

Automatic Heating 6 Piston Paste Liquid Filling Machine



The automatic constant temperature servo piston filling machine is a highly advanced filling system designed for precise and consistent dispensing of various liquids, pastes, and high-viscosity materials. It is widely used in industries such as food and beverage, pharmaceuticals, cosmetics, and chemicals. Below are the key features, functionalities, and advantages of this machine.

1. **Working Principle**

- **Servo Motor Control**: The machine employs a servo motor that drives the piston, enabling precise control over the filling volume and speed. The servo system allows for quick adjustments and high accuracy during the filling process.
- **Constant Temperature Regulation**: Integrated heating or cooling systems maintain a constant temperature for the material being filled, which is crucial for products that are sensitive to temperature fluctuations (e.g., certain sauces, creams, or viscous liquids).

2. **Key Features**

- **High Precision Filling**: The servo piston design ensures that the filling volume is accurate, with typical tolerances within $\pm 0.3\%$ to $\pm 0.5\%$. The adjustable stroke length and speed settings allow for customization based on the specific requirements of different products.
- **Temperature Control System**: The machine is equipped with an advanced temperature control system that includes sensors and heating/cooling elements to maintain the desired temperature range during the filling process. This feature is essential for preventing product degradation and ensuring quality.
- **User-Friendly Interface**: The machine is equipped with a PLC (Programmable Logic Controller) and HMI (Human-Machine Interface) that allow operators to easily set and monitor filling parameters, including temperature, filling volume, and speed.

3. **Design Characteristics**

- **Hygienic Construction**: Made from high-quality stainless steel 304, the machine is designed for easy cleaning and maintenance, complying with food safety and pharmaceutical regulations.
- **Modular Components**: The machine design features modular components that facilitate easy assembly, disassembly, and maintenance. This modularity allows for quick repairs and part replacements.

4. **Performance Advantages**

- **Versatile Application**: The machine can handle a wide range of materials, including low to high-viscosity liquids, pastes, creams, and products with particulates. This versatility makes it suitable for various industries.
- **Consistent Product Quality**: The constant temperature feature ensures that the physical and chemical properties of the material remain stable throughout the filling process, leading to consistent product quality.

5. **Safety and Maintenance Features**

- **Safety Mechanisms**: The machine includes safety features such as emergency stop buttons, overload protection, and alarm systems for detecting malfunctions or abnormal conditions.
- **Easy Maintenance**: The design includes easy-access panels and components for cleaning and maintenance, reducing downtime and ensuring that the machine operates efficiently.

Parameter

Number of filling heads:	6
Filling range:	A.100-1000ml; B.300-3000ml; C.500-5000ml;
Filling speed:	1800-3000 bottles/hour
Measuring accuracy:	±0.5%
Power:	7KW
Voltage:	380V
Working air pressure:	0.6-0.7Mpa
Air consumption:	4-6m ³ /min
Machine size:	4000*1300*2100mm
Machine weight:	700kgs