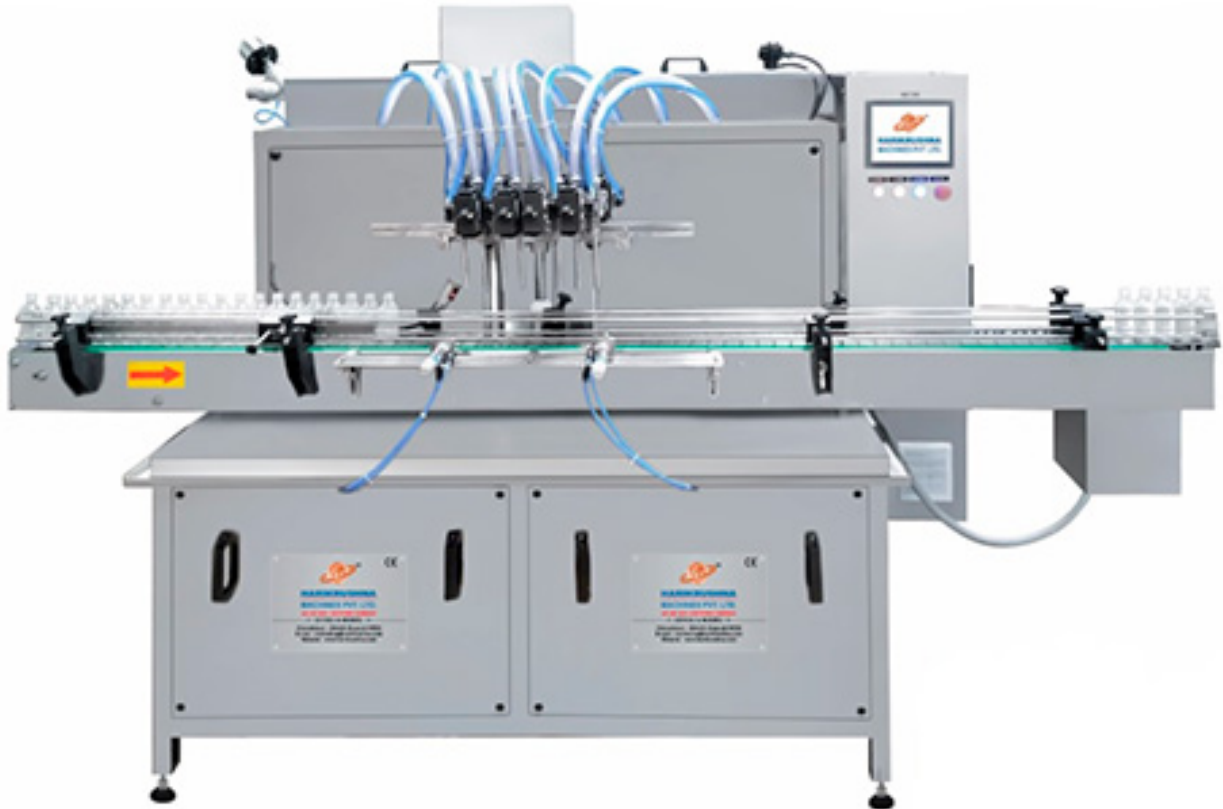




HMPL-PRE-RBF Automatic Servo Liquid Filling Machine



The Automatic Servo Liquid Filling Machine consists of a main structure, product transmission belt with an adjustable guide, material storage tank, pneumatic bottle stopping facility, SERVO-based Servo Liquid filling pumps, Servo Liquid filling nozzles, safety polycarbonate enclosure (OPTIONAL), electrical panel, motor, PLC & HMI, AC drive. A High / Low liquid level sensor in the tank is an added advantage.

Features

- The machine is manufactured or developed per GMP standards.
- The unit is compact & versatile in design.
- SS square pipe frame structure with doors of SS 304 sheet.
- Rigid vibration-free construction for trouble-free performance.
- All moving parts of the machine are covered by the safety guards of SS.
- All exposed parts of MS powder coated / electroless nickel plated.
- The machine has a unique design with German technology.
- The contact parts such as the filling nozzle, and filling pump are made of SS 316.
- The pharma/food grade PVC braided tubes are used for the filling purpose.
- Drain tray around the machine platform.
- Drip tray under the conveyor.
- Easy to clean the base of the machine.
- The storage tank is automatically controlled using high/low-level sensors.

- The machine is supplied with an easy-to-clean inbuilt storage tank.
- The drain valve below the filling tank & collection tray provide for flushing purpose.
- Auto control valve for the suction line at the plant.
- Filling is based on a diving system wherein nozzles go inside the bottle and once the bottle is filled as per the desired volume, it comes out of the bottle.
- The process of diving and blocking of the products done by pneumatic (air) operated cylinder.
- The Air pressure indicator is attached to the machine to indicate the fault of low pressure of the air supply.
- Individual servo-based filling pump which is useful to suck the filling material from the storage tank to the nozzle end very quickly. Moreover, this facility is useful for cleaning the filling line as well as the filling pump. The same function for all the pumps together or individual pumps also.
- Easy to operate PLC for any kind of filling volume adjustment.
- Each Filling head can be operated & monitored through PLC individually.
- Air-operated NRV is connected in the discharge line.
- Each filling head can work independently.
- No change parts are required for different sizes of products as well as different filling volumes.
- There is a very less product change over time due to the very less usage of mechanical parts such as syringe set, mechanical seals, gear, chain, chain wheel etc.
- If there is no product during the filling process, the machine automatically stops and it gives the indication on HMI.
- To ensure the accurate filling process the level of filling material is required to be maintained. The machine takes care of the same with the help of PLC controlled ON / OFF valve (In between of middle level and high level). Accordingly, if the filling level goes down (Low level) then the machine will automatically stop and at the same time, it will give the fault signal for Low level on the HMI screen.
- After the completion of the filling process, if the storage tank is required to be cleaned, there is no need to remove the storage tank. This cleaning process can be done very quickly with the help of a drain valve.
- Any kind of fault during the operation of the machine such as low pressure of air, low level of liquid, no product etc. can appear on the HMI, which can be easily attended.
- PLC modes are user friendly and hence even less skilled operators can also handle the machine.
- User-friendly and less maintenance required owing to minimal usage of mechanical components.
- Most reliable and proven components such as Festo/SMC/Janatics make pneumatic and electrical/electronic such as Panasonic/Bonfiglioli/Rotomotive/Motovario make AC motors, Delta make AC Drives, Delta make PLC & HMI, LEUZE/BANNER/SICK make Sensor, MCB & relay "CE" certified.
- Filling is based on diving system wherein nozzles go inside the bottle and once the bottle is filled as per the desired volume, it comes out of the bottle.
- The Air pressure indicator attached with the machine to indicate the fault of low pressure of air supply.
- Servo motor-based filling pump which is useful to suck the filling material from storage tank to nozzle end very quickly. Moreover, this facility is useful to clean filling line as well as filling pump. The same function for all the pumps together or individual pumps also.

Technical Data

Product MOC	GLASS/PET/HDPE Bottles/Jars
Filling Material	Any Free Flow Non Acidic Liquid (From Water to Honey Viscosity Product)
Liquid Filling Volume	10 ml to 5000 ml
Output Speed	Up to 120 Bottles / Minute (Speed depends upon fill volume, viscosity of liquid Product neck & shape)
Liquid Filling Accuracy	± 1 Gram
Direction of Movement	Left to Right
Filling Head	2/4/6/8/10/12 Heads
Working Height	875 ± 50 mm Adjustable
Power Consumption	2.5 KW
Power Supply	Three Phase + Neutral + Earthing / 415 V AC / 50 Hz
Air Supply	8 to 10 Kg/Cm ²
Net Weight Approx.	450 Kg
Dimensions Approx.	2745 mm L x 900 mm W x 1780 ± 50 mm H