

# GASPARDO

# PRIMO



## PRECISION FERTILIZER

*Great operational capacity, high accuracy and maximum adaptability*

# PRIMO E and PRIMO M

## FOR A MORE ENVIRONMENT FRIENDLY AGRICULTURE

From an environmental perspective, national policies specify a limited use of fertilizers, which with traditional spreaders it is increasingly difficult to respect.

## FERTILIZE BETTER TO PRODUCE MORE

Proper fertilization of the culture is critical to ensure an 'effective vegetative response. On the other hand incorrect applications can compromise the harvest, both in quality and quantity.

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## PRIMO E and PRIMO M

REPRESENT MASCHIO GASPARDO EXCELLENCE IN FERTILIZER SPREADERS





# PRIMO E and PRIMO M

## FRAME AND HOPPER



### **GREAT CAPACITY AND MAXIMUM ADAPTABILITY**

The models are available in two widths: 2.53 m or 2.85 m and three different levels of extension, which convey maximum adaptability to operational needs, achieving large load volumes, up to 3200 kg.



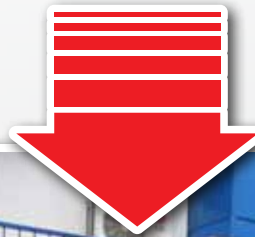
## ROBUSTNESS

The structure of the frame and the load cell have been tested to withstand high stress and to ensure maximum reliability with full loads.



## MAXIMUM RELIABILITY

The frame has undergone stress tests which have underlined strength and solidity, assuring maximum reliability even on rough terrains.



**(A) TESTED  
UP TO 5000 kg**

## HOPPER AND DOUBLE HITCH

For perfect weight measuring, the whole structure rests on the loading cell.

The double hitch system grants perfect weighing and at the same time guarantees a solid and robust structure.



## HIGH PRECISION LOAD CELL

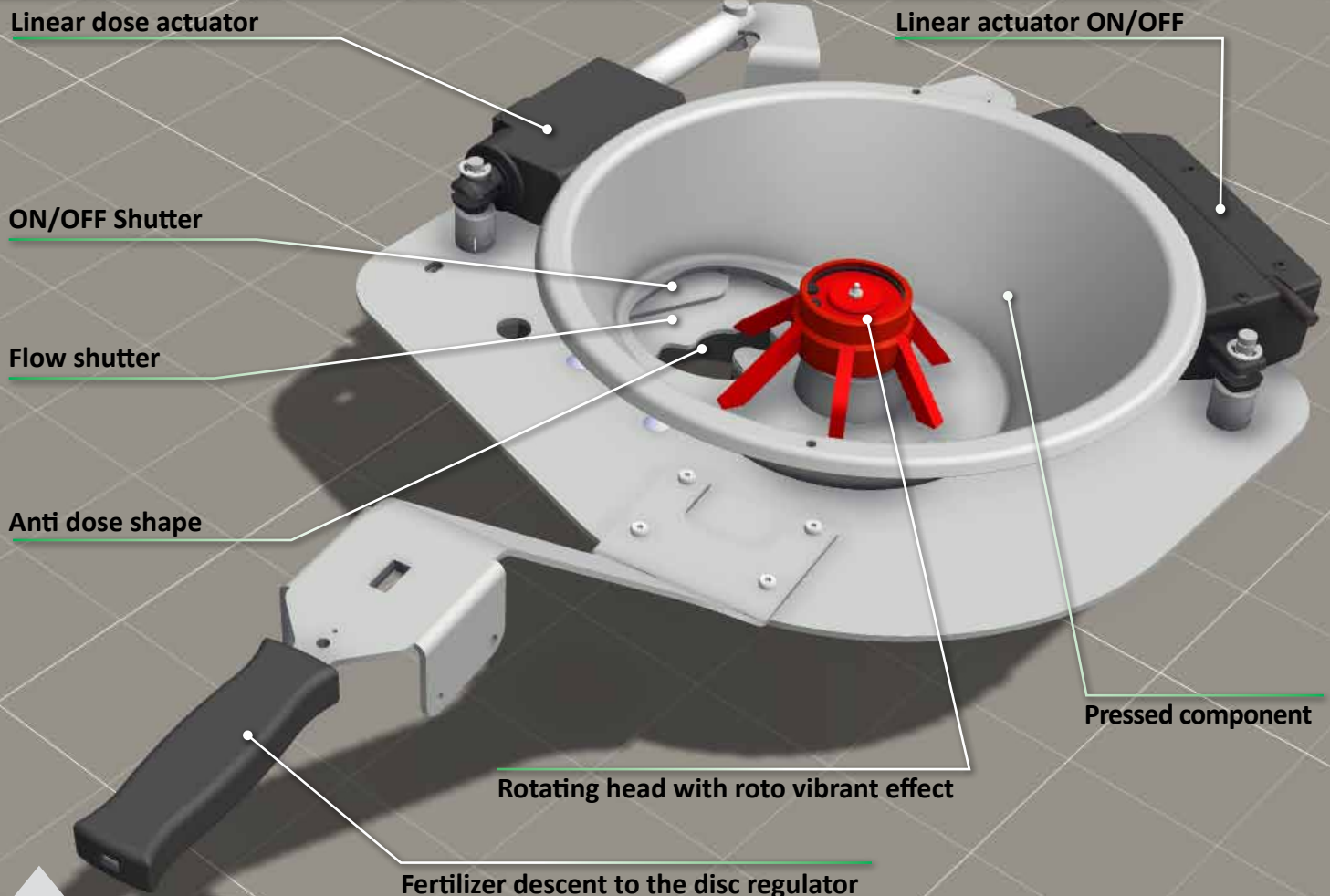
The **PRIMO** model comes with an electronic weighing system which allows a real time reading of the amount of fertilizer present in the hopper. Thanks to this feature the operator is constantly informed on the distribution quantity.

The extensometer used was tested to withstand great stress (A), constantly maintaining high precision. In addition to the load cell for weight measuring, the machine is equipped with an accelerometer which is able to measure the weight filtering the inactivity due to terrain discontinuity.

# PRIMO E and PRIMO M

## DISTRIBUTION SYSTEM

The **distribution** is managed by a double shutter: a system manages the rapid opening and closing of the first shutter (**ON / OFF**), the second manages the flow and allows a more accurate calibration which greatly improves distribution homogeneity.



### FLOW

The lower shutter regulates the flow, opening the shutter gradually increases the desired quantity of fertilizer to be distributed. The electronic version manages the opening from the on-board computer; the opening is set manually for the mechanical version.

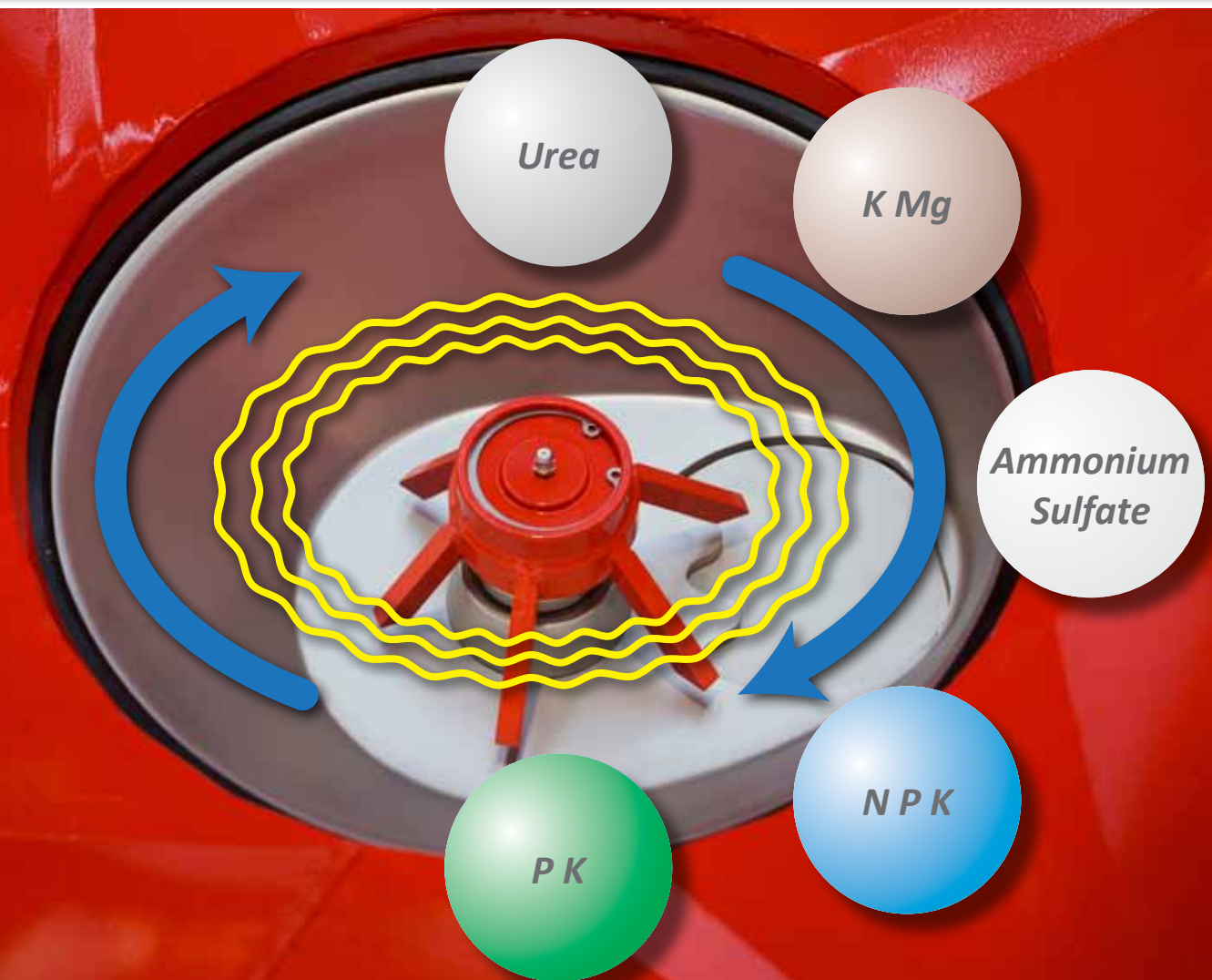


### ON/OFF SYSTEM

The upper fast-acting shutter controls the ON/OFF system. The fertilizer flow shut-off happens very quickly and allows to avoid wastes in headland areas. This shutter is powered by an electric linear actuator in the **PRIMO** model and by a double effect hydraulic cylinder in the mechanical model.



## OPTIMAL FERTILIZATION: GUIDES WITHOUT GRINDING



### ROTATING HEAD

The rotating head has a spider shape, designed to convey the granular fertilizer towards the distribution system. A bearing inside the head prevents excessive rotation assuring maximum fertilizer integrity.

### ROTATING SHAKER

Shaft with eccentric rotational motion (roto vibrant effect) to facilitate rapid flow of the fertilizer to the distribution system.



# PRIMO E and PRIMO M

## MAXIMUM PRECISION

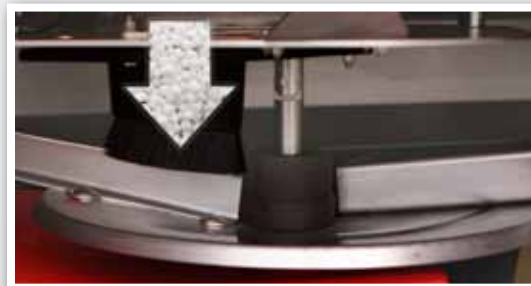


### MAXIMUM DISTRIBUTION UNIFORMITY

The shape of the hole in which the fertilizer is dropped is studied to guarantee a proportional flow the more the desired fertilizer increases, obtaining a uniform distribution, in opposition to the typical dose effect of traditional systems.

### DISTRIBUTION CONVEYOR

This solution allows to limit the area in which the product is dropped, so that the granules fall in an optimal position on the disc: maximum precision to prevent any possible turbulence.



### FROM THE PLATE TO THE FIELD

A calibrated arm allows to anticipate or postpone the fall of the fertilizer on the distribution disc, in function of the physical properties of the fertilizer, optimizing fertilizer travel time within the system for a uniform distribution over the entire working width. For fertilizers which have a higher sliding coefficient the tendency is to postpone the drop time on the disc, avoiding the fertilizer to come out too early.

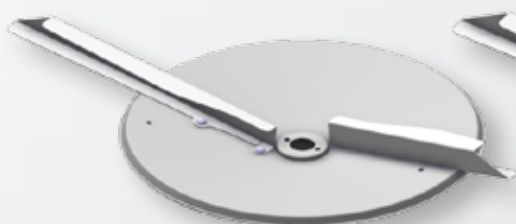


## EFFICIENCY WITHOUT COMPROMISES

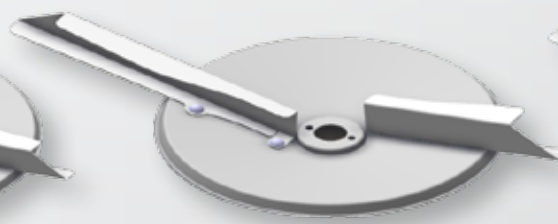


### BALANCED DISC

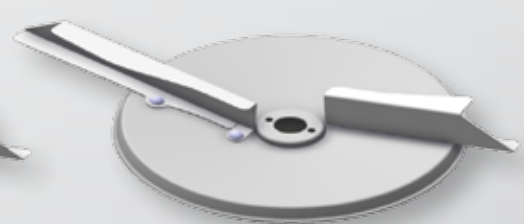
Every disc is press produced, guaranteeing a uniform surface. The distribution plate is balanced to prevent any vibration.



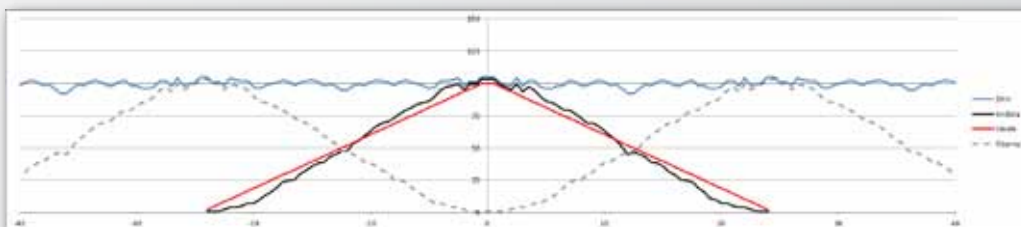
**36 - 48 m**



**24 - 36 m**



**12 - 18 m**



### CERTIFIED QUALITY

The conducted tests confirmed the quality of **PRIMO**, which can be seen on the graph, it's values are very close to an ideal system.

# PRIMO E and PRIMO M

## ELECTRONIC MANAGEMENT

### COMPLETE AND SIMPLE

**PRIMO** is the model with an on-board computer and electronic management of all main work functions: weighing and calibration, ON/OFF shutter, flow and individual partition setting between the two distributors, trimming kit activation, fast product opening and closing, manages the flow and allows a more precise calibration; significantly improving distribution homogeneity. All functions are easily managed from the on-board monitor which allows to always have spreading parameters under control.



Up to 500  
Kg/min

## 4 CONTROL MODES

### AUTOMATIC:

once the desired dose is set, the distributed product will periodically be regulated in function of the speed (GPS) and detected weight. The electronic system performs a new dose calibration, keeping in consideration the type of fertilizer used.

### SEMI AUTOMATIC:

once the desired dose is set, the flow regulation will automatically adjust in function of the speed (GPS). In case of rough uneven terrain ( es. after ploughing), for a proper load cell reading, the flow rate is set when the machine is stationary.

### SPEED:

the information from the load cell is excluded, the dose distributed is regulated by the memorized distribution curve. This work mode is used in case of land with steep slopes in which the terrain inclination angle exceeds the correction executable by the accelerometer.

### MANUAL:

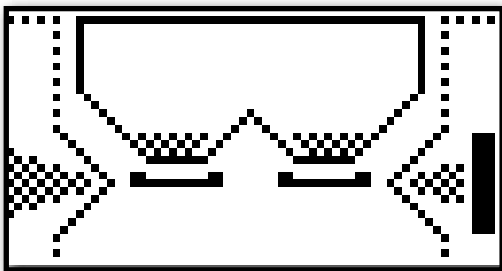
the operator directly intervenes in setting the distribution parameters, completely excluding the electronic controls.





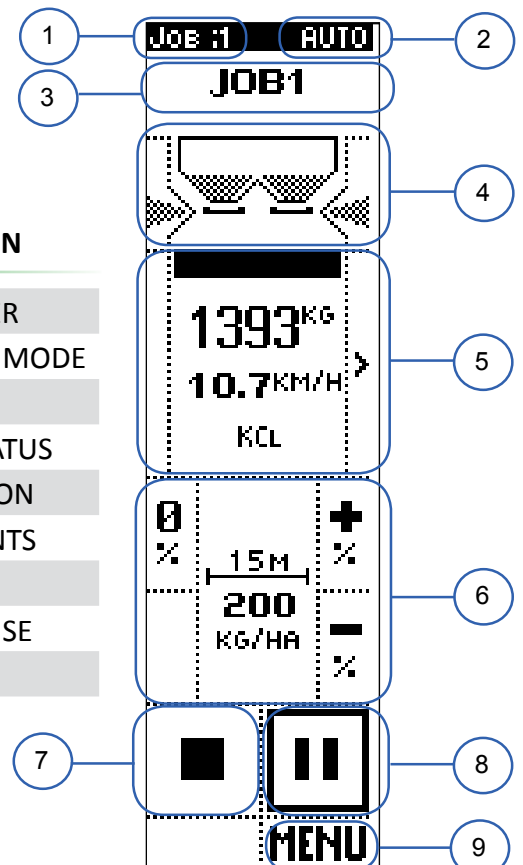
## TRIMMING CONTROL SYSTEM

The image shows the trimming control system activated.



## CONTROL SCREEN

- 1 JOB NUMBER
- 2 OPERATING MODE
- 3 JOB NAME
- 4 HOPPER STATUS
- 5 INFORMATION
- 6 ADJUSTMENTS
- 7 STOP
- 8 START / PAUSE
- 9 MENU





# PRIMO E and PRIMO M

## QUALITY SOLUTIONS

### FAST AND EASY: THE NEW SOLUTION REDUCES REPLACEMENT TIMES

The quick distribution disc release system allows to switch from one disc to another with ease: unscrewing the bolt of the central pin it is possible to manually extract the plate and replace it with another field spreading plate.



### NO STRESS DISTRIBUTION

The trimming system, which is managed by an on-board computer on the electronic version (hydraulically on the mechanical version), guarantees a controlled distribution even on headland areas and near borders, ditches and watercourses. The lever control system allows to set the deflection angle of the blades. A double row of blades optimizes the precision of the launch direction.



## MANY ACCESSORIES

### THOUGHT FOR WHO IS ALWAYS ON THE ROAD

Compact and slim, PRIMO is available in 2 widths: 2.53 m e 2.85 m. In both versions, the machine results practical even on the narrowest country roads. The tarpaulin cover, easy to open, keeps the product dry, allowing to work even in uncertain weather conditions.



Tarpaulin cover



Mudguards kit



Wheels kit



Stepladder



Protection bar



# PRIMO E and PRIMO M

## PRIMO ELECTRONIC



## PRIMO ELECTRONIC





## TECHNICAL TABLES

	<i>PRIMO MECHANICAL</i>	<i>PRIMO ELECTRONIC</i>
<b>DISTRIBUTION SYSTEM</b>  - Roto vibrant head - Anti dose drop section - Double shutter - on/off Control - Flow control	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul> Double effect hydraulic Manual	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul> Electronic Electronic
<b>LOAD CELL</b>	NO	<ul style="list-style-type: none"> <li>•</li> </ul> Correction sensor for sloping terrains
<b>FLOW RATE CALIBRATION</b> in function of different fertilizers	Standar distribution curve	Autocalibration with electronic scale
<b>TRIMMING ACTIVATION</b>	Double effect hydraulic	Electronic

<b>PRIMO</b>	Hopper capacity (l)	Work width (m) *	Transport width (m)	Load height (cm)	Weight (kg)
<b>1800</b>	1800	12-36	2.53	1.24	551
<b>2350</b>	2340	12-36	2.53	1.39	583
<b>2900</b>	2875	12-36	2.53	1.54	615
<b>2000</b>	1930	12-44	2.85	1.24	562
<b>2600</b>	2530	12-44	2.85	1.39	596
<b>3200</b>	3130	12-44	2.85	1.54	630

# GASPARDO



## **MASCHIO** **GASPARDO**

### **the winning team**

**COMPANY WITH QUALITY MANAGEMENT  
SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =**

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