Manual Paste/Liquid Filling Machine

Model：A03

Operational Manual

WARNING

a) Be sure to read ***Operational Manual*** before the first use.

b) This machine is not suitable for filling fluid with particles and non-fluid material.

c) Prevent collisions during transport, storage and use of the machine

A03 manual paste/liquid filling machine uses a piston-type structure. All parts of the machine that in contact with filling material are made of 304 stainless steel and PTFE, which makes the machine meet food grade standards. The filling rang is 0.17 - 1.7oz (5 - 50mL), suitable for small doses filling of paste and liquid in laboratory, hospital, etc.

1. Technical parameters

a) Operation Mode: Manual
b) Filling range: 0.17 - 1.7oz (5 - 50mL)
c) Filling accuracy: ±1%
d) Capacity of hopper: 22lb (10kg)
e) Machine size: 13" × 13" × 30"
f) Machine weight: 26.5lb

2. Operation method

Users can adjust single filling volume as needed according to the following steps:

a. Lift *Handle* (Fig.1-13), loosen *Upper Locking Nut* (Fig.1-2).
b. Adjust *Upper Measure Nut* (Fig.1-14): Adjust *Upper Measure Nut* (Fig.1-14) clockwise to increase the filling volume; Adjust *Upper Measure Nut* (Fig.1-14) counterclockwise to decrease the filling volume.
c. When the appropriate filling volume is adjusted, tighten *Upper Locking Nut* (Fig.1-2).

The filling operation is also very simple. Press down *Handle* (Fig.1-13), the filling fluid will be discharged out of the *Nozzle* (Fig.1-3). When this filling process is end, lift *Handle* (Fig.1-13).

Make sure that in every filling process, *Handle* (Fig.1-13) is operated smoothly, pressed down close to the lowest point and lifted to the highest point, this will make the filling accuracy high. Otherwise the filling accuracy will be affected.

3. Maintenance

a) When the machine is not used for a long time or used to fill another material, *Hopper* (Fig.1-7), *Material Cylinder* (Fig.1-8), *Cone Piston* (Fig.1-5), *Cone Piston Cover* (Fig.1-6), *Piston Rod* (Fig.1-9), *Cylinder Sealing Ring* (Fig.1-10),

Discharging Valve Core (Fig.1-11), *Discharging Valve Spring* (Fig.1-11) and other parts which in contact with filling material should be disassembled and washed to prevent the material from curing inside the machine.

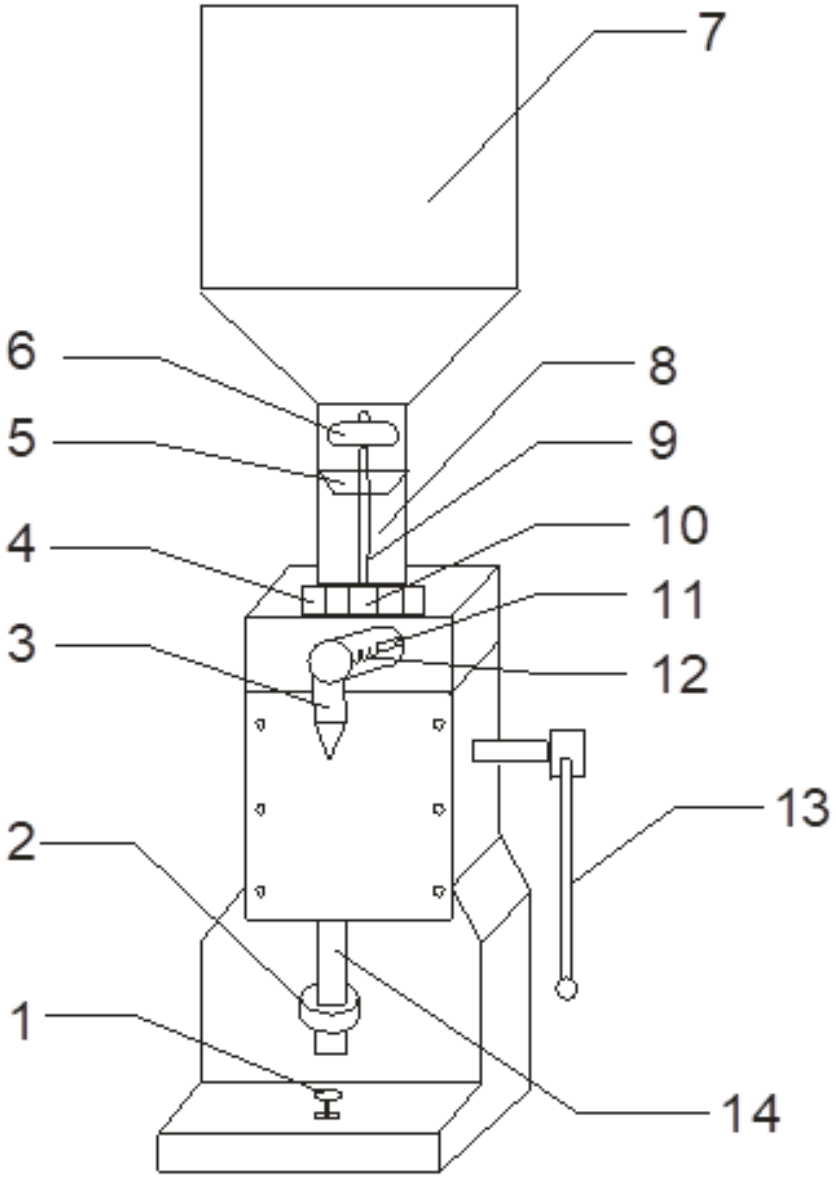
b) The machine shell is made of aluminum alloy and the body needs to keep clean to prevent corrosion.

c) In the operation process, shaft sleeves, bevel gears and racks should be properly lubricated.

4. Troubleshooting

Failures	Reason	Elimination
The filling quantity is not accurate, and the filling volume is not the same every time.	There is debris between *Cone Piston Cover* (Fig.1-6) and *Cone Piston* (Fig.1-5) and the debris stick to the seal ring.	Remove these parts and clean them.
	Cone Piston (Fig.1-5) is excessive wear.	Change *Cone Piston* (Fig.1-5).
	The filling speed fluctuates too much.	Keep the filling speed even.
	The filling material is too viscous.	Slow down the speed of lifting *Handle* (Fig.1-13).
	Upper Locking Nut (Fig.1-2) or *Down Locking Nut* (Fig.1-1) is loose.	*Upper Locking Nut* (Fig.1-2) or *Down Locking Nut* (Fig.1-1).
Some filling material leaks from Nozzle.	O-rings are damaged.	Replace O-rings
	Some debris stuck to the O-rings.	Remove these parts and clean them.
There are bubbles in the material after filling.	The filling speed is too fast.	Slow sown the filling speed.
	Cylinder Sealing Ring (Fig.1-10) is damaged.	Replace *Cylinder Sealing Ring* (Fig.1-10).

5. Fig. 1



1 - Down Adjusting Nut; 2 - Upper Locking Nut; 3 – Nozzle; 4 - Fastener; 5 - Cone Piston; 6 – Cone Piston Cover; 7 – Hopper; 8 – Material Cylinder; 9 - Piston Rod; 10 - Cylinder Sealing Ring; 11 - Discharging Valve Core; 12 – Discharging Valve Spring; 13 – Handle; 14 – Upper Measure Nut