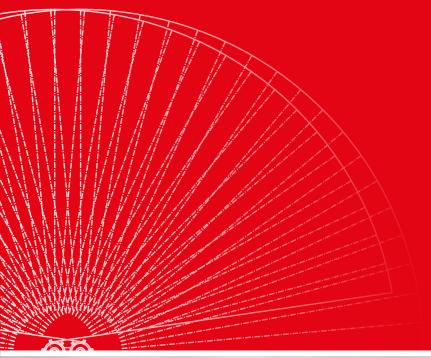
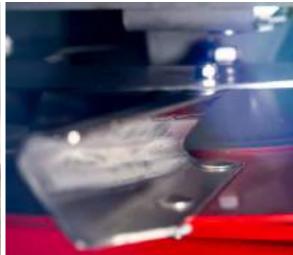




### K SERIES















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## THE K SPREADER IS MANUFACTURED IN MANY SIZES, FROM K45 WITH A 3.5 M<sup>3</sup> CAPACITY TO K165 WITH A MAXIMUM CAPACITY OF 19 M<sup>3</sup>.

The spreaders' standard equipment is for spreading lime and they can be mounted with optional equipment for spreading fertiliser on working widths from 12 to 36 metres. The K spreaders have many different areas of use, which include the spreading of the following materials:

- Agricultural lime
- Commercial fertiliser
- Sand (top dressing)
- Compost
- Ashes
- Powdered materials
- And several other types of material

The K series has six different models: K45, K65 and K85 all come with a single axle. The standard K105 model comes with a single axle but is also available in a bogie version.

K135 and K165 are only available with a bogie. These many different sizes, equipment and options mean that there is always a spreader for the job at hand.









### CONSTRUCTION

Bredal spreaders have a robust construction and are designed for professional use. Every single component of a Bredal spreader is designed for optimised reliability and strength to maximise service life.

### > CONSTRUCTION

All Bredal K series models come with 10-hole hubs. The axles are available in different widths to meet track width preferences.

The entire spreader is designed to withstand the heavy loads that occur in the field.

Bredal thoroughly tests all modifications and new designs before they are put on the market, because, as experience shows, the machines are subjected to heavy loads in the field. All single-axle spreaders are equipped with a heavy-duty undercarriage and axle. The various models are available with hydraulic or pneumatic brakes, or without brakes, if preferred.

Minimising daily maintenance is a high priority in the structural design of each spreader.

The belt rollers on which the floor belt rests is made of plastic with a through-going stainless steel axle; the bearings are made of synthetic material and require no maintenance at all. The belt rollers' side members are also made of stainless steel. The most heavily loaded components around the belt frame and spread unit are also made of stainless steel.

The frame is built of heavy sectional steel tubing and is reinforced in all heavily loaded areas. The hopper is constructed of 3 and 4 mm steel plating and is also reinforced in heavily loaded areas. The spreader's sturdy construction gives it a very long service life.

The vanes on the fertiliser discs are made of stainless steel and are coated with a tungsten carbide wear layer.

The stainless steel vanes on the lime discs are very sturdy and are also available with a metal carbide wear layer.

### > POWDER COATING

All painted components on Bredal spreaders are sprayed with two layers of powder coating, which gives a resilient surface, good anti-corrosive protection and a beautiful finish.

The spreaders are designed for a maximum working life, so a high-quality surface treatment is vital.

As a result of BREDAL heavily investing in this process, Bredal now has one of the biggest, most highly modernised powder-coating facilities in Denmark, where spreaders are first cleansed in a shot-blaster with steel balls and then sprayed with two layers of powder coating.

The powder-coating system was specifically developed for harsh environments to provide an anti-corrosive, highly wear-resistant and uniform surface.

### > LANDWHEEL DRIVE

The mechanical landwheel drive on a Bredal spreader is the simplest, most reliable system for ensuring a driving-dependent application rate, without any type of electronics. A powerful spring presses an iron wheel against the spreader's wheel. This ensures accurate tracking of driving speed, which is transferred to the floor belt via a three-shaft gear which controls the application rate according to the forward speed.

The system is designed so that it is possible to mount wheels with different dimensions without affecting the spreading accuracy.

The sturdy three-shaft gear ensures a wide-ranging application area.

The application rate of all BREDAL spreaders is forced, so the only data required for setting the application rate are the material's bulk density and the preferred application rate in kg/ha.

There is only one spread chart and it applies to all materials. Simply and precisely. Outflow tests or similar are not required to set the application rate.

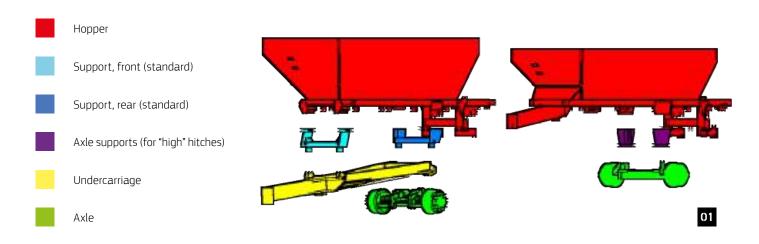
### > MODULAR CONSTRUCTION

As a new feature, Bredal provides a modular construction of the undercarriage. The structural set-up comprises loose stanchions available in different heights. These are bolted to the undercarriage which is in turn bolted to the axle. This structure makes it possible to order a spreader with a different disc height above ground, if a spreader taller than the standard model is preferred, for instance.

The axles are available in different track widths so it is possible to order a spreader with the preferred track width. Axles for K85–K105 are stocked in track widths of 1950, 2050 and 2150 mm. Axles for K45–K65 are stocked in track widths of 1900 and 2000 mm.

### > HIGH HITCH

Models K45/65/85/105 are available with a hitch mounted in a "high" position. This provides more clearance under the spreader. Please note that weight cells cannot be mounted on spreaders with a high hitch.









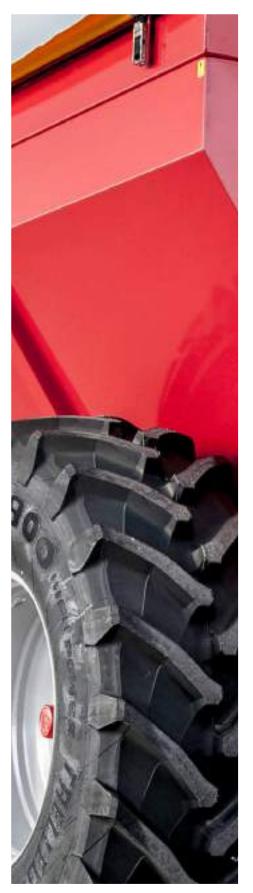




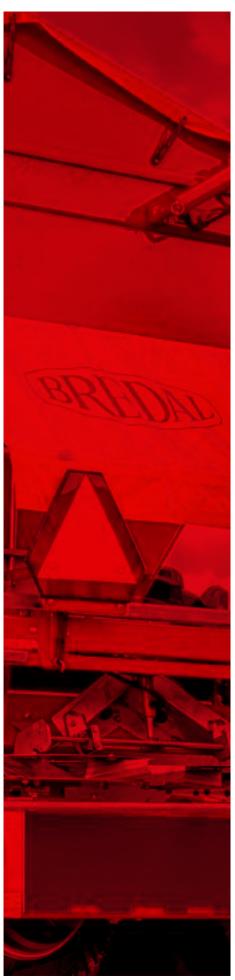
1 > CONSTRUCTION showing the main elements of the K spreaders 2 > BELT FRAME, stainless steel with synthetic bearings 3 > MECHANICAL LANDWHEEL DRIVE for driving-dependent application rate 4 > K SPREADER WITH UNDERCARRIAGE bolted to the frame 5 > K SPREADER WITH A HIGH HITCH welded directly onto the frame 6 > BREDAL K SPREADER with high hitch (without undercarriage)













The spreader and all components are sprayed with two layers of powder coating, which gives a resilient surface and a beautiful finish.





### SPREADING OF LIME







Bredal's sturdily dimensioned spread units make it possible to spread up to 1600 kg/minute. Using 12–16 m lime equipment, it is possible to spread ordinary agricultural lime on working widths of up to 16 m.

The spread units are available in two models: the SPC4500-1 with one sturdy V-belt (used on the smallest models) and the SPC4500-2 with two powerful V-belts (used on the biggest models).

The V-belts are tensioned with a powerful spring to keep them correctly and uniformly tensioned during operation.

The spread unit is mounted on two support brackets that can slide back and forth. This construction makes it possible to shift the entire spread unit to obtain the best setting at all times.

The spread unit is designed to spread very large volumes of material. The spreading equipment is designed so that the material is fed through the vane at a slight incline for wider and more accurate spreading.

The vanes are reinforced to be able to withstand the heavy load they are subjected to when spreading up to 1600 kg/minute.

For especially sticky materials, a "reversed" SPC spread unit is available. This spread unit is distinguished by having a particularly large space between floor belt and spreading discs.

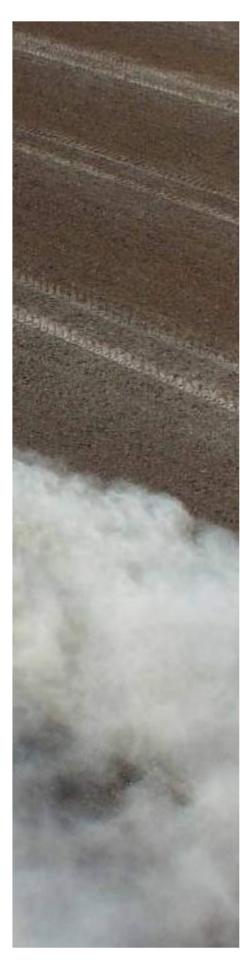
The spreading discs on this spread unit rotate in the opposite direction compared to an ordinary SPC spread unit for lime and fertiliser.

K105 BOGIE IS BREDAL'S SMALLEST BOGIE SPREADER WITH A CAPACITY OF 9.0-14.0 M<sup>3</sup>.









### SPREADING OF FERTILISER

To change over from spreading lime to spreading fertiliser, only the spreading discs and downshutes need to be changed. The 12–36 m spreading equipment is designed for highly accurate spreading, also across wide working widths.

The Bredal spreaders operate according to the quadruple overlap principle where each disc spreads in a double working width. This maximises the probability of achieving good spreading results at all times.

Bredal spreaders are designed so that fertiliser particles are flung from the spreader at a high exit speed. The high speed, combined with a low exit angle (7 degrees), minimises sensitivity to wind in field conditions.

Fertiliser is fed to the centre of each disc inside the vanes so that the fertiliser particles start to accelerate even before they make contact with the vanes. This reduces the risk of damaging the fertiliser during spreading.

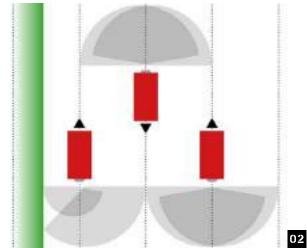
The six vanes mounted on each disc ensure that the fertiliser is distributed in small quantities for greater spreading reliability.

The large diameter of the spread discs ensures that the fertiliser particles accelerate to a very high speed before leaving the spread discs. At 1000 rpm, the fertiliser particles accelerate up to 250 km/h, which substantially reduces sensitivity to wind.

### > H DISCS

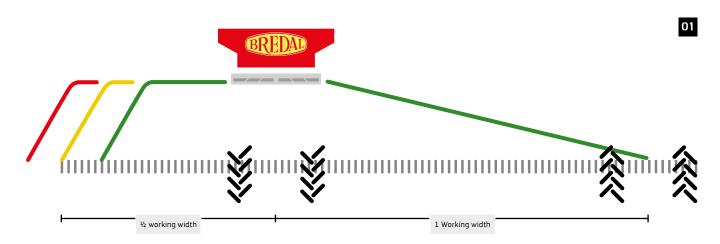
Bredal also offers specialised spreading discs for spreading fertilisers such as granular urea, potash and ammonium sulphate across working widths from 24 to 36 metres.







### HEADLAND SPREADING





Bredal's headland spreading system works by changing the rpm speed of only one disc, to reduce the working width towards a field boundary. The field-side disc continues to spread at full rpm, ensuring double overlap into the field.

The Bredal headland spreading system sharply delimits the spreading towards the boundary, while maintaining the spreading pattern by overlapping on the side facing the field. The standard headland gear is manually operated.

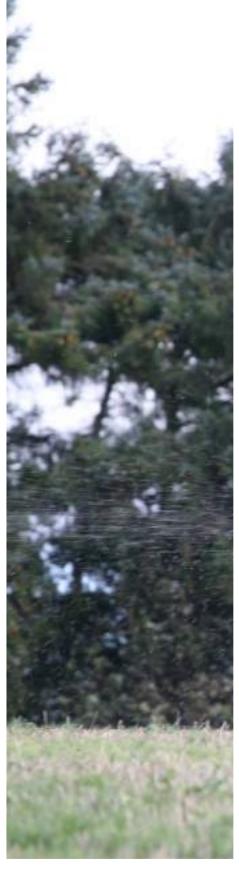
The headland gear downshifts in the V-belt transmission itself so there is still a safety coupling if blocking occurs. The downshifting is available on all K models.

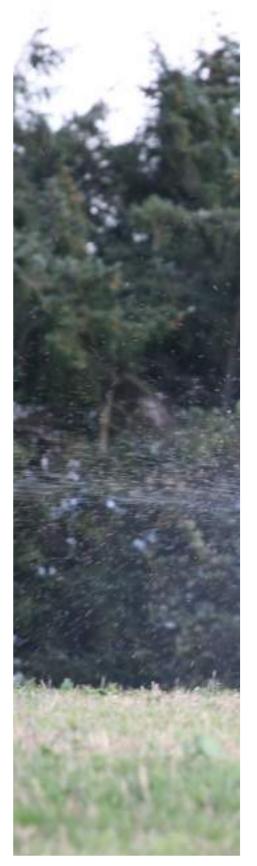
As part of the computerised spreader control, it is possible to directly activate the headland gear hydraulically from the tractor.





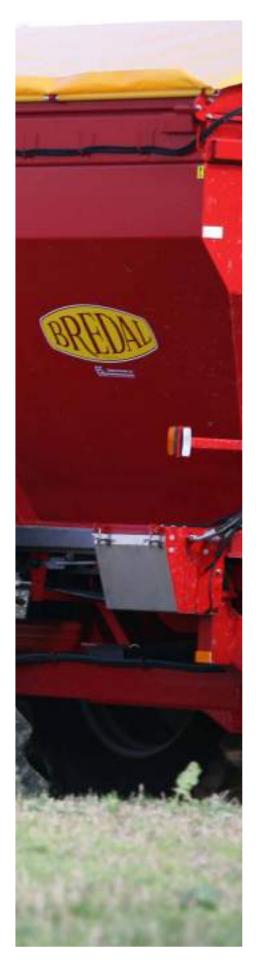












### SPREADING TESTS

### > TESTED SPREADERS

All Bredal spreaders are tested using countless types of fertiliser at Bredal's ultra-modern testing centre. The spreading tests are full scale, which means complete spreading. This makes the tests as realistic as possible. Many tests are performed every day in a very realistic setting. The test results are based on weight-cell technology, i.e. on the amounts actually dispensed (collected in trays), not theoretical calculations.

### > BREDAL SPREADING PRINCIPLE

Bredal spreaders operate according to the quadruple overlap system. This means that both discs cover a double working width, i.e. when spreading with a working width of 24 metres, the left disc covers 24 metres on the left-hand side and 24 metres on the right. This enables four-portion spreading to ensure high precision and minimises the risk of spreading errors.

Bredal spreaders are designed to spread fertiliser particles at a high exit speed. The high speed, combined with a very low exit angle (7 degrees), minimises sensitivity to wind in conditions in practice.

### > BREDAL TEST KIT

The Bredal Test Kit is used to perform practical spreading tests to optimise spreading patterns. The Bredal Test Kit contains plastic collector trays (with dividers), a calibrated cylinder with holder, a funnel, a crushing strength tester and a sieve shaker.

### > SETTING

The advisable settings for ideal spreading of the various types of fertiliser can be downloaded from Bredal's website.









1 > SIEVE SHAKER to check grain size 2 > CALIBRATED CYLINDER for verification of a spreading test 3 > CALIBRATION KIT 4 > SPREADING TEST IN THE FIELD using a Bredal K spreader and Test Kit (testing trays laid out)

### STANDARD EQUIPMENT

### MECHANICAL LANDWHEEL DRIVE >

All standard, single-axle Bredal spreaders are fitted with a mechanical landwheel-drive system.



### < CROSSBAR FOR HYDRAULIC HOSES

All hydraulic hoses are led towards the tractor on a rotatable bracket which also holds a crossbar for the hydraulic hoses. This relieves the strain on the tractor's hydraulic connections when the spreader is connected, and it is also used for hanging the hydraulic hoses when the spreader is disconnected.

All hydraulic hoses on spreaders with multiple hydraulic functions are colour coded, and a functional overview is mounted on the spreader.

### LADDER >

A ladder is attached to the front of the hopper on all spreaders to make it possible to access the hopper.





### WINDOWS >

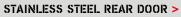
Windows are mounted on the front of the hopper to visually monitor the hopper contents.





### OIFFERENT GEAR TYPES (KB3 & RT)

All single-axle spreaders are fitted with a three-gear chain gear. The K105 Bogie and K135/165 are fitted with gearwheel unit with a built-in oil motor.



The rear doors are made of stainless steel, with nylon guidance runners to ensure easy operation, long service life and minimise maintenance.



### STANDARD EQUIPMENT

### PTO >

All spreaders come with a wide-angle 6z PTO shaft. Alternatively, 8z, 20z and 21z PTOs are available.



### < LED LIGHTS

Bredal spreaders are equipped with LED lights and side marker lamps. The light boom is made of stainless steel.

### LIME-SPREADER EQUIPMENT >

Bredal's standard K spreaders are fitted with lime spreader equipment.





### SPRING LOADED TENSIONER>

Spring loaded V-belt tensioning ensures that these are always correctly tensioned.



### < SPREAD UNIT

K45–K65 come with an SPC4500-1 V-belt transmission, and K85–K165 come with an SPC4500-2 V-belt transmission for spreading-disc operation. (Hydraulically operated spread units are available as an optional accessory.)



### JACKS >

K45–K65 come with mechanical jacks, whereas K85–K165 come with double-action hydraulic jacks.







### WHEEL MOUNTING

### > WHEEL MOUNTING

Many different wheel mountings can be used on Bredal spreaders, because the spreaders are designed for a wide variety of tasks under different conditions.

The main purpose of this is protect the field against pressure damage, which is primarily achieved by having a large bearing surface. The bearing surface can be enlarged by using a wheel with a bigger diameter and wider tread profile. It is also important to use a tread pattern that is best suited for the operating conditions.

Bredal provides tyres in many different sizes from different manufacturers, so that the preferred wheel mounting is almost always available.



### **CALIBRATION KIT >**

The calibration kit determines the fertiliser's bulk density simply and precisely. To ensure that the spreader's application rate is correct, it is important to know the correct bulk density of the fertiliser being spread.



### < TEST KIT

For making spreading tests in the field. The kit contains collector trays, a calibrated cylinder, a funnel, a sieve shaker and a crushing-strength tester.

### HEAVY-DUTY STAINLESS STEEL HOPPER SCREEN >

When spreading fertiliser, it is necessary to have a screen inside the hopper to prevent lumps of fertiliser falling down and blocking the opening to the rear door.



### FERTILISER EQUIPMENT, 12-36 M >

Bredal provides equipment for spreading fertiliser in widths of from 12 to 36 metres. This equipment ensures accurate and defined spreading.



# THE RESIDENCE OF THE PARTY OF T

### < HEADLAND GEAR

For headland spreading, Bredal provides a reduction gear which reduces the rpm on the left disc. The headland gear is available in two versions, depending on working width: 12–28 metres and 24–36 metres.

### HYDRAULICALLY OPERATED HEADLAND GEAR >

Hydraulic operation of the headland gear is available for easy changeover between headland and field spreading from the tractor cab.



### PAINTED STAINLESS STEEL HOPPER >

To optimise anti-corrosion protection, the K-series hopper is available in a painted stainless-steel model.



### < MUDGUARDS

Plastic mudguards are available to protect the spread unit and spreading discs from wheel splashing.

### COVER OVER SPREAD DISCS >

Covering for the rear section of the belt and downshute.





### MANUAL COVER >

A cover which can be manually rolled up is available to protect hopper contents during road transport and spreading.



### < HOPPER EXTENSION

For additional spatial capacity, two hopper extensions are available:  $23\ \text{cm}$  and  $50\ \text{cm}$  (only available for K105 and K105 Bogie).

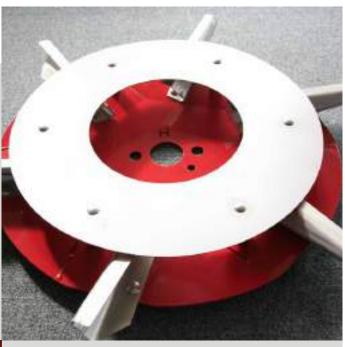
### HYDRAULICALLY OPERATED HOPPER EXTENSION >

Convenient operation of the cover from the driver's seat when filling the spreader.



### 'H' DISCS >

Specially designed fertiliser equipment for spreading fertilisers such as granular urea, potash and ammonium sulphate across working widths of 24–36 metres.



### < MICRO-DOSING EQUIPMENT

Used for spreading slug pellets or catch crops. The micro-dosing equipment makes it possible to spread at rates as low as a few kg/ha. (comprises plastic runners with a scale for the rear door and new round plates for spreading discs)



### LATE APPLICATION EQUIPMENT >

For spreading fertiliser late in the season, an impact plate is provided to lift fertiliser outflow, making it possible to spread in higher crops.



### 540-1000 / 1000-540 GEARING >

540–1000 or 1000–540 reduction gearing for tractors which have a PTO with only 540 or 1000 rpm. The gear is also available with a ratio of 670–1000 rpm (eco gear). The 1000–540 downshifting is a standard feature on K135 and K165.



### < BELT LOAD REDUCER

For particularly heavy, high-density materials, it is beneficial to use a belt load reducer. The belt load reducer is used in conjunction with a fertiliser screen.

### HYDRAULICALLY OPERATED BELT-LOAD REDUCER (K105-165) >

Retaining a sizeable portion of the contents all the way forward in the hopper maintains the highest possible weight on the tractor's driving wheels as the spreader gradually empties.



### WEIGHT CELLS >

Weight cells keep the application rate under complete control at all times. Weight cells are not available on spreaders with a high hitch.



< OPERATION VIA A MÜLLER TOUCH 3 TERMINAL

### ISOBUS COMPUTERISED CONTROL >

Newly developed software with a series of new functions, including support for activating and deactivating application when turning in the headland as well as a tilt sensor that adjusts the application rate when driving in hilly terrain.



### PNEUMATIC BRAKES >

Pneumatic brakes are available, instead of the standard hydraulic brakes (optional accessory on K45). (It is also possible to combine hydraulic brakes and pneumatic brakes.)



### < HYDRAULIC SPREAD UNIT

A hydraulically operated spread unit makes it possible to individually adjust the rpms on each disc.

This makes it possible to select headland spreading for the right or left side. Headland spreading is activated via the ISOBUS computerised controls.

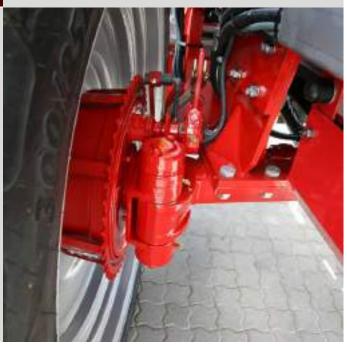
The spread unit is driven via two oil outlets on the tractor and requires an oil volume of  $130 \ l/min$ .

If the tractor does not have the requisite oil capacity, an alternative PTO-driven hybrid power unit is available.



### STEERING AXLE >

The models in the K series with ISOBUS computerised control are available with a steering axle to ensure that the spreader wheels follow the tractor wheels when turning in headland.







### > BOGIE AXLE

It is possible to have the biggest Bredal spreaders fitted with a bogie.

These are constructed with an undercarriage on the K105 and have a particularly strong towing frame through the hopper's construction. This very sturdy construction minimises the spreader's net weight without comprising the renowned strong Bredal construction.

A bogie provides a substantially lower axle pressure, which reduces pressure damage in the field and also makes it possible to drive with a higher total weight on roads.

The rear axle is a secondary axle that can be hydraulically locked for driving in reverse and on roads. These axles are available on the K105/135/165 models in the Bredal product range.

The axles are spring-mounted and can be fitted with both hydraulic and pneumatic brakes. An ALB regulator for ideal braking is standard on bogies with pneumatic brakes.

Weight cells are not available for K105 with a bogie axle. Weight cells are available on K135/165.

### > STEERING AXLE FOR ISOBUS-CONTROLLED SPREADERS

To avoid crop damage during late application of fertiliser, Bredal provides a steering axle, so the spreader follows in the tractor's tracks (available on single-axle models only).

A steering axle constantly corrects itself to follow in the tractor's tracks, thus causing less damage when turning in headland.













1 > K65 IN REDPAINTED STAINLESS STEEL with cover over spread discs 2 > BOGIE WITH PLASTIC MUDGUARDS3 > STEERING AXLE 4 > BOGIE WITH PNEUMATIC BRAKES 5 > HITCH K105 BOGIE spreaders have no undercarriage, only the hitch 6 > LIME BEING SPREAD with a K165 lime spreader

# COMPUTERISED CONTROL/ISOBUS





### > HYDRAULIC RATING VIA ISOBUS

The ISOBUS solution was jointly developed with Teejet Technologies®, resulting in newly-developed software with a host of new functions. The most important functions include adapting the volume for driving in wedges and leftover widths and activation/deactivation of application in the headland (requires the tractor's VT terminal to have section control). Another new feature is the built-in tilt sensor which adjusts the application rate when driving in hilly terrain and, if the spreader is equipped with weight cells, it adjusts the weighing signal so that the correct weight is always shown, also when driving in hilly terrain. The weight cells enable automatic correction of the application rate during operation. In addition, the entire user interface has been modified to enhance the user-friendliness and simplify the daily entering of settings.

Bredal uses the ISOBUS standard ISO 11783, so the system is compatible with all screens that use this standard.

If the tractor does not have an ISOBUS terminal, Bredal offers an ISOBUS terminal from Müller, with the software required to ensure ideal use of all functions.

# > BENEFITS OF COMPUTERISED CONTROL

- Simple, fast entering of application rate kg/ha, working width, material density and opening of rear door
- Weight-based verification of applied volume (only possible for spreaders equipped with weight cells)
- Prepared for GPS graduation of application volume
- · Connection to N sensor available
- Manual graduation of application volume +/- %
- Quick change of working width (for leftover width in the field)
- Automatic starting and stopping in the field possible

# > THE FOLLOWING ITEMS ARE VIEWABLE ON THE DISPLAY (EXAMPLES)

- PTO speed
- Forward speed (km/h)
- Area (ha)
- Working width (metres)
- Total kg spread
- Kg in the hopper (only available if the spreader is equipped with weight cells)
- Headland spreading on/off









### > K45 TECHNICAL SPECIFICATIONS

Capacity:3.50 m³with hopper extension:4.70 m³Net weight:1600 kgOverall length:5600 mmStandard spread unit:SPC4500-1

Hopper length: 2876 mm
Hopper width: 1800 mm
Loading height, min.: 2020 mm
Loading height, max.: 2520 mm
Minimum width, outside wheels: 1700 mm
Maximum width, outside wheels: 2600 mm
Biggest possible wheel diameter: \$\vert 1600 \text{ mm}\$







# K62

### > K62 TECHNICAL SPECIFICATIONS

Capacity: $4.5 \text{ m}^3$ with hopper extension: $5.7 \text{ m}^3$ Net weight:2000 kgOverall length:5600 mmStandard spread unit:SPC4500-1

Hopper length: 2877 mm
Hopper width: 1800 mm
Loading height, min.: 2290 mm
Loading height, max.: 2890 mm
Minimum width, outside wheels: 1750 mm
Maximum width, outside wheels: 2700 mm
Biggest possible wheel diameter: \$\pi\$1850 mm





# K65

### > K65 TECHNICAL SPECIFICATIONS

Capacity:5.00 m³with hopper extension:6.36 m³Net weight:2000 kgOverall length:5600 mmStandard spread unit:SPC4500-1

Hopper length:2976 mmHopper width:2000 mmLoading height, min.:2215 mmLoading height, max.:2815 mmMinimum width, outside wheels:1750 mmMaximum width, outside wheels:2700 mmBiggest possible wheel diameter:ø1850 mm





### > K82 TECHNICAL SPECIFICATIONS

Capacity:6.00 m³with hopper extension:7.75 m³Net weight:2800 kgOverall length:6850 mmStandard spread unit:SPC4500-2

Hopper length: 3800 mm
Hopper width: 2000 mm
Loading height, min.: 2475 mm
Loading height, max.: 2975 mm
Minimum width, outside wheels: 2250 mm
Maximum width, outside wheels: 2800 mm
Biggest possible wheel diameter: Ø2300 mm





# **K85**

### > K85 TECHNICAL SPECIFICATIONS

Capacity: $6.60 \text{ m}^3$ with hopper extension: $8.40 \text{ m}^3$ Net weight:2800 kgOverall length:6850 mmStandard spread unit:SPC4500-2

Hopper length:3916 mmHopper width:2000 mmLoading height, min.:2385 mmLoading height, max.:2885 mmMinimum width, outside wheels:2250 mmMaximum width, outside wheels:2800 mmBiggest possible wheel diameter:ø2300 mm





# K102

### > K102 TECHNICAL SPECIFICATIONS

Capacity:7.60 m³with hopper extension:9.40 m³Net weight:3200 kgOverall length:6850 mmStandard spread unit:SPC4500-2

Hopper length: 3916 mm
Hopper width: 2000 mm
Loading height, min.: 2704 mm
Loading height, max.: 3254 mm
Minimum width, outside wheels: 2350 mm
Maximum width, outside wheels: 2900 mm
Biggest possible wheel diameter: Ø2300 mm





# K105

### > K105 TECHNICAL SPECIFICATIONS

Capacity:9.00 m³with hopper extension, 23 cm11.00 m³with hopper extension, 50 cm14.00 m³Net weight:3200 kgOverall length:6850 mmStandard spread unit:SPC4500-2

Hopper length:4016 mmHopper width:2200 mmLoading height, min.:2627 mmLoading height, max.:3447 mmMinimum width, outside wheels:2350 mmMaximum width, outside wheels:2900 mmBiggest possible wheel diameter:ø2300 mm





# K105 BOGIE

### > K105 BOGIE TECHNICAL SPECIFICATIONS

Capacity:9.0 m³with hopper extension, 23 cm:11.0 m³with hopper extension, 50 cm14.0 m³Net weight:5500 kgOverall length:7200 mmStandard spread unit:5PC4500-2

Hopper length: 4016 mm
Hopper width: 2200 mm
Loading height, min.: 2750 mm
Loading height, max.: 3136 mm
Minimum width, outside wheels: 2750 mm
Maximum width, outside wheels: 2850 mm
Biggest possible wheel diameter: ø1475 mm





# K135

### > K135 TECHNICAL SPECIFICATIONS

Capacity:12.00 m³with hopper extension:14.90 m³Net weight:6500 kgOverall length:8695 mmStandard spread unit:SPC4500-2

Hopper length: 5696 mm
Hopper width: 2200 mm
Loading height, min.: 2800 mm
Loading height, max.: 3000 mm
Minimum width, outside wheels: 2750 mm
Maximum width, outside wheels: 2900 mm
Biggest possible wheel diameter: ø1675 mm





# K165

### > K165 TECHNICAL SPECIFICATIONS

Capacity:15.60 m³with hopper extension:18.95 m³Net weight:6800 kgOverall length:8695 mmStandard spread unit:SPC4500-2

Hopper length: 5846 mm
Hopper width: 2500 mm
Loading height, min.: 2950 mm
Loading height, max.: 3000 mm
Minimum width, outside wheels: 2750 mm
Maximum width, outside wheels: 2900 mm
Biggest possible wheel diameter: ø1675 mm











# **HITCHES**

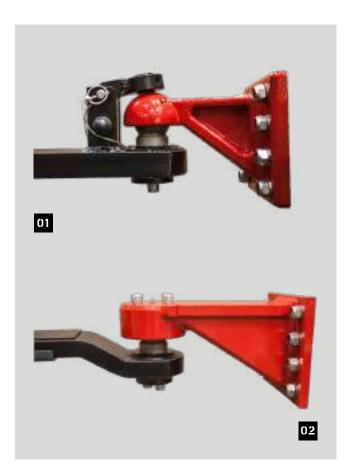
The Bredal ring hitch has a rotatable ring hitch with a  $\emptyset 32$  or  $\emptyset 50$  wheel.

The hitch also has a replaceable ring so the wearing part itself can be replaced.

To avoid wear on drawbar and ring hitch, Bredal also provides wearing washers to provide additional protection of the hitch components.

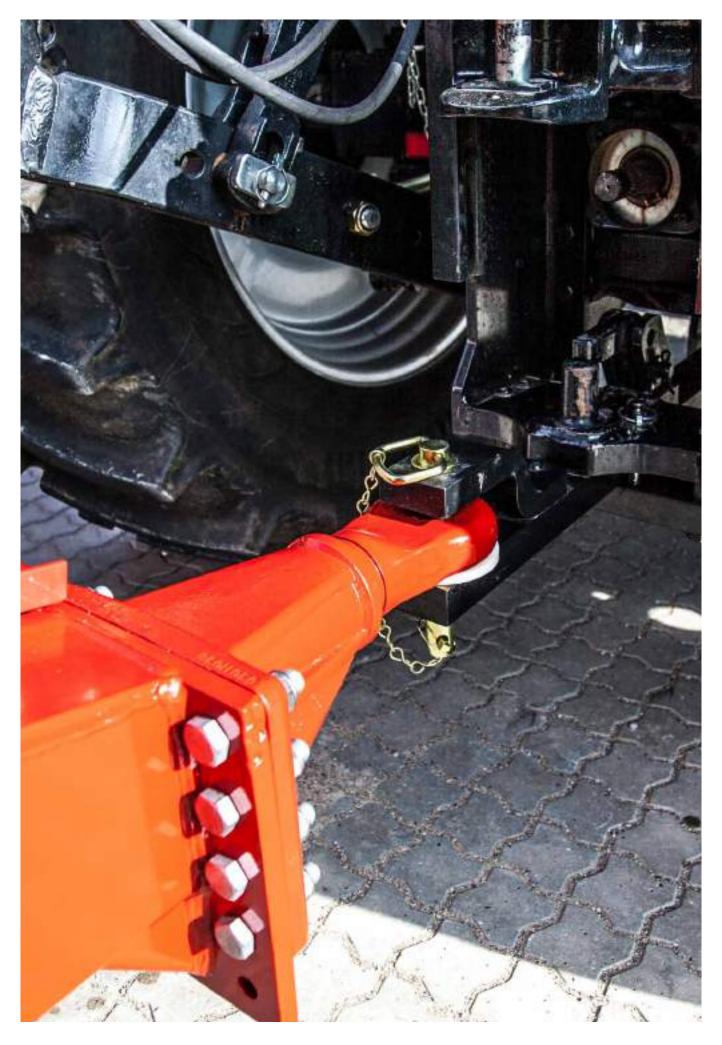
A Bredal Ring Hitch is also available for automatic trailer coupling.

Two different ball hitch models are also available from Bredal. The ball hitch is made of cast steel and the ball cup fits an 80-mm ball.









Both   Page	EQUIPMENT OVERVIEW		K45		K62			K65		
Tertiliser equipment, 12-36 metres  24-36 m sproading discs, type: "I1"  24-36 m sproading discs, type: "I1"  3	EQUIPMENT	Standard	Optional accessories	Not possible	Standard	Optional accessories	Not possible	Standard	Optional accessories	Not possible
24-36 m spreading dises, type: "H'  Rear door, stankless steel  Dises, precuratio  Belt-licial reducer, hydraulic  Belt-licial	lime equipment, 12–16 metres	o			0			0		
Rear door, stainless steel    O	fertiliser equipment, 12–36 metres		0			0			0	
Brakes, hydraulic Brakes, hydraulic Brakes, preumatic Gear, 567-1000, *ero gear' Gear, 567-1000, *ero	24-36 m spreading discs, type: 'H'		0			0			0	
Brakes, pneumatic Bell-load reducer, hydraulic Bell-load reducer, hydraulic Bell-load reducer, hydraulic Bear, 540-1000 - 1000-540 Gear, 670-1000, *ercopear* Mudghards, pleaste Mudghards, pleaste Gear, 670-1000, *ercopear* Gear, 670-1	Rear door, stainless steel	0			0			0		
Beit load reducer, hydraulic         0	Brakes, hydraulic		0			0			0	
Gear, 540–1000, or 1000–540 Gear, 570–1000, 'ero gear'  Ge	Brakes, pneumatic		0			0			0	
Geat. 670 1000, "eco gear"	Belt-load reducer, hydraulic			0			0			۰
Mudguards, plastic  Landwheel drive, mechanical  Headland gear for headland spreading  Headland gear for headland spreading  Hopper, painted stanless steel  O O O O O O O O O O O O O O O O O O O	Gear, 540–1000 or 1000–540		0			0			0	
Landwheel drive, mechanical  IPIU, PTO-driven hybrid power unit  Headand page for headland spreading  Repaired stainless steel  Ropper, painted stainless steel  Ropper extension, 25 cm  Ropper extension, 25 cm  Ropper extension, 25 cm  Ropper extension, 26 cm  Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension  Ropper extension Ropper extension Ropper extension Ropper extension Ropper	Gear, 670–1000, "eco gear"		0			0			0	
HPU, PTO-driven hybrid power unit Headland gear for headland spreading Depoet, patiented stainless steel light boom Dever transfer, 6.2 PTO shaft with wide angle Depoet, patiented stainless steel light boom Dever transfer, 6.2 PTO shaft with wide angle Depoet transfer, 6.2 PTO shaft with said with wide angle Depoet transfer, 6.2 PTO shaft with said with wide angle Depoet transfer, 6.2 PTO shaft with said with wide angle Depoet transfer, 6.2 PTO shaft with said with with said	Mudguards, plastic		0			0			0	
Iteacland gear for headland spreading	Landwheel drive, mechanical	0			0			0		
Hopper extension, 25 cm	HPU, PTO-driven hybrid power unit									
Hopper extension, 25 cm	Headland gear for headland spreading		0			0			0	
Hopper extension, 50 cm	Hopper, painted stainless steel		0			0			o	
Power transfer, 6z PTO shaff with wide angle LED light kit in stainless steel light boom Calibration kit Calibration kit Cover, hydraulically operated, including 23-cm hopper extension Cover, hydraulically operated, including 50-cm hopper extension Cover over spread discs Cover, rough and a controlled cover over spread discs Cover, rough and a cover over spread discs Cover over spread discs Cover, rough and a cover over spread discs Cover, rough and a cover over spread discs Cover, rough and a cover over spread discs Cover over spread discover over spread cover discover disco	Hopper extension, 23 cm		0			0			0	
LED light kit in stainless steel light boom         0 <td>Hopper extension, 50 cm</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td>•</td>	Hopper extension, 50 cm			0			0			•
Calibration kit       0       0       0       0         Micro-dosing equipment       0       0       0       0         Cover, kydraulically operated, including 23-cm hopper extension       0       0       0       0         Cover, kydraulically operated, including 50-cm hopper extension       0       0       0       0       0         Cover vore spread discs       0        0	Power transfer, 6z PTO shaft with wide angle	0	1		0			0		
Micro-dosing equipment Cover, hydraulically operated, including 23-cm hopper extension Cover, hydraulically operated, including 50-cm hopper extension Cover over spread discs Cover over spread discs Cover over spread discs Cover, hydraulically operated, including 50-cm hopper extension Cover over spread discs Cover over spread discs Cover, roller, manual including gables Late application equipment O Cover, roller, manual including gables Late application equipment O Cover, roller, manual including gables Cover, roller, manual including gables Late application equipment O Cover, roller, manual including gables Late application equipment O Cover, roller, manual including gables Cover, roller, manual including gables Late application equipment O Cover, roller, manual including gables Cover,	LED light kit in stainless steel light boom	0	İ		0			0		
Cover, hydraulically operated, including 23-cm hopper extension         0 <td>Calibration kit</td> <td></td> <td>١,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td>	Calibration kit		١,						0	
Cover, hydraulically operated, including 23-cm hopper extension         0 <td>Micro-dosing equipment</td> <td></td> <td>•</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td>	Micro-dosing equipment		•			0			0	
Cover, hydraulically operated, including 50-cm hopper extension         0 <td></td> <td></td> <td>•</td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td>0</td> <td></td>			•			0			0	
Cover over spread discs  Cover, roller, manual including gables  Late application equipment  Cover, stainless steel  Cover, st			†	<b>.</b>						•
Cover, roller, manual including gables         0         0         0           Late application equipment         0         0         0           Screen, stainless steel         0         0         0           Spreading discs for turf dressing, type: rubber coated         0         0         0           Spread unit, Mydraulic         0         0         0         0           Spread unit, SPC4500-1         0         0         0         0           Spread unit, SPC4500-2         0         0         0         0           Spread unit, SPC4500-R         0         0         0         0           Ladder         0         0         0         0           Steering axle, ISOBUS controlled         0         0         0         0           Computerised control, ISOBUS         0         0         0         0           Jacks, hydraulic         0         0         0         0           Jacks, hydraulic         0         0         0         0           Jacks, hydraulic         0         0         0         0           Jacks, mechanical         0         0         0         0           Steps inside the hopper         0 </td <td></td> <td></td> <td>١,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td>			١,						0	
Late application equipment  Screen, stainless steel  Spreading discs for turf dressing, type: rubber coated  Spread unit, hydraulic Spread unit, SPC4500-1 Spread unit, SPC4500-2 Spread unit, SPC4500-2 Spread unit, SPC4500-8 Ladder  Steering axie, ISOBUS controlled  Computerised control, ISOBUS  Jacks, hydraulic Jacks, mechanical Steps inside the hopper  Hitch, Bredal 2500 ring hitch for automatic trailer coupling Hitch, Bredal 5000 ball hitch  Steed 1500	•								0	
Screen, stainless steel         0         0         0           Spreading discs for turf dressing, type: rubber coated         0         0         0           Spread unit, hydraulic         0         0         0         0           Spread unit, SPC4500-1         0         0         0         0           Spread unit, SPC4500-2         0         0         0         0           Spread unit, SPC4500-R         0         0         0         0           Ladder         0         0         0         0         0           Steering axle, ISOBUS controlled         0         0         0         0         0           Computerised control, ISOBUS         0         0         0         0         0         0         0           Jacks, hydraulic         0						-				
Spreading discs for turf dressing, type: rubber coated         0         0         0           Spread unit, hydraulic         0         0         0         0           Spread unit, SPC4500-1         0         0         0         0           Spread unit, SPC4500-2         0         0         0         0           Spread unit, SPC4500-R         0         0         0         0           Ladder         0         0         0         0           Steering axle, ISOBUS controlled         0         0         0         0           Computerised control, ISOBUS         0         0         0         0           Jacks, hydraulic         0         0         0         0           Jacks, hydraulic         0         0         0         0           Steps inside the hopper         0         0         0         0           Hitch, Bredal 2500 ring hitch for automatic trailer coupling         0         0         0         0           Hitch, Bredal 4000 ball hitch         0         0         0         0         0           Hitch, Bredal 5000 ring hitch with 32/50 mm hole         0         0         0         0           Weight cells         0			+			<u> </u>			•	
Spread unit, hydraulic         0			+ -							
Spread unit, SPC4500-1         0			+ -			<u> </u>				
Spread unit, SPC4500-2         0		0	†		0			•		
Spread unit, SPC4500-R         0			0			0			0	
Steering axle, ISOBUS controlled   0	Spread unit, SPC4500-R		<del>†                                      </del>							
Computerised control, ISOBUS       0        0       0       0       0       0       0       0       0       0       0       0       0       0       0       0        0       <	Ladder	0			o			0		
Jacks, hydraulic       0       0       0         Jacks, mechanical       0       0       0       0         Steps inside the hopper       0       0       0       0         Hitch, Bredal 2500 ring hitch for automatic trailer coupling       0       0       0       0         Hitch, Bredal 4000 ball hitch       0       0       0       0       0         Hitch, Bredal 5000 ring hitch with 32/50 mm hole       0       0       0       0       0         Weight cells       0       0       0       0       0       0       0         Inspection window in front plate       0       0       0       0       0       0       0       0         6-metre auger       0	Steering axle, ISOBUS controlled		0			0			0	
Jacks, mechanical       0	Computerised control, ISOBUS		0			0			0	
Steps inside the hopper       0       0       0       0         Hitch, Bredal 2500 ring hitch for automatic trailer coupling       0       0       0       0         Hitch, Bredal 4000 ball hitch       0       0       0       0         Hitch, Bredal 5000 ball hitch       0       0       0       0         Hitch, Bredal 5000 ring hitch with 32/50 mm hole       0       0       0       0         Weight cells       0       0       0       0       0         Inspection window in front plate       0       0       0       0         Tiltable hopper edge for lower loading height       0       0       0       0         6-metre auger       0       0       0       0       0         12-metre auger       0       0       0       0       0         Sand belt       0       0       0       0       0	Jacks, hydraulic		0			0			0	
Hitch, Bredal 2500 ring hitch for automatic trailer coupling  Hitch, Bredal 4000 ball hitch  Hitch, Bredal 5000 ball hitch  Hitch, Bredal 5000 ring hitch with 32/50 mm hole  Weight cells  Inspection window in front plate  Tiltable hopper edge for lower loading height  6-metre auger  12-metre auger  Sand belt  O  O  O  O  O  O  O  O  O  O  O  O  O	Jacks, mechanical	0			0			0		
Hitch, Bredal 4000 ball hitch  Hitch, Bredal 5000 ball hitch  Hitch, Bredal 5000 ring hitch with 32/50 mm hole  Weight cells  Inspection window in front plate  Tiltable hopper edge for lower loading height  6-metre auger  12-metre auger  Sand belt  O  O  O  O  O  O  O  O  O  O  O  O  O	Steps inside the hopper	0	1		0			0		
Hitch, Bredal 4000 ball hitch  Hitch, Bredal 5000 ball hitch  Hitch, Bredal 5000 ring hitch with 32/50 mm hole  Weight cells  Inspection window in front plate  Tiltable hopper edge for lower loading height  6-metre auger  12-metre auger  Sand belt  O  O  O  O  O  O  O  O  O  O  O  O  O	Hitch, Bredal 2500 ring hitch for automatic trailer coupling	0	1		0			•		
Hitch, Bredal 5000 ball hitch       0       0       0       0         Hitch, Bredal 5000 ring hitch with 32/50 mm hole       0       0       0       0         Weight cells       0       0       0       0         Inspection window in front plate       0       0       0       0         Tiltable hopper edge for lower loading height       0       0       0       0         6-metre auger       0       0       0       0       0         12-metre auger       0       0       0       0       0         Sand belt       0       0       0       0       0		0	1		0			•		
Weight cells  Inspection window in front plate  Tiltable hopper edge for lower loading height  6-metre auger  12-metre auger  Sand belt  O  O  O  O  O  O  O  O  O  O  O  O  O	Hitch, Bredal 5000 ball hitch	0	†		0			•		
Weight cells  Inspection window in front plate  Tiltable hopper edge for lower loading height  6-metre auger  12-metre auger  Sand belt  O  O  O  O  O  O  O  O  O  O  O  O  O		0	†		0			0		
Inspection window in front plate  O O O O O O O O O O O O O O O O O O		+ -	•			•			•	
Tiltable hopper edge for lower loading height  6-metre auger  12-metre auger  Sand belt  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			†		0			0	_	
6-metre auger 12-metre auger  Sand belt  0 0 0 0 0 0		<del>-   •</del>	t				0	Ť		•
12-metre auger  Sand belt  O O O O O O O	6-metre auger	<del>-  </del>	+	Ť						Ť
Sand belt 0 0 0	12-metre auger		1	•			0			0
	Sand belt		<b> </b> •			0			•	
	Side conveyor		0			0			0	

# SINGLE-AXLE MODELS

SINGLE-AXLE MODELS												1
K82 K85					1	K102 K105					5	
Standard	Optional accessories	Not possible	Standard	Optional accessories	Not possible	Standard	Optional accessories	Not possible	Standard	Optional accessories	Not possible	EQUIPMENT
0			•			0			0			lime equipment, 12–16 metres
	0			0			0			0		fertiliser equipment, 12–36 metres
	0			0			0			0		24-36 m spreading discs, type: 'H'
0			0			0			0			Rear doors, stainless steel
0			0			0			0			Brakes, hydraulic
	0			0			0			0		Brakes, pneumatic
		0			0			0		0		Belt-load reducer, hydraulic
	0			0			0			0		Gear, 540–1000 or 1000–540
	0			0			0			0		Gear, 670–1000, "eco gear"
	0			0			0			0		Mudguards, plastic
0			0			0			0			Landwheel drive, mechanical
	0			0			0			0		HPU, PTO-driven hybrid power unit
	0			0			0			0		Headland gear for headland spreading
	0			0			0			0		Hopper, stainless steel
	0			0			0			0		Hopper extension, 23 cm
		0			0			0		0		Hopper extension, 50 cm
0			0			0			0			Power transfer, 6z PTO shaft with wide angle
0			0			0			0			LED light kit in stainless steel light boom
	0			0			0			0		Calibration kit
	0			0			0			0		Micro-dosing equipment
	0			0	<u> </u>		0			0		Cover, hydraulic, including 23-cm hopper extension
		0			0			0		0		Cover, hydraulic, including 50-cm hopper extension
	0			0			0			0		Cover over spread discs
	0			0			0			0		Cover, roller, manual including gables
	0			0			0			0		Late application equipment
	0			0			0			0		Screen, stainless steel
	0			0			0			0	<u> </u>	Spreading discs for turf dressing, type: rubber coated
												Spread unit, hydraulic
		0		_	0			0	<u> </u>		0	Spread unit, SPC4500-1
0			0	_		0			0		<u> </u>	Spread unit, SPC4500-2
												Spread unit, SPC4500-R
0			0		-	0			0			Ladder
	0			0	-		0			0	<u> </u>	Steering axle
	0		_	0			0		_	0		Computerised control, ISOBUS
0			0			0			0			Jacks, hydraulic
_	0		_	0		_	0			0		Jacks, mechanical
0			0	⊬	$\vdash$	0			0			Steps inside the hopper
0			0	$\vdash$	$\vdash$	0			0	$\vdash$		Hitch, Bredal 2500 ring hitch for automatic trailer coupling Hitch, Bredal 4000 ball hitch
0			0			0			0		<u> </u>	Hitch, Bredal 4000 ball hitch
0			0			0			0			
0	0		۳	0	$\vdash$	0	0		۳	0		Hitch, Bredal 5000 ring hitch with 32/50 mm hole Weight cells
0	"			"		0	"			"	<u> </u>	Meight cetts  Inspection window in front plate
U		0	۳		0	J		0	۳			Tiltable hopper edge for lower loading height
		۳	$\vdash$	$\vdash$	۳						۳	6-metre auger
		0		$\vdash$				0			<u> </u> 	12-metre auger
	0		_	0	۳		0			0	<u> </u>	Sand belt
	۳	0	$\vdash$	0	$\vdash$			0		0		Side conveyor
									<u> </u>		l	Side Conveyor

# **BOGIE MODELS**

BOGIE MODELS											
I	K105	5	I	K135		K165					
Standard	Optional accessories	Not possible	Standard	Optional accessories 63	Not possible	Standard	Optional accessories	Not possible			
0			0			0					
	0			0			0				
	0			0			0				
0			0			0					
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Throughout a lifetime, Bredal has specialized in the development and manufacture of high-quality lime and fertilizer spreaders for easy operation and a robust construction. In recent years, however, the products also include winter equipment such as sand and salt spreaders.

In the export markets, the interests of the company are taken care of by local importers, who also assist in the sale, service and support of Bredal's products.

Bredal has state-of-the-art production and testing facilities using the latest technologies to ensure that the quality of the products is top notch.

# SIMPLE PRECISE RELIABLE