



# SIMPLE PRECISE RELABL



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## **CONTENTS**

| Product Summary4                             |
|--|
| Construction6                                |
| Spreading Lime8                              |
| Spreading Fertiliser9                        |
| Headland Spreading10                         |
| Spreading Tests 11                           |
| Testing                                      |
| Tyres  |
| Computer / ISOBUS 14                         |
| Included Extras15                            |
| Optional Extras18                            |
| F2WD / F4RF (Linkage) 20                     |
| F8 / F10 (Trailing Granule) 22               |
| K-Series WD (Trailing Multi-Combination)24   |
| K-Series VR (Trailing Multi-Combination)     |
| XE K-Series (Long Range Multi-Combination)28 |
| Spreader Setup Guide 30                      |
| Service Support                              |
| Contact Bredal Australia 32                  |



## **BREDAL PRODUCES THREE SPREADER TYPES:**

Linkage spreaders: 4m<sup>3</sup> Capacity (Fertiliser) F-Spreaders: 10m<sup>3</sup> - 13.4m<sup>3</sup> Capacity (Fertiliser) K-spreaders: 6.5m<sup>3</sup> - 21m<sup>3</sup> capacity (Multi-Combination)

Bredal spreaders can spread various materials including:

- $\Rightarrow$  Fertiliser
- $\Rightarrow$  Lime
- $\Rightarrow$  Gypsum
- $\Rightarrow$  Ammonia Sulphate
- $\Rightarrow$  Sand (Top Dressing)
- $\Rightarrow$  Compost
- $\Rightarrow$  Ashes
- $\Rightarrow$  Powdered materials

The F-Series and the K-Series from K45 to K105 are all Single axle, K135 is standard with bogie axles.

Bredal Spreaders generally come in two specifications, a simple wheel drive and the high spec variable rate spreaders. Among this wide range of sizes and variations, there is always a Bredal model to suit individual requirements.



|           | НІТСН                | PRODUCT               | CAPACITY                            | SPREAD WIDTH      |          |
|-----------|----------------------|-----------------------|-------------------------------------|-------------------|----------|
|           | F-SERIES<br>K-SERIES | GRANULE               | 4M <sup>3</sup>                     |                   |          |
| F-SERIES  |                      | GRANULE               | $10M^3 + 13.4M^3$                   | Urea 36m          |          |
| K-SERIES  |                      | · · · · · – ·         | 6.5M <sup>3</sup> —21M <sup>3</sup> | Lime 18m          |          |
|           | TRAILING             | MULTI-<br>COMBINATION | -                                   | $13.4M^3 + 21M^3$ | Urea 50m |
| XE-SERIES |                      |                       | 13.4101 + 21101                     | Lime 24m          |          |



## CONSTRUCTION

Bredal spreaders have a robust construction and are designed for professional use. Bredal is constructing every component of each machine with optimal reliability and strength to ensure the longest possible working life.

#### CONSTRUCTION

All Bredal K-spreaders are equipped with 10 hole hubs. The axles can be chosen in different widths to suit the required track width.

The construction of the whole machine is designed to resist heavy loads that occur under practical conditions in the field.

Bredal always tests meticulously before launching products onto the market and also carries out comprehensive spreading tests with different products. Customers can therefore be confident in the performance of the machines as they will have been thoroughly tested under a wide range of conditions before being introduced to the market. All single axled Bredal spreaders are built with a heavy constructed chassis and a very durable axle.

The spreaders are available with or without hydraulic brakes. Hydraulic brakes are standard on bogie axles. Active steering axles are also available to allow the spreader to follow the tractor.

In construction priority has been given to simplification of daily maintenance to minimise downtime. An example of this is the rollers in the floor belt frame, which are made of plastic with a central axle of stainless steel, bearings are made of plastic and are fully maintenance free. The spreading floor belt support frame and all guarding around the spreading unit are made of stainless steel to prevent corrosion ensuring a long working lift.

The frame is built of heavy profiled metal and is reinforced at all exposed areas, the hopper is built of 3-4mm plate and is equally reinforced at exposed areas. The robust construction results in very good durability of the spreader.

#### POWDER COATING

All painted parts on Bredal spreaders are painted with 2 layers of powder paint which gives a strong surface, a good corrosion protection and a beautiful finish.

Bredal spreaders are designed as high-quality machines with longest possible working lift, and in this context qualitative paint finish is vital.

Bredal has made a huge investment in the painting process and the painting facilities, which includes shot-blasting of all parts and powder painting of both primer and top coat layers before assembly. The Bredal painting facilities are one of the most modern of its kind.

The powder painting system has been specially developed to provide the highest corrosion and wear resistance, necessary for tough environment, with particular attention to an equal thickness of paint over all surfaces including around corners or sharp edges.

#### MECHANICAL DRIVE WHEEL

The mechanical drive wheel system on the Bredal spreader is the most simple and reliable way to provide ground related dosing when electronics is not required. The drive wheel is by heavy spring pressure pressed onto the spreader wheel to guarantee that the forward speed is accurately transferred via a 3 shaft gearbox to the floor belt without risk of slip and thereby controls the dosage.

The system is constructed in the way that makes it possible to switch to another wheel mounting without influencing the precision of application rate.

A strong 3-shaft gearbox provides a wide range of application rate.

The dosing system on all Bredal spreaders is by Volume, a method which means that simple by knowing the material bulk density (kg/L) and the required application rate (kg/ha), the spreader can be quickly set to give the precise application rate.

The Bredal system means that there is only one spreading chart for any material to be spread—a simple, precision and reliable solution. It is not necessary to perform outflow tests or similar to set the dosing.

#### HYDRAULIC VARIABLE RATE

Bredal spreaders can be supplied as a high spec hydraulic drive system which gives the customer full variable rate spreading and even section control on the F-Series and the K-Series XE Spreaders.

The hydraulic drive system is an easy to setup, with low rate hydraulic requirement from the tractor and very accurate and reliable to operate. The system includes high micron filters to ensure the oil is kept clean for the tractor and the spreader.

The hydraulic drive system is well suited to customers incorporating prescription applications for variable rate spreading. The Bredal specialises in accuracy when adjusting dosage rates from varied speed and more importantly from variable rate prescription mapping. All of this is achieved automatically without the need for any mechanical adjustments.

#### MODULE-BUILT SPREADERS

As a new solution the K-Series spreader chassis are built in a more flexible way. For example truck mounted spreaders can be designed and manufactured to suit applications to ensure required spreading disc heights are achieved.

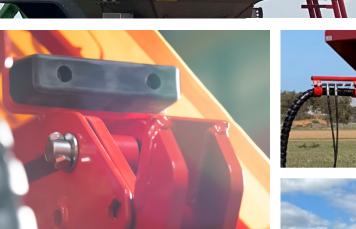
Another option is high clearance spreaders. All single axle spreaders can be made to a high clearance version which offers more space under the spreader for crop canopy clearance. These spreaders are made with a high drawbar.

















### **SPREADING OF LIME**







#### Applicable to Bredal K-Series Spreaders.

Bredal strongly dimensioned spreading unit allows to spread up to 1600kg/min. With the help of lime spreading equipment it is possible to spread common agricultural lime at working width of up to 16m.

The spreading system is hydraulic driven piston spinner gearboxes, the same gearboxes on the linkage through to the biggest trailing spreader.

As part of the spreader setup, the spreading unit can be adjusted back and forth, this will allow optimal spreading to be achieved.

The spreading unit is designed to spread very big amounts. The unit is formed in the way that spread material goes out with a slight increase to provide wider and more precise spreading.

The vanes are reinforced to resist heavy loads when spreading up to 1600 kg/min.

For spreading Lime & Gypsum, Bredal can supply two types of discs:

- ⇒ SPREAD DISC \*K\* 8 16m spread width (K-Series)
- ⇒ SPREAD DISC \*X\* 18m 24m spread width (K-XE Series)

## **SPREADING OF FERTILISER**

#### Applicable to all Bredal Spreaders.

For spreading fertiliser all Bredal spreaders can be quickly converted from lime to spreading by changing the down chute and the two spreading discs.

Bredal spreaders work according to the 4-double overlap principle, when each disc is spreading the double working width. This principle ensure achieving good spreading results. Full overlap for 24m spreading.

Fertiliser is delivered to the centre of each disc without touching the vanes, where it is then accelerated even before contacting the vanes. This reduces considerably the risk of damaging the fertiliser in the process of spreading.

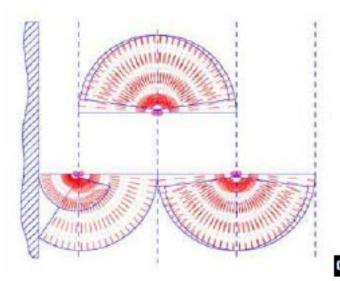
The 6 vanes mounted on each disc share the load of the fertiliser being sent out in smaller portions hence securing the spreading process.

The large diameter ( $\emptyset$  720mm) of spreading discs provides a high rate of acceleration for fertiliser granules just before they leave the disc. At Spinner speed of 1000 rpm fertiliser granules accelerate up to 250 km/hr which considerably reduces wind sensitivity.

For spreading Granule products such as Urea, Potash or Ammonium Sulphate, Bredal can supply two types of discs:

- ⇒ SPREAD DISC \*H\* 24m 36m spread width (F & K-Series)
- ⇒ SPREAD DISC \*H\* 30—45m spread width (K-XE Series)
- $\Rightarrow$  SPREAD DISC \*Z\* 42m 50m spread width (K-XE Series)

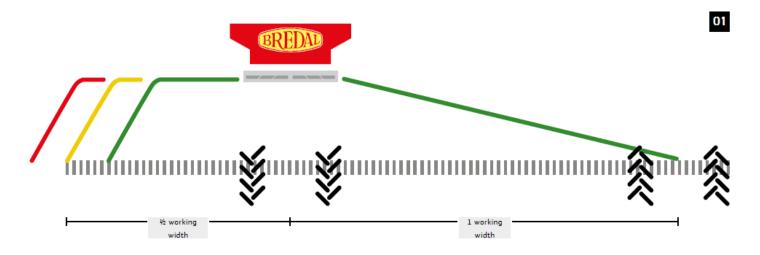






1 > Fertiliser Equipment with Hydraulically Controlled Guide Plates (for headland spreading) 2 > Bredal Spreading Principle of 4 Double Overlap 3 > H-Discs used specifically for spreading Granula Urea, Potash and Ammonium Sulphate.

## **HEADLAND SPREADING**



The unique headland system on a Bredal spreader works from a combination of automatic adjustments to the spreading system, resulting in a reduced spread distance towards the headland. The disc on the paddock side is not affected and retains the optimum spread towards the next track and ensures the full overlap.

Thanks to the Bredal system of headland spreading, an accurate boundary at the division line will be achieved at the same time of preserving the actual spreading pattern towards the middle of the paddock. (Refer above spread pattern).

For all Bredal spreaders, the headland system is controlled by hydraulically adjusting the speed of the Piston spinner gearbox on the paddock boundary side, and reducing the rate by up to 15% to compensate for reduced overlap.

For all F-Series and XE K-Series Spreaders, they are a combination of reduced spinner speed, reduced rate and automatically adjusting the position of the down chute. This ensures the best possible spreading result is achieved.



Hydraulic Driven Piston Spinner Gearbox—Direct drive onto the Spinners.

## **SPREADING TESTS**

#### $\Rightarrow$ TESTED SPREADERS

All Bredal spreaders are regularly tested with a wide range of fertiliser types at the independent spreading test centre at Bygholm (part of Aarhus University).

Test results are based on weighing cells technique, according to which it is the actual spread amount collected in each tray which is taken for results evaluation, NOT a theoretical calculation.

Bredal uses this very testing centre because the surrounding conditions here are as close to practical farming conditions as possible.

In Australia, we promote the use of Independent spreader testing to ensure you achieve the most optimal spread accuracy and consistency.

#### $\Rightarrow$ BREDAL TEST KIT

The Bredal test kit is used to perform practical spreading tests for the purpose of optimising the spreading pattern.

The kit consists of test plastic trays, dividers, measuring tubes with holders, a funnel, a granule strength tester and a sieve box to check the granule sizes.

#### $\Rightarrow$ SETTINGS

The few settings required for machine setup before starting the machine are easy. Spreader settings for various fertiliser types can be downloaded from the Bredal Australia website.

These settings are region and product specific and are susceptable to change each year given the variable factors of product, climate and spreader enhancements.



Testing Bredal K105-XESC by Australia Fertiliser Services Association.



1 > A sieve to monitor grain sizes 2 > Calibration kit 3 > Measuring tube 4 > Bredal test kit The test kit includes plastic trays with dividers, measuring tube, funnel, granule strength tester and a sieve 5 > Spreading test in the field with Bredal and test trays evenly positioned.

## **TYRES**

There is a number of possibilities when it comes to wheel equipment on a Bredal spreader. The spreaders are used in a variety of different situations and under different practical conditions.

Key deciding factors for choosing the correct tyre include soil compaction, crop compaction, controlled traffic with a requirement for narrow wheels, load carrying capacity and tread pattern.

The below table are the most common tyres that Bredal Australia offers. Make sure you consult with your local Bredal dealer for the best tyre to suit your spreader and your spreading requirements.





3



|             | Туре                   | Loaded Radius<br>(mm) | Rolling Circumference<br>(mm) | Flat Plat Area<br>(cm²) |
|-------------|------------------------|-----------------------|-------------------------------|-------------------------|
| 480/70R54   | Standard Lug Tyre      | 944 mm                | 5,931 mm                      | 2,194 cm <sup>2</sup>   |
| 480/80R42   | Standard Lug Tyre      | 847 mm                | 5,538 mm                      | 2,051 cm <sup>2</sup>   |
| 480/80R50   | Standard Lug Tyre      | 942 mm                | 6,135 mm                      | 2,322 cm <sup>2</sup>   |
| 520/85R46   | Standard Lug Tyre      | 920 mm                | 6,088 mm                      | 2,844 cm <sup>2</sup>   |
| 650/65-30.5 | T404 Floatation        | 710 mm                | 4,830 mm                      | 2,415 cm <sup>2</sup>   |
| 650/65R30.5 | Twin Radial Floatation | 792 mm                | 4,975 mm                      | 2,527 cm <sup>2</sup>   |
| 750/60-30.5 | T404 Floatation        | 710 mm                | 4,830 mm                      | 2,415 cm <sup>2</sup>   |
| 750/60R30.5 | Twin Radial Floatation | 756 mm                | 5,130 mm                      | 2,565 cm <sup>2</sup>   |

1 > T404 Floatation 2 > Twin Radial Floatation 3 > Standard Lug Tyre 4 > Nokian A550 Tyre (Speak to Bredal for info) NOTE: Tyre specifications listed above are a guide and depend on tyre manufacturer. Consult with Bredal Australia on exact tyre specifications. Tyre load ratings are "cyclic" at 10km/hr (non-driven and varying weight in spreader), speak with your local Bredal dealer for more information on tyre load ratings.

# **COMPUTER / ISO-BUS**

#### $\Rightarrow$ COMPUTER CONTROL

The Bredal computer control system is based on the Bredal principle of user-friendliness and simplicity for the operator.

The ISO-BUS module can be connected to a wide range of third party ISO-BUS displays that operate on ISO 11783. Any system on ISO 11783, can be incorporated to provide Variable Rate Application (VRA) spreading.

#### $\Rightarrow$ Control of rate via ISO-BUS

The ISO-BUS system is designed to be simple and user-friendly. Key features of this system is adjusting the rate automatically when driving into wedges and the automatic start/stop function at headland turning (section control spreader).

Another key feature is the tilt sensor for correcting the dosage when driving in steep conditions, by correcting the signals from the weighing cells to the control module for continuous accurate dosage.

#### $\Rightarrow$ Müller Terminal

Bredal offers the Müller terminal if your tractor does not have an ISO terminal. The following is displayed during operation:

- PTO speed
- Ground speed
- Spinner & conveyor speed
- Kg left in hopper
- Headland spreading on/off
- General job statistics
- Kg spread total
- GPS ready through RS232 serial connection.







## **INCLUDED EXTRAS**



#### $\Rightarrow$ TEST KIT

Test kit is used to perform spreader testing in the field. The kit contains test trays with dividers, measuring tubes, granule strength tester, a funnel and sieve box.

#### $\Rightarrow$ Calibration Kit

Stored conveniently on the spreader, the calibration kit can be used to quickly and accurately check the bulk density of the material to be spread.





#### $\Rightarrow$ SPINNER DRIVE

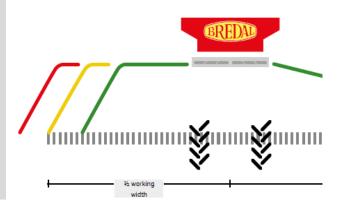
All Bredal spreaders come standard with hydraulic drive piston spinner gearboxes.

This system is relevant on all Linkage and trailing models with the same size hydraulic motors used on all Spreaders.

F-Series Trailing Spinner Drive pictured.

#### $\Rightarrow$ Headland Spreading

All Bredal spreaders come standard with headland spreading functionality. The system automatically adjusts the fence line spinner speed, reduces the rate by 15% and on F-Series and XE K-Series they also adjust the down chute position.





#### $\Rightarrow$ Belt load reducer

For especially heavy materials with high bulk density, a belt load reducer is included with Bredal Trailing K-Series Spreaders. It is used with the mesh screens if fitted (Optional Extra). F-Series spreaders do not require a belt load reducer as they are a dual belt machine.

#### $\Rightarrow$ LADDER

All Bredal spreader include a ladder. Trailing spreaders the ladder is positioned at the front of the bin (fold up) and Linkage spreaders are the rear as pictured.





#### $\Rightarrow$ WEIGHING SCALES

Weighing cells provide 100% control over product distribution. Scales are standard on all Variable Rate K-Series, F4, F8 & F10 spreaders. The Trailing spreader with weighing cells are also fitted with Terrain compensation sensors. These sensors are used by the spreader to correct the dosage in hilly conditions when the weighing cells are impacted by the spreader driving up, down hill or along the sides of hilly terrain.

#### $\Rightarrow$ ISOBUS OPERATION

Bredal is supported by TeeJet for ISOBUS functionality. This is the controller of the spreader for functions such as Terrain compensation, Variable rate, headland management, weighing cells all through the ISO 11783 Standard.





#### $\Rightarrow$ SPINNER DISCS

All F-Series spreaders come standard with \*H\* Discs for Granular products such as Urea, Potash and Ammonia Sulphate. These discs spread from 24m - 36m.

All K-Series spreaders come standard with \*H\* Discs and K Discs for Lime applications spreading from 12m - 18m.

XE K-Series spreaders come standard with \*H\* & \*K\* or can be upgraded to \*Z\* for Fertiliser (42m plus) and \*X\* for Lime (18m plus) applications.

#### $\Rightarrow$ HYDRAULIC DRIVE

All Bredal spreaders are Hydraulic drive as standard. The XE K-Series with Section control at HIGH rates will require PTO drive to handle the high loads on the machine. PTO is an added option only and you will need to speak with your local Bredal dealer for more information.





#### $\Rightarrow$ MANUAL HOPPER COVER

To protect hopper contents during road travel and spreading, a manual roll tarp cover is a standard feature on all Bredal spreaders. The F-Series Linkage spreaders have a wind over manual tarp cover.

#### $\Rightarrow$ JACK STAND

All Bredal Spreaders (except Linkage) come standard with a Jack Stand. The K45 & K65 spreaders are a manual Jack, and all the other spreaders are hydraulic operated Jack Stands.



## **OPTIONAL EXTRAS**



#### $\Rightarrow$ STAINLESS STEEL MESH SCREENS

When spreading produce it is important to have a screen inside the hopper to avoid lumps, mud etc. affecting the application rate. The screens are Stainless Steel suited to all models. F-Series spreaders are standard with Mesh Screens.

#### $\Rightarrow$ MUD GUARDS

Mudguards protect the spreading unit and spreading discs from any material being picked up by the wheels. There are various sizes to suit the size of wheel on your spreader.





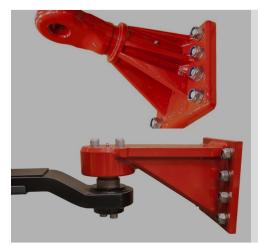
#### $\Rightarrow$ LOW RATE - MICRO DOSING

Micro dosing equipment is used for applying very low rates, such as slug pellets, rape seed, micro-fertilisers and mouse bait. It is possible to spread at rates down to 1Kg/ha. F-Series Linkage spreaders come standard with Micro Dosing Kits.

#### $\Rightarrow$ LED LIGHT KIT & OVERSIZE SIGN

F-Series Linkage spreaders come standard with LED tail lights. There is an option for all Bredal Trailing spreaders to have the LED tail light kit and oversize sign fitted as an optional extra.





#### $\Rightarrow$ BREDAL HITCHES

All Bredal trailing spreaders come standard with a type 5000 Hitch. All XE K-Series spreaders come standard with a type 4000 Hitch.

Standard K-Series and F-Series trailing spreaders have the option of type 4000 Hitch assemblies and drawbar Balls to suit your Tractor (CAT III / IV).

For any special welded hitches, speak to your local Bredal Dealer.

Type 5000 = Ring Hitch (Hi & Low Setting)

Type 4000 = Ball Hitch (Hi or Low Setting) (Optional Extra)

#### $\Rightarrow$ WHEELS

You have the option of four types of tyres to suit your spreader:

- T404 Floatation
- Twin Radial Floatation
- Standard Lug Tyre
- Nokian Tread Tyre (metal plate side wall).





#### $\Rightarrow$ AXLES

Bredal offers two size axles to suit your spreader:

- 2,150 mm
- 3,000 mm

Bredal offers Hydraulic brakes suited to any size single Axle.

If you have a specific track spacing, speak to your local Bredal Dealer about custom offset rims.

All trailing spreaders (except K135) are single Axle. K135 have a Walking Beam Bogie axle as standard with hydraulic brakes and rear axle self-steering.

#### $\Rightarrow$ ACTIVE STEERING

Active Steering is controlled steering that steers the spreader in the same wheel tracks as the tractor. Therefore, reducing crop knock-over.

Active Steering is available as a factory option for single axle Spreaders.



# F2WD & F4RF (LINKAGE) SPREADERS

Bredal Linkage spreaders are constructed with heavy profile metal and is reinforced at all exposed areas. The hopper built of 3-4mm stainless steel. The robust construction results in very good durability of the spreader.

Bredal's F2 linkage spreader is a combination of hydraulic and mechanically driven. The spinners are hydraulic, and the conveyors are wheel drive off the tractor wheel (small drive wheel). The F2 spreader uses simple and robust dosing mechanism, which mæns that dosing is constantly being adjusted automatically off the driving speed.

Bredal's F4 linkage spreader is full hydraulic drive incorporating Bredal's latest technologies including:

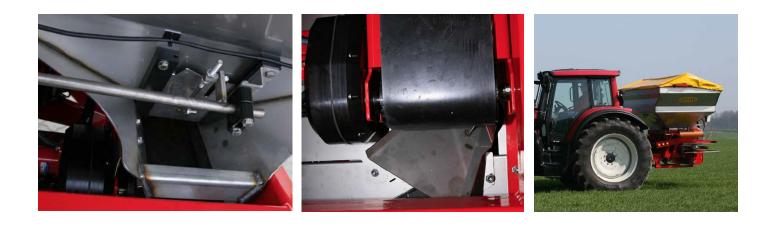
- $\Rightarrow$  Weigh Cells
- $\Rightarrow$  ISO-BUS control
- $\Rightarrow$  Full section control
- $\Rightarrow$  Terrain Compensation

The F4 Twin conveyors operate independently of each other plus the automatic positioning of the down chutes, enables this spreader to operate full section control.

Both spreaders will spread out to 36m for fertiliser, however it's the F4 that strides ahead with latest technologies to achieve Bredal's vision of Simple, Precise and Reliable.

The biggest edge on the Bredal F-Series Linkage machine is the twin conveyor belts. These conveyor belts adopt the technology of the large scale trailing spreaders, however do it with precision and eliminate the affects of product bridging in the tank. The conveyor belts allow the doors to be more open compared a vertical drop hopper, making Bredal linkage spreaders leaders in spreading consistency.





|                             | F2WD  | F4RF   |  |  |  |
|-----------------------------|---|--|--|--|--|
| Capacity L (m <sup>3)</sup> | 4,000 L (4m <sup>3</sup> )  |  |  |  |  |
| Drive System                | Hydrau  | Hydraulic Drive                              |  |  |  |
| Belt Conveyor               | Twin Belt Conve   | yors (no bridging)                           |  |  |  |
| Spreading Discs             | *H* Spreading I   | Discs (6 x Vanes)                            |  |  |  |
| Weigh Cells                 | N/A   | Yes. Auto Rate Calibration ongoing           |  |  |  |
| ISO-BUS                     | N/A   | ISO-BUS Module (No terminal supplied)        |  |  |  |
| Section Control             | N/A   | Full Section Control                         |  |  |  |
| Linkage Connection          | CAT IVn (Narrow CAT IV) CAT IV  |  |  |  |  |
| Low Rate Application        | Micro Dosage (down to 1 Kg/ha)  |  |  |  |  |
| Spreading Width             | 24m - 36m Accredited (Plu   | is Accurate Spread Pattern)                  |  |  |  |
| Spinner Drop Point          | Manual Drop Point setup   |  |  |  |  |
| Fence Line Spreading        | Combination (Spinner rpm & Rate)  | Combination (Spinner rpm, rate & drop-Point) |  |  |  |
| Included Extras             | Stainless Steel Mesh screen, Stainless Steel Bin, Tarp, LED Lights, Ladder, Calibration Kit |  |  |  |  |
| Shipping Weight (Kg)        | 750 Кд 800 Кд   |  |  |  |  |
| Specifications (L / W / H)  | 1520 mm / 3000 mm / 2080 mm   |  |  |  |  |



# F8 & F10 (TRAILING) SPREADERS

The Bredal F8 and F10 are Bredal's specialised fertiliser spreader for professional use where efficiency and profitability are vital. These models are designed to meet the different requirements for graduated fertilisation, border spreading, wedge spreading, leftover area spreading and automatic start / stop at headlands.

The F8 and F10 are standard with the following features:

- $\Rightarrow$  Weigh Cells
- $\Rightarrow$  ISO-BUS
- $\Rightarrow$  Full Section Control
- $\Rightarrow$  Terrain Compensation

The spreaders are constructed with two separately controlled floor belts so it is possible to apply different amounts on theright and left sides. The two down-chutes that place the fertiliser on the two spinners are individually controlled (left & right). This make it possible to optimise the spreading pattern for varying working widths and application rates.

Automatic flow correction is incorporated into the down-chute control software so the down-chute position automatically adapts to the actual application rate. In practice, this means that the spreading pattern will not change, regardless of whether asmall or large volume is being spread.

A key feature is Terrain Compensation, a built-in tilt sensor which regulates the application rate in hilly conditions. Ensuring the automatic calibration system is always receiving the correct weight of fertiliser whether on flat or steep terrain.





|                             | F8  | F10  |  |  |
|-----------------------------|---|--|--|--|
| Capacity L (m <sup>3)</sup> | 10,000 L (10m <sup>3</sup> )  | 13,400 L (13.4m³)  |  |  |
| Drive System                | Hydraulic Drive   |  |  |  |
| Belt Conveyor               | Twin Belt Conve   | yors (no bridging)   |  |  |
| Spreading Discs             | *H* Spreading I   | Discs (6 x Vanes)  |  |  |
| Weigh Cells                 | Standard (Auto  | Rate Calibration)  |  |  |
| ISO-BUS                     | ISO-BUS Module (N   | o terminal supplied)                                       |  |  |
| Section Control             | Full Section Control  |  |  |  |
| Hitch Connection            | Type 5000 Hitch (Type 4000 Hitch—optional extra)                        |  |  |  |
| Low Rate Application        | Micro Dosage (down to 1 Kg/ha) (Optional Extra)                         |  |  |  |
| Spreading Width             | 24m - 36m Accredited (Plus Accurate Spread Pattern)                     |  |  |  |
| Spinner Drop Point          | Automatic down-chute  |  |  |  |
| Fence Line Spreading        | Combination (Spinner rpm, rate & drop-Point)                            |  |  |  |
| Included Extras             | Roll top Tarp, Ladder, Calibration Kit, 7-Tray test kit, hydraulic jack |  |  |  |
| Shipping Weight (Kg)        | 3200 Kg   | 3800 Kg  |  |  |
| Specifications (L / W / H)  | 6589mm / 3480mm / 3156 mm   | 6589mm / 3480mm / 3342mm<br>(Wheels: 480/80R50 on 3m Axle) |  |  |



# **K-SERIES WD SPREADERS (WHEEL DRIVE)**

The K-Series was developed with a focus on a sturdy design for high reliability, ideal operational stability and strength.

Bredal's K-Series range of trailed combination spreaders can be used to spread multiple materials. This range of spreaders are mounted with mechanical wheel drive functionality for accurate and simple application rate spreading.

A full-width floor belt ensures constant feeding of material to the spinners which spread with a quadruple overlap.

The K-Series wheel drive spreader comes standard with both the \*K\* Spinners (Lime spreading out to 18m) and \*H\* spinners (Fertiliser spreading out to 36m). The Spinners are hydraulically driven direct from the tractor and are completely maintenance free.

The spinners can be swapped from headland to paddock spreading during operation and can be adjusted for clockwise or anticlockwise boundary spreading.

The spreaders come standard with a Roll top tarp, Ladder, Calibration kit, 7 x test tray kit and a Jack Stand (K45 & K65 = manual Jack & K85 & K105 = hydraulic Jack). The K65, K85 and K105 Spreaders also include a belt load reducer to prevent compacting loads on the conveyor belt.

Optional extras include the Micro Dosage Kit (Low rate) for slug bait, mouse bait and even small seeds such as pasture. Other extras include lime chains and the stainless steel mesh screen.

The K-Series wheel drive spreaders are simple, precise and reliable. There is NO monitor, just 'back to basics' setup and operation.















|                             | K45   | K65                            | K85                                    | K105                               |
|-----------------------------|---|--------------------------------|--|------------------------------------|
| Capacity L (m <sup>3)</sup> | 6,500 L (6.5m <sup>3</sup> )  | 8,400 L (8.4m <sup>3</sup> )   | 10,000 L (10m <sup>3</sup> )           | 13,400 L (13.4m <sup>3</sup> )     |
| Drive System                | Hydraulic Drive Spinners, Wheel Drive Belt Conveyor   |                                |  |                                    |
| Belt Conveyor               | Single Conveyor Belt  | Single                         | Conveyor & Belt Load Re                | ducer                              |
| Spreading Discs             | *H* Spinner Discs   | (6 x Vanes) & *K* Spinner      | <sup>-</sup> Discs (4 x Vanes) Supplie | d as standard.                     |
| Weigh Cells                 |   | Optional U                     | pgrade                                 |                                    |
| ISO-BUS                     |   | Optional U                     | pgrade                                 |                                    |
| Section Control             | Optional Upgrade  |                                |  |                                    |
| Terrain Compensation        | Optional Upgrade  |                                |  |                                    |
| Low Rate Application        | Micro Dosage for Slug Bait, mouse bait and light seeds down to 1 Kg/ha (Optional Extra)           |                                |  |                                    |
| Spreading Width             | 24m - 36m Accredited (Plus Accurate Spread Pattern)   |                                |  |                                    |
| Maintenance                 | Maintenance free belt rollers, stainless steel rollers, plastic bearings.                         |                                |  |                                    |
| Fence Line Spreading        | Combination (Spinner rpm, rate & drop-Point)  |                                |  |                                    |
| Included Extras             | Tarp, Ladder, Cal Kit, 7-Tray test kit, Man jack Tarp, Ladder, Cal Kit, 7-Tray test kit, hyd jack |                                |  |                                    |
| Shipping Weight (Kg)        | 2250 Kg   | 2950 Kg                        | 3400 Kg                                | 5500 Kg                            |
| Specifications (L / W / H)  | 5600/3480/2815<br>480/80R42 - 3m  | 5870/3480/2954<br>480/80R42—3m | 6921/3650/2914<br>650/65x30.5 - 3m     | 6921/3750/3288<br>750/60x30.5 - 3m |



# **K-SERIES VR SPREADERS (VARIABLE RATE)**

The Bredal Variable Rate K-Series spreader is for professional use where efficiency and profitability are vital. These models are designed to meet the different requirements for a combination of materials for spreading boundaries, wedges, leftover sections, variable rate applications and automatic start / stop at headlands.

The K-Series VR come standard with the following features:

- $\Rightarrow$  Weigh Cells
- $\Rightarrow$  ISO-BUS
- $\Rightarrow$  Terrain Compensation
- $\Rightarrow$  Variable Rate

Compared to the wheel drive K-Series spreaders, incorporating the above four (4) key features brings this spreader to the forefront of spreading technologies. No matter what ground speed, terrain or rate, the spreader will accurately calibrate to ensure consistent spread width and even spread patterns are achieved on the go.

The spreaders are constructed with a single floor conveyor belt that can feed material from as low as 1 Kg / Hectare up to 300 Kg / hectare onto the spinners. The Spreader is hydraulically driven for both the spinners and the conveyor belt, of which is a maintenance free system.

A key feature is Terrain Compensation, a built-in tilt sensor which regulates the application rate in hilly conditions. Ensuring the automatic calibration system is always receiving the correct weight of fertiliser whether on flat or steep terrain.





|                             | K45  | K65   | K85                                | K105                               | K135                          |
|-----------------------------|--|---|------------------------------------|------------------------------------|-------------------------------|
| Capacity L (m <sup>3)</sup> | 6,500 L (6.5m <sup>3</sup> )   | 8,400 L (8.4m <sup>3</sup> )  | 10,000 L (10m <sup>3</sup> )       | 13,400 L (13.4m <sup>3</sup> )     | 21,000 L (21m <sup>3</sup> )  |
| Drive System                |  | Hydraulic   | Drive Spinners & Belt              | Conveyor                           |                               |
| Belt Conveyor               | Single Conveyor Belt   |   | Single Conveyor Belt               | & belt load reducer.               |                               |
| Spreading Discs             | *H* Spi  | nner Discs (6 x Vanes)  | & *K* Spinner Discs (4             | x Vanes) Supplied as st            | andard.                       |
| Weigh Cells                 |  | Weigh Cells   | standard, automatic rat            | te calibration                     |                               |
| ISO-BUS                     |  | ISOBUS control mo   | dule (No terminal supp             | lied with spreader)                |                               |
| Section Control             |  | One section auto shutoff  |                                    |                                    |                               |
| Terrain Compensation        | Accu   | Accurate for up or downhill terrain along with application rate compensation            |                                    |                                    |                               |
| Low Rate Application        | Micro Do   | Micro Dosage for Slug Bait, mouse bait and light seeds down to 1 Kg/ha (Optional Extra) |                                    |                                    |                               |
| Spreading Width             |  | 24m - 36m Accredited (Plus Accurate Spread Pattern)                                     |                                    |                                    |                               |
| Maintenance                 | Maintenance free belt rollers, stainless steel rollers, plastic bearings.  |   |                                    |                                    |                               |
| Fence Line Spreading        | Adjusts rpm of fence line spinner plus reduce rate by 15% to compensate reduced overlap.                         |   |                                    |                                    |                               |
| Included Extras             | Tarp, Man jack, Cal kit, Test Kit, 5000 hitch Tarp, hyd jack, Cal kit, Test Kit, 5000 Hitch (K135 = 4000 & 5000) |   |                                    |                                    |                               |
| Axles                       | Single Axle (Hyd Brakes Optional) Bogie + hyd Brakes   |   |                                    |                                    |                               |
| Shipping Weight (Kg)        | 2250 Kg  | 2950 Kg   | 3400 Kg                            | 5500 Kg                            | 6900 Kg                       |
| Specifications (L/W/H)      | 5600/3480/2815<br>480/80R42 - 3m   | 5870/3480/2954<br>480/80R42—3m  | 6921/3650/2900<br>650/65x30.5 - 3m | 6921/3750/3200<br>750/60x30.5 - 3m | 8695/3750/3100<br>750/60x30.5 |



# **XE K-SERIES SPREADERS**

The Bredal K-Series XE spreader is our largest multi-combination spreader that will spread fertiliser out to 50m at a consistent spread width and spread pattern. The spinners consist of a fold-down platform that position the spinners 6m apart, therefore giving the material a heads start to successfully reach 50m for Fertiliser and up to 30m for Lime.

The spreading quality and working widths of the K-Series XE/XESC spreaders are unrivalled.

The K-Series XE spreaders come standard with:

- $\Rightarrow$  Weigh Cells
- ⇒ ISO-BUS
- $\Rightarrow$  Terrain Compensation
- $\Rightarrow$  Fold down spinner platform (6m apart)
- $\Rightarrow$  Full Section Control (K-Series XESC ONLY)

Automatic flow correction is incorporated into the down-chute control software so the down-chute position automatically adapts to the actual application rate. In practice, this means that the spreading pattern will not change, regardless of whether asmall or large volume is being spread.

A key feature is Terrain Compensation, a built-in tilt sensor which regulates the application rate in hilly conditions. Ensuring the automatic calibration system is always receiving the correct weight of fertiliser whether on flat or steep terrain.



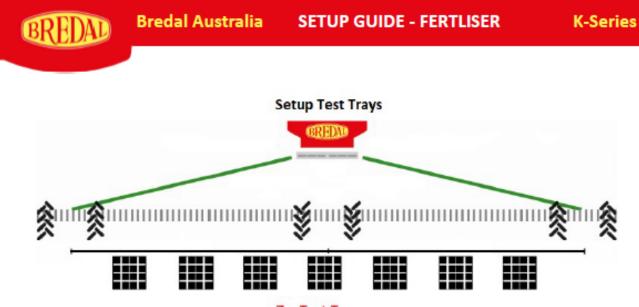


|                             | K105-XE   | K105-XESC  | K135-XE                       | K135-XESC                     |  |  |
|-----------------------------|---|--|-------------------------------|-------------------------------|--|--|
| Capacity L (m <sup>3)</sup> | 13,400 L (13.4m <sup>3</sup> )  | 13,400 L (13.4m <sup>3</sup> )                   | 21,000 L (21m <sup>3</sup> )  | 21,000 L (21m <sup>3</sup> )  |  |  |
| Drive System                | Hydraulic Drive Spinners & Conveyor Belt  |  |                               |                               |  |  |
| Belt Conveyor               |   | Single Conveyor & B                              | elt Load Reducer              |                               |  |  |
| Spreading Discs             | *H* Spinner Disc  | cs (6 x Vanes) & *K* Spinne                      | r Discs (4 x Vanes) Supplie   | d as standard.                |  |  |
| Weigh Cells                 |   | Weigh Cells standard, auto                       | omatic rate calibration       |                               |  |  |
| ISO-BUS                     | ISOBI   | JS control module (No term                       | ninal supplied with spread    | er)                           |  |  |
| Section Control             | One section Auto<br>shutoff   | Full Section Control One section Auto<br>shutoff |                               | Full Section Control          |  |  |
| Terrain Compensation        | Accurate for up or downhill terrain along with application rate compensation            |  |                               |                               |  |  |
| Low Rate Application        | Micro Dosage for Slug Bait, mouse bait and light seeds down to 1 Kg/ha (Optional Extra) |  |                               |                               |  |  |
| Spreading Width             | 24m to 50m Spread Width for Urea. 10m to 30m Spread Width for Lime. (Accredited)        |  |                               |                               |  |  |
| Maintenance                 | Maintenance free belt rollers, stainless steel rollers, plastic bearings.               |  |                               |                               |  |  |
| Fence Line Spreading        | Combination (Spinner rpm, rate & drop-Point)  |  |                               |                               |  |  |
| Included Extras             | Roll Top Tarp, Ladder, Calibration Kit, 7-Tray test kit, hydraulic jack                 |  |                               |                               |  |  |
| Wheels & Axles              | Single Axle (Hyd brake optional) Bogie Axle, Hyd Brakes, self steer rear axle.          |  |                               |                               |  |  |
| Shipping Weight (Kg)        | 6600 Kg   | 6600 Kg  | 8100 Kg                       | 8100 Kg                       |  |  |
| Specifications (L / W / H)  | 7000/3700/3700<br>750/60x30.5 - 3m  | 7000/3700/3700<br>750/60x30.5 - 3m               | 8695/3700/3600<br>750/60x30.5 | 8695/3700/3600<br>750/60x30.5 |  |  |



## **SPREADER SETUP GUIDE**

Once you become a Bredal owner, register at <u>bredalaustralia.com</u> to gain access to the client portal for documentation relating to user information, setup guides, troubleshooting and start up guides. Below is an example of a setup guide with a K-Series spreader.

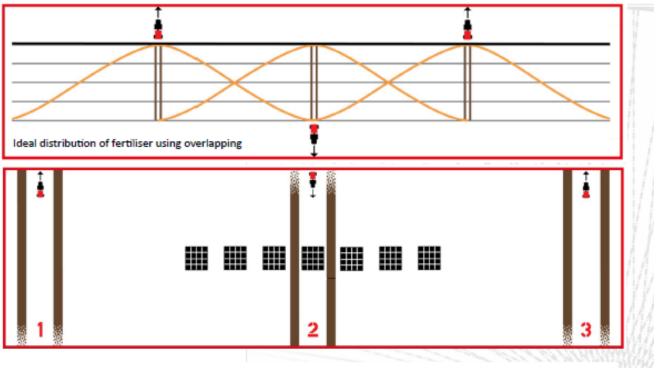


7 x Test Trays

Once you are setup and ready to go, the correct method is to drive along 3 wheel tracks as per the below diagram so you evenly spread into the trays. Remember the Bredal spreading system works on a quadruple overlap (two spinners over lap plus a pass to pass overlap).

#### Correct Test method:

- Ideal rate is 200 Kg/ha
- NOTE: The spreader throws fertiliser far to the rear, so make sure you allow enough distance before stopping after the trays.
- Drive up the left track (1)
- Drive down the middle track (2)
- Drive up the right track (3)



After pouring the fertiliser into measuring cups, assess the spreading results as per the diagrams on the next page.

# **BACKUP SUPPORT**

Through the Australian dealer network, Bredal Australia has you covered for parts and service backup support. Make sure you keep up to date with available documentation in the client portal at <u>www.bredalaustralia.com</u> as this will be your primary support document centre for setup, startup and general information guides to your Bredal Spreader.

#### Proven Spreading Widths to suit your CTF system

- $\Rightarrow$  Over 60 years in experience
- $\Rightarrow$  Urea 48m
- $\Rightarrow$  SOA (Western) 24m
- $\Rightarrow$  Lime Sand 18m
- $\Rightarrow$  Crushed Lime 24m

#### Below map of current Bredal Dealer in Australia (2021).







# SIMPLE PRECISE RELIABI

For more than 50 years Bredal has been specialising in production of high-quality lime and fertiliser spreaders for agricultural purposes. The companies goal is to build reliable machinery, precise in exploitation, simple in operation and maintenance. In recent years, the Bredal product range has been expanded to include winter equipment in the form of sand and salt spreaders.

Bredal is located in Vejle, Denmark, where it has state of the art production facilities with latest equipment used for producing the high-quality spreaders.

Bredal Australia is the sole importer into Australia, located in Gunnedah NSW. Bredal Australia has staff presence in Western Australia and through out the Eastern States including Tasmania and South Australia for Sales, spare parts and service backup support. Visit <u>www.bredalaustralia.com</u> to find your nearest Bredal dealer.