

# HSP-4 and HSP-2 High Speed Coffee Filling and Sealing Machine

(high quality meet EURO machine standard)



#### **Brief Instruction:**

HSP-4 Coffee Capsule Filling Sealing Machine (use for K cup, Nespresso, Lavazza capsule) is the latest Version Machine, High speed and high quality meet EURO machine standard, this model machine is design specially for K cup Filling and Sealing. Its material use is better than previous machines; Components use top brand.

- \* The whole machine stainless steel frame; Organic glass; Four columns mould structure; Fixed castor and mobile pulley.
- \* Photoelectric detection the location of cup storage, If the cup storage is not enough, machine will alarm to feed Kcup, and machine will automatic stop without K cup, and Photoelectric detect the



filter, if three times of continuous without filter, machine will stop automatic.

- \* Photoelectric detect filter, If the three times no filter drop down, machine will alarm to feed Filter, and machine will automatic stop without filter. without Kcup, will not drop filter. the detection for filter insert, without filter, will not filling coffee, and after sealing will be rejected.
- \* Coffee servo screw filling, the filling volume can be adjusted on Touch screen, no cup no filling, lack of coffee in hopper, vacuum feeder automatically open.
- \* Liquid Filling system. (additional) for fill different flavor into coffee.
- \* Automatic clean the edge of kcup (vacuum clean)
- \* Automatic vacuum suck lids, No cup no Lids suck. If Lids suck fault, will automatic stop machine.
- \* Twice Sealing, Omron temperature controller to adjust the temperature.
- \* Automatic mechanical grasp the qualified cup to the conveyor belt. unqualified coffee cup does not grasp and automatic fall into the collection of waste bucket.

#### **Main Working Process:**

- ☆ Special Loading Lanes for Cups and Filter
- ☆Automatic drop empty kcup to machine
- Automatic detect whether Kcup well loated on the machine by sensor.
- Auto Feed the fitler onto the conveyor belt of the machine (upon right filter required)
- Auto sorting function to push the filter proper inside the Kcup
- ☆ Auto press filter tightly.
- $\stackrel{\star}{\sim}$  Auto detect whether the filter in the kcup or not by sensor.( no filter no filling no sealing and reject into the collection bucket)
- ☆ Servo motor to fill coffee while vibrating, weight around 5-20g ( can be adjust)
- $\stackrel{\star}{\simeq}$  Auto clean the edge of the cup.
- ☆Auto suck Foil Lids.
- $\dot{x}$  Auto detect whether the foil lids is ready by Sensor( no lids on cup, machine will stop automatic).
- ☆ Auto Seal twice
- Automatic mechanical grasp the finished product to conveyor (connect to the conveyor)



#### **Technical Parameter:**

NO.	Model	HSP-4	HSP-2	
1	Speed	9600-12000Cups/hour	4800-6000Cups/hour	
2	Working station	4lanes	2lanes	
3	Filling range	0-20grams	0-20grams	
4	Filling accuracy	±1.5%	±1.5%	
5	Voltage	Three Phase 240V 60HZ / 7KW, can be custom-made according to customer requirement.	Three Phase 240V 60HZ / 7KW, can be custom-made according to customer requirement.	
6	Air pressure / gas consumption	≥0.8Mpa / 0.1m²	≥0.8Mpa / 0.1m²	
7	Working Temperature	5-35°C	5-35°C	
8	Relative humidity	≤85%	≤85%	
9	Machine size	L 5000mm* W1000mm* H2600mm	L 5000mm* W900mm* H2550mm	

# **Configuration List:**

No.	Name	Qty	Brand	Origin
1	PLC	1	OMRON	Japan
2	Motion Control Module	1	OMRON	Japan
3	Extended Module	1	OMRON	Japan
4	Transducer	1	OMRON	Japan



HM Machiner	y Manufacture			
5	Switching Power	1	OMRON	Japan
6	Temperature Controller	8	OMRON	Japan
7	Solid-state Relay	8	OMRON	Japan
8	Touch Screen	1	OMRON	Japan
9	Encoder	1	OMRON	Japan
10	Switching Power	1	OMRON	Japan
11	Transducer	1	OMRON	Japan
12	Servo Drivers	7	OMRON	Japan
13	Servo Motor	7	OMRON	Japan
14	Proximity Transducer	8	OMRON	Japan
15	Photoelectric Sensor	12	OMRON	Japan
16	Motor Reducer	1	LIMING	Taiwan
17	Breaker	1	Schneider	France
18	Breaker	2	Schneider	France
19	Breaker	5	Schneider	France
20	Breaker	1	Schneider	France
21	Midget Relay	12	IDEC	Japan
22	Signal Light	1	PATLITE	Japan
23	Load Switch/Operating Handles	1	EATON	Germany
24	Emergency Stop Switch	2	EATON	Germany
25	Button Switch	2	EATON	Germany
26	Button Switch	2	EATON	Germany



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27	Button Switch	2	EATON	Germany	
28	Solenoid Valve	18	SMC	Japan	
29	Vacuum Generator	4	SMC	Japan	
30	Vacuum sucking disc	2	SMC	Japan	
31	Filter reducing valve	1	SMC	Japan	
32	Cylinder	3	SMC	Japan	
33	Rodless Cylinder	2	PARKER	Germany	

#### **Machine Detailed Show:**

#### 1. Conveyor for Kcup and filter:

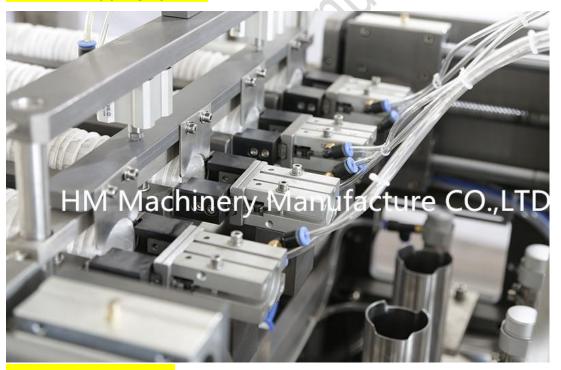


#### 2. K-cup dropping system:



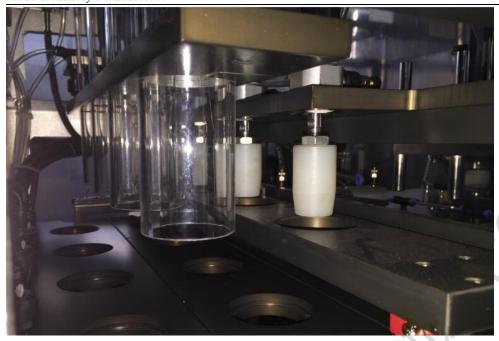


#### 3. filter dropping system



#### 4. Filter press tightly





# 5. Senser to detect have filter in kcup or not





#### 6. Coffee Filling System:

#### 7. Liquid Filling





#### Clean system for clean the edge of kcup





# 8. Lids Holing and sucking system:



#### 9. Auto Grasp The Finished Kcup to Conveyor:





#### 10. Finished product:

