

L-line

boqbulle







BOGBALLE A/S. Who we are?

In 1934 the founder of BOGBALLE, Anders Peter Laursen, started the production of equipment for poultry breeding in the village of Bogballe. Times changed and in the beginning of 1950's, focus was moved to the production of the first of our well-known blue fertiliser spreaders. Today BOGBALLE A/S is owned by the 4th generation, who have continued to maintain the original family traditions and philosophy.

Design, optimum functionality and ease of use have been developed and evolved over many years of practical experience and in co-operation with farmers all over the world.

We have high tech production, development and test facilities at our disposal as well as one of Europe's largest and most advanced test halls.

- 2: The factory
- 3: Test hall - Programming of robot – Powder painting





L-line. For multi-purpose use.

L-line is the perfect spreader for small and medium sized farms. No matter the task, there is always an L-line model to fulfil your needs.

L-line spreaders are fitted with hopper widths of 120 or 210 cm and contents from 500 to 2.050 litres. The spreaders are powder painted with a sturdy “Flexi Coat” finish after a thorough 7-step cleaning of each component before assembly. The spreading system and the hopper base are made of stainless steel.

The application quantity is remotely controlled either by hydraulic, cable or CALIBRATOR ICON.

Integrated normal and border spreading is standard on all models. **Spreading vanes** in manganese steel – 2 to 3 times longer durability when compared to stainless steel. **Maintenance free and water resistant** slip clutch. **Stepless scale** and pointer position placed to be clearly visible from driver's seat. **Integrated hopper screens**. **Flexi Coat powder paint**, 30 times more durable than traditional wet paint. **Stainless steel discs** and guards and hopper base with additional powder paint protection. **Maintenance free transmission** with reversible direction of rotation. **One set of discs** can be used for all working widths.

- 4: L2W plus 1.600 litres
- 5: L2 plus 1.600 litres – L1 plus 1150 litres – L1 base 500 litres



bogballe

bogballe
3-in-1

Diagram 1: 30 x 100 cm
30



Easy setting. Precise and quick.

The application quantity is quickly and easily set using the S-indicator supplied with the spreader. After a 30 second test of the fertiliser flow with the S-indicator, a simple calculation based on the quantity collected forms the basis for precise rate setting. The result of the calculation (flow factor) is used directly to set the spreader quantity setting lever.

Example:

$$\frac{250 \text{ Kg/Ha} \times 18 \text{ M} \times 11,4 \text{ Km/h} \times 155}{3955 \text{ G}} = \text{Flow Factor 2010}$$

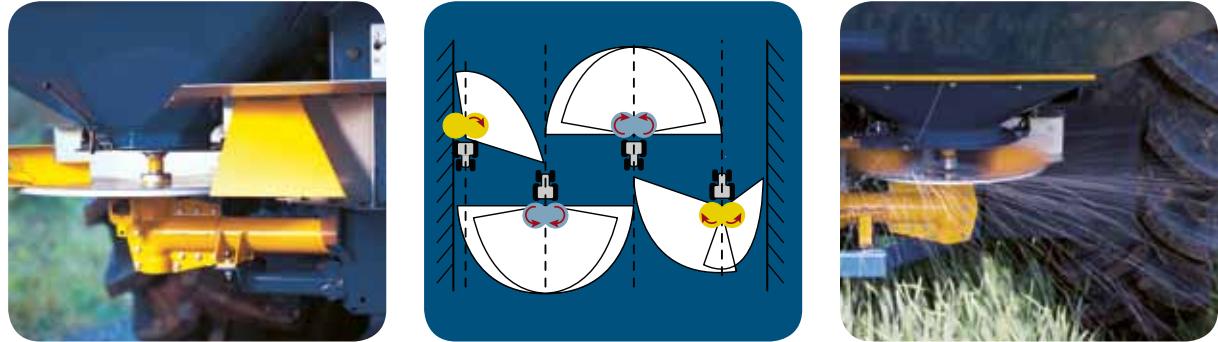
The method is very flexible, as forward speed and application quantity can be freely chosen. It offers the opportunity for a quick change of quantity or forward speed simply by making a new calculation. A calculator with built-in stop watch is supplied as standard and used for timing and for calculation of the correct setting. The procedure can be carried out in less than 2 minutes

- 6: S-indicator
- 7: Weighing of quantity – Calculator – Flow factor 2010

L₁ plus

hogballe





Normal and headland spreading. Two directions of rotation.

The Trend spreading system utilises the best from the In-Centre and the Off-Centre spreading systems.

The In-Centre system is used for normal in-field spreading; spreading discs are rotating towards each other and distribute the fertiliser in 4 applications. In this way we achieve a “4-double overlap” which results in a perfect spread pattern with practical in-field tolerance.

The Off-Centre system is used for spreading on the headlands; spreading discs are rotating away from each other and distribute the fertiliser in two individual spread patterns respectively to right and left side. This system ensures a perfect fertiliser application to the border as well as in the field.

To meet the need for headland spreading from border into the field, we offer a system which can shut one side of the spreader. The system is ideal when spreading in grassland and along streams and ditches.

The spreading system fulfils the European environmental standard EN 13739-1.

- 8: Normal spreading
- 9: From border spreading - Trend principle sketch – To border spreading





Useful functions. Benefits for everyone.

Set the working width by use of the integrated degree meter. This method is simply the best and most precise way to set the working width, due to the fact that no further adjustments are needed.

Our agitator is rotating with an eccentric movement from 12-60 rpm depending on the fertiliser density and flow characteristics. Spreading light and porous fertilisers, the agitator is automatically rotating slower and treats the material more gently.

The integrated pressure equalising cone ensures an even material flow to the outlets and prevents crushing of fertiliser, as the agitator is protected from direct pressure from the hopper load above.

The centrally controlled regulating system automatically adjusts the fertiliser dropping point on the spreading discs. The spreader is fitted with double shutters, which have different opening speeds. In this way the regulating system is maintaining the perfect drop point and spread pattern irrespective of changes in quantity or forward speed.

For the spreading of slug pellets, oil seeds or similar fine granular material the spreader can be fitted with a special reduction kit.

- 10: Agitator with eccentric movement
- 11: Setting of working width – Double shutters – Pressure equalising cone





L-Trail and BXL 1300. Carry more.

L-Trail makes it possible to use a small tractor with a large spreader. The wheel track is adjustable from 1600-2200 mm. Naturally the spreader can also be used for late application on the 3-point linkage.

Our Big Bag Lifter BXL 1300 is mounted in the spreader's 3-point linkage. Place big bags directly in the field where they are needed and achieve an increase in spreading capacity of 3-5 ha/h. The flexible extending lift arm can pick up bag directly from the ground or from a trailer. With fully extended lift arm the Big Bag lifter can lift 1.300 kg.

The hydraulic cylinders are fitted with anti drop valves for optimum safety during work. BXL 1300 fits L-line spreaders with a capacity up to 2.050 litres.

- 12: L2W plus 2.050 litres with BXL 1300
- 13: L2W plus 2.050 litres with BXL 1300 - L2-Trail - L2-Trail with L2 plus 1.600 litres





boqballe  CALIBRATOR ICON



MENU

ICON

FUNCTION



Calibration



Spread Width



KG / HA

Quantity



Field Information



Open for Cleaning



Headland Spreading



3004-02-08



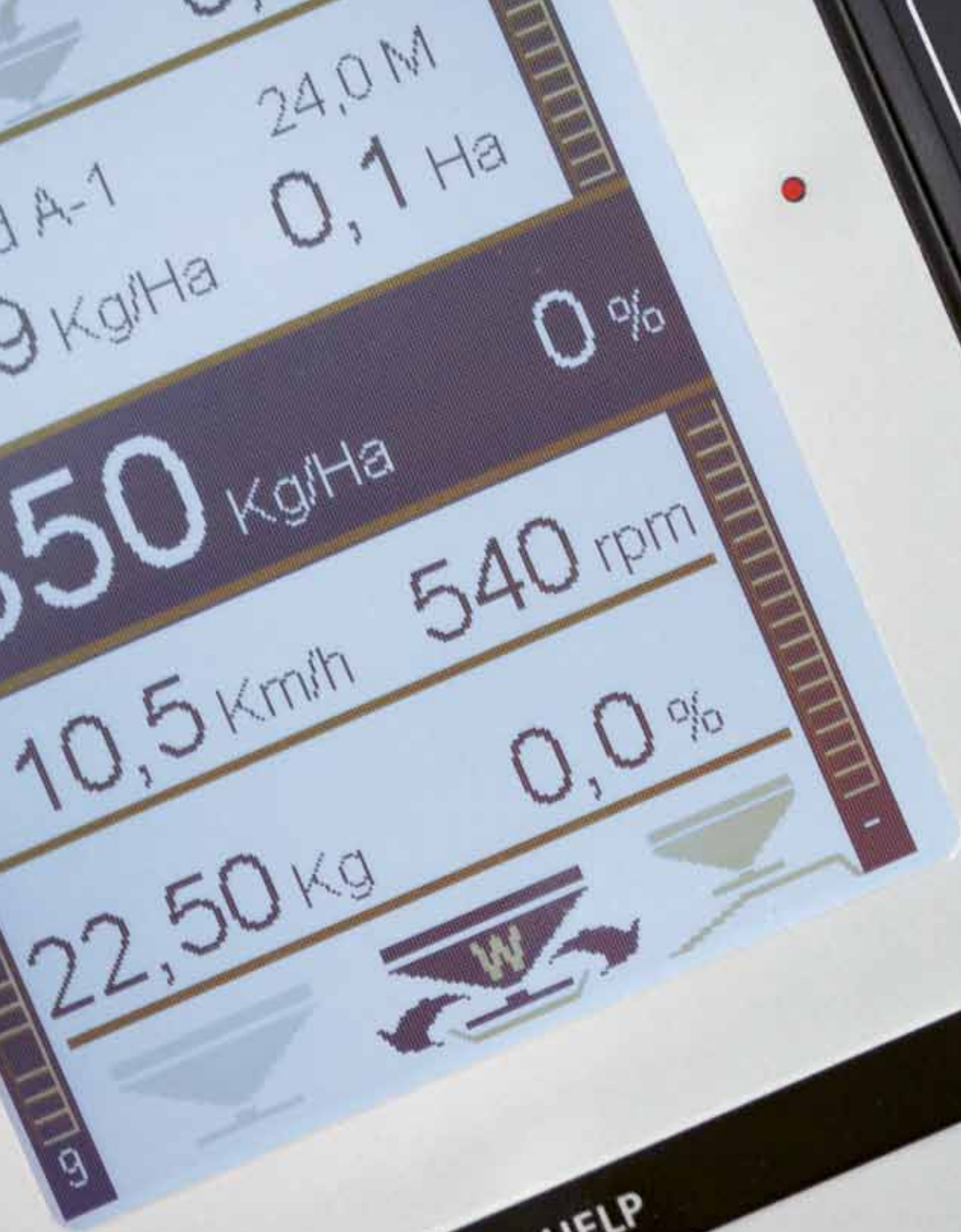
CALIBRATOR ICON. Intelligent.

To achieve efficient, precise and professional field work, the CALIBRATOR ICON is the right solution for rate control. 100% ground speed relation increases spreading capacity as the driving speed can be optimised to suit field conditions.

Before field work begins, a single calibration test can be completed in only 30 seconds. Alternatively, simply enter the calibration value directly from the spread chart. Pressing the +/- keys while spreading, will adjust the rate up or down in percentage steps.

Field data for different fields can be downloaded to a PC and imported to Excel for farm records. Average application rate (kg/ha), total area spread (ha) and total kg applied for each individual field is recorded.

Shift between normal and headland spreading from the driver's seat (option). **Built-in control and alarm** system to prevent operation failure. **Variable rate spreading** via \pm keys in steps of 5%. **Communication** to GPS and application systems via serial communication. **User-friendly menu structure** with easy to understand icons. **Field recording** of 99 fields.



HELP

0/ESC

INPUT

S
T



Weighing Technique. Weighty arguments.

To achieve a precise application rate, a constant check of the fertiliser flow rate is required. As long ago as 1988 we pioneered and introduced the first spreader with weighing technique. That was first step in the right direction to monitor and control the flow. Today the weighing technique can register changes in the flow and on the basis of this information we are able to control the application quantity fully automatically. To control the weighing technique we use CALIBRATOR ZURF, our super intelligent electronic controller.

CALIBRATOR ZURF and the parallel weighing system constantly make intelligent measurements on the move and automatically adjust the shutters. The intelligent software is working non-stop with the weighing signals monitoring the hopper contents and from this information fully automatic calibrations are carried out on-the-move. Even under hilly conditions we are able to weigh the hopper contents correctly – so ensuring a high level of accuracy.

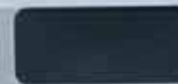
Therefore the amount of fertiliser used is precisely controlled ensuring optimum use of inputs and control of costs.

All spreaders with weighing technique can alternatively be delivered with an ISOBUS controller which fulfils ISO norm 11783. The ISOBUS controller is equipped with a plug for easy connection with the tractors ISOBUS network/terminal.

CALIBRATOR ZURF **boqbulle**



HELP



①



START





CALIBRATOR ZURF. Super intelligent.

To achieve efficient, precise and intelligent field work, CALIBRATOR ZURF is the right solution for rate control. 100% ground speed relation increases spreading capacity as the driving speed can be optimised to suit field conditions.

In addition to this a number of possibilities are available. Prepare a complete field work plan on the farm PC using the ZURFcom programme and simply transfer the information on the USB stick. ZURFcom also offers the opportunity of downloading spread charts directly from our fertiliser database to CALIBRATOR ZURF. After completing field work, individual field records can be stored on the USB stick for transfer to farm record documentation and traceability.

Before field work begins, a quick and simple calibration is carried out in only 30 seconds. Alternatively the calibration value from the spread chart can be directly keyed in. By pressing the +/- keys while spreading, the spreader adjusts the rate up or down in percentage steps.

Further information can be found in our CALIBRATOR leaflet.

Shift between normal and headland spreading from the driver's seat (standard on W-model). **Built-in control and alarm system** to prevent operation failure. Integrated operator's manual. Possibility for **software update from internet** via USB stick. **Variable rate spreading** via \pm keys in steps from 1-25%. **Fully automatic calibration** (M2W or M3W). **Communication** to GPS and application systems via serial communication. **User-friendly menu structure** with main menus and drop down menus. **Field recording** of an unlimited number of fields.





Green Areas. Maintenance against turf wear.

Playing fields and parks are exposed to constant wear. It is therefore vital that fertiliser is regularly and accurately applied for grass growth.

L-line is ideal for carrying out many low quantity applications with high precision. “Little and often” applications sustain a constant and balanced growth in the grass.

Additionally the spreader can be used for re-seeding and rejuvenation of grass e.g. goal areas or walkways, and also for the spreading of slug pellets.





2-row Equipment. A narrow solution

The L1 spreader can be mounted with row equipment made of stainless steel ideal for use in vineyards, fruit orchards and berry production. For very narrow distances between rows of plants, bushes or trees, the spreader can be fitted with a hopper with a width of only 125 cm.

The row equipment places the fertiliser in 100-120 cm bands around the plant base so that the use of nutrients is optimized. The row spacing can be adjusted in stepless settings between 1,5 and 5 metres using the angled flaps at each side.

The 2-row equipment is easily mounted and dismounted using only a single lever. Without row equipment, the spreader can work at spread widths from 10 - 18 metres.





Test Hall. Expert know-how.

Since 1984 we have worked all year round in our test hall analysing fertiliser spreading characteristics and making spread charts. The test hall is one of Europe's largest and most advanced with fully automatic weighing of the test trays. The results are registered directly in a database, which is simultaneously the foundation for all spread charts and also for interactive "On-Line" functions to match individual requirements.

All spread charts are available on our homepage where additionally there is a free "Fertiliser Analysis" function. This can be used for finding a spread chart for any fertiliser which has not been tested in our test hall. Using a Fertiliser Test Set, which consists of a grain strength tester and a box for dividing the grain sizes, it is possible to analyse the physical characteristics. The results are directly keyed in on our website bogballe.com and the database will search all tests carried out and immediately suggest a spread chart match.

Additionally it is possible to find a specific setting for spreaders fitted with hydraulic or cable remote using the "Individual Scale Setting" function. This is a versatile tool that specifies settings for the speed, quantity and working width that suits your needs.



Useful options.



CALIBRATOR ZURF



CALIBRATOR ICON



Rear lights



Hopper cover



Hydr. remote
for hopper cover



Storage wheels



Ladder, foldable



Extra wide guards



Reduction gear



Hydraulic motor



Flow control



Reflector board



Overrun clutch for pto



Late application linkage (L2W)



Late application link pins L2



Agitator for grass seed



S-indicator



Calibration kit (L2)



Calibration kit (L1)



Test set



Reduction outlet



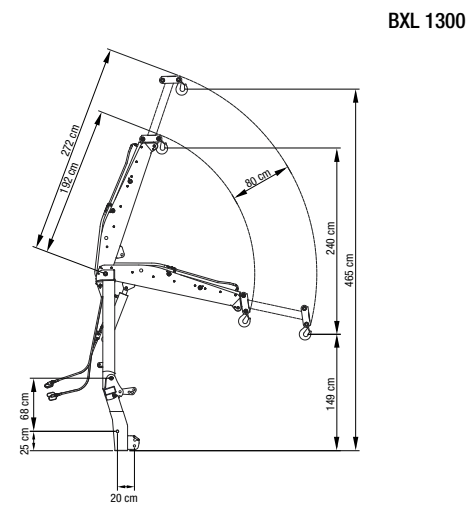
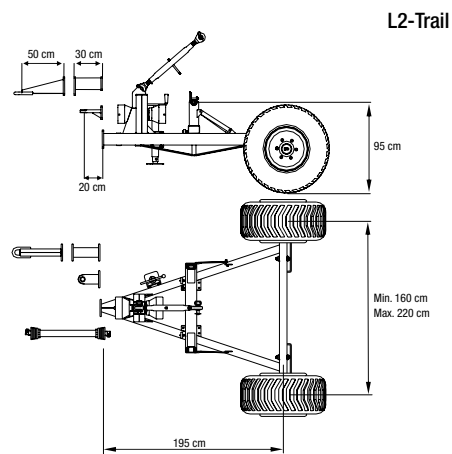
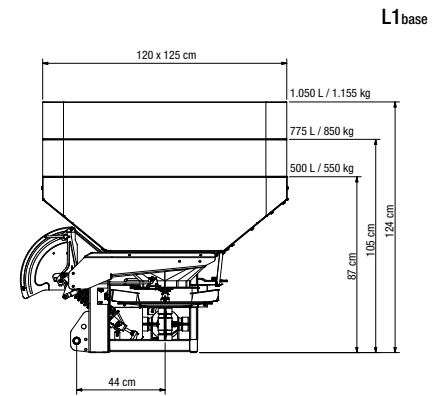
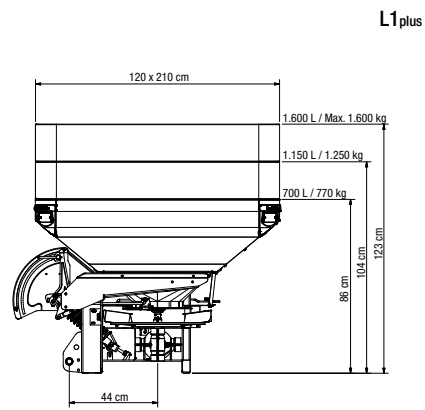
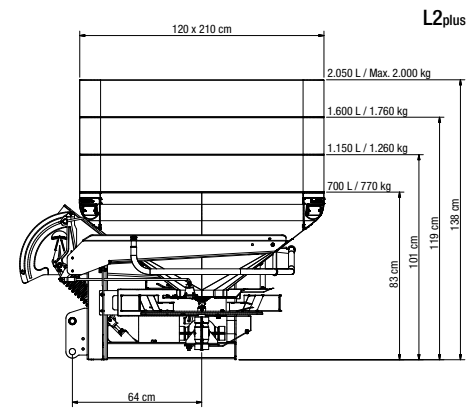
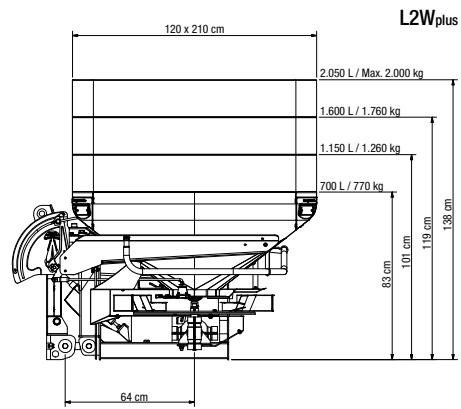
Link pins cat I (L1)



Row equipment, 2-row



Module



Specifications

	L2W plus	L2W plus	L2 plus	L1 plus	L1 base
Weight (kg)	330/362/394/426	337/369/401/433	268/300/332/364	210/242/274	198/222/246
Working width	12-24	12-24	12-24	10-18	10-18
Fully automatic weighing system	■	■	—	—	—
Control unit	CALIBRATOR ZURF	ISOBUS	□	□	□

Options

Manual operation of headland spreading to border	■	■	■	■	■
Manual operation of headland spreading from border	□	□	□	■	■
Pto	■	■	■	■	■
Water resistant slip clutch	■	■	■	■	■
Sieves	■	■	■	■	■
Degree meter	■	■	■	■	■
Mud guards	■	■	■	■	■
Safety guard, fulfils EN14017	■	■	■	—	■
CALIBRATOR ZURF incl. test set for fertiliser analysis	■	—	□	—	—
ISOBUS Controller incl. test set for fertiliser analysis	—	■	—	—	—
CALIBRATOR ICON incl. test set for fertiliser analysis	—	—	□	□	□
Hydraulic control (incl. S-indicator)	—	—	□	□	□
Cable control (incl. S-indicator)	—	—	□	□	□
Rear lights	□	□	□	□	□
Hopper cover, foldable	□	□	□	□	□
Hydraulic remote of hopper cover	□	□	□	□	—
Storage wheels	□	□	□	□	□
Ladder, foldable	□	□	□	—	—
Extra wide guards	■	■	□	—	—
Reduction kit	□	□	□	□	□
Reductions gear 1000/540 and 540/540 incl. storage wheels	□	□	□	□	□
Hydraulic motor	□	□	□	□	□
Flow control, adjustment of oil flow / rpm	□	□	□	□	□
Reflector board	□	□	□	□	□
Overrun clutch for pto	□	□	□	□	□
Pilot counter valve, prevent oil leak off from hydraulic remote	—	—	□	□	□
Late application linkage / link pins	□	□	□	—	—
Agitator for grass seed	□	□	□	□	□
S-indicator for rate adjustment (included in hydraulic and cable control)	—	—	□	□	□
Calibration kit	□	□	□	□	□
Row equipment, 2-row	—	—	—	□	□
Link pin extension, 100 mm cat I and II (max. 1200 kg)	—	—	—	□	□
Link pins cat I	—	—	—	□	□
Test set for fertiliser analysis	■	■	□	□	□
Module plus 450 litres	□	□	□	□	—
Module base 275 litres	—	—	—	—	□

Possibilities for controlling headland spreading

Elec. remote, to border via CALIBRATOR ZURF / ICON & ISOBUS	□	□	□	—	—
Elec. remote, from border via CALIBRATOR ZURF / ICON & ISOBUS	□	□	□	—	—
Elec. remote, to/from border via CALIBRATOR ZURF & ISOBUS	□	□	□	—	—
Elec. remote, to border and manual to/from border for CALIBRATOR ICON	—	—	□	—	—
Elec. remote, to border and cable to/from border CALIBRATOR ICON	—	—	□	—	—
Cable remote, to border	—	—	□	□	□
Cable remote, from border	—	—	□	□	□
Cable remote, to/from border	—	—	□	—	—
Manual shift to border	■	■	■	■	■
Manual shift from border	—	—	□	■	■
Manual shift to/from border	—	—	□	■	■

- Standard equipment
- Option
- Not available

All BOGBALLE products are subject to continuous development.



Dealer: