

FILLING SOLUTIONS



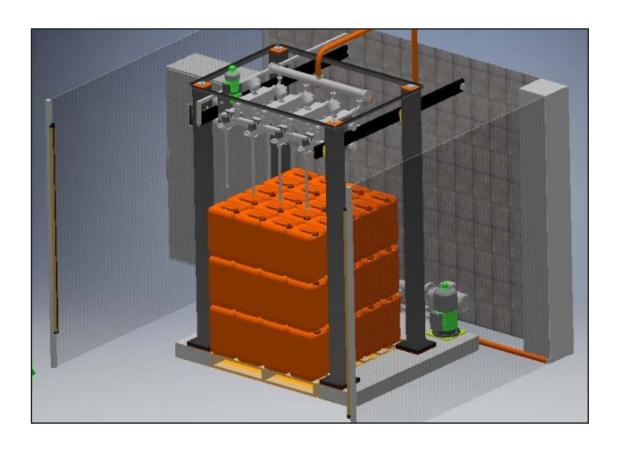
MACHINE DESCRIPTION

The filling machine 1-4B / 17 is a semiautomatic multiple canister filling machine, for filling directly on American-wide 1200×1200 pallets.

The main use is to fill cans with lubricant products, up to 600cps by positive displacement pump and controlled by mass flowmeters to ensure correct dosing.

This machine has an integrated cleaning system CIP, with automatic dispensing of detergent product and drying of the internal ducts by means of compressed air.

It has 4 independent filling nozzles at the dosage, with transport on ${\tt X}$ and ${\tt Y}$ axes.





GROUPS

It is formed by the following groups:

Positive displacement pump for product aspiration / drive.

This pump is gear type, with stainless steel body, suitable from water base liquids (1 cps) to thick liquids (1000 cps) and electric motor of 3CV (2.2Kw).

The driven product comes from a standard 1000L IBC drum through CAM-LOCK connections



Intermediate distribution

Intermediate distribution of liquid. It has 1 entry product, coming from the pump of drive, and 4 outputs clamp towards the mass meters of the nozzles It also has tapas laterals for operations cleaning, thus facilitating the work. It finally has an output of manual purge, together with a sensor of working pressure.

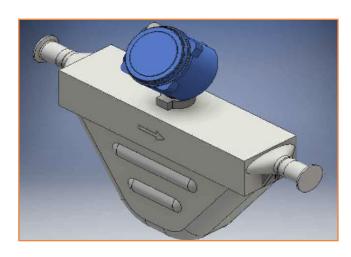


Coriolis mass meters

The machine has 4 independent meters for Dosage through 4 nozzles.

These meters are suitable for product to dose, without parts mobile and without maintenance.

With stainless steel body and pipes Input and output 1 "clamp connector.







Dosing nozzles

Nozzles with pneumatic closing and flow of 1 ". Stainless steel cane with self-centering. Rapid mouthpiece closing records. PTFE sealing gasket.

This element, even having a great variety of settings, is a piece of format. It is possible that in a certain format, it is necessary to have a new set of nozzles.



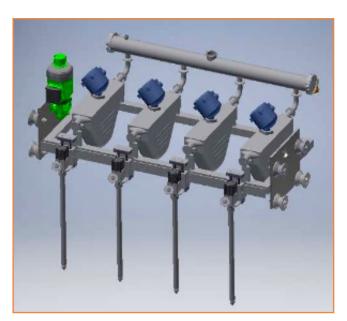
Transport car.

All the necessary elements to carry out the dosage are included in this car. It moves vertically by means of a motor with electrobrake

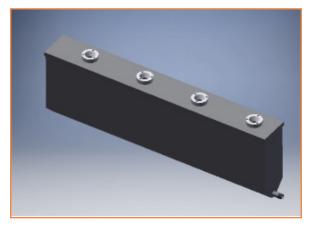
3CV (2.2 Kw), which transmits the movement by means of a transmission shaft to the four spindles of the four columns.

Horizontally, the movement is transmitted by a 0.12 Kw motor.

Both the vertical motor and the horizontal motor have an encoder to correctly position the carriage at the necessary heights. The filling nozzles and coriolis meters are included in the car.







Cleaning deposit.

Deposit in which the nozzles are placed when the cleaning or bleeding process is to begin. This tank has inputs for the nozzles. It has a liquid outlet to a drain pump operated by a level buoy. The lid, like the nozzles, should be considered a format element.



Drainage pump.

Water extraction pump. 1 CV pump for the extraction / recirculation of water and / or expulsion of product to the waste water tank.





Control Box.

Electrical panel, in which control and power elements are integrated. These elements are made up of the speed and control variators of motors and pumps, PLC for maneuvering the machine, and maneuver and power elements. On the front of the panel, an HMI is integrated for machine use, the stop / run and reset buttons, main disconnector, emergency stop and machine security key.

Security perimeter.

For security of operations, an optical security barrier is placed, which covers the entire front face. The sides are made of electrowelded sheet that prevents access from the outside. All this is located at a distance that allows the machine to stop without contacting the mobile part in case the safety circuit is opened. In case of opening the safety circuit, a previous reset is necessary to ensure that the area is completely empty of personnel. This reset is located on the sides of the machine, and allows a time of 15 seconds to exit the zone and rearm the button of the main panel. The rearmament of the security of the main panel must be double, to rearm the two security circuits. Once reassembled, any condition that opens the circuit will request a reset of securities.



IBC deposits of product and dirty water.



Although not being a constructive part of the machine, they are described in this point, because their correct installation is part of the correct operation of the machine.

On the side of the machine will be placed two standard 1000C IBC tanks, with CAM-LOCK output. One product and the other dirty water cleaning. They will be located on top of each other, with the particularity that the product is in the upper position, to help the correct operation of the product transport pump and avoid air bubbles within the system.

The second deposit will be located in the lower part, and will be used to store the dirty water, which must be removed by means of the current environmental regulations, including its correct treatment.

