



## *HM PFS-S05 Semi-automatic Pre-fill Syringe Filling & Sealing Machine*



The machine is suitable for filling and sealing of the pre-sterilized pre-fill syringes, B-D Hypac SCF or alike. Filling volume from 0.5ml to 3ml, and 3-20ml if change filling pump.

### **Main Principle and Features:**

#### 1. Nitrogen purge and protection along with filling:

Manually feeding in the syringe tray, 5 filling heads fill the solution going along X&Y axis, nitrogen purge and protection before and after filling. Linear rails (X&Y axis) are of German origin with high precision and free of maintenance.

2. Vacuum plugging: avoid micro particles due to friction if vibrator is used for rubber stoppers. After filling, the syringe is delivered to the vacuum chamber by manual. When the vacuum chamber is closed, vacuum sucking-nitrogen flush-vacuum sucking-nitrogen flush, then plug the stopper inside the syringe. The vacuum degree can be displayed digitally, and adjustable according to the filling volume.

3. All process parameters and production data is stored in the PLC and can be print out. With micro-printer to print out the production data, every line can print 20 letters, 20 lines max.

4. Filling volume is controlled by servo motor and high-precision AISI 316L or ceramic rotary piston pumps. All parameters and operation is controlled by PLC and touch screen; Also in summer and winter, solution change somewhat 0.1%-0.3% deviation, we can set-up on touch screen for automatic correction of filling accuracy, each piston pump can be fine tuning without any tool.
5. All contact parts are of AISI 316L and pharmaceutical silicone gel tubes, other surface is sus304, meet cGMP requirements.
6. 10.4" color touch screen displaying all working status including real time vacuum pressure, nitrogen pressure, air pressure, multi-languages are available.
7. Easy cleaning. There are filling parts washing program and the plugging rod washing program in the vacuum chamber. There are positioned moulds to help the plugging rod mounting after dismantled.
8. With class a laminar air flow cover above the filling zone, guarantee the cleanness of filling.
9. The machine is equipped with SIEMENS PLC and touch screen, Japan made servo motors etc high end international brand components. Ensure high quality and the good performance.

#### Technical Parameters:

Filling volume	0.5-3ml BD-Hypac pre-fill syringe If change filling system, it can be up to 20ml
Number of filling head	5 sets
Capacity	2400-3600 Pcs/h 1ml 3000 Pcs/h; 0.5ml 3600 Pcs/h 100 Pcs/tray
Filling accuracy	± 1%
X travel distance	80mm
Y travel distance	300mm
Printer	Hot-sensible printing paper width 56mm, max.20 letters per line
Vacuum	-95KPa~0 (-720mmHg~0), can be set up
Nitrogen	1-3kg/cm <sup>2</sup> , 0.2m <sup>3</sup> /min, 0.25µm
Compressed air	6kg/cm <sup>2</sup> , 0.20m <sup>3</sup> /min
Power supply (including vacuum pump)	3P 380V/200V 50-60Hz 4.0kw