SAL-G

"Standard" Separate-vacuum Hopper Loader

Date: Jan, 2016

Version: Ver.B

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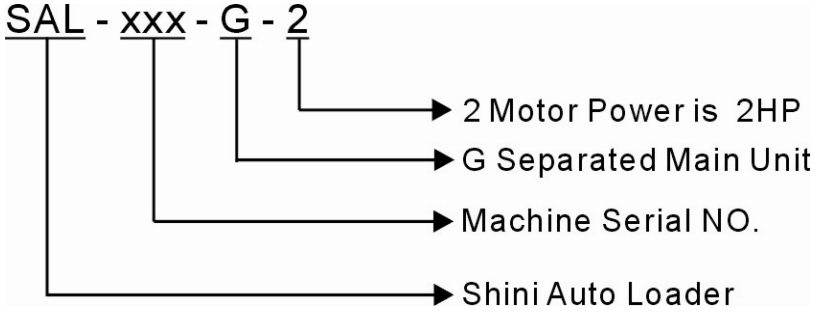
1. General Description

Please read through this operation manual before using and installation to avoid damage of the machine and personal injuries.

1.1 Coding Principle



1.2 Main Features

1) Standard configuration

- Microprocessor for ease of use and has multiple alarm indicators.
- Motor overload protector ensures long service life of motor.
- Audible material shortage alarm.
- Filter designed for easy cleaning and has filter status checking window for easier monitor of filter condition.
- Vacuum hopper (SMH) can be directly mounted on the hopper of molding machine while photosensor hopper receiver (SVH) can be directly mounted on molding machine's feed port. They all adopt steel filter screen as standard.

2) Accessory option

- It is available to select SCH-6 storage bin and SMH-6L/12L vacuum hopper, both of which can be directly mounted on injection molding machine.
- Proportional valve SPV-U (control cabinet is optional) is available, which is adopted to mix virgin and regrind materials, as well as instantly recycle regrind material.
- It is suggested opting for cyclone dust collector to reduce cleaning times of filter when regrind material occupies over 30% of total raw material.
- Quick mixing valve can be opt to work with proportional valve to enhance mixing effect.

1.3 Structure

SMH

(A) Air suction pipe

(B) Hopper cover

(C) Material suction pipe

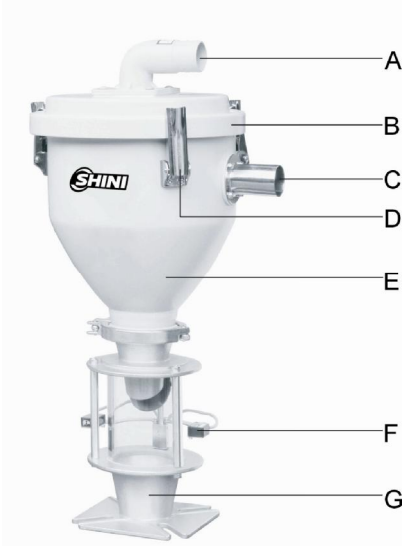
(D) Snap hook

(E) Storage hopper

(F) Microswitch

(G) Base

SVH



(A) Air suction pipe

(B) Hopper cover

(C) Material suction pipe

(D) Snap hook

(E) Storage hopper

(F) Photoelectric switch

(G) Base

(H) Air suction pipe

(I) Filter

(J) Control box

SAL- 700G/GE

(H) Air suction pipe

(I) Filter

(J) Control box

SAL- 800G/GE

(H) Air suction pipe

(I) Filter

(J) Control box

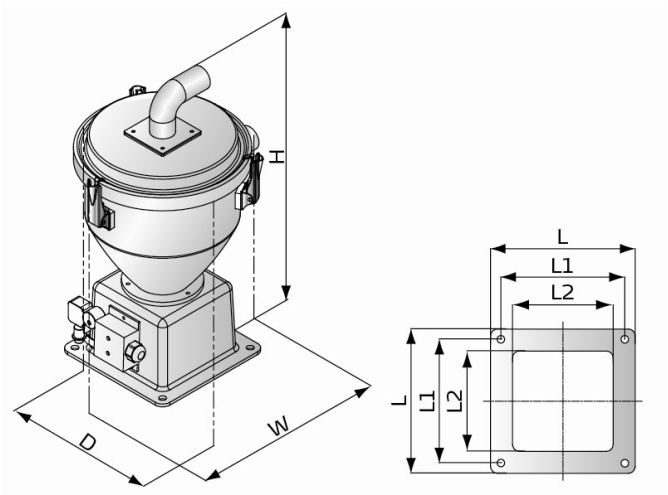
SAL-900G/GE

Picture1-1: Structure

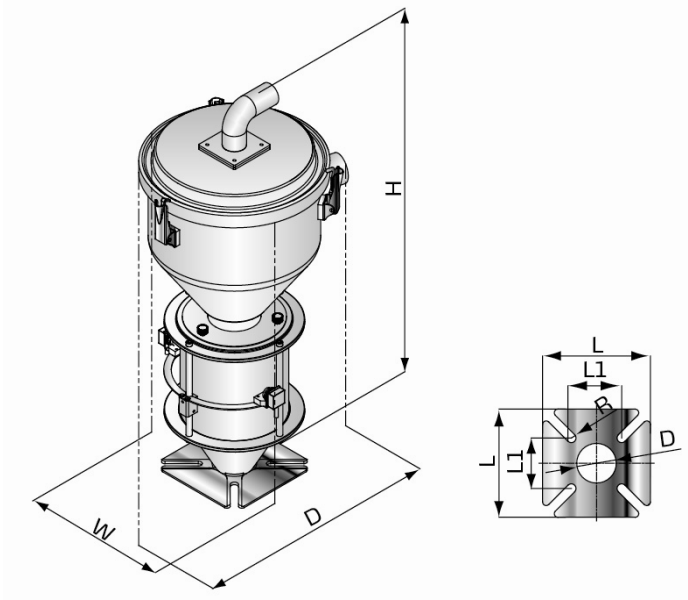
1.4 Technical Specifications

1.4.1 External Dimension

SMH

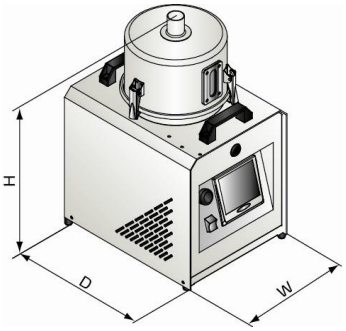


SVH

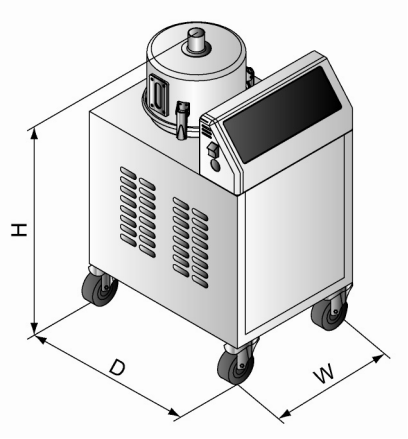


Picture 1-2: External dimension 1

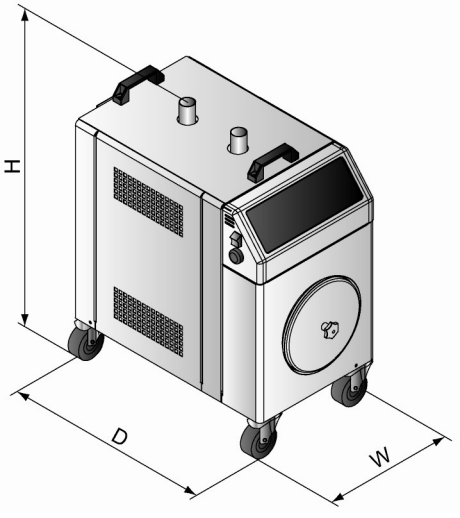
SAL-700G (Main controller)



SAL-800G/800G2 (Main controller)

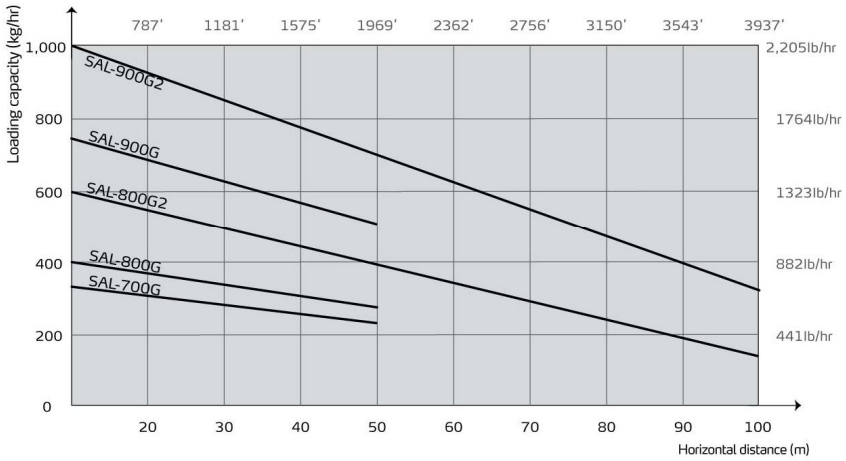


SAL-900G/900G2(Main controller)



Picture 1-3: External dimension 2

1.4.2 Loading Capacity



Picture 1-4: Loading capacity

1.4.3 Specification

Table 1-1: Specification

Main Unit						Hopper Receiver(s)				Conve-ying Hose Dia. (Inch)	Air Suction Pipe Dia. (Inch)	Conveying Capacity (kg / hr)
Model	Ver.	Motor Type	Motor Power (kW)(50 / 60Hz)	Dimensions (mm) H×W×D	Weight (kg)	Recommended Model	Hopper Capacity (L)	Dimensions (mm) H×W×D	Weight (kg)			
SAL -700G	A	Carbon brush	1.2(1Φ)	595×300×410	18	SMH-6L	6	460×260×315	6	1.5	1.5	300
						SVH-6L		600×285×305	6			
SAL -800G	B	Induction	0.75(3Φ)	665×370×405	40	SMH-6L	6	460×260×315	6	1.5	1.5	300
						SVH-6L		600×285×305	6			
SAL -800G2	B	Induction	1.5(3Φ)	665×370×405	47	SMH-12L	12	515×300×350	7	1.5	1.5	500
						SVH-12L		695×300×360	12			
SAL -900G	A	Induction	0.75(3Φ))	670×390×740	50	1×SMH-6L	6	460×260×315	6	1.5	1.5	500
						1×SVH-6L		600×285×305	6			
						2×SMH-6L		460×260×315	6			
						2×SVH-6L		600×285×305	6			
SAL -900G2	A	Induction	1.5(3Φ)	670×390×740	57	1×SMH-12L	12	515×300×350	7	1.5	1.5	700
						1×SVH-12L		695×300×360	12			
						2×SMH-12L		515×300×350	7			
						2×SVH-12L		695×300×360	12			

Notes: 1) "2" stands for 2HP blower.

2) "G" stands for separate design of hopper receiver (s) and main unit (s).

3) "SVH" stands for photosensor hopper receiver; " SMH " stands for vacuum hopper receiver.

4) For polished hopper inside ones, add "P" at the end of model code.

5) It is available to select ACF-1 cyclone dust separator (Additonally mount at the back of main unit).

6) Test condition of conveying capacity: Plastic material of bulk density 0.65kg/L, dia. 3~5 mm, vertical conveying height: 4m, horizontal conveying distance: 5m.

7) Power supply: 3Φ, 230/400/460/575V, 50/60Hz for all models except SAL-700G (1Φ, 115/230V, 50/60Hz).

1.5 Safety Regulations

Please abide by the safety guide when you operate the machine so as to prevent damage of the machine and personal injuries.

1.5.1 Safety Signs and Labels

All electrical components should be installed by qualified electricians.
Turn off main switch and control switch during repair and maintenance.

Warning！High voltage！
This mark is attached on the cover of the control box.

Warning！Be careful！
Be more careful when this mark appears.

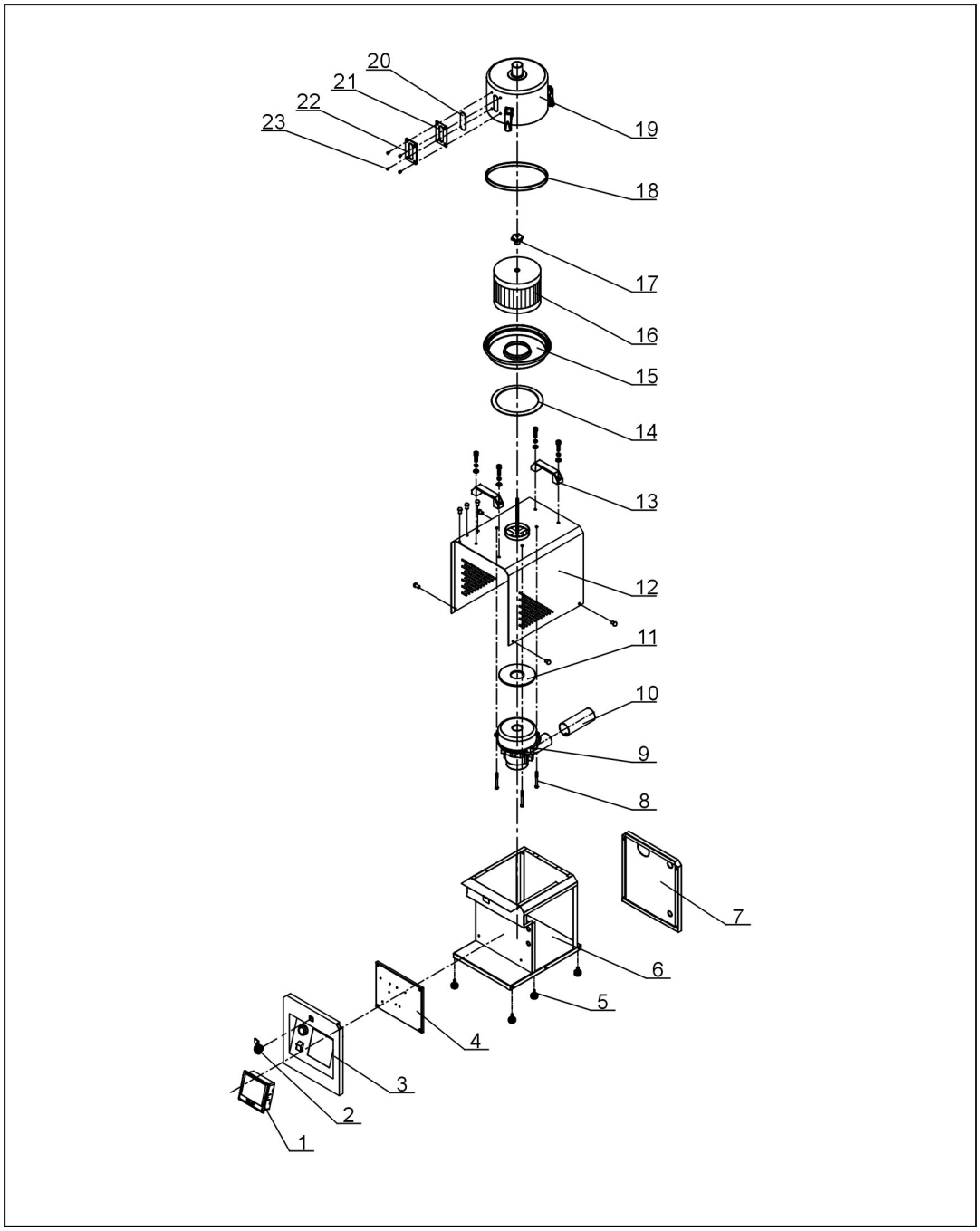
Attention！
No need for regular inspection because all the electrical parts in the control unit are fixed tightly！

1.5.2 Signs and Labels

	1. Please clean the suction filter regularly to avoid clogging and ensure proper loading capacity and long life span. 2. The one year warranty does not cover the suction filter, please clean the filter carefully.

2. Assembly Drawing

2.1 Assembly Drawing (SAL-700G)



Remarks: Please refer to material list 2.2 for specific explanation of the Arabic numbers in parts drawing.

Picture2-1: Assembly drawing(SAL-700G)

2.2 Parts List (SAL-700G)

Table 2-1: Parts List (SAL-700G)

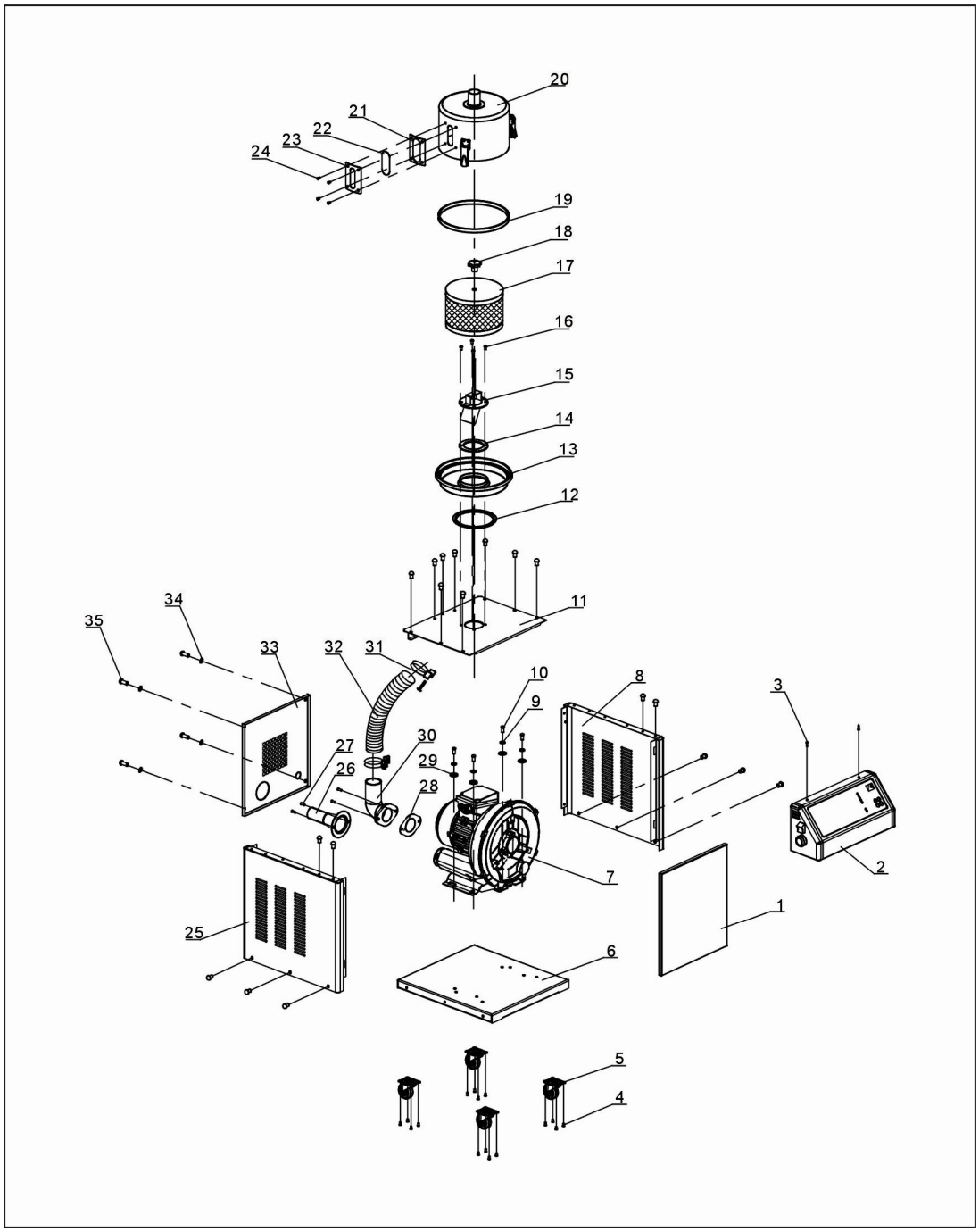
No.	Component Name	Parts number
1	Control box	-
2	Door lock	YW00000600000
3	Door plate	-
4	Electric fixing plate	-
5	Foot pad ⌀30*17	YR40301740000
6	Outer frame assembly	-
7	Rear plate	-
8	Inner hexagon column screw M6X65	YW61066500100
9	Carbon brush motor	YM30119625000
10	Air exhaust pipe	-
11	Motor fastener	YP62141200000
12	Cover	-
13	Aluminum square handle L120	BW20012000040
14	Fastener	YR10080000000
15	Filter barrel cover	-
16	Filter	YR50708000100
17	Star nut 5/16″	YW09051600000
18	Filter barrel fastener	YR10080000300
19	Filter barrel	-
20	Four-hole acryl	YR40001200100
21	Four-hole sight glass fastener	YR40000400000
22	Four-hole sight glass	YW09000000400
23	Cross recessed pan head screw M5X10	YW62051000100

* means possible broken parts.

** means easy broken parts and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.3 Assembly Drawing (SAL-800G/G2)



Remarks: Please refer to material list 2.4 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-2: Assembly drawing(SAL-800G/G2)

2.4 Parts List (SAL-800G/800G2)

Table 2-2: Parts List (SAL-800G/800G2)

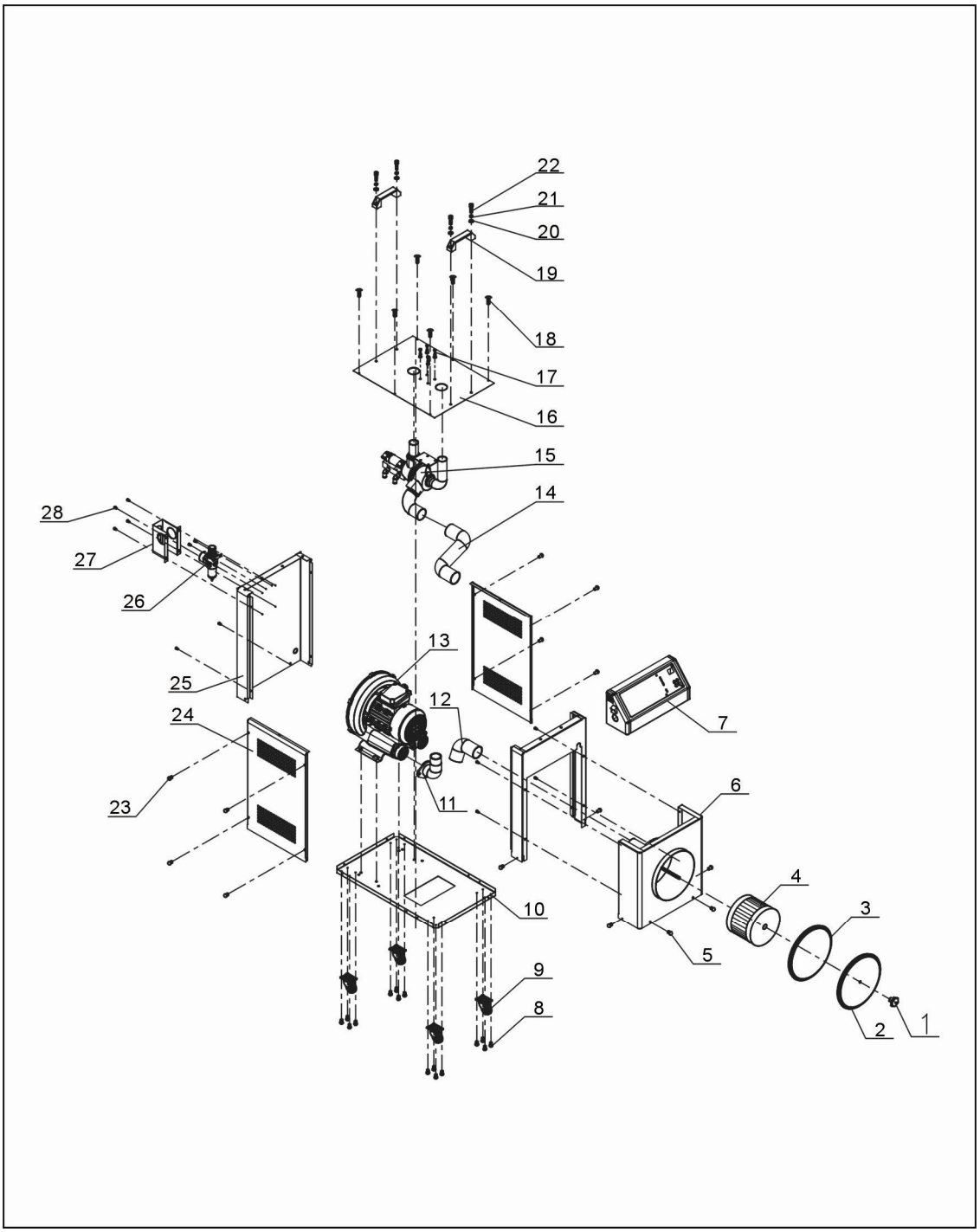
No.	Component Name	Parts number
1	Front plate	BL20080000920
2	Control box	-
3	Cross recessed pan head screw M4×5	YW62040500000
4	Cross recessed pan head screw M5×10	YW62051000100
5	Black castor	YW03000200000
6	Bottom plate	BL20080000020
7	High-pressure blower 1HP	BM30031000150
	High-pressure blower 2HP	BM30042000150
8	Right side plate	-
9	Spring washer 8	YW65008000000
10	Hexagon head screw M8×16	YW60081600100
11	Top plate	BL32080000000
12	Fastener *	YR10080000000
13	Filter barrel cover	BL20070000720
14	Fastener of material inlet pipe *	YR10243600000
15	Filter barrel base	-
16	Cross recessed pan head screw M6×10	YW62061000000
17	Filter*	YR50708000100
18	Star nut 5/16″	YW09051600000
19	Filter barrel fastener *	YR10080000300
20	Filter barrel*	-
21	Four-hole sight glass fastener *	YR40000400000
22	Four-hole acryl	YR40001200100
23	Four-hole sight glass	YW09000000400
24	Cross recessed pan head screw M5×10	YW62051000100
25	Left side plate	-
26	Air exhaust pipe 1HP	YR40080000100
	Air exhaust pipe 2HP	YR40080000200
27	Cross recessed pan head screw M6×15	YW63061500000
28	Air inlet fastener of blower 1HP	YR10001000000
	Air inlet fastener of blower 2HP	YR10002000000
29	Flat gasket 8	YW66082200000
30	Air suction pipe elbow 1HP	YR40004700000
	Air suction pipe elbow 2HP	YR40002000000
31	Pipe clamp 2” *	YW02005700000
32	Steel wire hose 2"	YR60000200000
33	Rear plate	-
34	Flat gasket 6	YW66061200000
35	Cross recessed pan head screw M6×20	YW63062000000

* means possible broken parts.

** means easy broken part. and spare backup is suggested.

Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.5 Assembly Drawing (SAL-900G/G2)



Remarks: Please refer to material list 2.6 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-3: Assembly drawing(SAL-900G/G2)

2.6 Parts List SAL-900G/G2

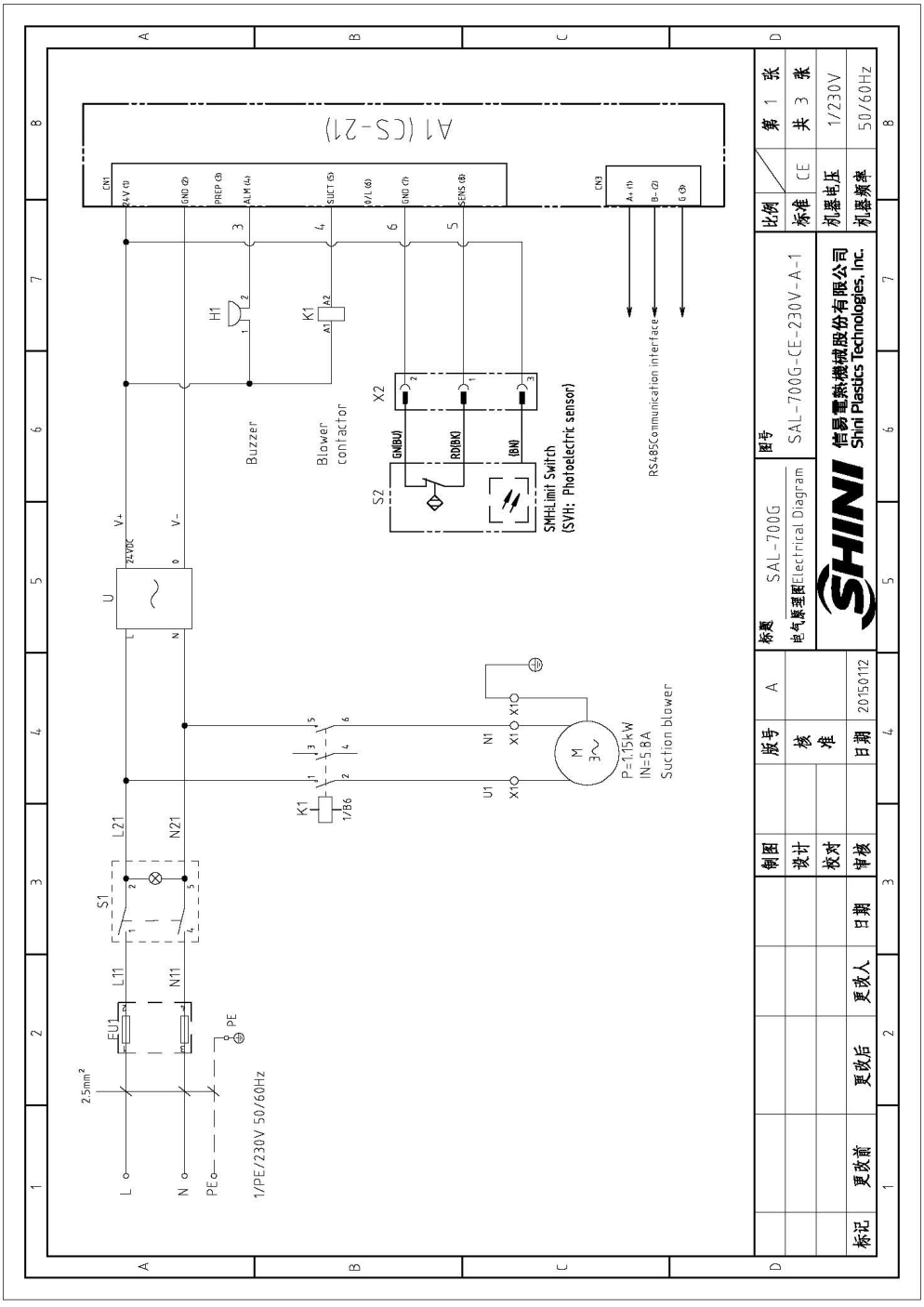
Table 2-3: Parts List (SAL-900G/900G2)

No.	Component Name	Parts number
1	Star nut	YW09051600000
2	Filter barrel cover	-
3	Filter barrel fastener *	YR10080000300
4	Filter*	YR50708000100
5	Cross recessed pan head screw M6 × 10	YW62061000000
6	Front board	-
7	Control box	-
8	Cross recessed pan head screw M5 × 10	YW62051000100
9	Black castor 2''	YW03000200000
10	Base	-
11	Air inlet pipe elbow 1HP	YR40004700000
	Air inlet pipe elbow 2HP	YR40002000000
12	Steel wire hose 1	YR60000200000
13	High pressure bolwer 1HP	BM30031000150
	High pressure bolwer 2HP	BM30042000050
14	Steel wire hose 2	YR60000200000
15	Three way valve	-
16	Cover	-
17	Hexagon screw bolt M6 × 12	YW60061200100
18	Cross recessed pan head screw M6 × 10	YW62061000000
19	Aluminum square handle L120	BW20012000040
20	Flat washer	YW66061300000
21	Spring washer	YW65006000000
22	Inner hexagon column screw M6 × 20	YW61062000300
23	Cross recessed pan head screw M6 × 20	YW61062000300
24	Side plate	-
25	Rear plate	-
26	Filter & pressure regulating valve	YE30200020000
27	Filter & pressure regulating valve cover	-
28	Cross recessed pan head screw M5 × 10	YW62051000100

* means possible broken parts.
** means easy broken part. and spare backup is suggested.
Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

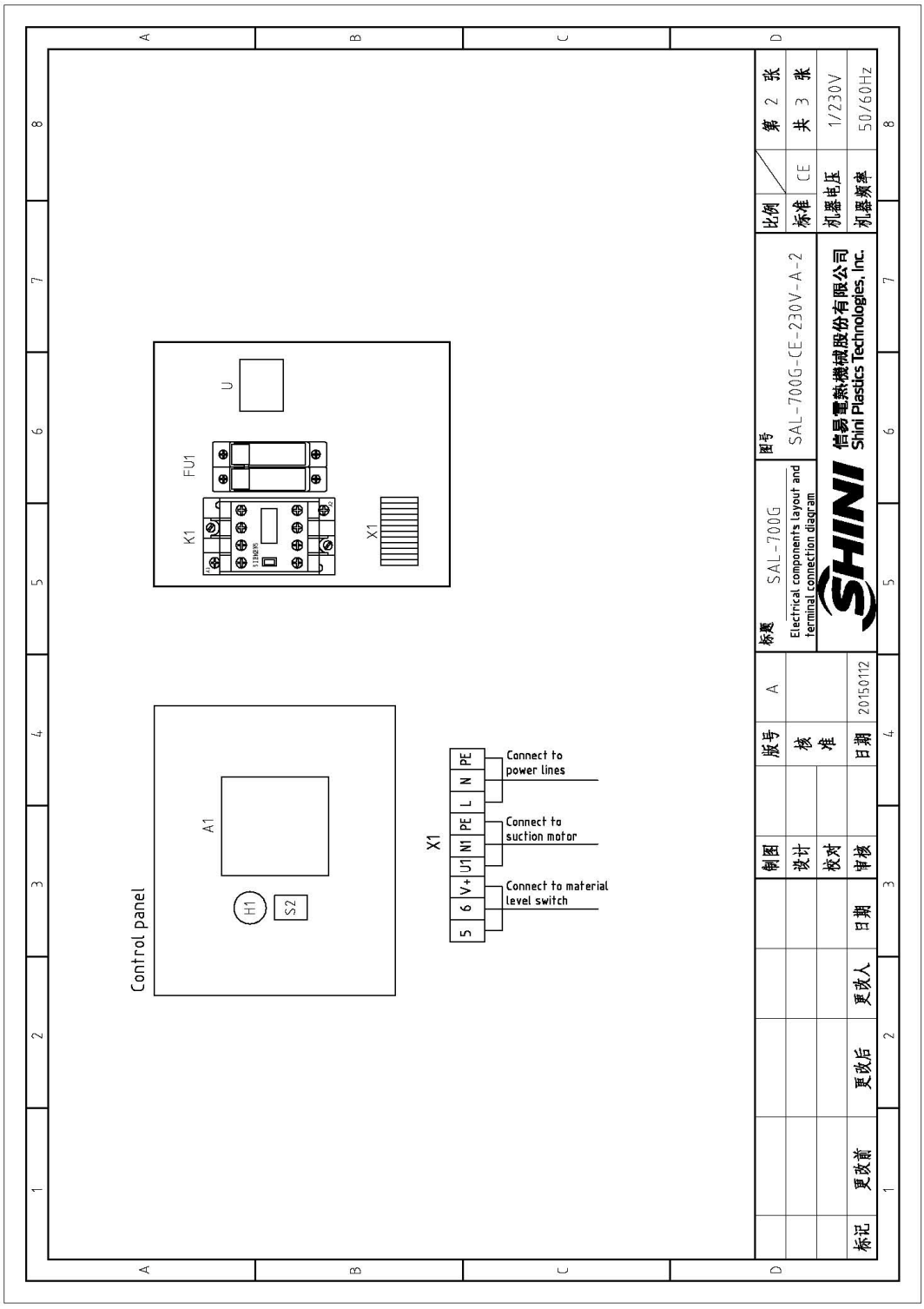
3. Electrical Diagram

3.1 Electrical Diagram (SAL-700G)



Picture 3-1: Electrical diagram (SAL-700G)

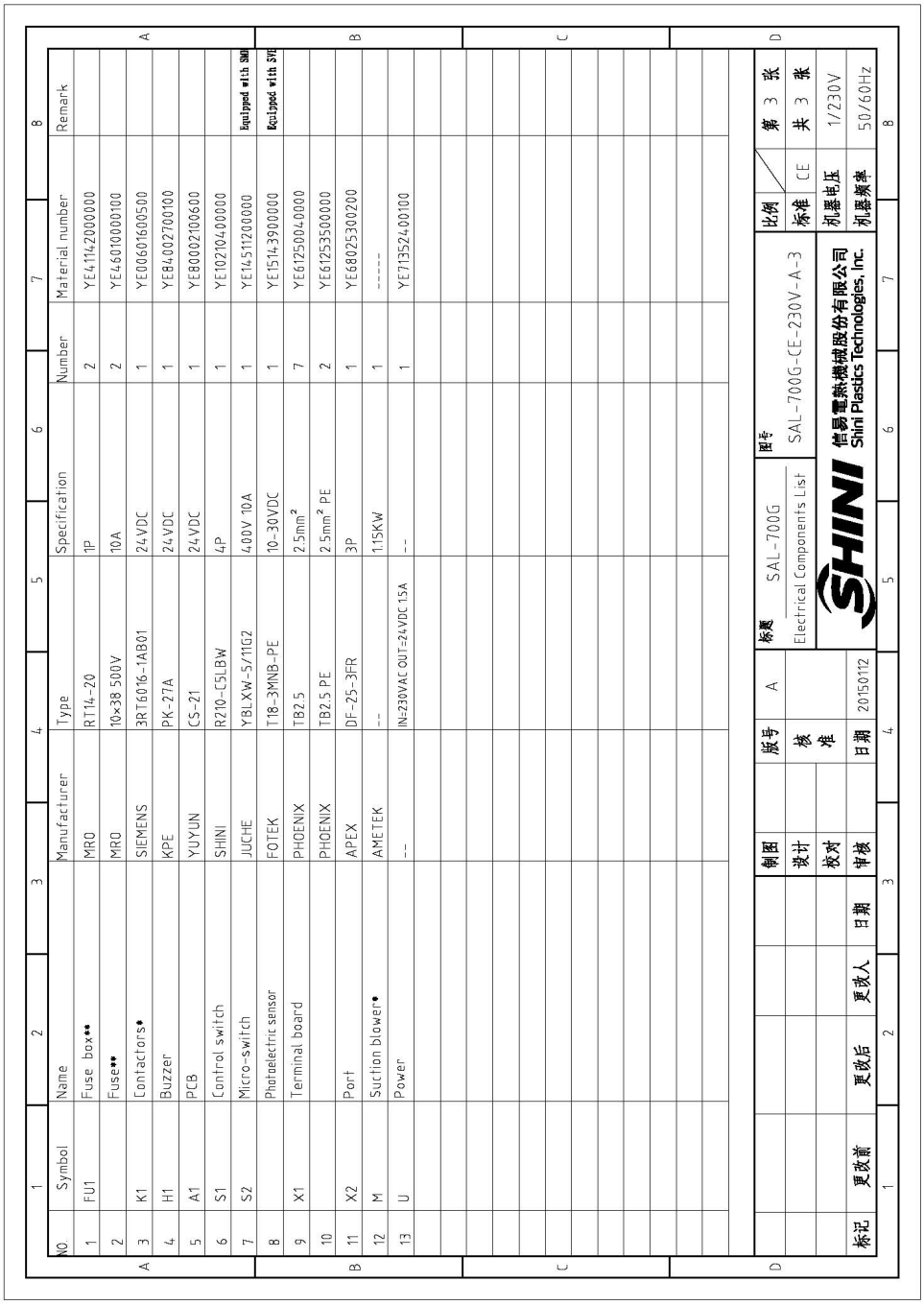
3.2 Electrical Components Layout (SAL-700G)



Picture 3-2: Electrical components layout(SAL-700G)

3.3 Electrical Components List (SAL-700G)

Table 3-1: Electrical Components List (SAL-700G)

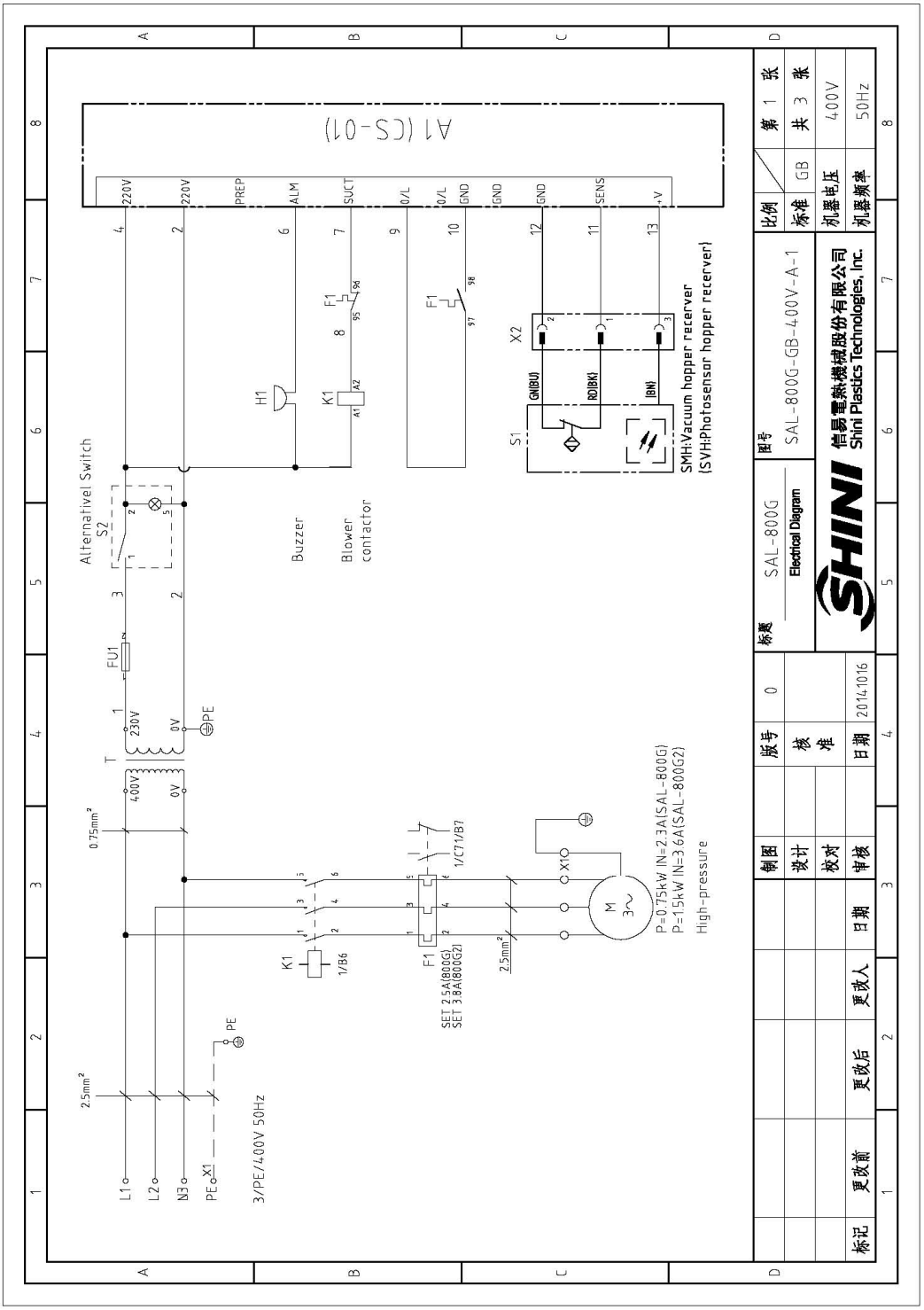


NO	Symbol	Name	Manufacturer	Type	Specification	Number	Material number	Remark
1	FU1	Fuse box**	MRO	RT14-20	1P	2	YE4142000000	
2		Fuse**	MRO	10×38 500V	10A	2	YE4601000100	
3	K1	Contactors*	SIEMENS	3RT6016-1AB01	24VDC	1	YE0060160500	
4	H1	Buzzer	KPE	PK-27A	24VDC	1	YE8400270100	
5	A1	PCB	YUYUN	CS-21	24VDC	1	YE8000210600	
6	S1	Control switch	SHINI	RZ10-E5LBW	4P	1	YE1021040000	
7	S2	Micro-switch	JUCHE	YBLXW-5/11G2	400V 10A	1	YE1451120000	Equipped with SMD
8		Photoelectric sensor	FOTEK	T18-3MNB-PE	10-30VDC	1	YE1514390000	Equipped with SMD
9	X1	Terminal board	PHOENIX	TB2.5	2.5mm²	7	YE6125040000	
10			PHOENIX	TB2.5 PE	2.5mm² PE	2	YE6125350000	
11	X2	Port	APEX	DF-25-3FR	3P	1	YE6802530200	
12	M	Suction blower*	AMETEK	--	1.15KW	1	-----	
13	U	Power	--	IN:230VAC OUT:24VDC 15A	--	1	YE7135240010	

标记	更改前	更改后	更改人	日期	制图		版号	A	标题 SAL-700G Electrical Components List	图号 SAL-700G-CE-230V-A-3	比例	第 3 张
					设计		核				标准 CE	共 3 张
					校对		准		SHINI 信易電熱機械股份有限公司 Shini Plastics Technologies, Inc.		机器电压	1/230V
					审核		日期	20150112			机器频率	50/60Hz

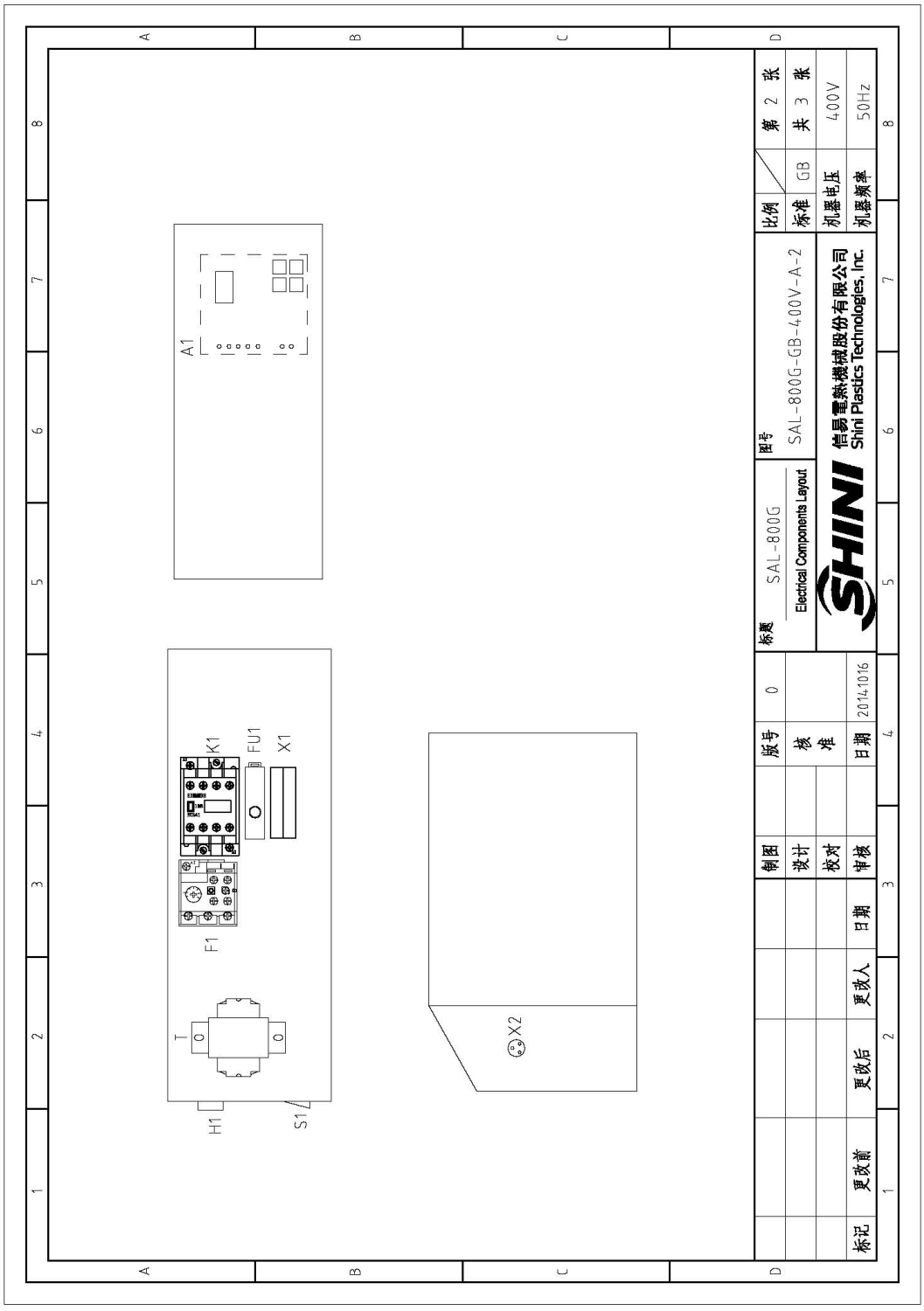
* means possible broken parts. ** means easy broken parts and spare backup is suggested.Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

3.4 Electrical Diagram (SAL-800G/800G2)



Picture 3-3: Electrical diagram (SAL-800G/800G2)

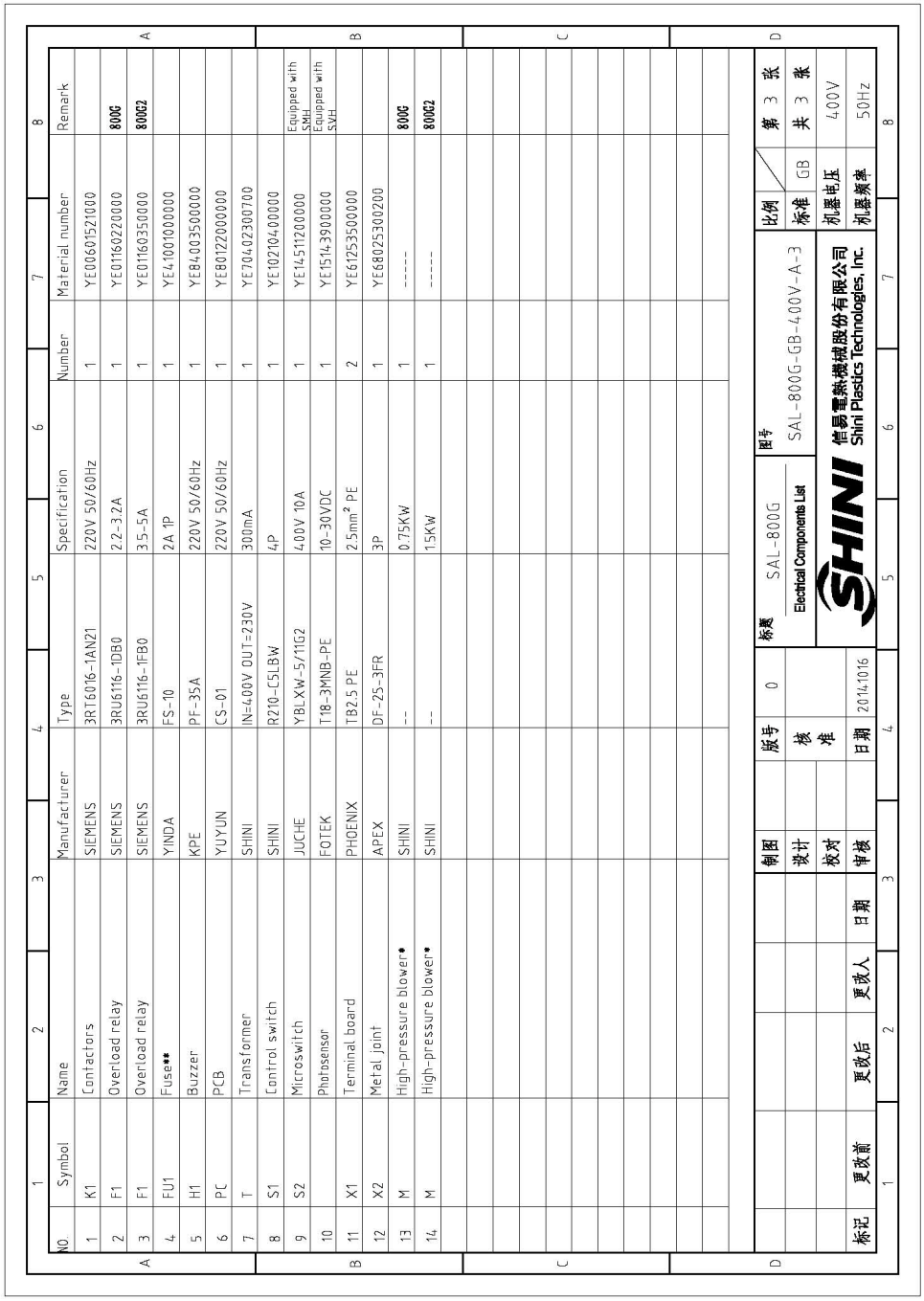
3.5 Electrical Component Layout (SAL-800G/800G2)



Picture 3-4: Electrical components layout (SAL-800G/800G2)

3.6 Electrical Components List (SAL-800G/800G2)

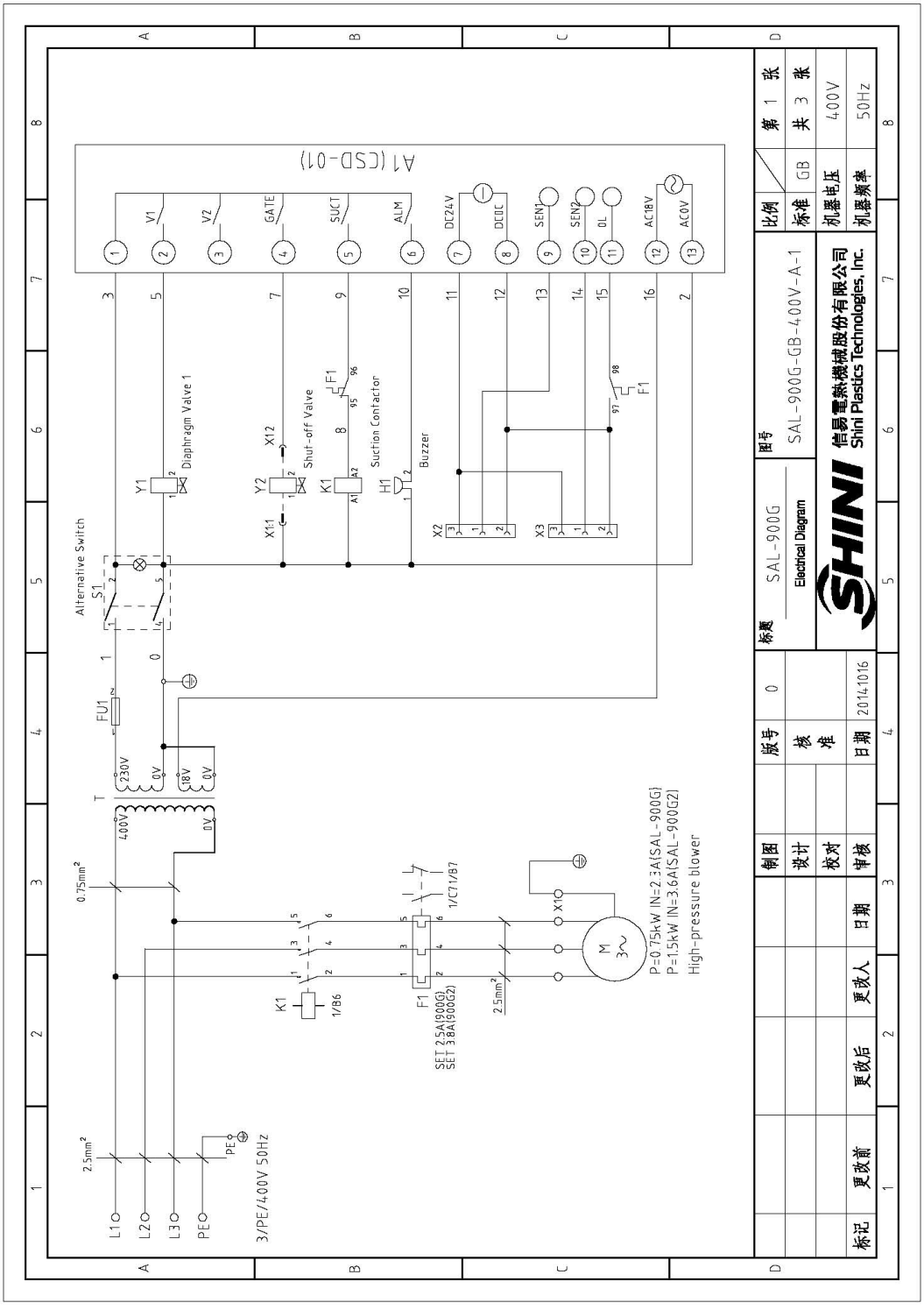
Table 3-2: Electrical Components List (SAL-800G/800G2)



NO.	Symbol	Name	Manufacturer	Type	Specification	Number	Material number	Remark
1	K1	Contactors	SIEMENS	3RT6016-1AN21	220V 50/60Hz	1	YE0060152100O	
2	F1	Overload relay	SIEMENS	3RU6116-1DB0	2.2-3.2A	1	YE0116022000O	800G
3	F1	Overload relay	SIEMENS	3RU6116-1FB0	3.5-5A	1	YE0116035000O	800G2
4	FU1	Fuse**	YINDA	FS-10	2A 1P	1	YE4100100000O	
5	H1	Buzzer	KPE	PF-35A	220V 50/60Hz	1	YE8400350000O	
6	PC	PCB	YUYUN	CS-01	220V 50/60Hz	1	YE8012200000O	
7	T	Transformer	SHINI	IN=400V OUT=230V	300mA	1	YE7040230070O	
8	S1	Control switch	SHINI	R210-C5LBW	4P	1	YE1021040000O	Equipped with SMH
9	S2	Microswitch	JUCHE	YBLXW-5/11G2	400V 10A	1	YE1451120000O	Equipped with SVH
10		Photosensor	FOTEK	T18-3MNB-PE	10-30VDC	1	YE1514390000O	
11	X1	Terminal board	PHOENIX	TB2.5 PE	2.5mm² PE	2	YE6125350000O	
12	X2	Metal joint	APEX	DF-25-3FR	3P	1	YE6802530020O	800G
13	M	High-pressure blower*	SHINI	--	0.75KW	1	-----	800G
14	M	High-pressure blower*	SHINI	--	1.5KW	1	-----	800G2

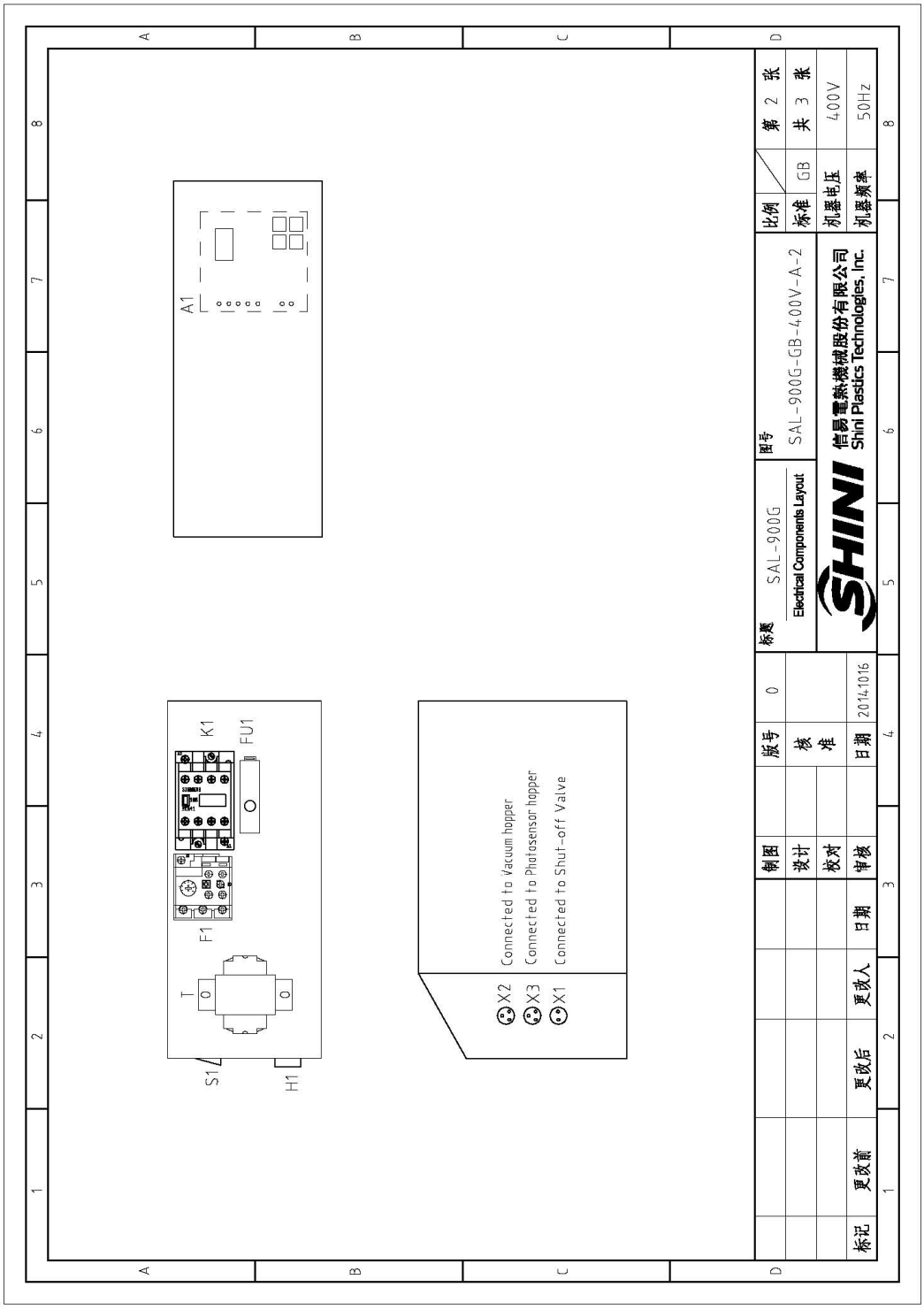
* means possible broken parts. ** means easy broken parts and spare backup is suggested.Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

3.7 Electrical Diagram (SAL-900G/900G2)



Picture 3-5: Electrical diagram (SAL-900G/900G2)

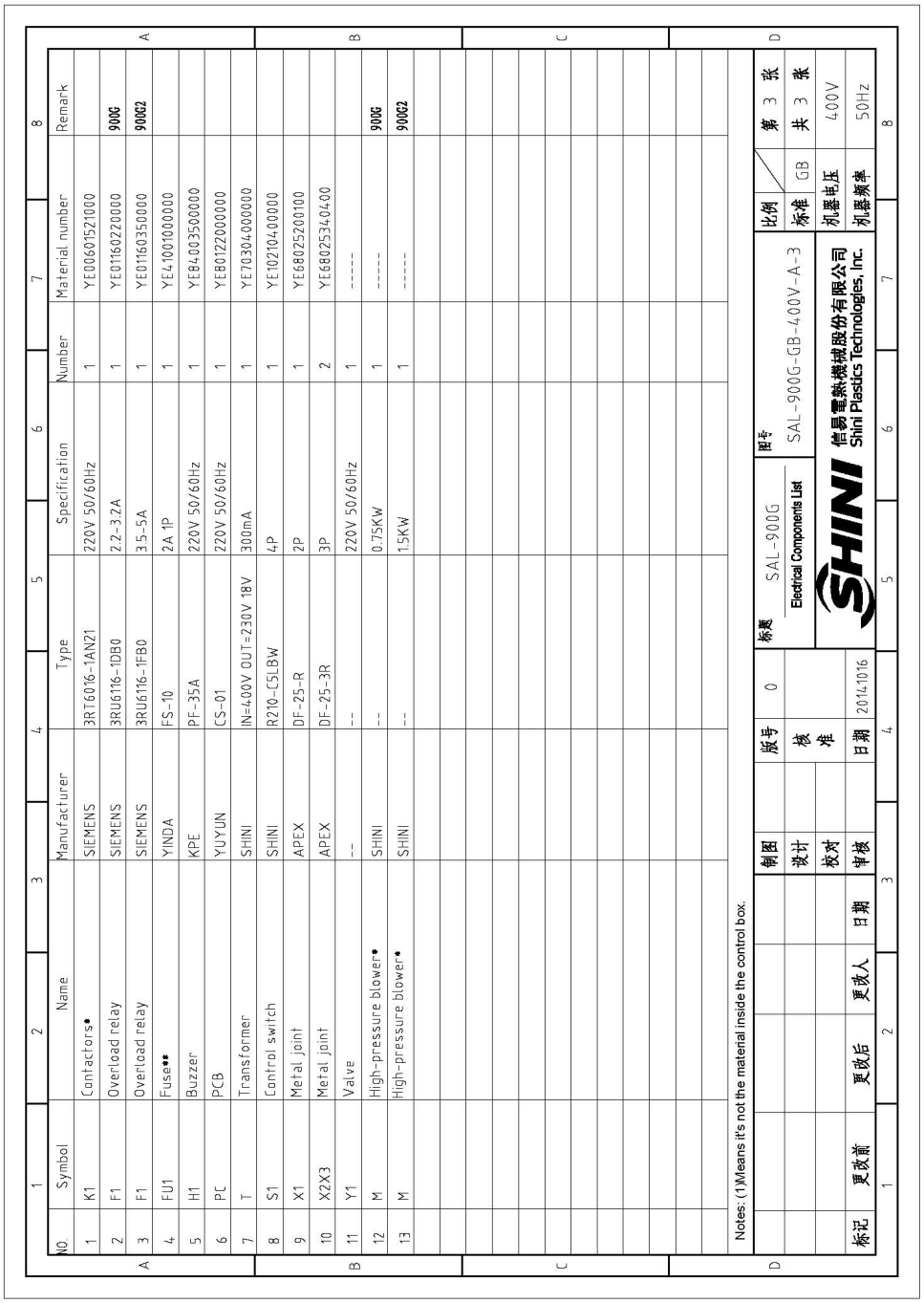
3.8 Electrical Component Layout (SAL-900G/900G2)



Picture 3-6: Electrical components layout (SAL-900G/900G2)

3.9 Electrical Components List (SAL-900G/900G2)

Table 3-3: Electrical Components List (SAL-900G/900G2)



NO	Symbol	Name	Manufacturer	Type	Specification	Number	Material number	Remark
1	K1	Contactors*	SIEMENS	3RT6016-1AN21	220V 50/60Hz	1	YE0060152I000	
2	F1	Overload relay	SIEMENS	3RU6116-1DB0	2.2-3.2A	1	YE0116022O000	900G
3	F1	Overload relay	SIEMENS	3RU6116-1FB0	3.5-5A	1	YE0116035O000	900G2
4	FU1	Fuse**	YINDA	FS-10	2A 1P	1	YE4100100000	
5	H1	Buzzer	KPE	PF-35A	220V 50/60Hz	1	YE8400350000	
6	PC	PCB	YUYUN	CS-01	220V 50/60Hz	1	YE8012200000	
7	T	Transformer	SHINI	IN-400V OUT=230V 18V	300mA	1	YE7030400000	
8	S1	Control switch	SHINI	R210-C5LBW	4P	1	YE1021040000	
9	X1	Metal joint	APEX	DF-25-R	2P	1	YE6802520010	
10	X2X3	Metal joint	APEX	DF-25-3R	3P	2	YE6802534040	
11	Y1	Valve	--	--	220V 50/60Hz	1	-----	
12	M	High-pressure blower*	SHINI	--	0.75KW	1	-----	900G
13	M	High-pressure blower*	SHINI	--	1.5KW	1	-----	900G2

Notes: (1)Means it's not the material inside the control box.

标记	更改前	更改后	更改人	日期

制图		版号	0
设计		核准	
校对			
审核		日期	2014.10.16

标准	SAL-900G
Electrical Components List	

SHINI 信易電熱機械股份有限公司 Shini Plastics Technologies, Inc.

图号	SAL-900G-GB-400V-A-3
比例	
标准	GB
机器电压	400V
机器频率	50Hz
第 3 张	
共 3 张	

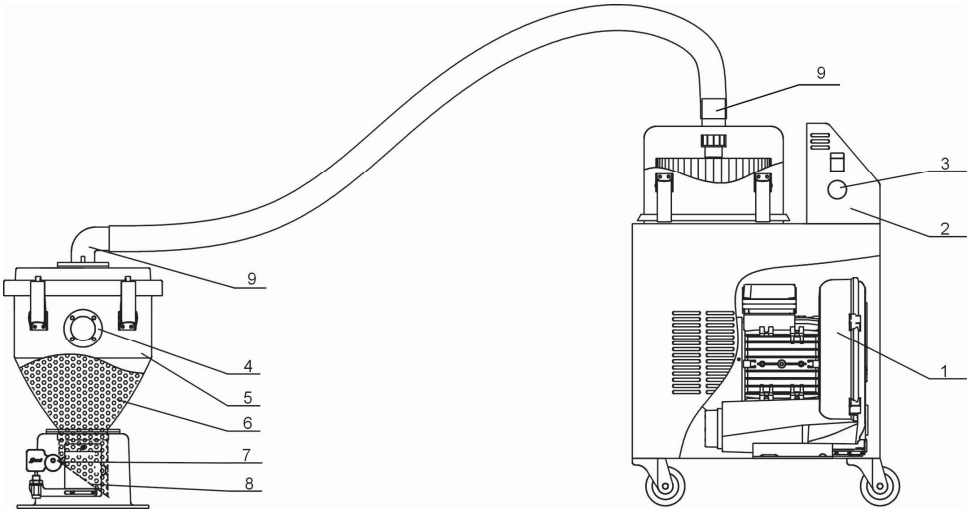
* means possible broken parts. ** means easy broken parts and spare backup is suggested.Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

4. Description Function

4.1 Working Principle

SAL-G series are suitable for conveying plastic granules over long distance. Utilizing high efficiency vacuum blower to produce vacuum in material hopper, plastic materials will then be fed into material hopper by air pressure.

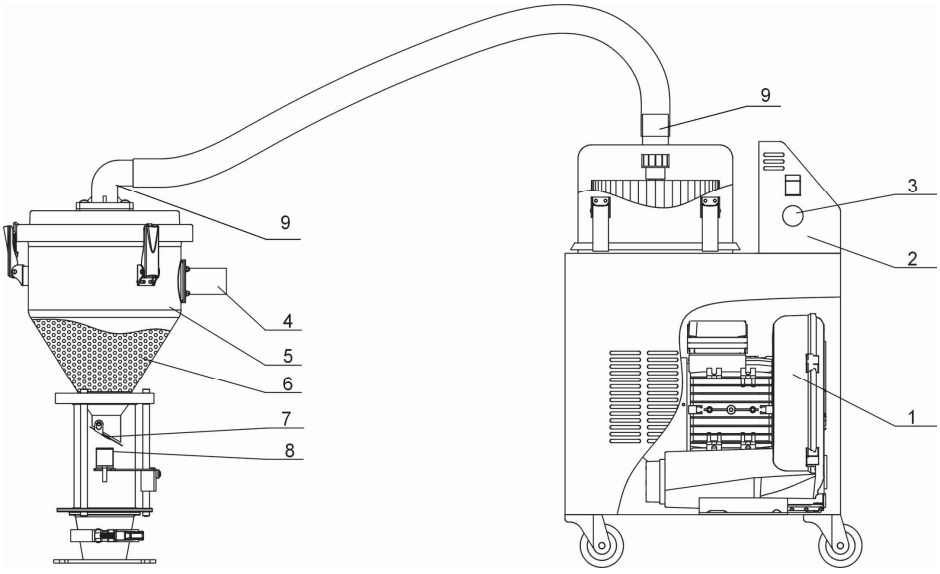
4.1.1 SAL-700G/800G/800G2 Working Principle



Picture 4-1: Working principle 1 (SAL-700G/800G/800G2)

1. High-pressure blower
2. Control box
3. Buzzer
4. Material inlet pipe
5. Storage hopper
6. Materials
7. Microswitch
8. Discharging plate
9. Air suction inlet

Turn on the machine, the high pressure blower(1)starts work, it makes storage hopper (5) generate the vacuum. Discharging plate(8) closed, materials in silo get into the storage hopper(5) through material inlet pipe(4) by air pressure. When the loader finishes the work, high pressure blower(1) stop working, materials (6) will drop off due to gravity. When the micro-switch(7) detects there's no material, high pressure blower (1) will start working again. When the loader can't suck the matrial or material shortage, the buzzer(3) on control box(2) will alarm.

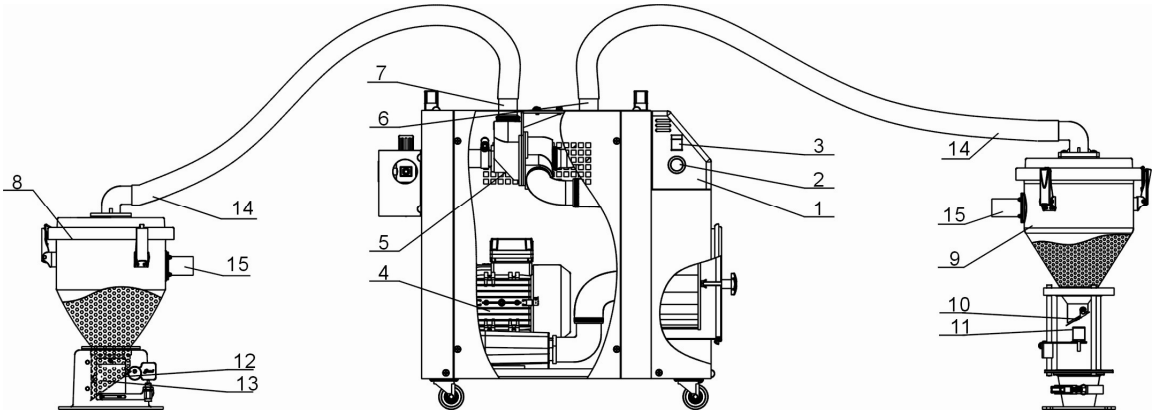


Picture 4-2: Working principle 2 (SAL-700G/800G/800G2)

1. High-pressure blower
2. Control box
3. Buzzer
4. Material inlet pipe
5. Storage hopper
6. Materials
7. Discharging plate
8. Photosensor switch
9. Air suction inlet

Turn on the machine, the high pressure blower(1)starts work, it makes storage hopper (5) generate the vacuum. Discharging plate(7) closed, materials in silo get into the storage hopper(5) through material inlet pipe(4) by air pressure. When the loader finishes the work, high pressure blower(1) stop working, materials (6) will drop off due to gravity. When the photosensor (8) detects there's no material, high pressure blower (1) will start working again. When the loader can't suck the matrial or material shortage, the buzzer(3) on control box(2) will alarm.

4.1.2 SAL-900G/900G2 Working Principle



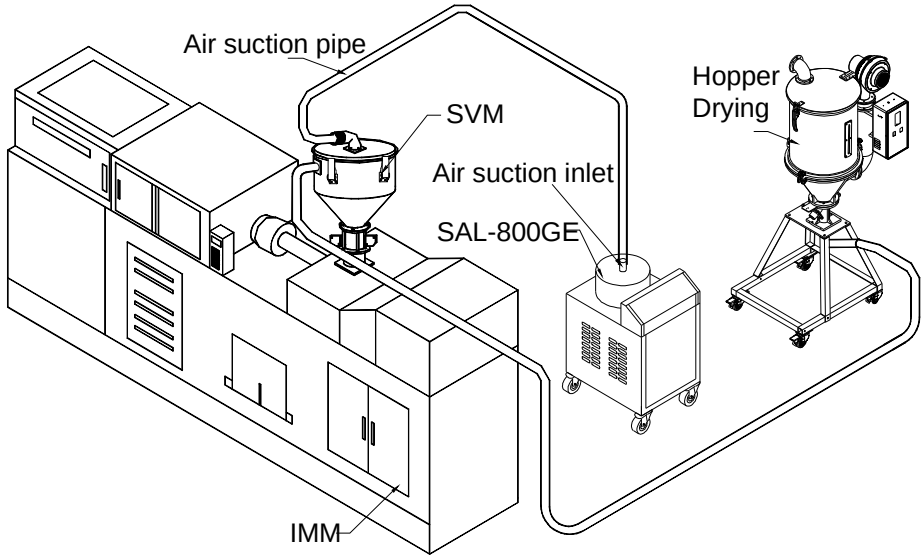
Picture 4-3: Working principle (SAL-900G/900G2)

1. Control box
2. Buzzer
3. Alternative switch
4. High-pressure blower
5. Three way valve
6. Air suction inlet 1
7. Air suction inlet 2
8. Storage hopper 1
9. Storage hopper 2
10. Discharging plate1
11. Photosensor
12. Discharging plate2
13. Microswitch
14. Hopper suction pipe
15. Material inlet pipe

Turn on the alternative switch (3), via the operation panel to set the suction time of the storage hopper 1 (8) and storage hopper 2 (9), then press the start button and the high pressure blower (4) starts work. The air suction inlet 1 (6)of three way valve (5) opens and the air suction inlet 2 (7) closes, discharging plate (10) closes, and then storage hopper 1(8) starts suctioning material, after material suction finishes, the high pressure blower(4) stops. Because of deadweight, materials in storage hopper 1(8) drops down. When the microswitch (13) detects that there is no material in the storage hopper 2 (9), blower (4) works again. And solenoid valve works, three way valve (5) controlled air suction inlet 2 (7) opens, and discharging plate2 (12) closes, storage hopper 2 (9) begins suctioning material, when finished, if photosensor (11) detect that there is no material in storage hopper 1 (8), via the solenoid valve alternative, the high pressure blower (4) start working again. The machine works according to this cycle. The buzzer (2) on control box (1)will give an alarm when material can not be sucked or there is no material.

5. Installation Layout

5.1 SAL-700G/800G/800G2



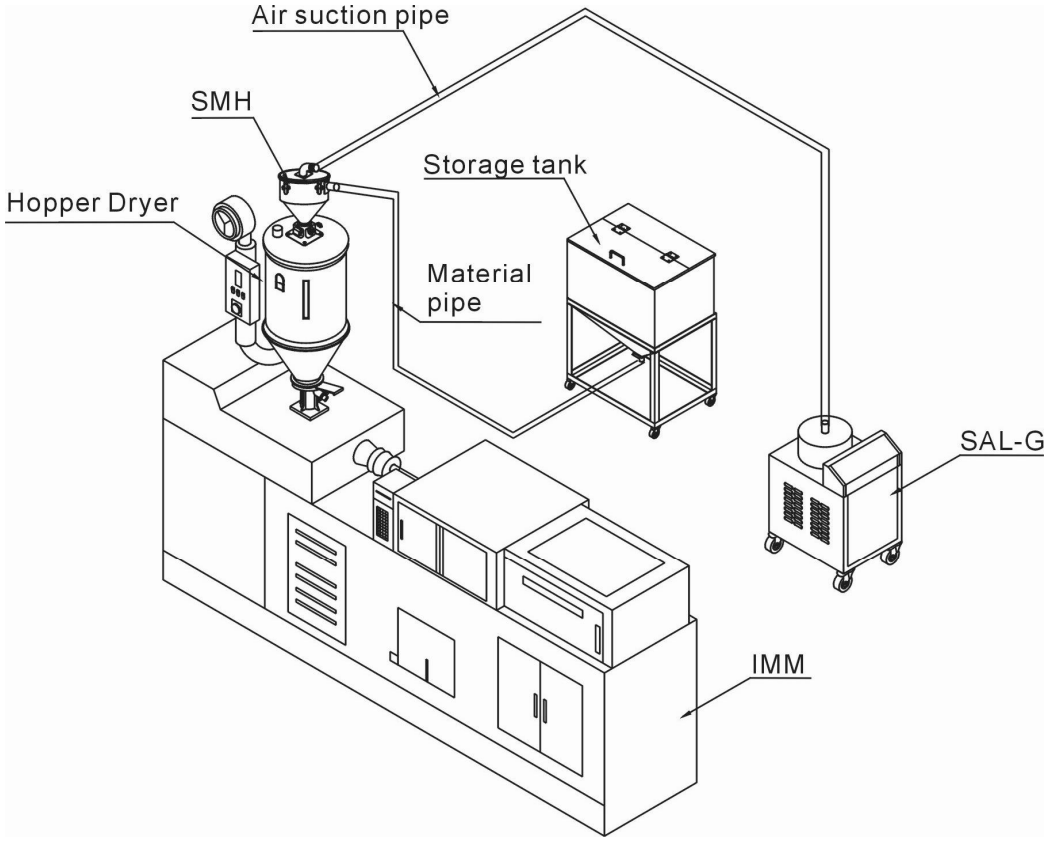
Picture 5-1: Installation layout 1 (SAL-700G/800G/800G2)

Notes for Installation and Positioning:

1) Machine just can be mounted in vertical position. Make sure there's no pipe, fixed structure or other objects above the installing location and around the machine which may block machine's installation, hit objects or injure human person.
2) For easy maintenance, it's suggested to leave 1m space around the machine.
3) Machine should be placed on water-level surface. If it needs to be mounted on a higher surface (e.g. the scaffold or the interlayer), should ensure its structure and size could bear the weight and size of the machine.

Installation:

1. Place the SAL-700G/800G/800G2 machine at a proper position on the ground, connect the three phase power cord and the earth.
2. Install the material hopper on the top of the hopper dryer and the sensor hopper onto the plastic injection machine. Connect the signal cord to the machine SAL-700G/800G/800G2.
3. Use the steel wire soft hose, connect the air inlets of the sensor hopper to the current air inlets of SAL-700G/800G/800G2, then connect the material inlets of storage tank to the vacuum hopper.

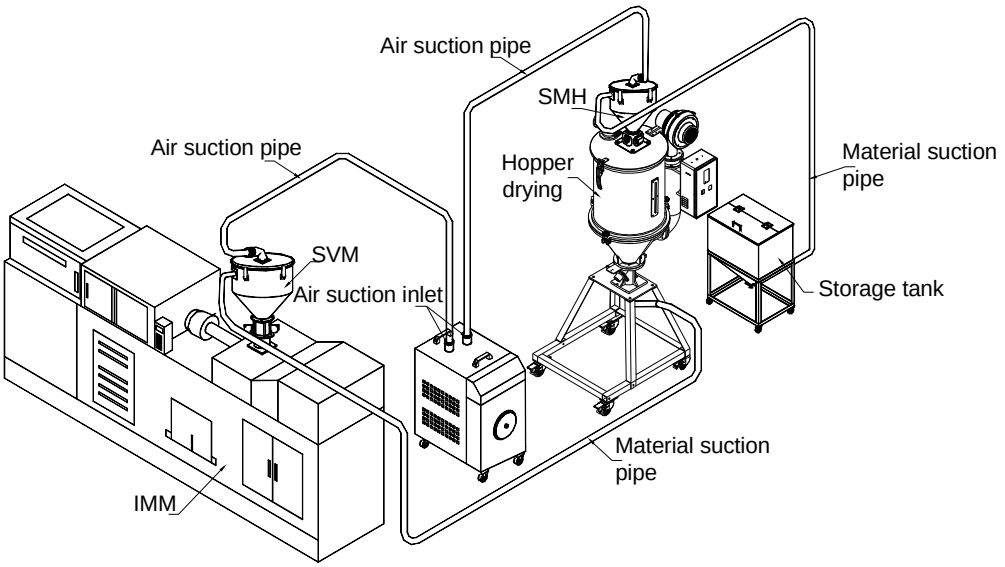


Picture 5-2: Installation layout 2 (SAL-700G/800G/800G2)

Installation:

1. Place the machine SAL-700G/800G/800G2 at a proper position on the ground, connect the three phase power cord and the earth.
2. Install the material hopper on the top of hopper dryer, and connect the signal to the machine 700G/800G/800G2.
3. Use the steel wire hose, connect the air inlets of SMH to corresponding air inlets of 700G/800G/800G2. Then connect the other air inlets of SMH to the air inlets storage tank with hose .

5.2 SAL-900G/900G2 Installation Layout 1



Picture 5-3: Installation layout 1(SAL-900G/900G2)

Notes for Installation and Positioning:

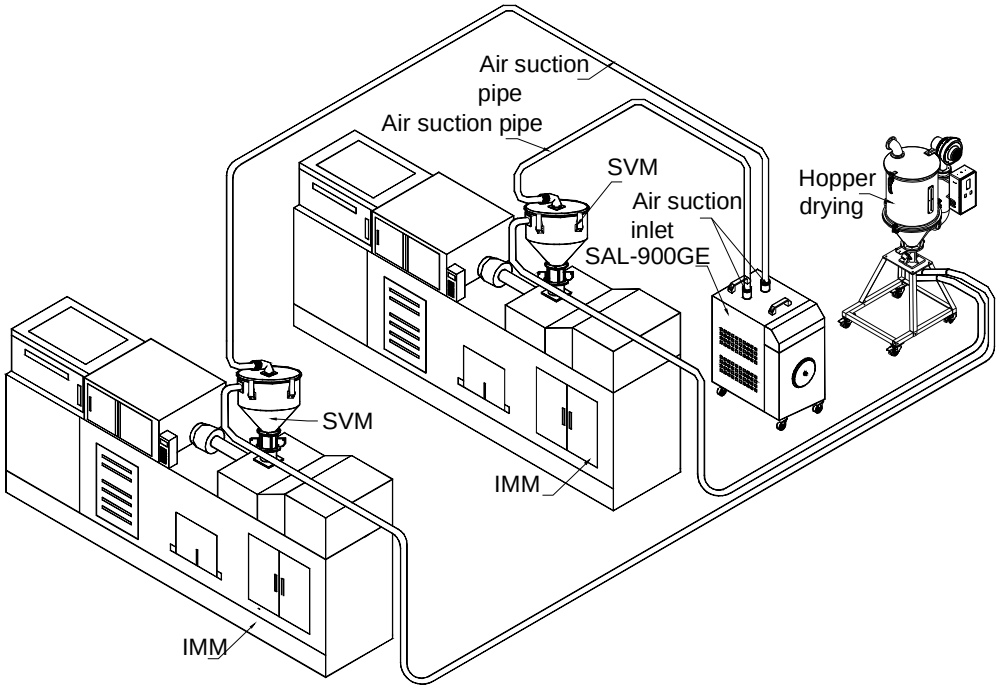
1) Machine just can be mounted in vertical position. Make sure there's no pipe, fixed structure or other objects above the installing location and around the machine which may block machine's installation, hit objects or injure human person.
2) For easy maintenance, it's suggested to leave 1m space around the machine.
3) Machine should be placed on water-level surface. If it needs to be mounted on a higher surface (e.g. the scaffold or the interlayer), should ensure its structure and size could bear the weight and size of the machine.

Installation:

1. Place the SAL-900G/900G2 machine at a proper position on the ground, connect the three phase power cord and the earth.
2. Install the material hopper on the top of the hopper dryer and the sensor hopper onto the plastic injection machine. Connect the signal cord to the machine SAL-900G/900G2 .
3. Use the steel wire soft hose, connect the air inlets of the sensor hopper and the vacuum hopper to the current air inlets of SAL-900G/900G2, then connect the material inlets of storage tank to the vacuum hopper. And connect the material inlets of sensor hopper to the hopper dryer.

*Optional shut-off valve. It makes no material to remain in the suction material hose, and avoid remaining material be moisture regain. Its working principle: The shut-off valve is linked-do with the sensor hopper, when the hopper is working, the shut-off valve can be open, and it lasts for some time (adjusted time), then it can be closed. In this period, the auto-load goes on working for suction, and the materials remain in the material hose A will be sucked into sensor hopper completely.

5.3 SAL-900G/900G2 Installation Layout 2

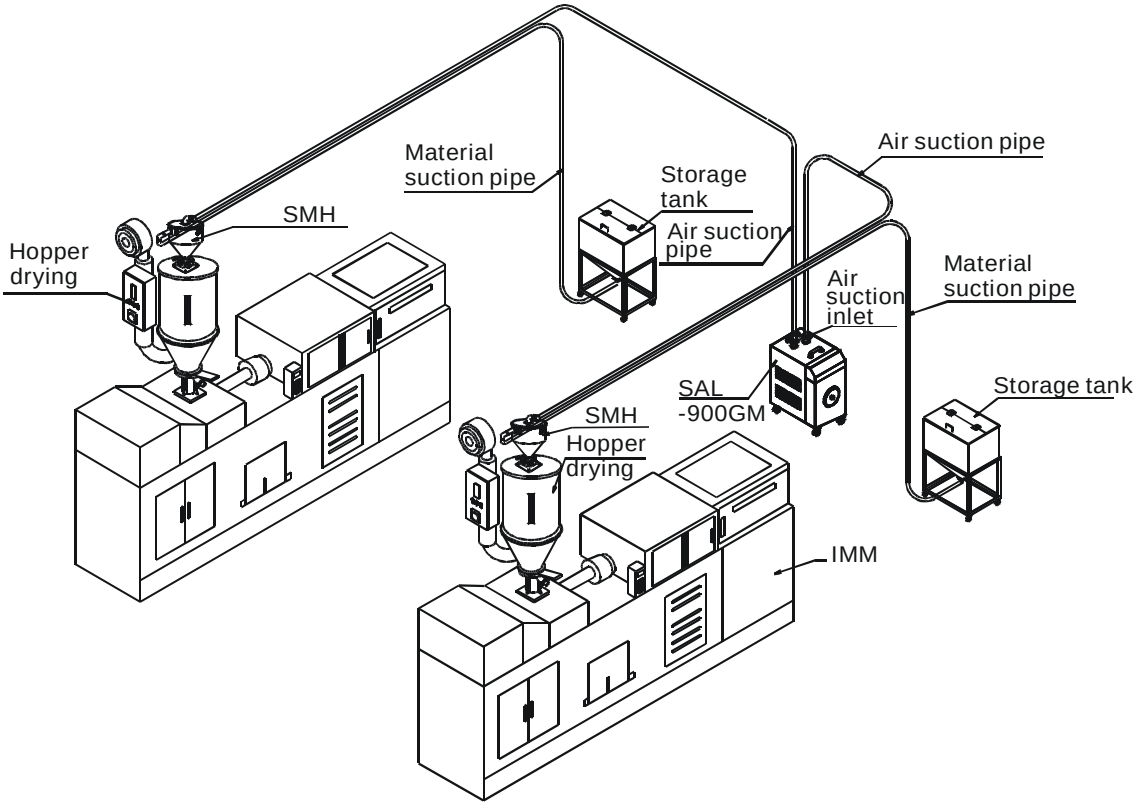


Picture 5-4: installation layout 2 (SAL-900G/900G2)

Installation:

1. Place the SAL-900G/900G2 achine at a proper position on the ground, connect the three phase power cord and the earth.
2. Install the photosensor hopper receiver (SVH) on plastic injection machine. Connect the signal cord to the machine SAL-900G/900G2 .
3. Use the steel wire hose to connect the air suction inlets of photosensor hopper receiver (SVH) to the air inlet of SAL-900G/900G2. Then connect the material suction inlets of hopper dryer to material suction inlets of photosensor hopper receiver (SVH).

5.4 SAL-900G/900G2 Installation Layout 3

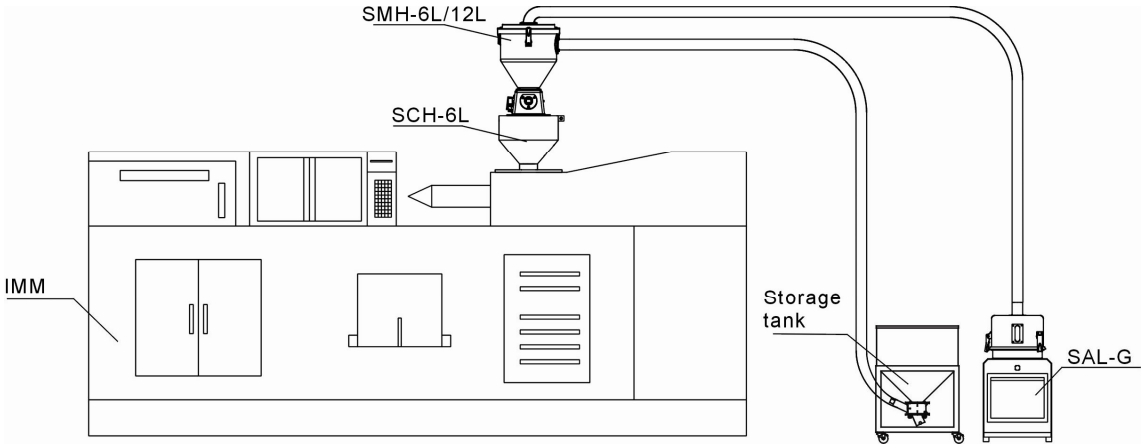


Picture 5-5: Installation layout 3 (SAL-900G/900G2)

Installation:

1. Place the SAL-900G/900G2 machine at a proper position on the ground, connect the three phase power cord and the earth.
2. Install the material hopper(SMH) on the hopper dryer. Connect the signal cord to the machine SAL-900G/900G2.
3. Use the steel wire soft hose, connect the air suction inlet of vacuum hopper (SMH) to corresponding air inlets of the SAL-900G/900G2. Then connect the material inlets of vacuum hopper to the storage hopper (SMH).

5.5 Installation of Vacuum Hopper Receiver SMH Optional Storage Collective Hopper SCH-6L



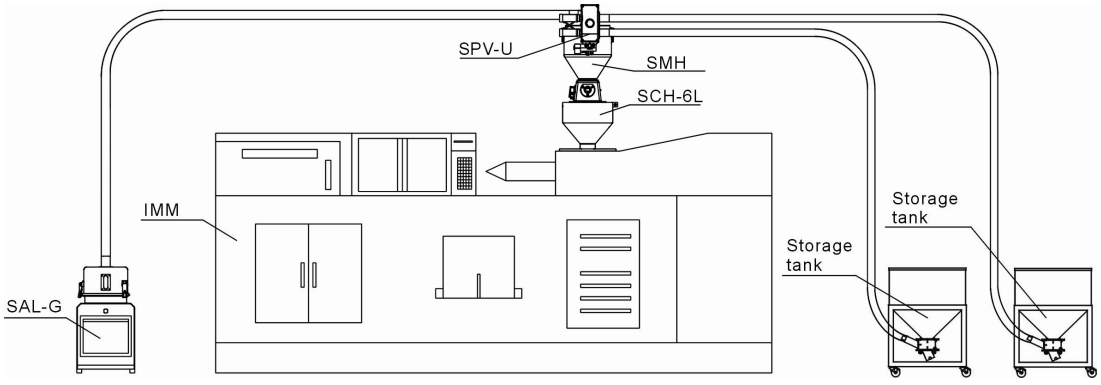
Picture 5-6: Optional SCH-6L installation layout

SMH-6L/12L vacuum hopper can option with collection hopper SCH-6H for direct mounting at material inlet of the molding machine.

Installation:

1. Mount the SCH-6L at material inlet of molding machine, point to the holes and lock the screws.
2. Put the SMH-6l/12L on the SCH-6H, point to the holes and lock the screws, then connect the signal wire to the hopper loader of SAL-G.
3. Connect the air inlet of vacuum hopper with steel wire hose separately to corresponding air inlet of SAL-G. Connect the material inlet of storage silo to the material inlet of vacuum hopper.

5.6 Installation of SAL-G Optional Proportional Valve



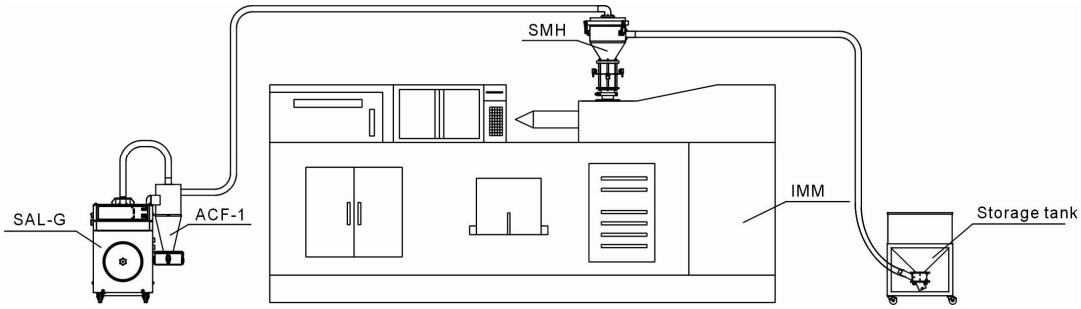
Picture 5-7: Optional SPV-U installation layout

Optional proportional valve SPV-U can realize two kinds of materials mixing.

Installation:

1. Mount the SPV-U at material inlet of SMH(SVH) lock up and fix the screws.
2. Put the SMH on SCH-6L or put the SVH at the material inlet of molding machine. Point to the holes and lock up the screws, then connect the signal wire to the hopper loader of SAL-G.
3. Connect the air inlet of vacuum hopper with steel wire hose separately to corresponding air inlet of SAL-G. Connect the material inlet of storage silo to the material inlet of vacuum hopper.

5.7 Installation of SAL-G Optional Cyclone Dust Seperator



Picture 5-8: Optional ACF-1 installation layout

When conveying plastics contain dusts in high proportion, optional dust cyclone separator is recommended to reduce the purging times of main machine filter.

Installation:

1. Mount the ACF-1 on coverplate of SAL-G and lock up the screws(There's two holes on coverplate of SAL-G main machine for installation);
2. Connect the air inlet of SAL-G main machine with steel wire hose to air outlet of ACF-1.
3. Connect the air inlet of ACF-1 with steel wire hose to air inlet of the hopper;
4. Connect one end of steel wire hose to hopper material inlet, and connect to the suction inlet of storage tank.

6. Operation

6.1 SAL-700G

6.1.1 Panel Description

Picture 6-1: Panel

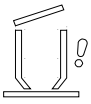
Lamp Description:

 Level sensor signal state

 Full load indicator

 Overload alarm

 Reverse, purging

 Shortage alarm

 Communication indicator

Machine in stand by, upper panel shows “P”, lower digital displays suction time.
Machine in suction, upper panel shows “D”, lower suction time starts count down, the corresponding lamp turns on.
After suction, awaits motor stop time, upper panel shows “N”, lower stop time starts count down.
Machine reverse purging or cleaing, upper panel shows “R”, lower reverse-run time and cleaning times start count down.
Timer setting, upper panel shows “Fx” mode, lower digital is set value of the parameter.

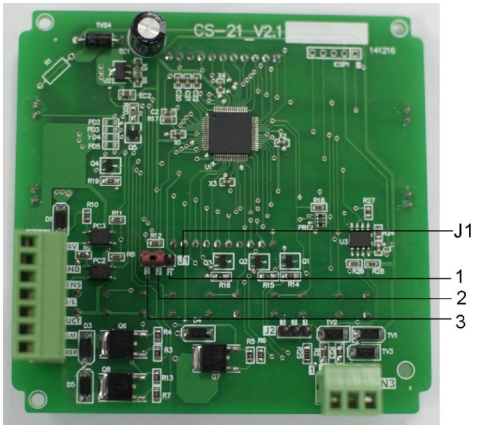
6.1.2 Setting Description

Select the mode

Press Menu key for 3 seconds, set mode C1, C2, C3, C4.

(Please refer to 14.3.2)

Pin 1, 2 of J1 short circuit can select C1, C2, C4 mode, Pin 2,3 of J1 short circuit can select C1,C3,C4 mode)



Parameter Setting

Press **Menu key,** and enter parameter setting.

Step 1, Press “Up” and “Down” to select parameter of F1~F8, press “Set” to enter setting

Step 2, press “Up” and “Down” to adjust the parameters, press “Set” for confirmation and return to up page.

Code	Status	Default Value	Adjusting Range	Mode
F1	Suction time setting	10 Secs.	1~99 Secs.	C1,C2,C3,C4
F2	Necessary spray washing times every several times for operation	3 Times	1~10 Times	C2
F3	Necessary cleaing times for reverse running every several times of operation	3 Times	1~10 Times	C3
F4	Motor reverse running time	10 Secs.	5~30 Secs.	C3
F5	Alarm detecting time	20 Secs.	10~40 Secs.	C1,C2,C3,C4
F6	Awaits motor to stop time	30 Secs.	30~99 Secs.	C3
F7	Purge times	2 Times	1~5 Times	C2
F8	Suction awaits time	0	0~99 Times	C1,C2,C3,C4

At stand-by mode, press “Down” and “Up” for 3 secs. and enter manual cleaning mode; Hold on to press “Down” and “Up”, it will process cleaing all the time till these two keys loosen.

When the circuit board has communication function, there are two parameters as below for selection, the operation: after select the F08, use “Up” and “Down” to select suitable parameters.

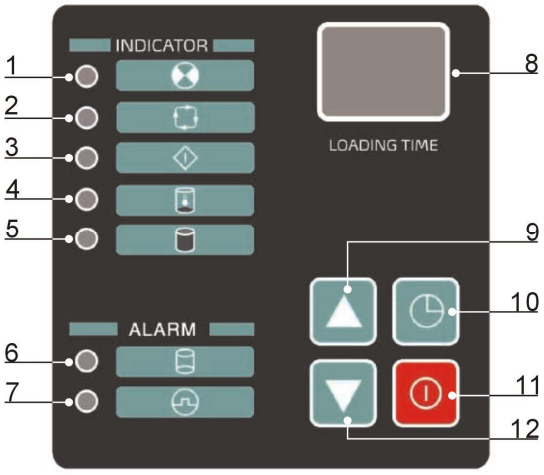
Code	Status	Default Value	Adjusting Range	Mode
F9	Communication baud rate	1(9600)	0—19200， 1—9600,2=4800	C1,C2,C3,C4
F10	Communication address	1	1~99	C1,C2,C3,C4
F11	Odd-even verification	0	0— no verification 1— odd verification 2— even verification	C1,C2,C3,C4

Table 6-1: CS-21 Mosbus Parameter

No.	Code	Parameters	Min Para.	Max Para.	Default	Unit
0x00	**R**	bit 0 shutdown	0 start up	1 shutdown		
		bit 1 stand by		1 stand by		
		bit 2 suction		1 suction		
		bit 3 detect shortage time after suction		1 detecting		
		bit 4 Reverse purging		1 purging		
		bit 5 Reverse running return time		1 calculating		
		bit 6 Overload alarm		1 alarming		
		bit 7 Shortage alarm		1 alarming		
0x01	**R**	Real-time information				
0x02	**R/W**	Running mode	1	4	1	
0x03	**R/W**	Suction time	5	99	10	s
0x04	**R/W**	Several times running needs cleaing	1	10	3	times
0x05	**R/W**	Several times running needs reverse	1	10	3	times
0x06	**R/W**	Reverse time	5	30	10	s
0x07	**R/W**	Time start to alarm after material shortage	10	40	20	s
0x08	**R/W**	Reverse return time	30	99	30	s
0x09	**R/W**	C2 cleaing times	1	5	2	times
0x0a	**R/W**	Suction awaits time	0	99	0	mins
0x0b	**R**	0x02 actual running times				times
0x0c	**R**	0x03 actual running times				times
0x0d	**R**	bit 0 shortage input signal	0 overload	1 shortage		
		bit 1 overload input signal	0 no load	1 overload		
		bit 2, bit3 reserve				
		bit 4 suction output	0 no output	1 output		
		bit 5 purging output	0 no output	1 output		
		bit 6 alarm output	0 no output	1 output		
0x0e	**R**	bit 0 shutdown	0 start up	1 shutdown		
		bit 1 stand by		1 stand by		
		bit 2 suction		1 suction		
		bit 3 detect shortage time after suction		1 Detecting		
		bit 4 reverse purging		1 purging		
		bit 5 reverse running return time		1 calculating		
		bit 6 overload alarm		1 alarming		
		bit 7 shortage alarm		1 alarming		
0x0f	**W**	shutdown signal	0 start up	1 shutdown		

Communication setting (baud rate, no parity check, 8bit 1 stop bit)
Pin 2, 3 of J2 short circuit, communication set for terminal resistance.

6.2 SAL-800G/800G2



Picture 6-2: Control panel(SAL-800G/800G2)

Table 6-2: Control panel description (SAL-800G/800G2)

No.	Description	Function
1	Power indicator	Machine power on
2	Operation indicator	Machine run or stop
3	Preparation indicator	Suction preparation
4	Suction indicator	Material suction
5	Full load indicator	Hopper full load
6	Shortage indicator	Material shortage
7	Overload indicator	Motor alarm
8	Time/parameter display	Display the time/parameter
9	Increase key	Add the value
10	Set key	Enter parameter setting
11	Start/stop key	Machine start/stop control
12	Decrease key	Decrease the value

Operation:

1. Press button then the current function status will be displayed, press button to set the loading time(20 seconds for general materials).

2. Press button and the operation will proceed automatically. Press again to stop.

Notes:

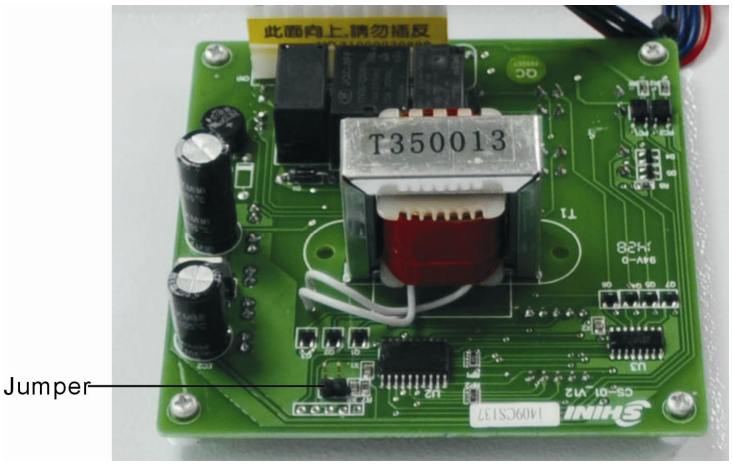
1. When running out of material, the machine will stop and sound the alarm. Turn off the switch, after refilling the material, then re-start.
2. Check suction filter periodically and clean filter screen if necessary.

6.2.1 Parameter List

Code	Status	Default value	Adjusting range	Mode
F2	Necessary spray washing times every several times for operation	3times	1~10 times	C2
F3	Necessary cleaning times for reverse running every several times of operation	3 times	1~10 times	C3
F4	Motor reverse running time	10sec	5~30 sec	C3
F5	Alarm detecting time	20 sec	10~40 sec	C1,C2,C3,C4
F6	Awaits motor to stop time	30 sec	30~99 sec	C3
F7	Purge times	2 times	1~5 times	C2
F8	Loading latency time	0	0~99 times	C1,C2,C3,C4
F9	Communication baud rate	1(9600)	0—19200，1—9600, 2=4800	C1,C2,C3,C4
F10	Communication address	1	1~99	C1,C2,C3,C4
F11	Odd-even verification	0	0—no verification 1—odd verification 2— even verification	C1,C2,C3,C4

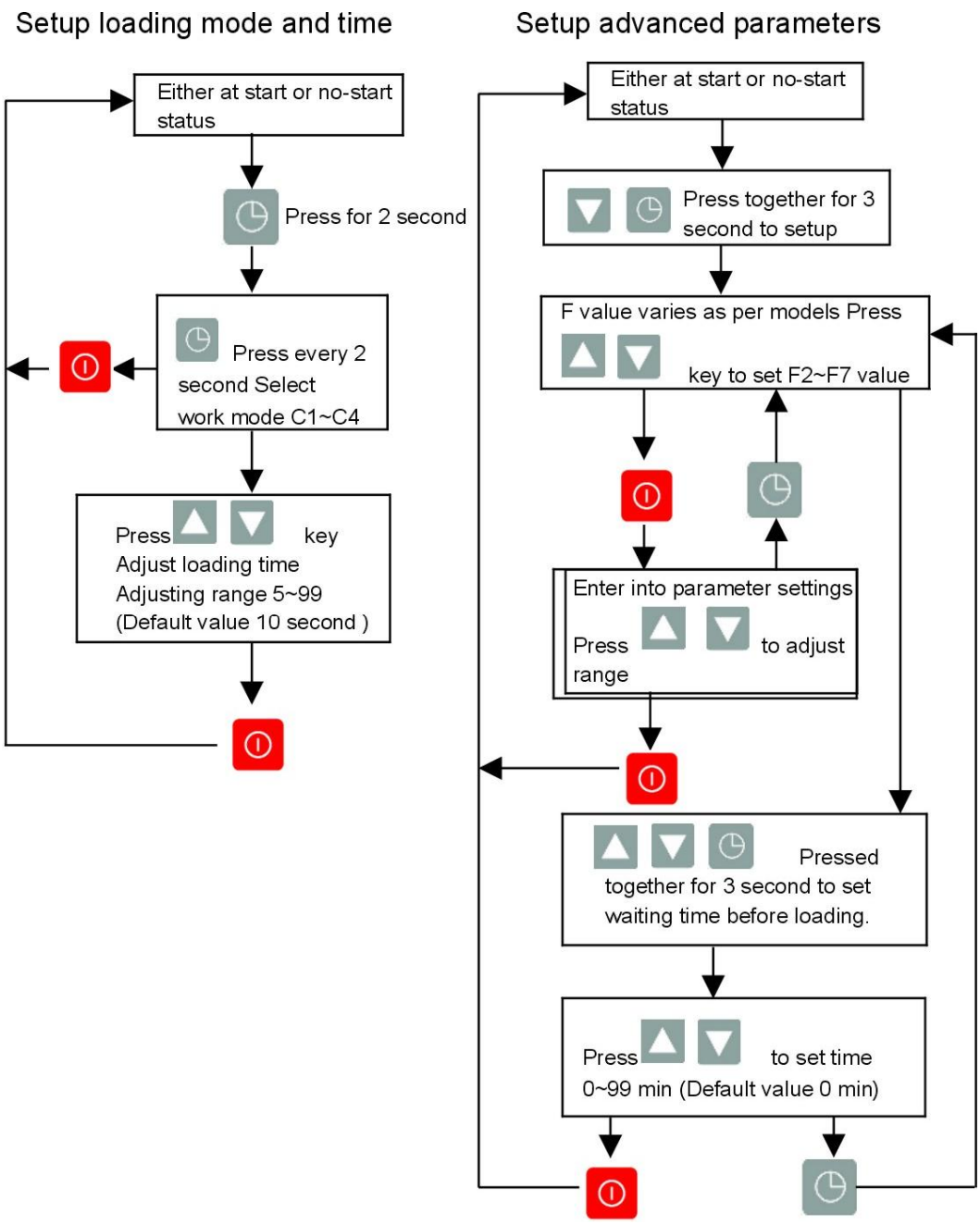
6.2.2 Other Settings

1. Any setting before power on will be saved automatically and back to shut off statusafter 5 seconds of no operation.
2. Any setting after power on will be saved automatically and back to standby statusafter 5 seconds of no operation.
3. Function of the jumper: functions of C1, C3 and C4 will be activated when jumping out which is applicable to SAL-800G/800G2/430/460. When disconnected, only functions of C1, C2 and C4 are available which can be used for SAL-800G/800G2/330/360.


Jumper
此面向上,請勿插反
T350013

6.3 Function Setup

6.3.1 Setup



6.3.2 Actions

1. Press down  to switch between start / stop status.
2. Press  key to select working mode.

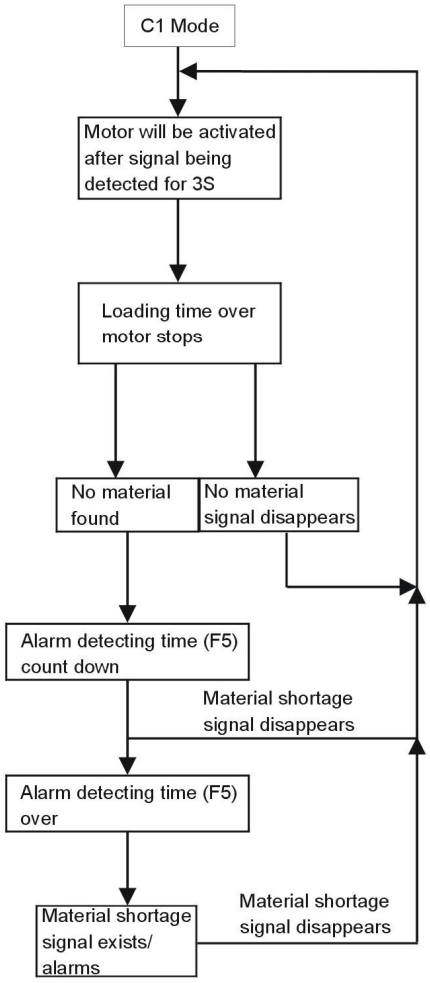
   C1=Auto loading, material shortage alarms whenever no material being loaded. (Applicable to SAL- 700G/800G/800G2 models)

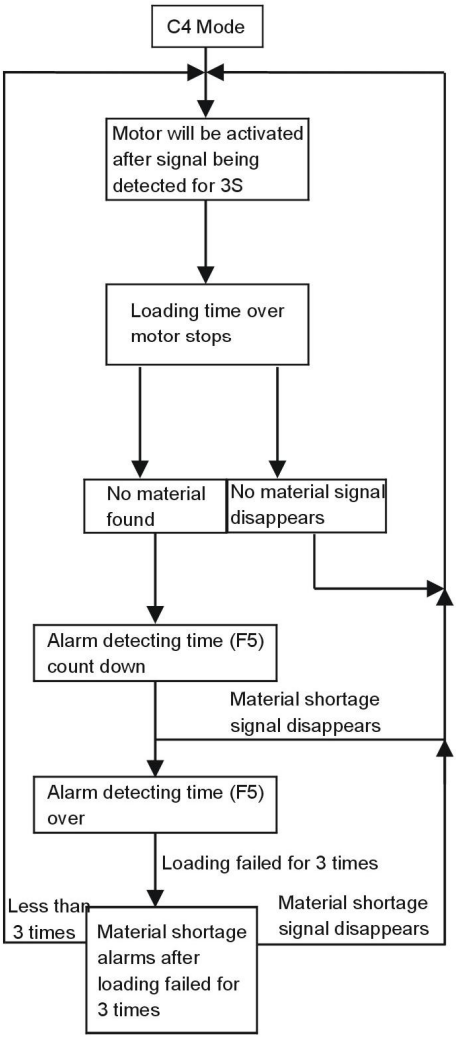
   C2=After auto loading，purge as per set period and times. (Applicable to SAL-330 / 360 models)

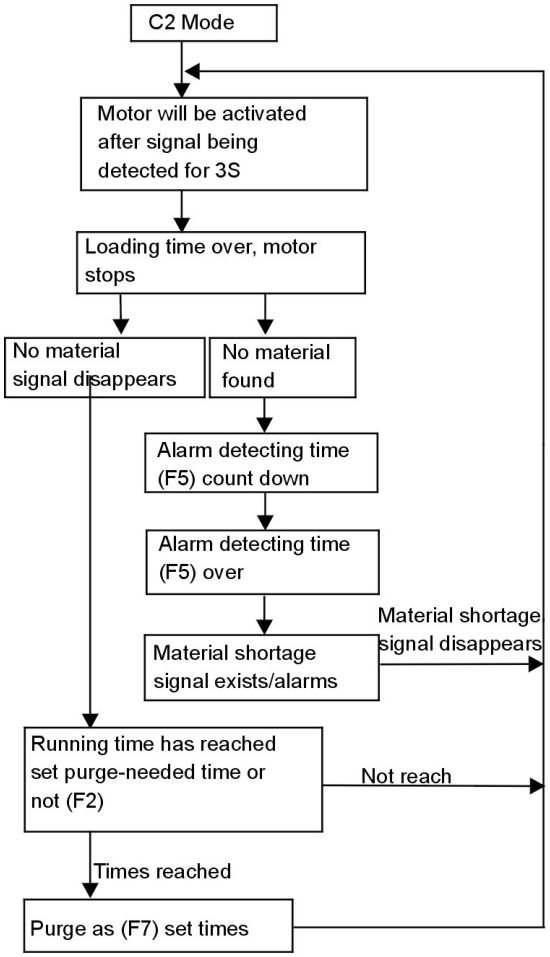
   C3=Motor reverse running for dust separating. (Applicable to SAL-430 / 460 models)

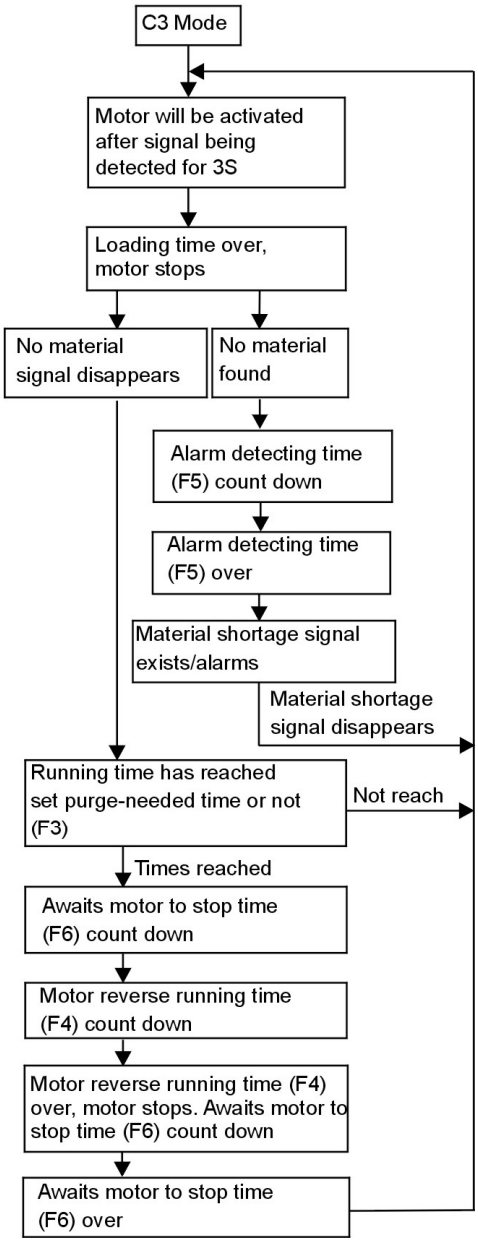
   C4=Auto loading, material shortage alarms after three time no material being loaded. (Applicable to SAL-700G/800G/ 800G2 models)

3. At standby state, the seven sectional display will display loading time.
4. Action flow.

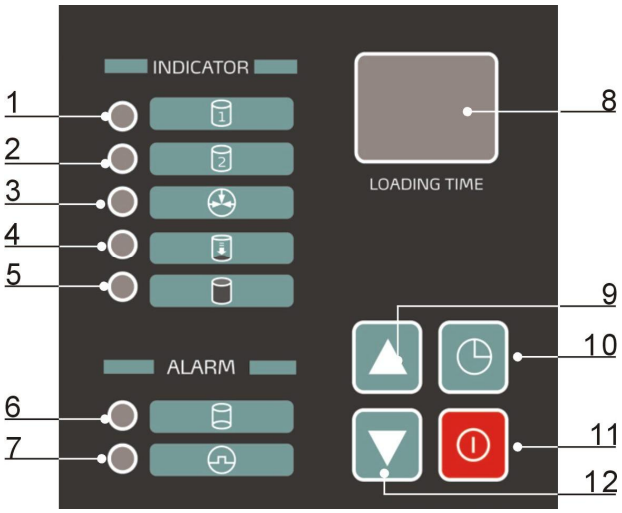

C1 Mode
Motor will be activated after signal being detected for 3S
Loading time over motor stops
No material found
No material signal disappears
Alarm detecting time (F5) count down
Material shortage signal disappears
Alarm detecting time (F5) over
Material shortage signal exists/ alarms
Material shortage signal disappears


C4 Mode
Motor will be activated after signal being detected for 3S
Loading time over motor stops
No material found
No material signal disappears
Alarm detecting time (F5) count down
Material shortage signal disappears
Alarm detecting time (F5) over
Loading failed for 3 times
Less than 3 times
Material shortage alarms after loading failed for 3 times
Material shortage signal disappears


C2 Mode
Motor will be activated after signal being detected for 3S
Loading time over, motor stops
No material signal disappears
No material found
Alarm detecting time (F5) count down
Alarm detecting time (F5) over
Material shortage signal exists/alarms
Material shortage signal disappears
Running time has reached set purge-needed time or not (F2)
Not reach
Times reached
Purge as (F7) set times


C3 Mode
Motor will be activated after signal being detected for 3S
Loading time over, motor stops
No material signal disappears
No material found
Alarm detecting time (F5) count down
Alarm detecting time (F5) over
Material shortage signal exists/alarms
Material shortage signal disappears
Running time has reached set purge-needed time or not (F3)
Not reach
Times reached
Awaits motor to stop time (F6) count down
Motor reverse running time (F4) count down
Motor reverse running time (F4) over, motor stops. Awaits motor to stop time (F6) count down
Awaits motor to stop time (F6) over

6.4 SAL-900G/900G2 Operation



Picture 6-3: Control panel(SAL-900G/900G2)

Table 6-3: Control panel description (SAL-900G/900G2)

No.	Description	Function
1	Hopper 1	Hopper 1 is at operation/setting state
2	Hopper 2	Hopper 2 is at operation/setting state
3	Shut off valve	Shut off valve is at open/closed state
4	Suction	Machine is at suction state
5	Full of material	Hopper is full of material
6	Shortage alarm	Material shortage alarm
7	Overload alarm	Motor at alarm state
8	Time display	Display time/parameter
9	Increase key	Parameter increase
10	Set key	Enter parameter setting
11	Start/stop key	Machine is at start/stop control
12	Decrease key	Parameter decrease

Operation:

1. Connect the power supply, "--" is displayed on LED, then enter to set loading time.
2. Press key "", the lamp of LOAD1 turns red. Then press key "" to set the loading time of LOAD1.

3. Press the key "" again, the lamp of LOAD2 turns red. Then press the key "" to set the loading time of LOAD2.
4. Press the key "" once more, the lamp of GATE turns red. Then press the key "" to set the loading time of shut-off valve.
5. After setting, press key "" to confirm.
6. Press once the key "", the LOAD1 starts auto-working. Press twice the key "", both the LOAD1 and LOAD2 start auto-working. Press three times the key "", only the LOAD2 starts auto-working. Then press four times the key "", the machine stops.

Notes:

1. When running out of material, the operation will auto-stop and sound the alarm. Press button for closing the alarm sound and stoppage. After refilling the material, Press the button to start the operation.
2. Check suction filter periodically and clean filter screen if necessary.

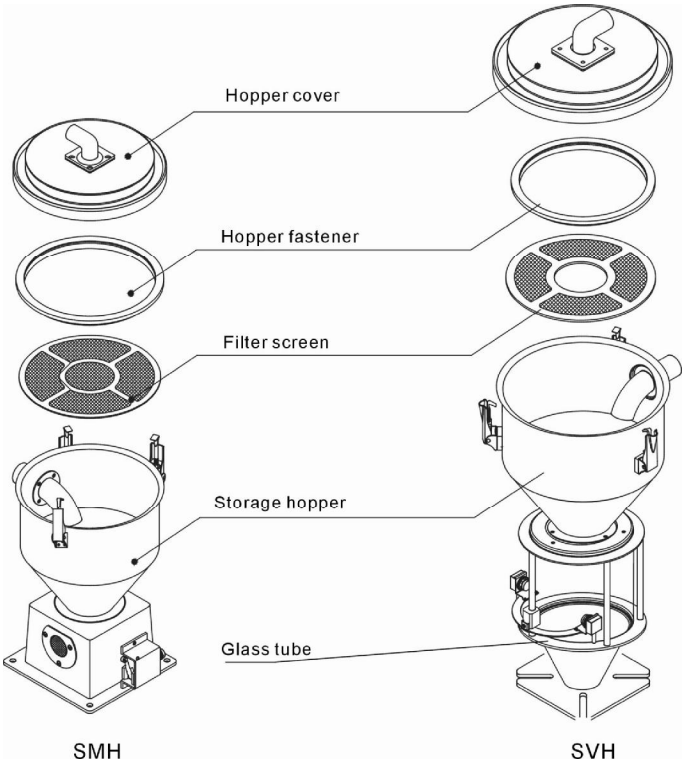
7. Maintenance

7.1 Hopper Cleaning

SMH Cleaning: In order to avoid air-blocking and to get smooth conveying. Clean the filter screen inside of material hopper. Unlock the snap hook on the hopper, remove the hopper cover and take out the filter screen, then clean it. Clean the filter periodically or when the suction force is reduced.

SVH Cleaning:

1. Clean the filter screen, in order to avoid air-blocking and to get smooth conveying. Clean the filter screen inside of material hopper. Unlock the snap hook on the hopper, remove the cover and take out the filter, then clean it. Clean periodically or when the suction force is reduced.
2. Clean the glass pipe, when the dust accreted on the tube. Clean the dust in time for machine normal working.

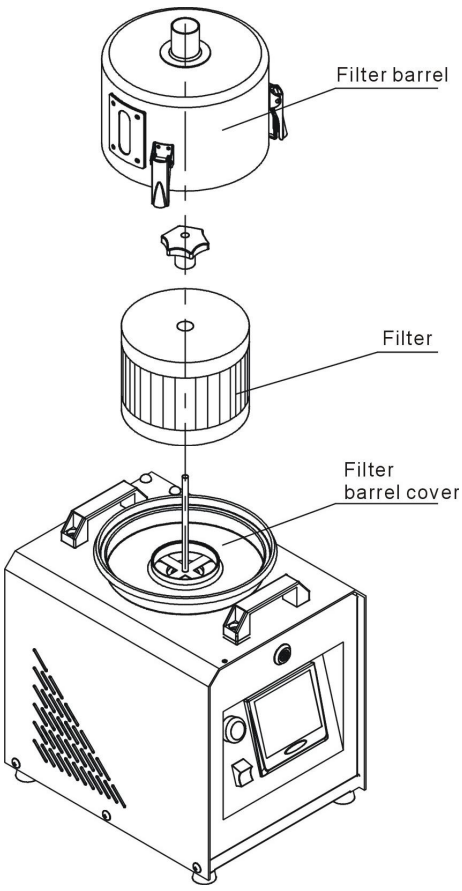


Picture 7-1: Hopper cleaning

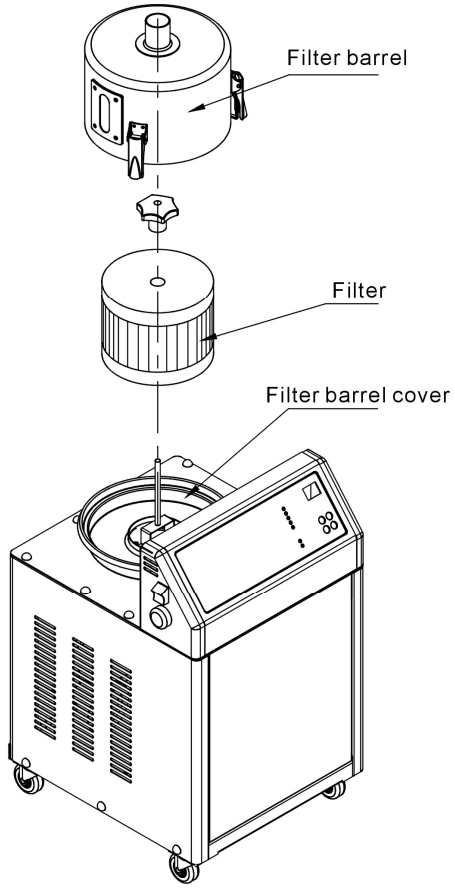
7.2 Main Body Cleaning

When machine in use, clean the filter periodically or when the suction force is reduced. Take out the filter from the main body, clean the dust accreted on it to ensure good ventilation of the air and to enhance loading capacity.

Filter Inspection and Storage Hopper Cleaning

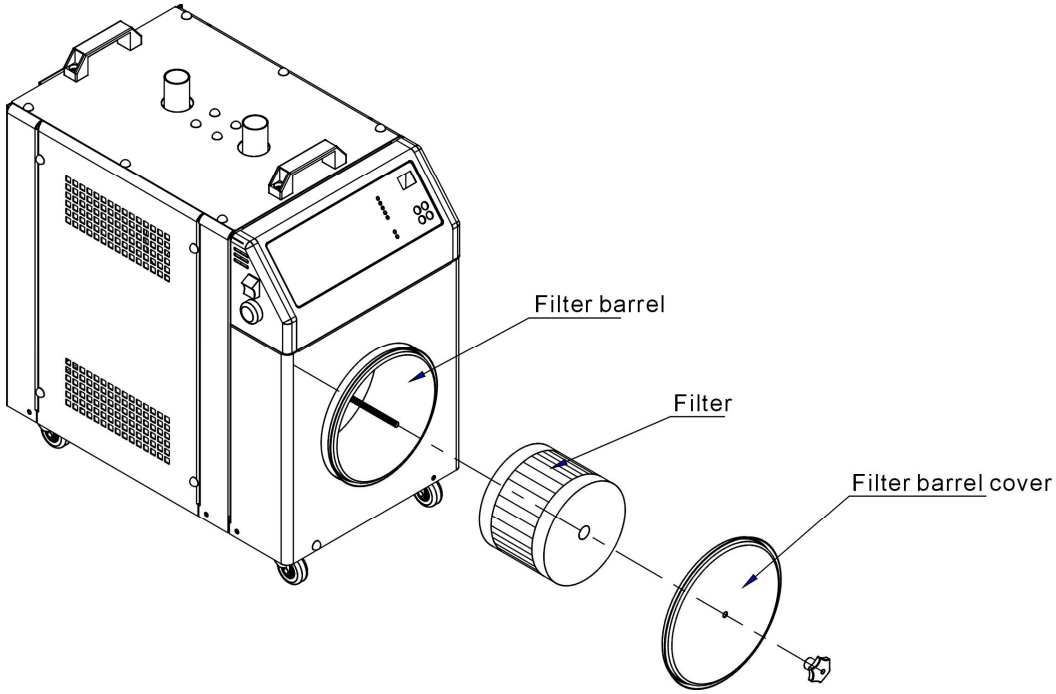


SAL-700G



SAL-800G

1. Loosen the snap hook, take out the filter barrel and the filter; blow off the dust with a high-pressure air gun from the inside to outside; take down the filter barrel cover and remove the dust in it.
2. Clean the filter. Period: daily



SAL-900G

1. Open the filter barrel cover and take out the filter; blow off the dust with a high pressure air gun from the inside to outside; take down the filter barrel lid and remove the dust in it.
2. Clean the filter. Period: daily

8. Troubleshooting

Fault	Possible reasons	Solutions
When shortage lasts long, and suction blower don't run.	The main switch and control switch don't open or the above two don't connect well.	Close the main switch and control switch and check their connecting.
	The microswitch on hopper don't connect well .	Adjust or replace.
	The signal wire is break off.	Re-connect.
The suction blower still running when the hopper is full.	The touch point is conglutinated	Repair or replace.
After several times of loading the material hopper still empty or the material shortage alarms.	The storage tank is empty.	Add the material
	The pipe is air leak.	Lock tightly and replace the vacuuming pipe.
	The filter is blocked.	Clean the filter.
The motor can’t run.	Short-phase or motor was burnt out.	Check and replace.
The fuse always burnt out after start-up.	Short circuit or connect the ground.	Check the circuit.
Motor overload alarms	The filter is blocked.	Clean the filter and reset the overload relay.
	One of three phase is lacking.	Check the circuit and reset the overload relay.kkk
Poor material liquidityin the pipe	Over or lack of air quantity	Adjust air inlet location of the suction box. Avoid small bending of the elbow.