



**PRECISION FERTILIZER SPREADER
WITH ELECTRONIC CONTROL**
CLAUDIO PONTREMOLESI



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THE MACHINE

The "Claudio Pontremolesi" fertilizer spreader is a machine suitable for fertilizing vineyards proportionally to the travelling speed and optionally, on a variable rate basis.

Rate delivery consistency is guaranteed in an accurate manner by an electronic fertilizer dispensing control system.

The fertilizer product (which must be granular or in pellets) is conveyed through rotary distributors where a well-identified amount of fertilizer is loaded into each cell. The controlled rotation speed of these distributors leads to efficient instantaneous flow delivery regardless of the speed of the tractor and of the amount of fertilizer in the hopper. The electronic rev counter allows the actual machine delivery to be instantly monitored.

The distribution is located next to the row with the possibility of surface deposition or burying it.

The operator can set the desired quantity in Kg/ha on the console and during the work phases increase or decrease the dose while the fertilizer is in operation, simply by pressing the + or - buttons on the control console.

Machines suitable for both ISOBUS electronic and conventional tractors are available.



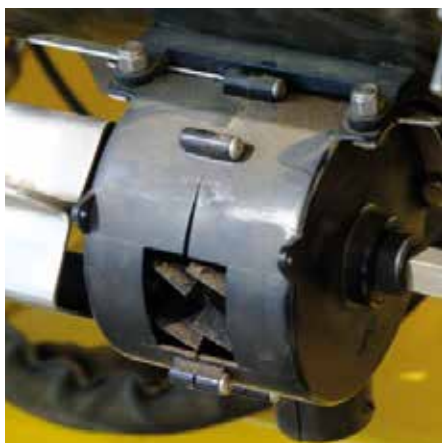
A very accurate rev counter allows the amount of fertilizer actually spread to be controlled



VARIABLE DOSES

The digital age has finally reached the world of agriculture allowing us to manage our vineyards with the same level of care of our pre-industrial predecessors, who would look after each single vine as a unique living being different from all others. The power of IT tools is starting to open up new scenarios, where the vineyard is no longer a homogeneous entity but can be managed differently according to each patch of land intended to receive and condition our vines with its unique texture. We can proudly claim to have been, back in 2008, trailblazers world-wide in developing and marketing the first Variable Rate fertilizer spreader for vineyards, the first CP 150, which the following year had already integrated ISOBUS technology - yet another record time-wise. The efficiency of the initial design, launched with the help of Claudio Pontremolesi, was such that it is currently still unsurpassed 15 years after its release, having set since then the market benchmark in terms of dosing precision and speed of adjustment to dose changes. Any thematic map you may have can be easily converted by our software into a prescription map to be uploaded to our terminal or any ISOBUS terminal. The use of this machine does not require any computer knowledge on the part of the tractor driver, who will only need to use the ON/AUT button.

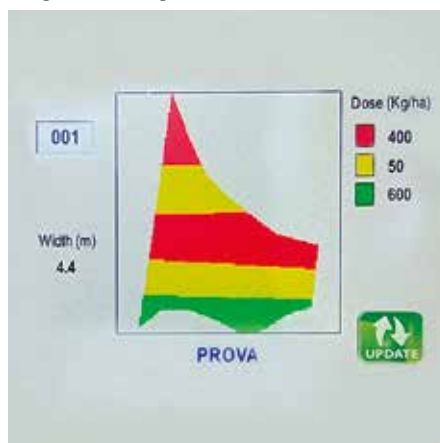
Detail of one of our rotary distributors



REASONS BEHIND PRECISION

Instead of basing its spreading technology on load cells regulating the opening of the fertilizer outlets depending on the difference between two successive weighings, our system is based on the rotation of distributors which store a given amount of fertilizer inside them - exactly quantified at the time of calibration according to the fertilizer in use. A hydraulic motor driven by a very high precision proportional solenoid valve causes the system to rotate at a speed pre-calculated as suitable for the amount that is expected to be spread (i.e. without having to wait for inevitably outdated data between one weighing and the next.) Dose adjustment is carried out during the time necessary for the solenoid valve to change its position (ranging between 0.25 and 0.30 seconds, which is equal to a few dozen centimetres in terms of forward travelling.) This allows you to manage even very small areas and different prescriptions. The precision of this tool has been validated by tests carried out by a number of research organisations, which has led to our decision of sticking with the initial project.

Vigour Map



ISOBUS SINCE 2009

We were the first to use ISOBUS technology in vineyards, thanks to the modules obtained from the American company DICKEY-john, one of the system creators during the 2000s.

The ISOBUS module



The ISOBUS connector for connection to the tractor



Prescription Map uploaded to the Task Controller



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Usage

All the tractor driver needs to operate this machine is a very simple switch that starts operation by switching from OFF to AUTO. If the tractor starts from a standstill by pressing the third FLUSH position, a given dose of fertilizer is dispensed even at no speed.



Programming

On the CSS 220 console a fixed dose of fertilizer to be delivered can be programmed. This controller oversees the instantaneous quantity of fertiliser dispensed according to the working parameters (dose in kg/ha, row width, tractor speed). Very simple to program and supplied with a routine for quick calibration according to the different types of fertiliser to be used.



Optional

4.0 TECHNOLOGY

The fertilizer can be equipped with the electronic module 4.0 that allows you to send fertilizer doses directly from a company computer connected to the web, receive reports of the work actually done, the path trace and work times. In addition to this, there is the remote diagnostics service.

TECHNICAL SPECIFICATIONS

Model	CP125	CP150	CP180
Deposition distance cm	120/138	145/163	175/193
Mass kg	130	150	180
Operating pressure bar	100	100	100
Dimensions			
* Height cm	173	173	173
* Width cm	158/176	183/201	213/231
* Length cm	135	135	135
Hopper capacity liter:	680	820	980

If the tractor is equipped with ISOBUS technology, electronic specifications by the manufacturer DICKEY-john can be installed.

In the constant attempt to improve the characteristics and performance of its equipment, SPEZIA s.r.l. reserves the right to modify the technical specifications even without prior notice.



*Dedicated to Claudio Pontremolesi,
an authentic and unforgettable friend,
an unwavering supporter of this
at the time futuristic project.*



SPEZIA s.r.l.

Via Mascaretti, 68
29010 Pianello V.T. (PC) ITALY
Tel. 0523.998815
Fax 0523.998777
www.tecnovict.com
www.agriprecisione.it