

### THE MONSEM FONDAMENTALS

Planting is by definition an investment, an essential step that brings the crop to its full potential.

In over **80 countries** across the world many farmers trust in the **Monosem** technology.

#### Our 70 years of shared history bear witness to this.

This trust, based on the concepts of reliability, sustainability and agronomic performance, is today enhanced by technological innovations.

Whether it be on our planters or cultivators, intelligence is at the heart of **Monosem** equipment.

**Our ambitions are based on 3 key principles:** innovation for agriculture, ultimate performance and intelligence to enhance ecoresponsibility.



### **FertiSmart**

# A NEW AND INNOVATIVE SOLUTION DEDICATED TO FERTILISATION

- Row by row application of fertilizers
- High output: up to 600 kg/ha by gravitational flow
- Adaptable: all types of fertilizer
- Unaffected by sloping ground
- + Available on ValoTerra and Cart + Cultivators

### MicroSmart

# AN INNOVATION TO FAVORIZE YOUR PLANTING

- + New micro-granulator with row by row control
- Multi localisation system: 2 lines
- + At product the launch in 2023:
  - Simultaneous input possible for 2 different products
  - Multi localisation system: 4 lines to choose from



## **FertiSmart**

## A NEW AND INNOVATIVE SOLUTION DEDICATED TO FERTILISATION

**FertiSmart** is positioned as the intelligent solution for fertilization, putting an end to current technological limitations.

Designed and developed by **Monosem**, the new fertilizer applicator is able to supply each row with dry fertilizer with **row by row** section control.

Its revolutionary design guarantees accurate application and high flow rates of up to **600 kg/ha** by gravitational flow.

**FertiSmart** reaches optimal performance on all types of terrain, including sloping ground, even with a difficult fertilizer.

The new **FertiSmart** fertilizer spreader is available on **ValoTerra** and also on a combination of **Cart + Cultivator**.



### A CLEAR STATEMENT ABOUT CURRENT TECHNOLOGIES

To date, current fertilization technologies are reaching their limits in the face of the challenges of tomorrow's agriculture:

- Uniformity of input on sloping ground.
- Row by row distribution
- Accurate planting
- Environmental challenges

The **FertiSmart** system provides a reliable and tangible response to today's issues.



## MONOSEM AHEAD IN PRECISION AGRICULTURE

With **FertiSmart**, **Monosem** has innovated and put intelligence at the heart of seedling protection and nutrition.

The **Monosem** team have made an intuitive design, easy to use and capable of optimizing input to provide nutrition as close as possible to the needs of the plant.

FertiSmart, be innovative to have the best crops!





#### INPUT SAVING

- With localized application, reduce your input costs by up to 21%
- Generate up to a 7% saving with row by row control
- Split application combined with rapid furrow cover to limit the loss of nutrients
- With the combination of weed control and fertilization, the number of passes is unquestionably reduced



### ENVIRONNMENTAL BENEFITS

 Precise application limits fertilizer volatilization and reduces greenhouse gas emissions by up to 80 %



### GREATER FLEXIBILITY

- Unaffected by sloping ground, it can be used in difficult conditions
- •The FertiSmart meets the wide range of nutrient requirements of crops such as rapeseed
- The metering unit is compatible with fertilizers with complex physical properties (Bulk, urea, DAP)



### COMFORT AND SIMPLICITY

 Easy maintenance, calibration, purging and servicing thanks to simplified settings



## FERTILIZATION BEYOND CONVENTIONAL METHODS

**FertiSmart** is distinguished by the following features:

#### • Optimisation of fertilization

The fertilizer dose is modulated over the entire working width and each section is controlled row by row.

• Precise application in all circumstances, including on sloping ground

#### Linear flow rate

The trough roller is unaffected by the physical properties of the fertilizer

• Flow rate adapted to your needs up to 600 kg/ha by gravitational flow

#### • Favorize organic farming

A solution compatible with granulated organic fertilizers

Flash me to see the FertiSmart in action!

### THE FERTISMART ARCHITECTURE



#### 1 Coupling

Facilitates quick attachment of the rmetering unit to the machine

#### 2 MSM (Monosem Smart Motor)

Controls Row-to-row fertilization manually or by GPS

#### 3 FertiSmart box

Combines precision and performance

#### 4 Trough roller

Optimize system performance

#### **5 Gravity outlet**

360° swivel to suit row position to ensure no loss of flow rate

#### 6 Pulsed outlet

Depending on the position of the rows (360° to have no loss of flow rate)

#### 7 Rear hatch

Facilitates the emptying of the metering unit

#### 8 Metering unit closing flap

Enables the removal and cleaning of the metering unit when the hopper is full and the manual closing of the rows for combination seeders

### CHOOSE THE RIGHT CONFIGURATION ADAPTED TO YOUR NEEDS

#### MSM | One motor per row

The **MSM** (Monosem Smart Motor) mounting allows the full potential of the **FertiSmart** solution to be unlocked. Only the **MSM** mounting is suitable for Section Control, allowing row by row control.

#### ISM | One engine for several rows

It is also possible to use one motor for several or even all rows.

This is the **ISM** (Integrated Smart Motor).

This means you can choose the ideal configuration that suits you.













#### SIMPLIFIED COUPLING-



Metering system is mounted in one simple step.

Both convenient and time savings for a better experience.

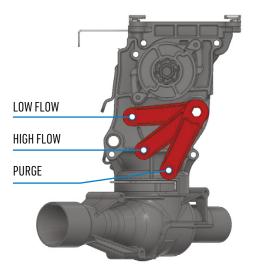
### SIMPLIFIED SETTINGS AND MAINTENANCE

The FertiSmart system has been designed to make your daily life easier.

The ergonomic design of the metering unit saves a lot of time.

#### FLOW RATE CONTROL

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Adjust the flow rate of each metering unit according to the grain size, using a single lever.

This setting is essential to optimize the flow rate and ensures that the system is unaffected by the physical properties of the fertilizer.

The flow rate flap is spring-loaded to prevent fertilizer clumping and to deal with any foreign matter.

#### MOTOR LOCK

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One quarter turn to lock the motor to the metering unit.

#### **CLEANING BRUSH**

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**CLEANING BRUSH** 

FLOW CONTROL LEVERT

The optional\* cleaning brush:

- allows the use of all types of fertilizer
- reduces clogging in the grooves in wet conditions
- reinforces the versatility of the FertiSmart box

<sup>\*</sup> Available in 2023

#### ULTRA PRECISE AGRICULTURE WITH FERTISMART



**AUTOMATIC ROW CUT-OFF USING GPS** 

A terminal screen allows you to manage the row cut-off of your fertilizer via GPS.



Monosem Touch Pro Isobus Terminal



## MicroSmart

#### A MONOSEM INNOVATION TO FAVORIZE YOUR PLANTING

Farms are under increasing pressure from pests. In addition, phytosanitary products are gradually disappearing from the market and those still authorized are subject to strict requirements in terms of quantity and application methods.

In this context, the new **MicroSmart** microgranulator offers an innovative solution for localized distribution of the right amount of microgranules.

#### The right dose, at the right time and in the right place.

As some crops are particularly fragile from the time it is sowed until it reaches the 3-4 leaf stage, this period should be as short as possible to limit the risk of yield loss.

**MicroSmart** is the solution for simultaneous distribution of microgranules and microfertilizers to protect and stimulate crop growth.



## GOING BEYOND THE LIMITS OF EXISTING SOLUTIONS

Existing solutions have significant technical limitations in terms of optimizing crop protection and supplying nutrients of the microgranules:

- Distribution with localization on only 1 line, or exceptionally 2 lines
- Section control is not possible
- Limited technical functionality with rotations of 15 to 90 revs per minute, which has an adverse impact on the precision of the microgranular distribution
- In some cases, an additional pass over the ground is also required to apply, for example, helicides with a less precise spreader



#### PRECISE APPLICATION

A new design offering accurate flow rates from 2 to 35 kg/ha for the most common flow ranges, products and row spacings. Suitable for both microgranules for seedling growth and products for pest control.

## UNPARALLELED AVANTAGES FOR USERS

**MicroSmart** ensures precise row-by-row application, with the multi localization system for two types of microgranules.

Each supply line is supported by the **Mono-sem Smart Motor** (MSM), which delivers the input from the hopper dedicated to each seeding unit.



#### **GPS CONTROL**

Row by row management by Section Control digital solutions to avoid overlapping and to optimize the quantity of inputs in a specific area.



#### LINEAR DISTRIBUTION

Best supply linearity: 6.5 grams/rev as well as a wide operating range from 3 to 170 revs per minute.



#### REDUCED ENVIRONMENTAL IMPACT

A multi localization system that meets the industry application recommendations and maximizes product efficiency while minimizing environmental impact.

Reduced number of passes over the ground by dispensing 2 products simultaneously (available from 2023).



#### SIMPLICITY AND COMFORT

Maximum compatibility with all major microgranules. Optimized ergonomics.





## THE ARCHITECTURE OF MICROSMART INNOVATION

The key element of the MicroSmart system is the MSM (Monosem Smart Motor).

It is responsible for both the row-by-row metering of the microgranules and the control of the sections.

This control is carried out by GPS or manually, depending on your needs.

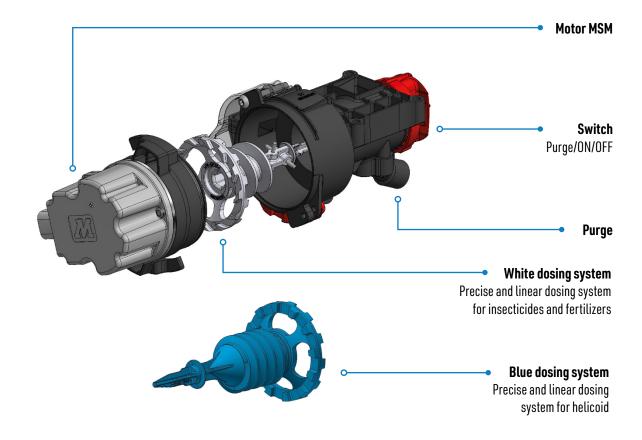
Depending on the type of microgranule used, the most suitable dosing system or dose should be selected.

Switching from one system to another is easy and tool-free.



Flash me to see the FertiSmart in action!

### AT THE CORE OF THE MICROSMART SYSTEM



### MICROSMART FUNCTIONS

#### **EASE OF USE AND ACCESS**

A system for lifting the **ValoTerra** element facilitates maintenance, calibration, adjustment or replacement of a part.

The device can be raised to the height of the user allowing all **MicroSmart** components to be removed in a few seconds for unparalleled working comfort.

#### INDEPENDENT METERING UNITS

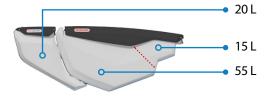
Two independent metering units allow the simultaneous application of 2 microgranules per row.

#### **MODULAR HOPPERS**



#### • Configuration A:

20L MicroSmart hopper + 70L Seed hopper



#### Configuration B\*:

20L MicroSmart hopper + 15L MicroSmart + 55L Seed hopper

\* Available from 2023

#### **ULTRA PRECISE AGRICULTURE WITH FERTISMART**

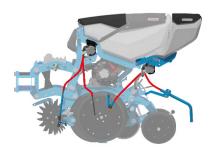
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A terminal allows you to manage the row cut and dose modulation of your MicroSmart via GPS and can obtain up to 7% savings.

#### **MULTI-WAY LOCALISATION**

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The multi localization metering system allows microgranule metering with localization on **4 different lines\*.** Metering is now possible at the front, the rear, on the surface and around the seed. With each type of microgranule having specific recommendations for optimum positioning, **MicroSmart** offers the farmer the flexibility they need.

\* 2 lines at the launch of MicroSmart, 4 lanes available in 2023



## FertiSmart

#### **MONOSEM INTELLIGENCE TO FAVORIZE FERTILISATION!**

Fertismart innovation goes beyond existing fertilisation technologies!

With **Fertismart**, optimise your inputs and opt for a linear flow rate adapted to your needs.

Its simplified architecture offers you unequalled working comfort and its configuration adapts perfectly to your needs.

Choose high precision for your fertilisation.



Saving on inputs



**Environmental benefits** 



Increased flexibility



Comfortable working

## MicroSmart

#### **PROTECT AND** FEED SEEDLINGS FOR **MAXIMUM EMERGENCE!**

MicroSmart, the right dose in the right place for improved performance and ease of use!

The **MicroSmart** microgranulation system guarantees precise row by row application.

Due to its two metering boxes, it offers the possibility of applying 2 microgranules simultaneously located on 2 different lines\*.

This innovation, patented by Monosem, has become the reference in terms of nutrient and phytosanitary product application.

<sup>\* 4-</sup>way distribution will be available from 2023 onwards



**Precise application** 



**GPS** controlled



Linear metering



Reduction on the impact to the environment



Simplicity and comfort







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