double disc fertilizer spreader
Born in the 70’s of the past century, the brand Cavallo has always stood out with success for the special attention paid to produce and supply professional fertilizer spreaders characterized by structural sturdiness, precision of distribution, resistance to corrosion, continuous and constant technical innovation, making these features the core of its way of thinking.

In 2001 OMB invented and produced the Vibro System, a vibrating hopper bottom system that has been applied on all its production of double disc spreaders with great success since then.

The plant covers an area of 8500 metres of indoor space and is powered by a photovoltaic solar station that generates 730 kWp and an annual average capacity of 900,000 kW.

Inside the plant, under the strict control of a UNI EN ISO 9001 certified system, we carry out 100% of the mechanical and electronic design and we produce 90% of all parts and semi-processed particulars necessary to build our fertilizer spreaders.
Why choose Cavallo?

Compact, Apollo, Zeus, Crono: the double disc fertilizer spreaders of the Cavallo brand, are the ideal aid for the correct and accurate distribution of mineral fertilizers, organic amenders and seeds.

A correct fertilizer distribution is not a cause of pollution: on the contrary it is indispensable help for better farming.
VIBRO SYSTEM without agitator

The system with vibrating hopper bottom that feeds continuously the distribution system. The non-use of agitators avoids the products crushing, assuring a uniform dosage of the chosen quantities, of granular, powdered and pelleted fertilizers and seeds.

The two stainless steel grids applied above the vibrating bottom retain the fertilizer lumps and maintain constant the fertilizer pressure on the feed system.

VIBRO-SYSTEM solves the issues related to:
- Break of granules of fertilizers or seeds
- Heat and formation of lumps
- Distribution of all type of fertilizer also with critical weather conditions
- Constancy on the dispensed quantities, the system makes irrelevant the hopper filling degrees from the dispensed quantity
Feed the fertilizer laterally to the vane, means elimination of the granule brake and powdering during distribution.

The products are conveyed on the vanes with a progressive acceleration, creating a regular and continuous flux, also on uneven grounds, where the traditional systems with outflow of the fertilizer from above cannot assure transversal smoothness.

ANTITURBOLENCE
Moulded vanes with patented cadges and a stainless-steel barrier above the spreading discs. Two of our winning choices ever for an optimal transversal distribution.
DOSAGE and DISTRIBUTION

A system of automatic positioning optimises the entrance of fertilizer on the spreading disc depending on the dispensed quantity increase. It is possible to act manually on the advanced or lateness egress of fertilizer on the disc, to compensate for different physical features of fertilizers.

Shutters in stainless steel with variable-geometry openings allow to obtain an adequate dosage curve both for micro-quantities and large injections.
The Transmission Protection System avoid any damage to the transmission shafts when the PTO shaft does not have the correct length.

The central box is anchored to the chassis through six rubber mountings that absorb anomalous bending borne by the input shaft.

**OPTION 1** – One DE distributor
The independence of the left and right circuit is obtained by the actuation of the valves.

**OPTION 2** – Two DE distributors
The independence of the left and right circuit is obtained directly by using the tractor’s control levers.
The components of the feeding, measuring and distribution systems, as well as all the bolts are made in stainless steel as a guarantee of a long life. All the metal parts not in stainless steel undergo a sandblasting and powder coating procedure with double applications and heating at 220° C. Curved tubes and conveniently shaped round edges avoid the sediment of powders of fertilizer and facilitate washes on every frame and hopper parts.
The required dosage is **automatically adjusted according to the forward speed** (Forward Speed Calibration) by means of two linear actuators.

Two magnetic sensors detect the exact opening of each shutter and control directly the linear actuators avoiding any possible error of position.

The system enables the instantaneous **variation** of the applied dosage, the **interruption of spreading on one side**, the **verification of the quantity and worked hectares** directly and comfortably from the tractor’s seat.

The versions “+W” with a **double frame** integrates two load cells, **5 tons each**, that detect the real weight of the product in the hopper in a continuous way, reporting every fertiliser and every physical variation to a distribution curve in order to deliver the exact quantity per hectare required.

The two load cells positioned in the hitching lower area of the spreader detect **precise values also in presence of inclined fields up to 12% in all directions**.
The maximum versatility.

This model with only 1.2 meters of width is ideal for the intensive fertilization in orchards and vineyards rows from 2 up to 5 metres.

Designed for the localized inter-row distribution *Compact Fruit*, thanks to a stainless-steel module conveyor, enables to transform quickly and be adaptable for different types of distribution.

It takes just one minute to extract the carter and transform the spreader for the full-field distribution with spreading width up to 12 meters.

With the application of two rear shutters (optional) it is possible to fertilize also at the centre of the rows, in green-houses and l/r borders.
The switch from BILATERAL LOCALISED distribution to FULL-FIELD distribution is carried out in three easy and quick steps.

VIBRO SYSTEM
LATERAL FEEDING
DOSSAGE AND DISTRIBUTION
TPS
INOX
STAINLESS STEEL ANTI-CORROSIVE
HYDRAULIC OPENINGS
ELECTRONIC
WEIGHING SYSTEM
MAX SPREADING WIDTH FULL-FIELD
INTER-ROW DISTRIBUTION
CAPACITY
WEIGHT

The high load capacity and spreading width make this model ideal for the intensive fertilization of olive plantations, groves and palm groves.

Designed for the localized inter-row distribution Zeus Fruit, thanks to a stainless-steel module conveyor, enables to transform quickly and be adaptable for different types of distribution.

It takes just one minute to extract the carter and lift the two lateral extensions and transform the spreader for the full-field distribution with spreading width up to 18 meters.

As for the Compact Fruit model with the application of two rear shutters it is possible to fertilize also at the centre of the rows, in green-houses and l/r borders.
Model with reduced dimensions, for needs of fertilizer and sowing of mid-little agricultural and sports areas. Compact, even though his compact dimensions, results extremely strength, supporting useful loads up to 1200 kg and it is ideal to be used with small-mid power tractors with I and II hook category in two different positions.

*optional kit of vanes
The essence of functionality.

Model with lowered hopper and reduced high, enables easy loading from bags and buckets, offering, at the same time, an interesting loading capacity up to 1600 L.

Strong frame with useful loads up to 1900 kg and II category hitches with two hitching positions.

Plexiglas doors on the back. Manual device to spread along fields borders (optional).
Super-professional Models

Models with mid-high load capacity and working width, for reasons of fertilizations and sowing of large agricultural areas.

Frame: structural strength with useful loads up to 3600 kg. I and II category hook and versatility hooking in three different positions; normal, 100 mm moved; or 150 raised for late injections.

Plexiglas doors: The Plexiglas doors positioned on the rear side of the hopper allow easy access to the sieving grids to eliminate possible foreign matter.

Internal support structure: standard applied on all our double disc models, this supporting central structure incorporates four safe hooks for the spreader lift and set up for fixing the folding filtering grids (optional).

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*** with optional kit of vanes
Device for borders: hydraulic device for fertilization on the right side of areas (optional)
360° technology

*Crono* standard applies the electronic system and in the (+W) versions the weighing system with load cells to regulate the delivered quantity independently to the forward speed and to the fertilizer features to be distributed.

*Crono* is provided with a double control, hydraulic and electric, for the flow opening and closing and its subsequent adjustment.

The instantaneous opening and closing at the start of the field is guaranteed by **two DE hydraulic cylinders**, while the opening adjustment is controlled by **two linear actuators in continuous time**.

Two position sensors detect the ON/OFF status of the hydraulic system and therefore the distribution. In order to avoid spreading beyond a field limit, the GPS transmits the signal of distribution start after the tractor has run a distance from the beginning of the field equal to the spreading width of the fertilizer spreader.

Two magnetic sensors detect the exact opening of each shutter, directly driving the linear actuators and cancelling every possible position error.
BUILT-IN GPS and WEIGHT SYSTEM

A 7-Inch Multifunction Colour Monitor integrates a GPS antenna that detects and transmits the real forward speed to the system without the need to get the signal from any ISO 11786 connectors or the use of wheel speed sensors.

Several spreading tables allow to create/change/save personalised fertilizations works and transfer them via Bluetooth for print or manage the reported of the executed works.

From the monitor the operator modifies the quantity/hectare instantaneously, activates the border spreading and visualizes the characteristics of the job in execution, the treated hectares, the remaining kgs, the warning of fertilizer low level, or the warnings concerning possible anomalies of the system.

The versions (+W) with double frame integrate two load cells, 5 tons each, that detect the real weight of the product in the hopper in a continuous way, reporting every fertiliser and every physical variation to a distribution curve in order to deliver the exact quantity per hectare required.

The two load cells positioned in the hitching lower area of the spreader detect precise values also in presence of inclined fields up to 12% in all directions.
01 – GRID FOR ORGANIC AMENDERS
02 – LATERAL EXTENSIONS
03 – ROAD LIGHTING SYSTEM
04 – DEVICE FOR BORDERS
05 – FIXED HOPPER COVERS
06 – TILTING HOPPER COVERS
07 – CONTROLLER
08 – KIT OF VANES
09 – L/R SHUTTERS
10 – WHEEL SUPPORT
11 – EXTRA FOLDING FILTERING GRID
* Weight of Zeus Fruit version without electronic weighing system.

** Weight of Zeus 24 version without management and weighing electronic system.

The description and illustrations written in this paper are to be considered as informative and not binding and can be changed without notice.