More			Less		
Output	Precision	Comfort	Passes	Fertiliser	Diesel
↑↑↑	↑↑↑	↑↑↑	↓↓↓	↓↓	↓↓
Hopper capacities up to 3,000 l. Up to 36 m working width.	Optimum lateral distribution both in the field and on the headland.	Simple settings are all done from behind the hopper to keep the operator out of the dirty zone between the tractor and the spreader.	Working widths up to 36 m.	Half side shut-off as standard, automatic rate reduction when border or water course spreading on the headland.	Forward speed-related application rate control means optimum tractor gear for maximum engine efficiency.





**Trend** Only as much as necessary: plants are given just the amount of Nitrogen they require for optimum growth

## Weigh-cell spreaders that utilise sensor technology

« The flexibility of being able to drive at any forward speed suitable to the field conditions, especially on sub-soiled rape drilling, is ideal for getting the most acres spread in a day. Also ideal, because of the weigh-cell, is that the application rate looks after itself without any time consuming calibration to do, just put in the rate and drive and at the end of the day we have a record of what was applied and where. The AMATRON+ system and the hydraulically driven discs mean that, uphill and down dale, the disc speed and the application rate are always spot on; the partial width shut-off in short work means less overlap, less wastage and less lodging and I am sure, long-term, that the GPS-Switch auto shut-off is the way forward. »

Dave Epton, Epton Farms, Harston,  
Lincolnshire  
ZA-M 3000 Profis Hydro with AMATRON+



Joystick (option)

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

- Up to 3,000 l hopper capacity
- Working widths up to 36 m (prilled urea up to 30 m)
- Optional Profis Hydro: hydraulic spreading disc drive for 6-section part width shut-off; tractor forward speed and engine revs completely independent to disc speed



ZA-M Profis with front weigh-cell frame

More			Less		
Precision	Yield	Quality	Input costs	Lodging	Working time
↑↑↑	↑↑↑	↑↑↑	↓↓↓	↓↓	↓↓↓
Better control over the spread rate with automatic 'on-line' adjustment.	Site-specific application of fertiliser helps provide uniform crop development.	Higher protein content in quality wheat possible through targeted N-application.	Better control over the spread rate with automatic 'on-line' rate adjustment.	An even application of nutrients only applied where the crop can cope with it.	Increased hectares cut by the combine harvester due to more even ripening.





## ZA-M 3000 Ultra large capacity mounted spreader

### ZA-M Ultra – the high output spreader that now goes up to 52 m

The ZA-M Ultra is top of the class for huge work rates and the highest possible precision with its optimum distribution accuracy. With a maximum working width of 52 m and hopper capacities up to 4,200 l the ZA-M Ultra offers a new dimension in area covered in a day.



« I like the way you can put the fertiliser exactly where you want it with the hydraulic disc drive, plus we do variable rate spreading with P and K connected to the Greenstar system and this has worked excellently with the AMATRON+. The ZA-M was able to spread even poor quality fertiliser evenly whereas a similar batch of fertiliser at a neighbour with a different make of spreader had to be sent back.

... fertiliser prices have concentrated people's minds on precision farming and so the extra money spent on a high spec spreader makes sense. »

Mike Timmis, Baschurch, Shrewsbury  
ZAM Ultra Hydro with GPS-Switch



ZA-M 3000 Ultra

More			Less		
Output	Precision	Comfort	Passes	Fertiliser	Diesel
↑↑↑	↑↑	↑↑↑	↓↓↓	↓↓	↓↓
Hopper capacities up to 4,200 l. Up to 52 m working width.	Huge overlapping spread patterns for wind and fertiliser tolerant application.	Simple push button operation of disc drive and section shut-offs via the AMATRON+ in-cab terminal.	Wider tramlines, maybe even up alternate tramlines with working widths up to 52 m.	Automatic 6-section part-width shut off that utilises the GPS-Switch system for accurate headland shut-off, even in the dark.	720 rpm disc speed maintained at minimal engine revs helps reduce running costs.





**Trend** ZG-B Ultra Hydro: hydraulic spreading disc drive for 6-section part-width section shut off and infinitely variable forward speeds

## ZG-B large area bulk material spreaders

### Lime and mineral fertiliser application for professional farmers and contractors

- 5,500 or 8,200 l hopper capacities
- Universal spreading gearbox for lime up to 15 m and mineral fertilisers up to 36 m spreading width (prilled urea up to 30 m)
- ZG-B Ultra Hydro up to 52 m (granular urea up to 40 m)
- ZG-B Drive, Precis and Ultra with electro-hydraulic belt floor control via the AMATRON<sup>+</sup> make them ideal for GPS site-specific application of both lime and fertiliser with easy connection to nitrogen sensing systems
- Weigh-cell system for automatic in-cab calibration
- AMATRON<sup>+</sup> in conjunction with GPS-terminals offers field record documentation for customer invoicing convenience
- Numerous tyre options for flexible application on grassland, root crops and cereals



« With 2000 acres of cereals to go at in the spring and using granular urea on 24 m tramlines the accuracy of the ZG-B Ultra Hydro has been unsurpassed. We changed over from a full width boom spreader to the trailed twin disc spreader but now, with 8,200 litre capacity and faster forward speeds, outputs have increased. The machine is fitted with weigh-cells for in-cab calibration which means no problem keeping the spread rate accurate and, touch wood; reliability to date has been excellent. Simple push button control over the headland spreading and the multi-section shut off in short work has helped to maximise yield over the whole field. The ride on the road and in the field is good with the sprung drawbar and the Scharmueller ball hitch. It all looks a bit daunting at first but the AMATRON<sup>+</sup> box in the cab is simple and self-explanatory, and with joystick control over most of the functions, you soon get used to its operation. »

Neil Sutton, Prestwold Farms, Prestwold, Loughborough, Leics  
ZG-B 8200 Ultra Hydro

More			Less		
Output	Flexibility	Comfort	Passes	Fertiliser	Diesel
↑↑↑	↑↑	↑↑↑	↓↓↓	↓↓	↓↓
Hopper capacities up to 8,200 l, working widths up to 36 m (ZG-B Ultra up to 52 m).	With the universal spreading gearbox for lime to 15 m and mineral fertiliser up to 36 m spreading width.	Automatic calibration with weigh-cell technology.	Wider tramlines, maybe even up alternate tramlines with the ZG-B Ultra at working widths up to 52 m.	Border, water course and side spreading on ZG-B Ultra Hydro at the press of a button, automatic section shut-off with GPS-Switch.	720 rpm disc speed maintained at minimal engine revs helps reduce running costs.





**Trend** Mounted sprayer with front tank system  
ideal smaller field size areas

## UF mounted sprayer with FT front tank

### With the output of a small self-propelled

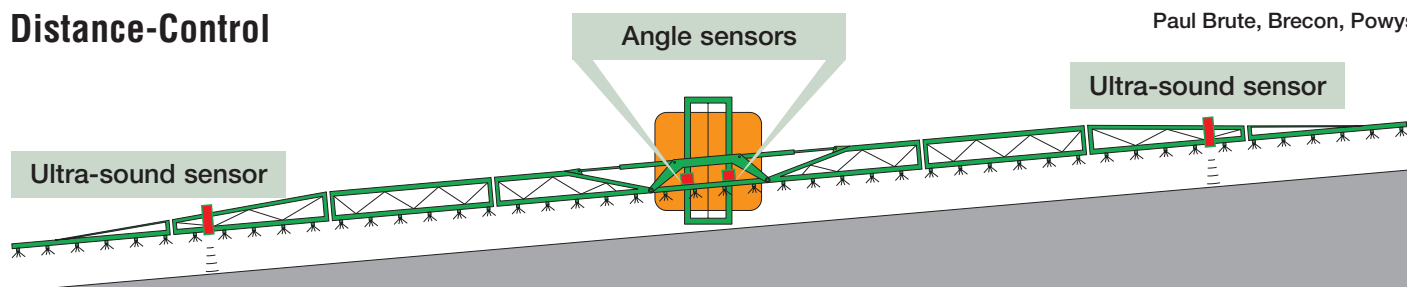
- 1,800 l mounted sprayer + 1,000 l front tank = 2,800 l total volume
- Area outputs in awkward fields as good if not better than a self-propelled
- Maximum operational comfort through the Flow-Control automatic fill-level management system
- Distance-Control automatic height and boom levelling system at working speeds of up to 20 km/h
- Comfort-Pack for in-cab fill level stop, internal residue cleaning and diluting



« I spray about 2000 acres per year and ran an UF 1801 for 3 years before replacing it with a new unit with front tank, and without a doubt, Distance-Control is its best feature – it follows the contours very well, allowing you to concentrate on obstacles, etc whilst maintaining boom height, Distance-Control also means we get a higher forward speed. Above all the machine is a nice compact design with an excellent build quality and not only that, but the front tank is very user friendly and has dramatically increased output. I also like the interchangeability between machines with the AMATRON+ as it can be also used on my AD-P Super Electric. »

Paul Brute, Brecon, Powys

### Distance-Control



More			Less		
Output	Precision	Comfort	Passes	Pesticides	Working time
↑↑↑	↑↑	↑↑↑	↓↓↓	↓↓	↓↓
Tank capacity of 2,800 l; forward speeds of up to 20 km/h with Distance-Control.	In-cab on-board computers AMASPRAY+ or AMATRON+; boundary and end nozzle shut-off control.	Automatic filling, circulating and liquid transfer with Flow-Control.	Booms widths of up to 28 m.	Up to 9 section shut-off; boundary and end nozzle shut-off, automatic section control with GPS-Switch.	Comfort-Pack for automatic dilution, residue emptying and cleaning.





## UG trailed sprayer

### AMASPRAY<sup>+</sup> – modern and precise

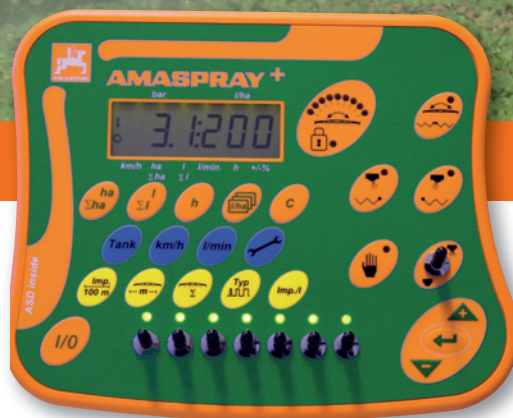
The AMASPRAY<sup>+</sup> on-board computer from AMAZONE is a robust and self-explanatory spray rate computer. The operator can concentrate on driving whilst the terminal controls the application rate irrespective of forward speed.

The important data:

- Pressure and application rate is always displayed.
- At the press of a button the tank contents is shown.
- Individual buttons can be depressed to recall litres sprayed, hectares covered, hours operated, etc.

### Well laid out operator station

All the controls are neatly and clearly laid out in a logical manner at the front left hand corner of the tank within easy reach of the tractor cab door. Its simplicity means that, after just a short time, the driver is fully familiar with its operation and is able to maximise the output of the machine without any potential operator errors.



« We spray around 900 acres with the UG sprayer and with its simple mechanical drawbar system it tracks well, has an excellent boom ride with good, simple spool valve control for the boom functions making it very efficient when moving around poles; there is never a need to back up. The pump capacity with its twin pumps is also good making the level of agitation very controllable. Finger tip control of all the major functions is easy via the AMASPRAY<sup>+</sup> which also maintains an accurate application rate. Filling and mixing is also quick and easy with the induction bowl just at the right height. The paintwork has been very well done and is proving to be long lasting. »

Peter Holloway, S F Randell, Woodbridge, Suffolk  
UG 3000/24 m Control

More			Less		
Output	Precision	Comfort	Passes	Pesticides	Working time
↑↑↑	↑↑	↑↑↑	↓↓↓	↓↓	↓↓↓
Tank capacities up to 3,200 l, boom widths up to 28 m. Faster filling with up to 500 l/min.	AMASPRAY <sup>+</sup> on-board computer ensures the application is maintained at all times irrespective of forward speed.	All the controls are neatly grouped together in a well laid out, coordinated group for ease of filling and mixing.	Boom widths up to 28 m, increased tank sizes up to 3,200 l.	DUS re-circulation system means immediate spray concentration is available on starting spraying. Up to 7-section shut-off from the tractor seat.	High capacity pump system and excellent boom ride make possible forward speeds of up to 20 km/h.





**UX Super series**  
UX 6200 Super with 6,200 l tank



**Trend** Speed-Spraying – quicker driving and lower water rates

## UX trailed sprayer

### Massive work rate potential

- Choice of tank sizes from 3,200, 4,200, 5,200 and 6,200 l
- Automatic boom ride height and tilt through Distance-Control for working speeds up to 20 km/h
- Double pump and twin spray lines with HighFLOW system for increased application rates with liquid fertiliser (up to 350 l/ha at 16 km/h)



« We looked at AMAZONE on the recommendation of the local NSTS man because of boom ride and he was quite right; the boom ride, even though we moved up from 20 m tramlines to 36 m, is first class at spraying speeds of 12–13 km/h. Distance-Control is an added bonus as it improves spraying efficiently and relieves driver fatigue. The tracking system is perfect, in fact the whole sprayer is easy to use; it fills quicker than you can get the chemical in! The AMATRON+ is user-friendly and is ideal for us because it operates both the UX and the Ultra fertiliser spreader. »

Peter Snell, North Farm Partnership, Wimborne, Dorset  
UX 4200/36 m Tronic Profi DUS. First used autumn 2008 on 1,000 acres.



**Silver medal**  
**AGRITECHNICA 2009**  
**LED individual nozzle lighting**



More			Less		
Output	Precision	Comfort	Passes	Pesticides	Working time
↑↑↑	↑↑	↑↑↑	↓↓↓	↓↓	↓↓
Tank sizes up to 6,200 l; forwards speed possible up to 20 km/h with Distance-Control. Faster filling at up to 800 l/min.	On-board computer AMASPRAY+ or AMATRON+; Boundary or end electric nozzle shut-off.	Automatic filling, fill level agitation control and dilution from the tractor seat with Comfort-Pack.	Boom widths of up to 40 m.	Boundary and end electric nozzle shut-off; automatic boom part-width section control with GPS-Switch.	Comfort-Pack for automated residue emptying and cleaning.





**Trend** GPS-Switch: fully automatic part-width section control for spreaders and sprayers



**One for all!**

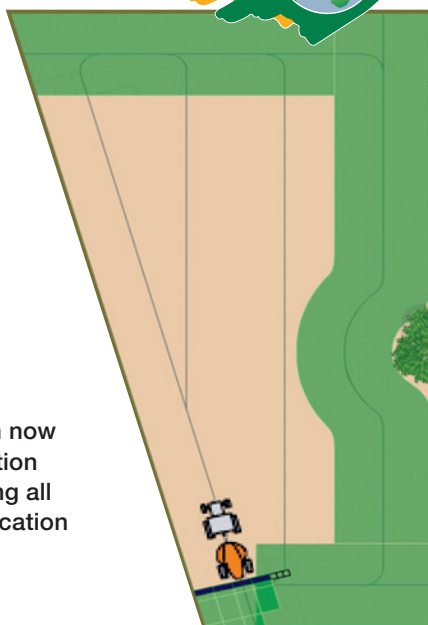
## AMATRON<sup>+</sup> on-board computer with GPS-Switch

### AMATRON<sup>+</sup>

The AMATRON<sup>+</sup> on-board computer is a multi-functional terminal for the operation of the complete AMAZONE machinery programme. For fertiliser spreaders, it offers fully automatic rate control, operating both with and without weigh-cell technology and enables the operation and monitoring of the border spreading systems. Its operation on sprayers includes basic sprayer functionality, cleaning and rinsing and boom fold control.

### GPS-Switch

In combination with GPS-Switch it is even now possible for the automatic part-width section shut-off of spreaders and sprayers bringing all the major benefits of a more precise application and also saving yet more in input costs!



Precision	More Yield	Comfort	Input costs	Less Passes	Working time
↑↑↑	↑↑↑	↑↑	↓↓↓	↓↓	↓↓↓
Reduced wastage, reduced overlapping.	Even crop development, reduced lodging.	Driver relief with stress-free spreading via the fully automatic part-width section shut-off.	When working small, odd-shaped fields then cost savings of up to 10% are achievable.	Problem-free operation even at wider working widths.	Precise application even when working at dawn or after dark.





## Spreader Test hall

### Even more precision:

**AMAZONE**, the biggest manufacturer of fertiliser spreaders in the world, is working constantly to provide the farmer with high-precision spreaders that deliver the best possible work results while taking all environmental protection requirements into account.

With the new modern fertiliser spreader test hall at its disposal for research, development and production **AMAZONE** aims to offer support that satisfies the demands on the most comprehensive fertiliser service in the world.

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 when developing any new fertiliser spreader, this new information is ideal in order to check the performance of the GPS-Switch automatic shut-off system.

**AMAZONE** is using new innovative technology as the chosen measuring system. The spread pattern will no longer be determined (as was previously the case) based on a linear measuring process. 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. This is not possible in any other spreading hall.

The **AMAZONE** fertiliser service makes it possible for farmers to use fertiliser in an economic and environmentally-friendly manner. All types of fertilisers available have been investi-

gated over a period of 25 years and all the relevant data determined in the **AMAZONE** spreading hall is entered into a database.

In addition to the spread patterns and setting rates, the critical mechanical material properties for lateral distribution are recorded. This means that a wide range of data is available that enables **AMAZONE** customers to obtain comprehensive information and advice on the settings for unknown kinds of fertiliser or new fertiliser products.

**AMAZONE** fertiliser service works closely with all major product manufacturers throughout the world to provide its customers with the best settings as fast as possible.

It is not always possible to provide **AMAZONE** with the necessary quantity of fertiliser. This is why **AMAZONE** has developed a reliable laboratory procedure for investigating the physical properties of a three kilogramme sample of fertiliser. Precise settings can be recommended to our customers by comparing the results with the information available in the fertiliser database which has been built up from experience acquired over decades.

The **AMAZONE** fertiliser service provides tips on settings and competent advice via Internet, e-mail, fax and telephone. All customers can access the regularly updated settings for **AMAZONE** spreaders free of charge from the **AMAZONE** database at [www.amazone.co.uk](http://www.amazone.co.uk) 24 hours a day.

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