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**Model:G2WGD-1000**

**Double-Head Pasty Ointment  
Filling Machine**

**Operational Manual**

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## 1. Principle and property

1. Principle: Model G2WGD filling machine, one of the G2WGD semi-auto piston type series products developed by our company, is for filling high-concentration material. The material is sucked and pumped by two pistons and rotating valve driven through a cylinder. The cylinder stroke is controlled by a signal valve and filling amount adjusted by the hand wheel (15) in Fig. With a double head adopted for filling, the machine, as an ideal selection of medium- and small-sized enterprises, can considerably raise working efficiency.
2. Property: The G2WGD Filling Machine with extra functions is designed and manufactured by our factory with reference to the same kind of foreign machines. This machine is simpler and easier in operation, error correction, adjustment, cleaning and maintenance.

## 2. Specifications

Technical Parameters		Items		Parameters			
				Rated air pressure		0.4~0.6Mpa	
				Filling speed		20-60 Bottles/Min.	
				Filling accuracy		±1 % - ±2 %	
				Voltage		220V±5V	
				Power		10W	
				Current		1A	
Filling Results	Model	Filling Range (ml)	Preferred Filling Range (ml)	The model and number of your machine (✓)			
	100	5~120	10~100				
	280	10~310	20~280				
	500	20~540	50~500				
	1000	50~1080	100~1000	✓			
	2000	200-2200	300-2000				
	3000	300~3100	500~2800				
	5000	500~5300	1000~5000				

## 3. Safety operation

The machine is suitable for filling pasty ointment substances in

foodstuffs, daily-used chemicals and other chemical industries, and cannot be used for other purposes.

1. Use air source and power source complying to this machine (Referring to the specifications of this manual).
2. Do cut off air source and power source before disassembling and washing this machine.
3. Electrical control elements are built in the rear part (close to the control button) of the machine. Do not wash the machine with water at any circs. Otherwise there is a danger of electric shock and damage to control elements.
4. A reliable earthing should be ensured by providing a socket with a earthing line.
5. Disconnect power from the machine upon repairing the circuit as voltage may exist in the circuit of power control when power is off.

#### **4. Instructions to machine**

The machine can have a filling volume of 100ml, 280 ml, 500ml or 1000ml for customers' selection. Generally speaking, the more your filling amount approaches the above, the more accurate the filling will be.

The machine is ideal for filling operation in foodstuffs, daily-used chemicals, pesticide and pharmaceuticals or other special trades. In the process of operation, the machine is affected by the following factors:

1. In filling accuracy: Compressed air stability, material uniformity and filling speed
2. In filling speed: Material viscosity, cylinder stroke, filling nozzle size and operational skill.
3. The machine is filled by the two methods of pedaling and auto filling, which can be switched as desired.
4. The rotary valve adopted on the machine is lined with wear-resisting, acid-resisting and high-temperature-resisting Teflon. Upon washing, do not let the valve knocked
5. The two three-way rotary valves must be installed in the same position. Otherwise, the filling amount of the two filling heads will be different.

#### **5. Installation and adjustment**

1. Mount the two ends of the U-shaped tee joint (24) at the top of the two

- control valves (11) and then lock the connecting part with anchor ears.
2. Mount the charging basket (23) in Fig. 3 on the (24). Then lock the connecting part with anchor ears (10).
  3. Mount filling nozzle (14) in Fig.1. Then lock it with an anchor ears.
  4. Confirm the signal valve (in Fig. 4) position and select your filling amount with the hand wheel (15).
  5. Connect the power source (36) with the machine.
  6. Turn on the power supply (41).
  7. Connect the air source to the straight fitting (01).
  8. Open the air source switch (02).
  9. Put the selection switch (30) to the manual operating mode and control the operation with the pedal switch.
  10. Adjust the throttle valve 1 (09) and 2 (08) to obtain proper pumping speed and filling speed. To raise operating efficiency, the pumping speed of (08 ) can be faster and filling speed slower. (But too fast filling speed may result in material or gas bubble rushing out of the bottle and affect filling quality.)
  11. Load material and begin normal operation.
  12. After operating becomes skillful, the operating mode can be changed to “Auto” so as to raise working efficiency.

#### **6. Filling accuracy adj.**

The filling errors mainly come from improper filling amount, filling speed and rotary valve position. A dj. the valve position making them in alignment.

#### **7. Manual and semi-auto operation**

The manual /semi-auto selection switch (30) in Fig. 3 is designed for commissioning and metering. It is recommended to use the manual mode for the machine commissioning when product or filling amount is changed or after machine is washed, and use the semi-auto mode for routine operation. The two modes can be switched without shutting down the machine.

#### **8. Reset button**

If the cylinder piston can not be returned after it is ejected owing to abrupt power failures or improper operation, please press this button to reset operation.

## 9. Safety switch

This switch (12) is also called emergency stop switch. It is normally open. When material abnormally flows owing to improper operation, press this switch to avoid the waste of material and the cleaning of the workshop.

## 10. Safety operation

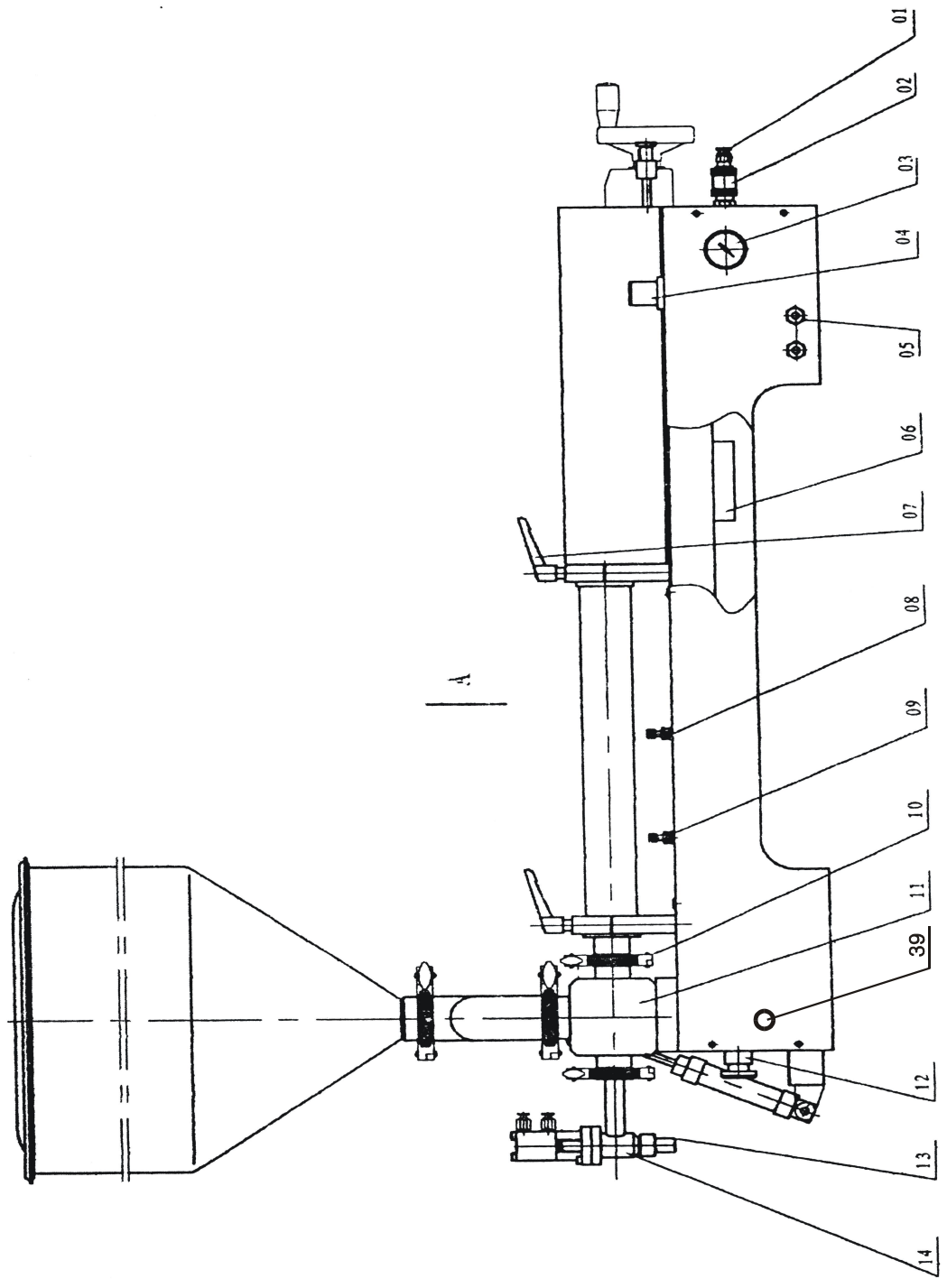
The machine is only suitable for pasty liquid filling and not for other purposes. In order to ensure productive safety, pay attention to the following:

1. The machine is not powered by electricity but the air with pressure of 4-6kg.
2. Before dismantling the machine, cut off the air supply.
3. Do not flush the machine direct with water to protect signal valves in the machine.
4. Before repairing the air circuit, do not fail to completely disconnect the air source from the machine.

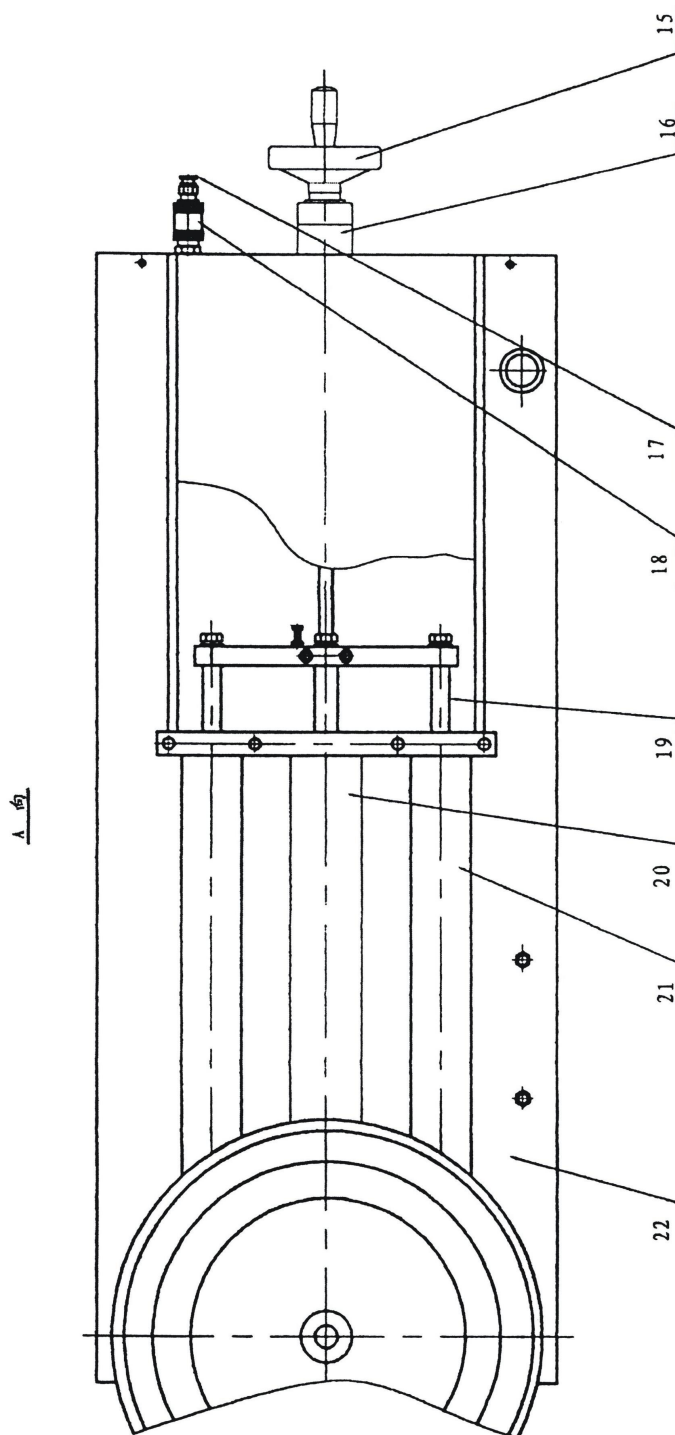
## 11. Maintenance

1. The machine body is made of stainless steel. Upon washing, do not scrape its surface with any sharp or hard objects.
2. Alcohol can be used for washing its surface stains.
3. Lubricant was applied before it leaves the factory. Do not disassemble its cylinders or apply any lubricant.
4. The material cylinder, stainless steel tee joint and three-way conversion valves can be disassembled for cleaning.
5. Timely replace the worn sealing rings.

Serial No.	Descriptions	Serial No.	Descriptions
01	Straight fitting	08	One-way throttle valve
02	Air source switch	09	One-way throttle valve
03	barometer	10	Clamping band
04	Pressure-regulating filter	11	Control valve
05	Plastic pipe connector	12	Stop switch
06	Air-controlled 2 position 5-way change valve	13	Replaceable nozzle
07	Adjustable handle	14	Filling nozzle



**Diagram 1 of double head explosion-proof pasty filling machine**

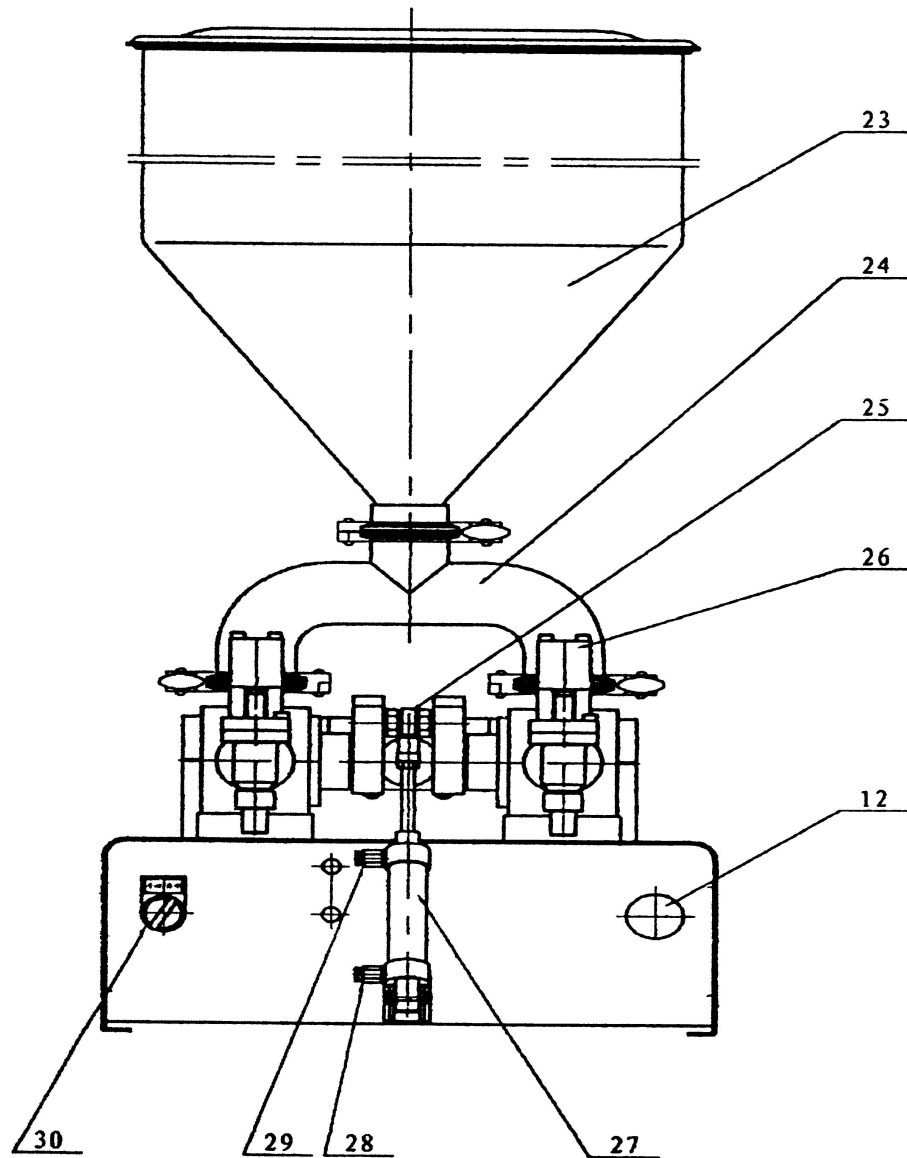


**Diagram 2 of double head explosion-proof pasty filling machine**

Serial No.	Descriptions	Serial No.	Descriptions
15	Hand wheel	19	Piston rod



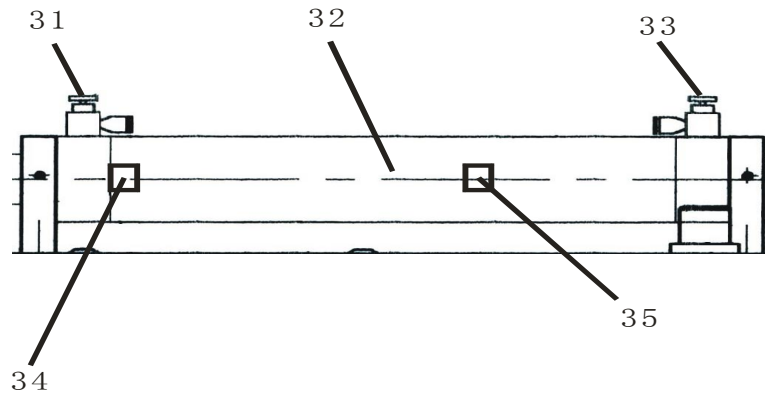
16	Counter (Purchase another)	20	Cylinder
17	Straight fitting	21	Material cylinder
18	Air source switch	22	Frame



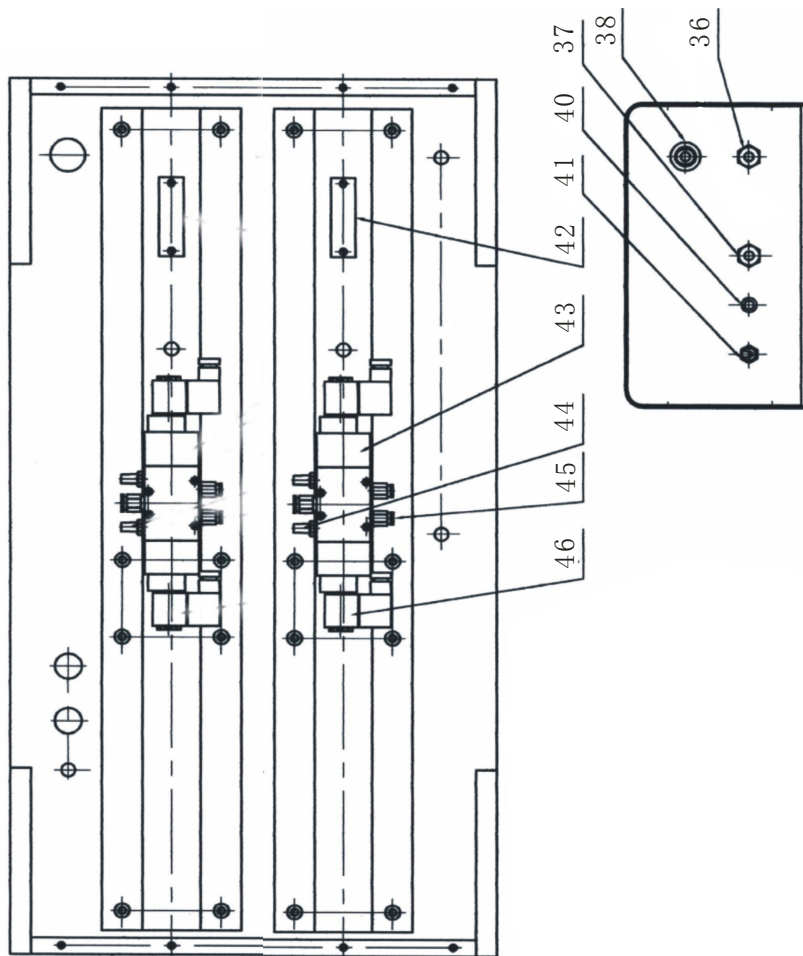
**Diagram 3 of double head explosion-proof pasty filling machine**

Serial No.	Descriptions	Serial No.	Descriptions
23	Charging basket	27	Mini-cylinder
24	U- 3-way joint	28	Unidirectional throttle valve
25	Joint bearing	29	Unidirectional throttle valve
26	Flat cylinder	30	selection switch

Serial No.	Descriptions	Serial No.	Descriptions
31	Throttle valve 2	34	Quantitative magnetic switch (floating)
32	Cylinder	35	Quantitative magnetic switch (fixed)
33	Throttle valve 1		



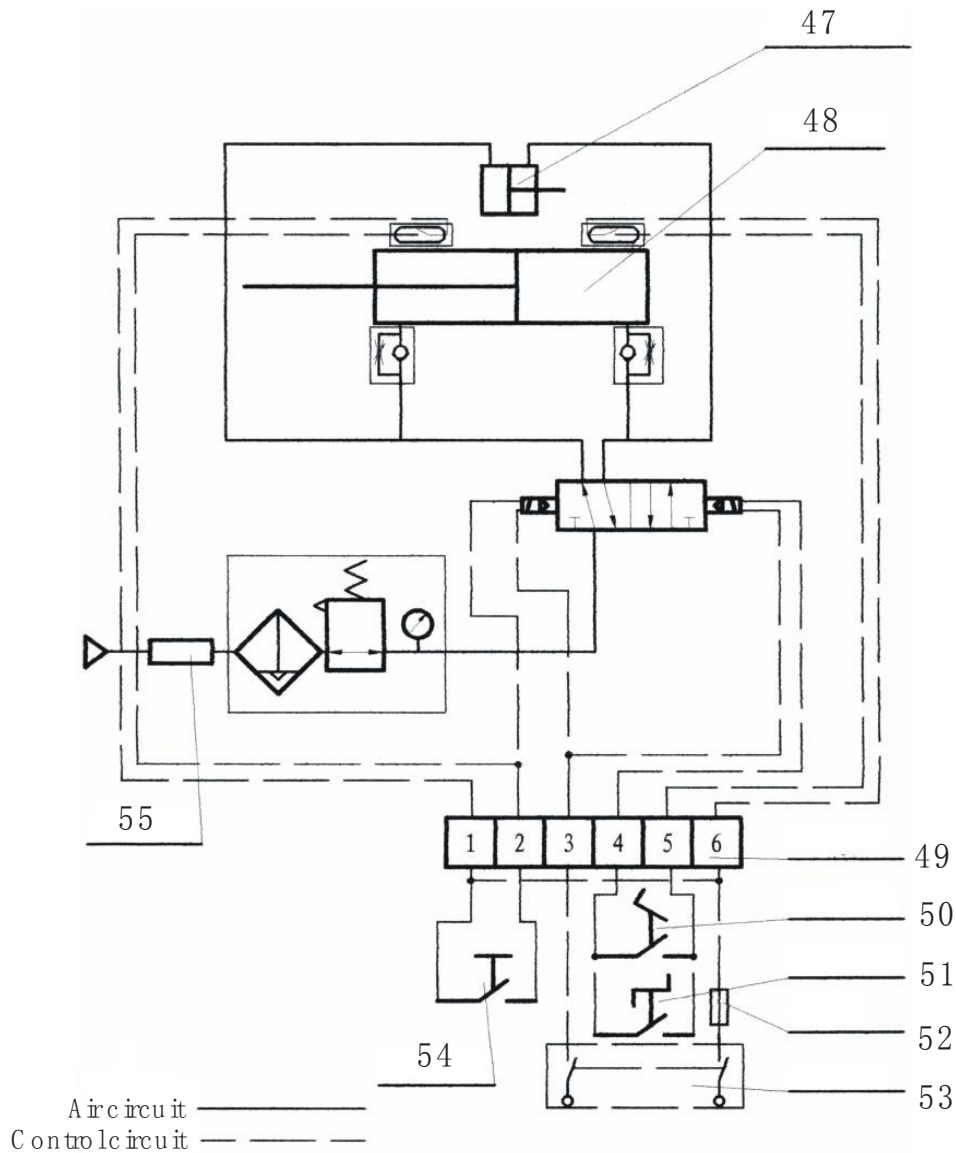
**Diagram 4 of double head explosion-proof pasty filling machine**



**Diagram 5 of double head explosion-proof pasty filling machine**

Serial No.	Descriptions	Serial No.	Descriptions
36	Power wires	42	Terminals
37	Fuse holder	43	Solenoid (two-position five-way)
38	Air source switch	44	Silencer
39	Cable connector (connected to pedal switch)	45	Straight way valve
40	Crawl switch (choose)	46	coil
41	Power switch		

**AIR CIRCUIT CONTROL DIAGRAM**



Serial No.	Descriptions	Serial No.	Descriptions
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47	Cylinder for material filling nozzle	52	Fuse
48	Cylinder for material pushing	53	Master switch
49	Terminal	54	Reset switch
50	pedal switch	55	Air source switch
51	Selection switch		

## 12. Washing requirements

Upon washing, confirm that the YX ring is in order. If not, let the machine have a filling in circulation to achieve a rough washing. For thorough washing, wash all the parts contacting the material, such as cylinder, piston head, YX ring, one-way valve, filling head, feed pipe, discharge pipe etc. Upon washing sealing rings, do not miss the YX ring for the piston and the flat ring for the valves and replace broken and damaged rings.

**Warning:** Air source must be shut off before washing the machine. After the machine is washed with organic agents such as gasoline, benzene, dimethyl benzene and sodium hypochlorite. it must be cleaned with soft detergent.

## 13. Troubleshooting

Filures	Causes	Elimination
Piston refuses to move.	1. Air compressor not turned on.	Turn on the air compressor.
	2. Air compressor valve not turned on.	Open the valve.
	3. Air source switch not turned on/ explosion-proof filling machine not connected to power	Turn on air source switch or power switch.
	4. Compressed air not meet requirements.	Use compressed air of 4kg-6kg/c m <sup>2</sup>
	5. Conversion valve not correctly installed.	Install the valve correctly.
	6. O-ring of piston head becomes sticky and the piston is jammed	.Replace the ring.
	7. Moving one-way valve damaged.	Replace the valve with a new one.
Not uniform filling.	Material viscosity not proper or leakage at sealing part.	Slow down pumping speed or replace worn rings.

	No enough material in hopper or charging basket	Replenish material.
Material comes from the rear side of the cylinder.	Ring on the piston fails.	Replace it with a new one.
	Material extremely thin.	Contact our company.

### Packing List

<b>Model of product: G2WGD</b>						
<b>Name of product: Single-Head Pasty Liquid Filling Machine</b>						
Serial No.	Category	Descriptions	Unit	Quan.	Specifications	Remarks
1	Technical Document	Main Machine	Set	1	G2WGD	
2		Instructions	Copy	1		
3		Packing List	Copy	1		
4		material pail	Copy	1		
5	Accessory	Ring	Set	1	Model 0 or XY	Depending on size
6		3-way valve ring	Set	1	Depending on size	
7		Inner Hexagonal Spanner	Set	1	1.5、2、2.5、3、4、5	
8		Screw Driver “+”	Piece	1	Ordinary	