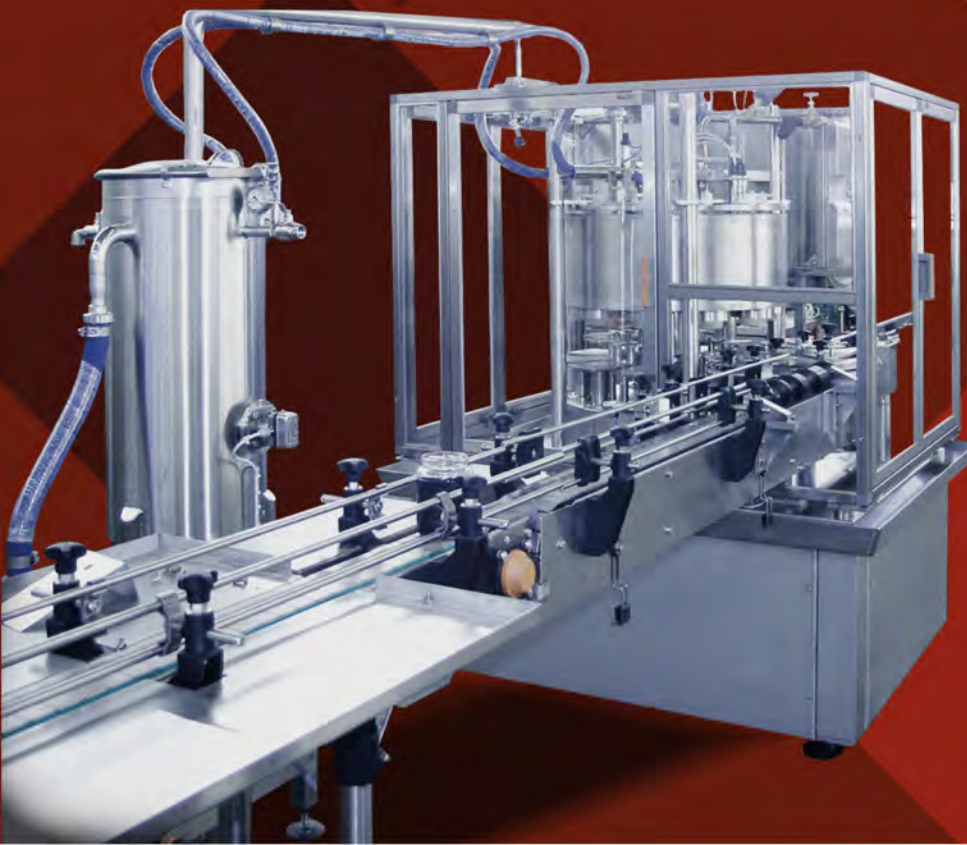


ROTARY VACUUM FILLING MACHINE-CS-R



TECNOCEAM S.R.L.
VEGETABLES PROCESSING PLANTS


The machine is suitable to fill vacuum glass or metallic containers - containing vegetables or fruits - with preserving fluids such as oil, vinegar, brine, syrup. The machine is also capable to fill sauce, tomato sauce, chopped tomato and sauces containing small pieces of cooked vegetables.



TECHNICAL SPECIFICATIONS

Valves number: from 6 to 24

Approximate production range:
(variable according to filling valves number, product type, container volume and process settings)

from 3,600 to 14,000 containers/hr 300 ml

Treated containers volume: up to 5,000 ml

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MANUFACTURING CHARACTERISTICS:

The machine completely made of stainless steel, consists of a central unit and a remote one. All components meant to be in contact with the product are manufactured with AISI 316 stainless steel and other material comply with current EU regulations on this subject.

CENTRAL UNIT:

- Robust basement coated by stainless steel and equipped with height-adjustable feet. Internally an electric motor is installed for height adjustment of the filling valves group;
- Container infeed and outfeed conveyor with table top chain and adjustable guides on the width side;
- Anti-blockage device installed on the infeed conveyor, allowing to keep container flux constant avoiding breakages or blockages;
- "Can stop" device installed on the infeed conveyor, that closes automatically, stopping container feeding in the following cases: product level in the tank is low, product temperature is below the pre-set one, the machine is on the alarm mode for any reason, the machine is on manual mode, the anti-blockage device has been activated, the next station in the line is on the alarm mode;
- Variable pitch polyzene feeding screw;
- Series of plastic or stainless steel star wheels: container infeed star wheel, central star wheel for container centering, outfeed star wheel for container outfeed;
- Stainless steel plates with underlying plate-lifter cam to lift containers under the filling valves and their following deposit;
- AISI 316 stainless steel product tank, mirror polished internally, with electrical device for product level control and steam coil – to heat/keep the temperature value of the pre-set product - automatic temperature control included;
- Filling vertical heads for up/down movements controlled by an electric motor and by a gearmotor (height adjustment is mechanically perfectible using the small wheel of the variable-speed drive positioned below the machine);
- Vacuum filling valves made of AISI 316 stainless steel and other special material;
- Manual centralised lubrication system;
- "No can-no fill" device;
- Photocell placed at the exit, which automatically blocks the machine and stops filled container outfeed in case of excessive build-up and/or of insufficient infeed from production line above;
- Stainless steel electric board with PLC and touch screen for controls management, machine adjustment and programming, with IP 55 protections obtained through magneto-thermal switches;
- Safety devices in compliance with EU regulations with stainless steel profiles and polycarbonate panels; safety microswitches installed on doors to automatically stop the machine in case of accidental door opening.

REMOTE UNIT connected to the central unit by means of specially provided pipes and electrical/hydraulic connections:

- Vacuum pump;
- Vacuum reservoir with vacuum gauge, vacuum regulating valve according to product and container to be treated, hatch for cleaning and exhaust valve;
- Single-pump for recovering/recycling of preserving fluid (it brings the sucked-up fluid back from vacuum reservoir to product reservoir) and for the cleansing of product reservoir and of vacuum filling valves.

OPERATING PRINCIPLE:

Containers fed by the conveyor are picked up by a variable pitch screw that aligns them paced into the infeed star wheel, from this they are inserted in the centering star wheel in correspondence with the overlaying filling heads and valves, and properly placed – by means of a specially provided centering system – onto the movable suspended plates driven by the underlying cam.

Once the filling position is reached, the containers are lifted and their openings get to match the valves connections, starting the vacuum/filling stage of the preserving fluid contained in the reservoir. Vacuum is created by the corresponding pump with reservoir installed on the remote unit.

The rotating movement of the vertical filling heads takes place by means of a series of gears controlled by an electric motor with an inverter, that interact with the plate-lifter cam.

At the end of the filling phase, the movable plates lower to allow the unloading of the filled containers on the outfeed star wheel, that leads them onto the extraction conveyor to be conveyed towards the capping/seaming machine.



ADVANTAGES:

- **VACUUM FILLING VALVES:** are made without scrapings or springs, thus being stable and still during operation. The product contained inside the reservoir automatically feeds valves, without any need of connecting pipes. Advantages are therefore an excellent tightness of valves and very easy and quick cleaning operations.
- **FORMAT CHANGE:** a really quick and easy operation.
- **HEAD THICKNESS REPLACEMENT:** these thicknesses are interlocked and easily replaceable by hand. They have to be interposed on the rubber seals laid upon the container neck during the filling stage (the bigger their thickness, the lesser the fluid volume filled into the container).
- The machine doesn't require to be regulated during operation as the adjustments made before the production cycle start, are sufficient.



OPTIONAL available upon request:

Series of additional interchangeable connections for filling valves according to the container connection diameter to be treated, equipment for container format change (feeding screws, star wheels).

RELATED MACHINES:

Universal filling machine RAU/Telescopic
volumetric filling machine RT, Pressing unit,
Dissolving plant, Pasteuriser.

NOTE: machine images appearing in the present folder are indicative only and could differ from the last model in production.

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