# **SAL-**330(E)/360(E)

## Self-contained Hopper Loaders



## Operation Instruction





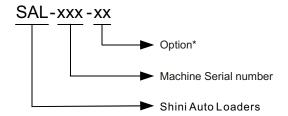
## 7. General Description



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

The SAL-330 / 360 series use a high-speed motor in this lightweight and compact unit. With superior suction power and easy installation. It is particularly suitable for conveying new materials.

#### 7.1 Coding Principle



Note:\*
A=Air Accumulator is Optional
P=For Polished Hopper Inside CE=CE Conformity

#### 7.2 Main Features:

- 1) Standard configuration
- 2) Stainless steel hopper, motor overload protective device.
- 3) All the machines are equipped with hinged hopper lid.
- 4) SAL-330/360 has standard auto reverse cleaning kit and cloth mesh filter.

#### Accessory option

- 1) For temporary storage of material, SCH-6L storage hopper is available for SAL-330/360.
- SPV-U is an optional selection for SAL-330/360. (Including controlcabinet).
- 3) Buzzer is an optional selection.
- 4) Manual control switch is optional.



Reverse Cleaning Kit



All service work should be carried out by a person with technical training or corresponding professional experience. The manual contains instructions for both handling and servicing. Chapter 12, which contains service instructions intended for service engineers. Other chapters contain instructions for the daily operator.

Any modifications of the machine must be approved by SHINI in order to avoid personal injury and damage to machine. We shall not be liable for any damage caused by unauthorized change of the machine.

Our company provides excellent after-sales service. Should you have any problem during using the machine, please contact the company or the local vendor.

Headquarter and Taipei factory:

Tel: (886) 2 2680 9119

Shini Plastics Technologies (Dongguan), Inc:

Tel: (86) 769 8111 6600

Shini Plastics Technologies India Pvt.Ltd.:

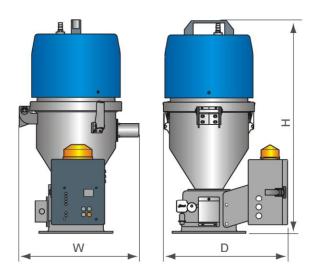
Tel: (91) 250 3021 166



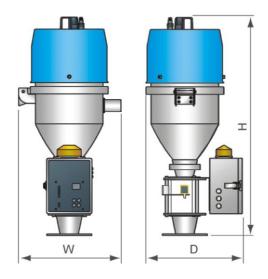
## 7.3 Technical Specifications

## 7.3.1 SAL330 (E) / 360 (E) Outer Dimensions

Outer Dimensions of SAL-330/360

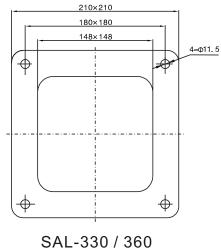


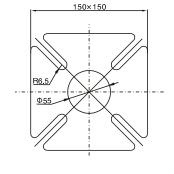
## Outer Dimensions of SAL-330E/360E





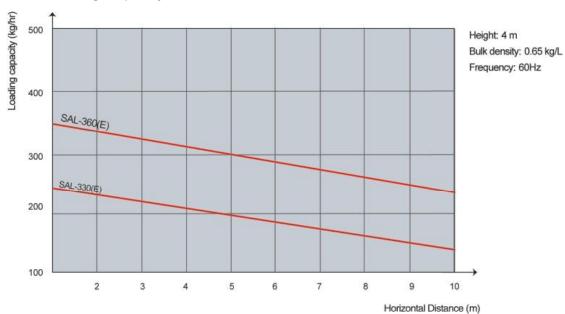
## 7.3.2 SAL-330 (E) / 360 (E) Mounting Base Specifications





SAL-330E / 360E

## 7.3.3 Loading Capacity





#### 7.3.4 SAL330 (E) / 360 (E) / 430 / 460 Specification List

Model	SAL-330	SAL-330E	SAL-360	SAL-360E
Motor Type	Carbon brush	Carbon brush	Carbon brush	Carbon brush
Motor Power (kW) (50 / 60Hz)	1.15 / 1.32	1.15 / 1.32	1.15 / 1.32	1.15 / 1.32
*Conveying Capacity (kg / hr, 50Hz)	200	200	300	300
Hopper Capacity (L)	3	3	6	6
Conveying Pipe Dia. (Inch)	1.5"	1.5"	1.5"	1.5"
Input Voltage		1Ф, 115 / 2	230V, 50Hz	
Material Level Control	Micro-switch	Photo sensor	Micro-switch	Photo sensor
Cloth Filter	Standard	Standard	Standard	Standard
Auto-cleaning	Standard	Standard	Standard	Standard
Dimensions				
H (mm)	595	730	670	865
W (mm)	345	345	385	385
D (mm)	355	325	380	390
Weight (kg)	13	14	14	15

Note: 1) For hopper inside polished ones, add "P" at model behind.

#### 7.4 Safety Regulations

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



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.

Test condition of conveying capacity: Plastic material of bulk density 0.65kg/L, dia. 3~5 mm, vertical conveying height: 4m, horizontal conveying distance: 1m.





Warning! Be careful!

Be more careful when this mark appears.

## Transportation and storage of the machine

#### **Transportation**

- 1) SAL series hopper loaders are packed in paper cartons. Handle with care when to move the machine by hands.
- 3) Do not rotate the machine and avoid collision with other objects during transportation to prevent improper functioning.
- 4)The structure of the machine is well-balanced, although it should also be handled with care when lifting the machine for fear of falling down.
- 5) The machine and its attached parts can be kept at a temperature from  $-25\,^{\circ}$ C to  $+55\,^{\circ}$ C for long distance transportation and for a short distance, it can be transported with temperature under  $+70\,^{\circ}$ C.

## Storage

- 1) SAL series hopper loaders should be stored indoors with temperature kept from 5°C to 40°C and humidity below 80%.
- 2) Disconnect all power supply and turn off main switch and control switch.
- 3) Keep the whole machine, especially the electrical components away from water to avoid potential troubles caused by the water.
- 4) Plastic film should be used to protect the machine from dust and rains.

## Working environment

## The machine should be operated:

1) Indoors in a dry environment with max. temperature +45°C and humidity no more than 80%.

#### Do not use the machine:

- 1) If it is with a damaged cord.
- 2) On a wet floor or when it is exposed to rain to avoid electrical shock.
- 3) If it has been dropped or damaged until it is checked or fixed by a qualified serviceman.



- 4) This equipment works normally in the environment with altitude within 3000m.
- 5) At least a clearance of 1m surrounding the equipment is required during operation. Keep this equipment away from flammable sources at least two meters.
- 6) Avoid vibration, magnetic disturbance at the operation area.

## Rejected parts disposal

When the equipment has run out its life time and can not be used any more, unplug the power supply and dispose of it properly according to local code.

#### Fire hazard



In case of fire,  $CO_2$  dry powder fire extinguisher should be applied.

#### 7.5 Exemption Clause

The following statements clarify the responsibilities and regulations born by any buyer or user who purchases products and accessories from Shini (including employees and agents).

Shini is exempted from liability for any costs, fees, claims and losses caused by reasons below:

- 1. Any careless or man-made installations, operation and maintenances upon machines without referring to the Manual prior to machine using.
- 2. Any incidents beyond human reasonable controls, which include man-made vicious or deliberate damages or abnormal power, and machine faults caused by irresistible natural disasters including fire, flood, storm and earthquake.
- 3. Any operational actions that are not authorized by Shini upon machine, including adding or replacing accessories, dismantling, delivering or repairing.
- 4. Employing consumables or oil media that are not appointed by Shini.

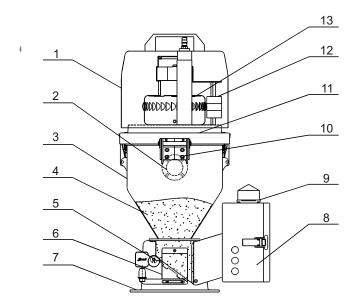


## 8. Structure Characteristics and Working Principle

#### 8.1 Working Principle

SAL-330 (E) /360 (E) series are suitable for conveying plastic granules. The blower makes vacuum of material hopper by drawing the air out. Materials will then be sent into material hopper.

#### 8.1.1 Working principle of SAL-330 / 360

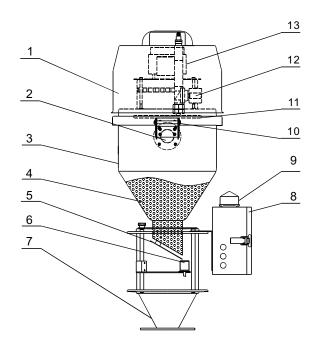


- 1. Motor cover
- 2. Material conveying pipe
- 3. Material hopper
- 4. Materials
- 5. Check valve
- 6. Microswitch
- 7. Base
- 8. Control box
- 9. Alarm light
- 10. Hinge
- 11. Reverse washing device
- 12. Solenoid valve
- 13. Blower

After starting the machine, reverse washing device (11) begins to wash the dust covered in the hop- pocket and hopper. After that, blower (13) starts to work to produce vacuum in the hopper (3). Meanwhile, close the check valve (5), and the material in the storage bucket will be conveyed through material conveying pipe (2) into the material hopper (3) under the function of minus pressure and the air flow. After finishing material suction, blower stops working and the materials will fall down by self-gravity. When microswitch (6) detects that no materials remain in the hopper, and after the dust has been washed by the back wash device, the blower starts to work again. When blower cannot suck materials from the storage bucket, the alarm light (9) in the control box (8) will be blinking to indicate that the materials are not enough.





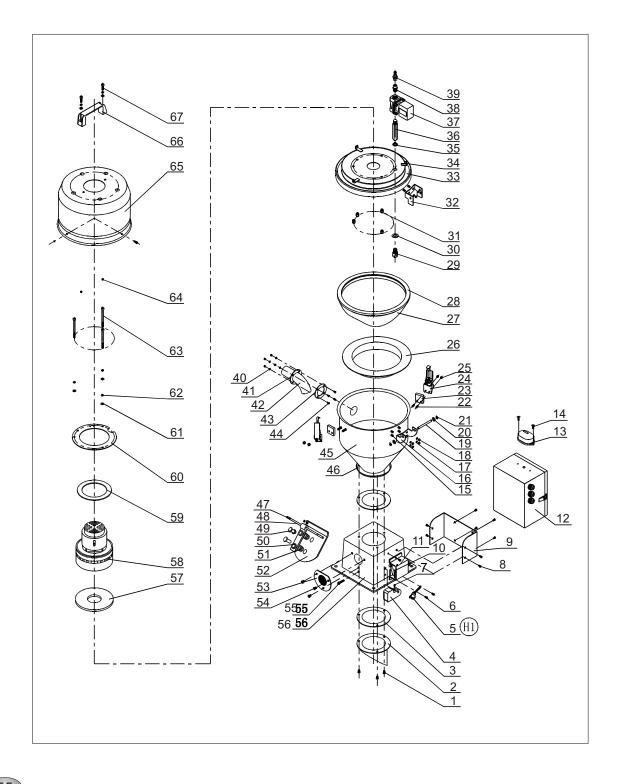


- 1. Motor cover
- 2. Material conveying pipe
- 3. Material hopper
- 4. Materials
- 5. Check valve
- 6. Photoelectric switch
- 7. Base
- 8. Control box
- 9. Alarm light
- 10. Hinge
- 11. Reverse washing device
- 12. Solenoid valve
- 13. Blower

After starting the machine, reverse washing device (11) begins to wash the dust covered in the hop- pocket and hopper. After that, blower (13) starts to work to produce vacuum in the hopper (3). Meanwhile, close the check valve (5), and the material in the storage bucket will be conveyed through material conveying pipe (2) into the material hopper (3) under the function of minus pressure and the air flow. After finishing material suction, blower stops working and the materials will fall down by self-gravity. When Photoelectric switch (6) detects that no materials remain in the hopper, and after the dust has been washed by the back wash device, the blower starts to work again. When blower cannot suck materials from the storage bucket, the alarm light (9) in the control box (8) will be blinking to indicate that the materials are not enough.



## 8.2 Assembly Drawing of SAL-330





## 8.3 Parts List of SAL-330

No.	Parts Name	Part No.	No.	Parts Name	Part No.
1	Cross socket head cap screw M5 × 15	YW62051500000	30	Washer	BP62201000050
2	Grit hole**	-	31	Sunk rivet nut M6	YW64060200000
3	Base fastener	YR10046000000	32	Upper hinge	-
4	Counter weight hammer	-	33	Hopper lid	-
5	Ejector rob	-	34	Fixed seat of motor cover	-
6	Cross socket head cap screw M4 × 10	YW63041000000	35	Connection nut	-
7	Set screw M × 10	YW68005500000	36	Connector 2	-
8	Cross socket head cap screw M5 × 10	YW62051000100	37	Solenoid valve	YE32213100000
9	Fixed board of control box	-	38	Connector 3	-
10	Micros witch*	YE14511200000	39	Jiffy quick connector	YW80031400000
11	Micros witchbox	YR40000600600	40	Flat gasket 4	YW66040800000
12	Control box	-	41	Fixed piece of material inlet pipe	-
13	Alarm light	YE83305100200	42	Material inlet pipe	-
14	Cross socket head cap screw M3 × 10	YW63031500000	43	Material inlet pipe fastener	-
15	Welding stub bolt M5 × 10	YE69051000000	44	Welding stub bolt M4 × 10	YW69041000000
16	Lower hinge	-	45	Material storage tank	-
17	Locknut M5	YW64000500000	46	Hopper flange	-
18	Flat gasket 5	YW66051000100	47	E-rings 5	YW66000300000
19	hinge pin	-	48	Stainless steel rod	-
20	Flat gasket 8	YW66082200100	49	Discharging plate rivet	-
21	E-rings	YW66000500000	50	Aluminum accessories	-
22	Welding stub bolt M4 × 15	YW69041500100	51	Discharging plate Spring	YW01033000000
23	Spring fastener gasket	YR40000600300	52	Discharging plate	-
24	Snap hook**	YW02003000400	53	Air vent window	YR40002400000
25	Locknut M4 × 0.7	YW64040700100	54	Cross socket head cap screw M6 × 10	YW62061000000
26	Split washer of filter cloth **	-	55	Cross socket head cap screw M6 × 35	YW63063500000
27	Filter bag**	-	56	Square base	-
28	Hopper fastener*	-	57	Motor fastener (lower)	-
29	Backwashing sprayer	-	58	Carbon brush motor	YM30965600000

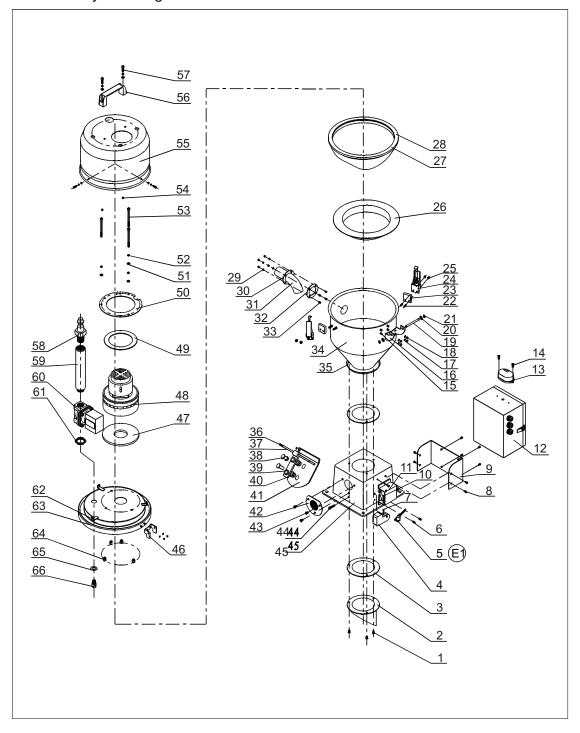


No.	Parts Name	Part No.	No.	Parts Name	Part No.
59	Motor fastener (upper)	YP62141200000	64	Locknut M6	YW64000600200
60	Motor fixed board	-	65	Motor cover	-
61	Flat gasket 6	YW66061300000	66	L120 square aluminum handle	BW20012000040
62	Spring gasket 6	YW65006000000	67	Inner hexagon column screw M6 × 20	YW61062000200
63	Inner hexagon column screw M6 × 90	YW61069000100			

<sup>\*</sup> means possible broken parts. \*\* means easy broken part. and spare backup is suggested.



## 8.4 Assembly Drawing of SAL-360





## 8.5 Parts List of SAL-360

No.	Parts Name	Part No.	No.	Parts Name	Part No.
1	Cross socket head cap screw M5 × 15	YW62051500000	30	Fixed piece of material inlet pipe	-
2	Grit hole**	-	31	Material inlet pipe	-
3	Base fastener	YR10046000000	32	Material inlet pipe fastener	-
4	Counter weight hammer	-	33	Welding stub bolt M4 × 10	YW69041000000
5	Ejector rob	-	34	Material storage tank	-
6	Cross socket head cap screw M4 × 10	YW63041000000	35	Hopper flange	-
7	Set screw M × 10	YW68005500000	36	E-rings 5	YW66000300000
8	Cross socket head cap screw M5 × 10	YW62051000100	37	Stainless steel rod	-
9	Fixed board of control box	-	38	Discharging plate rivet	-
10	Micros witch*	YE14511200000	39	Aluminum accessories	-
11	Micros witchbox	YR40000600600	40	Discharging plate Spring	YW01033000000
12	Control box	-	41	Discharging plate	-
13	Alarm light	YE83305100200	42	Air vent window	YR40002400000
14	Cross socket head cap screw M3 × 10	YW63031500000	43	Cross socket head cap screw M6 × 10	YW62061000000
15	Welding stub bolt M5 × 10	YW63031500000	44	Cross socket head cap screw M6 × 35	YW63063500000
16	Lower hinge		45	Square base	-
17	Locknut M5	YW64000500000	46	Upper hinge	-
18	Flat gasket 5	YW66051000100	47	Motor fastener (lower)	-
19	hinge pin	-	48	Carbon brush motor	YM30965600000
20	Flat gasket 8	YW66082200100	49	Motor fastener (upper)	YP62141200000
21	E-rings	YW66000500000	50	Motor fixed board	-
22	Welding stub bolt M4 × 15	YW69041500100	51	Flat gasket 6	YW66061300000
23	Spring fastener gasket	YR40000600300	52	Spring gasket 6	YW65006000000
24	Snap hook**	YW02003000400	53	Inner hexagon column screw M6 × 90	YW61069000100
25	Locknut M4 × 0.7	YW64040700100	54	Locknut M6	YW64000600200
26	Split washer of filter cloth **	-	55	Motor cover	
27	Filter bag**	-	56	L120 square aluminum handle	BW20012000040
28	Hopper fastener*	-	57	Inner hexagon column screw M6 × 20	YW61062000200
29	Flat gasket 4	YW66040800000	58	Jiffy quick connector	YW80031400000

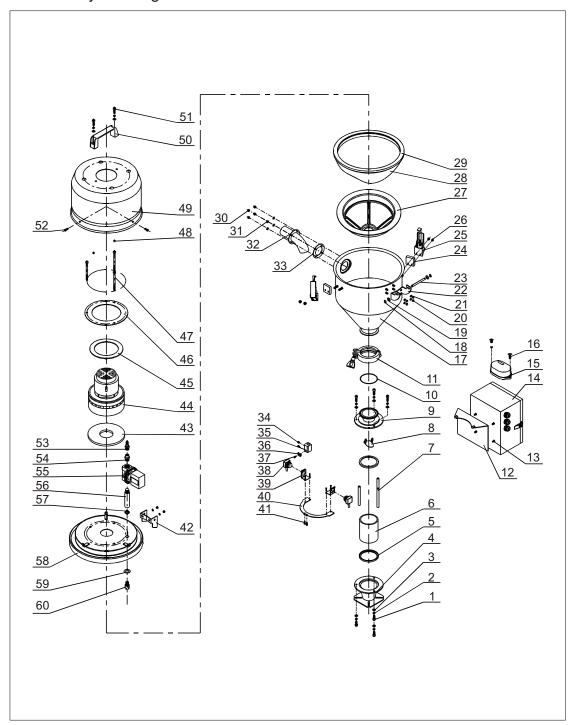


No.	Parts Name	Part No.	No.	Parts Name	Part No.
59	Connector 2	-	63	Hopper lid	-
60	Solenoid valve	YE32213100000	64	Sunk rivet nut M6	YW64060200000
61	Connection nut	-	65	Washer	BP62201000050
62	Fixed seat of motor cover	-	66	Backwashing sprayer	-

<sup>\*</sup> means possible broken parts. \*\* means easy broken part. and spare backup is suggested.



## 8.6 Assembly Drawing of SAL-330E





## 8.7 Parts List of SAL-330E

No.	Parts Name	Part No.	No.	Parts Name	Part No.
1	Inner hexagon cylindrical screw M6 × 15	YW61061600300	30	Locknut M4 × 0.7	YW64040700100
2	Spring gasket 6	YW65006000000	31	Flat gasket 4	YW66040800000
3	Flat gasket 6	YW66061300000	32	Material inlet pipe	BL32333600020
4	Glass tube lower flange	BW32000600000	33	Material inlet pipe fastener	YR10150300000
5	Glass pipe packing	YR10060200000	34	Set screw M4 × 5	YW68004500000
6	Glass tube	YW70908000000	35	Photosensor fixed housing	YW20061500000
7	Flange connection shaft	BH10101100040	36	Photosensor cable pressure block	YW31616200000
8	Non-return flap	BL21000600820	37	Cross socket head cap scre M4 × 10	YW63041000000
9	Glass pipe upper flange	YW32000600200	38	Photosensor	YE15143900000
10	O type seal ring	YR20802600000	39	Light sensor installing block	-
11	Stainless steel pipe clamp	YW07000300000	40	Photosensor fixed piece	BL21061200020
12	Control box fixation plate	-	41	Cross socket head cap scre M4 × 10	YW63041000000
13	Cross socket head cap scre M5 × 10	YW62051000100	42	Upper hinge	BL32000600240
14	Control box	BH32336000450	43	Motor fastener (lower)	YR10135500000
15	Alarm light	YE83305100200	44	Carbon brush motor	YM30965600000
16	Cross socket head cap scre M3 × 10	YW63031500000	45	Motor fastener (upper)	YP62141200000
17	Material storage tank	-	46	Motor fixed board	-
18	E-rings 6	YW66000600000	47	Inner hexagon cylindrical screw M6 × 90	YW61069000100
19	Flat gasket 8	YW66082200100	48	Locknut M6	YW64000600200
20	Locknut 5	YW64000500000	49	Motor cover	YR40033000000
21	Flat gasket 5	YW66051000100	50	L120 square aluminum handle	BW20012000040
22	Lower hinge	BL32000600140	51	Inner hexagon column screw M6 × 20	YW61062000200
23	Hinge pin	BH10006003110	52	Cross socket head cap screw M5 × 15	YW62051500000
24	Snap hook pressure block	YR40000600300	53	Jiffy quick connector	YW80031400000
25	Snap hook	YW02003000400	54	Connector 3	BH13031100010
26	Locknut M4×0.7	YW64040700100	55	Solenoid valve	YE32213100000
27	Split washer of filter cloth	YR40003000100	56	Connector 2	BH13030300010
28	Filter bag	BP82003000044	57	Connection nut 1	BH12030400410
29	Hopper fastener	YR10000300100	58	Hopper lid	-

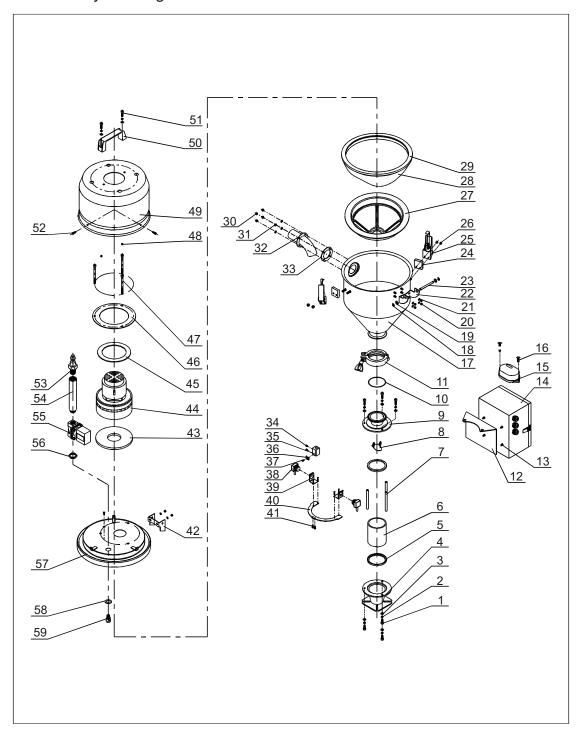


No.	Parts Name	Part No.	No.	Parts Name	Part No.
59	Washer	BR10281500050	60	Backwashing sprayer	BH13033000810

<sup>\*</sup> means possible broken parts. \*\* means easy broken part. and spare backup is suggested.



## 8.8 Assembly Drawing of SAL-360E





## 8.9 Parts List of SAL-360E

No.	Parts Name	Part No.	No.	Parts Name	Part No.
1	Inner hexagon cylindrical screw M6 × 15	YW61061600300	30	Locknut M4 × 0.7	YW64040700100
2	Spring gasket 6	YW65006000000	31	Flat gasket 4	YW66040800000
3	Flat gasket 6	YW66061300000	32	Material inlet pipe	BL32000600020
4	Glass tube lower flange	BW32000600000	33	Material inlet pipe fastener	YR10061200000
5	Glass pipe packing	YR10060200000	34	Set screw M4 × 5	YW68004500000
6	Glass tube	YW70908000000	35	Photosensor fixed housing	YW20061500000
7	Flange connection shaft	BH10101100040	36	Photosensor cable pressure block	YW31616200000
8	Non-return flap	BL21000600820	37	Cross socket head cap scre M4 × 10	YW63041000000
9	Glass pipe upper flange	YW32000600200	38	Photosensor	YE15143900000
10	O type seal ring	YR20802600000	39	Light sensor installing block	-
11	Stainless steel pipe clamp	YW07000300000	40	Photosensor fixed piece	BL21061200020
12	Control box fixation plate	-	41	Cross socket head cap scre M4 × 10	YW63041000000
13	Cross socket head cap scre M5 × 10	YW62051000100	42	Upper hinge	BL32000600240
14	Control box	BH32336000450	43	Motor fastener (lower)	YR10135500000
15	Alarm light	YE83305100200	44	Carbon brush motor	YM30965600000
16	Cross socket head cap scre M3 × 10	YW63031500000	45	Motor fastener (upper)	YP62141200000
17	Material storage tank	-	46	Motor fixed board	-
18	E-rings 6	YW66000600000	47	Inner hexagon cylindrical screw M6 × 90	YW61069000100
19	Flat gasket 8	YW66082200100	48	Locknut M6	YW64000600200
20	Locknut 5	YW64000500000	49	Motor cover	YR40033000000
21	Flat gasket 5	YW66051000100	50	L120 square aluminum handle	BW20012000040
22	Lower hinge	BL32000600140	51	Inner hexagon column screw M6 × 20	YW61062000200
23	Hinge pin	BH10006003110	52	Cross socket head cap screw M5 × 15	YW62051500000
24	Snap hook pressure block	YR40000600300	53	Jiffy quick connector	YW80031400000
25	Snap hook	YW02003000400	54	Connector 2	-
26	Locknut M4×0.7	YW64040700100	55	Solenoid valve	YE32213100000
27	Split washer of filter cloth	YR40006000000	56	Connection nut	BH12030400410
28	Filter bag	BP82003000044	57	Hopper lid	-
29	Hopper fastener	YR10000600200	58	垫片	BR10281500050



No.	Parts Name	Part No.	No.	Parts Name	Part No.
59	Backwashing sprayer	BH13033000810			

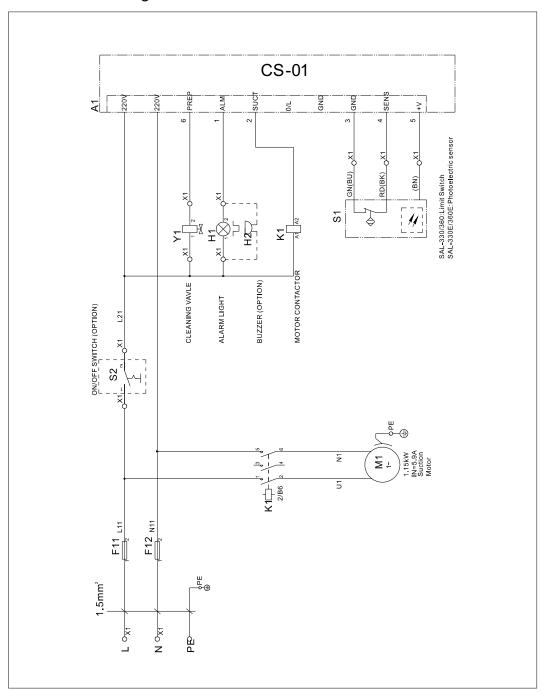
<sup>\*</sup> means possible broken parts. \*\* means easy broken part. and spare backup is suggested.



## 8.10 Electrical Circuit Diagram

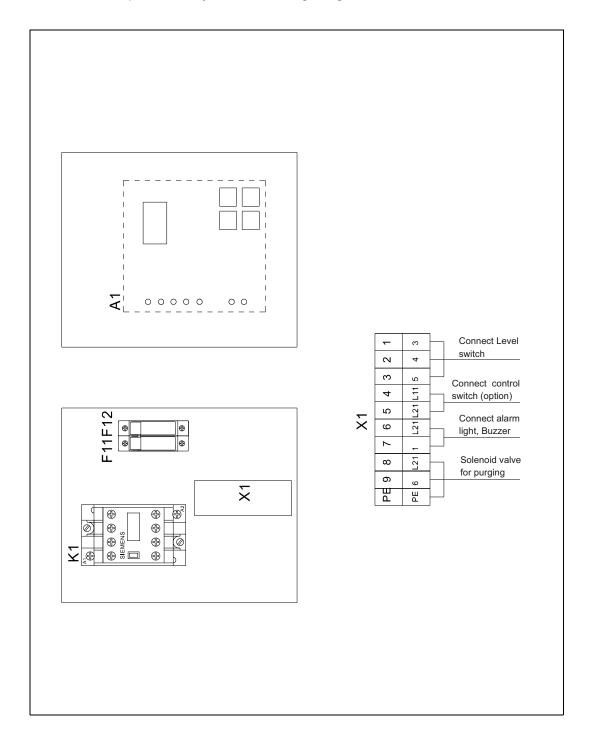
## 8.10.1 Electrical Circuit Diagram for SAL-330(E)

## Electrical Circuit Diagram





#### Electrical components layout and wiring diagram





## Electrical Components List of SAL-330(E)

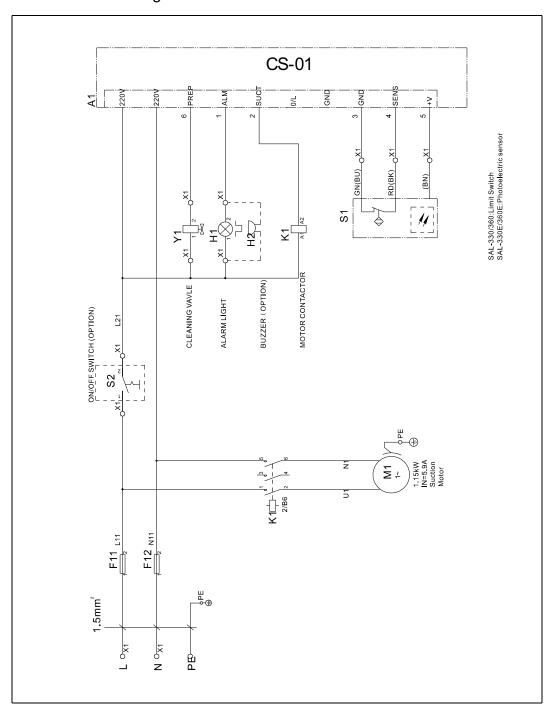
No.	Symbol	Parts Name	Specifications	Part No.
1	F11 F12	Fuse box	500VAC 10A	YE41142000000
2		Fuse**	10x38 10A 500V	YE46010000100
3	K1	Contactors**	230VAC 50/60Hz	YE00300000000
4	H1	Indiator light	230VAC 50/60Hz	YE83305100200
5	H2	Buzzer	230VAC 50/60Hz	YE84003500000
6	PC	Circuit board**	230VAC 50/60Hz	YE80122000000
7	S1	Micro swith*	400VAC 10A	YE14511200000
8		Photoelectric sensor	10~30VDC	YE15143900000
9	S2	Control switch	400VAC 10A	YE10030300000
10	X1	Terminal board	25A	YE61250000000
11			25A	YE61250000000
12		-		YE61253500000
13	Y1	Valve	230VAC 50/60Hz	YM30965600000
14	M1	Notor**	1.15kW 240VAC 50 <i>6</i> 0Hz	YM30965600000

<sup>\*</sup> means possible broken parts. \*\* means easy broken part. and spare backup is suggested.



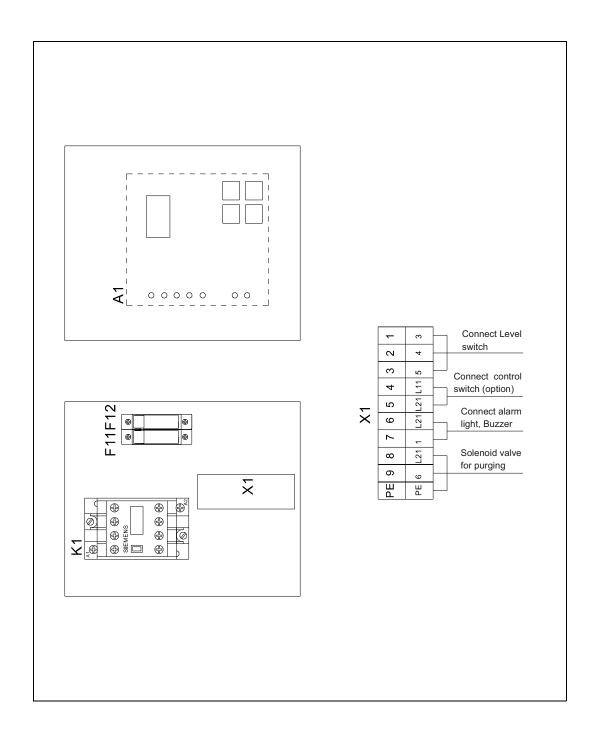
## 8.10.2 Electrical Circuit Diagram for SAL-360(E)

## **Electrical Circuit Diagram**





## Electrical components layout and wiring diagram





## Electrical Components List of SAL-360(E)

No.	Symbol	Parts Name	Specifications	Part No.
1	F11 F12	Fuse box	500VAC 10A	YE41142000000
2		Fuse**	10x38 10A 500V	YE46010000100
3	K1	Contactors**	230VAC 50/60Hz	YE00300000000
4	H1	Indiator light	230VAC 50/60Hz	YE83305100200
5	H2	Buzzer	230VAC 50/60Hz	YE84003500000
6	PC	Circuit board**	230VAC 50/60Hz	YE80122000000
7	S1	Micro swith*	400VAC 10A	YE14511200000
8		Photoelectric sensor	10~30VDC	YE15143900000
9	S2	Control switch	400VAC 10A	YE10030300000
10	X1	Terminal board	25A	YE61250000000
11			25A	YE61250000000
12		-	-	YE61253500000
13	Y1	Valve	230VAC 50/60Hz	YM30965600000
14	M1	Notor**	1.15kW 240VAC 50 <i>l</i> 60Hz	YM30965600000

<sup>\*</sup> means possible broken parts. \*\* means easy broken part. and spare backup is suggested.



#### 8.11 Main Electrical Components Description

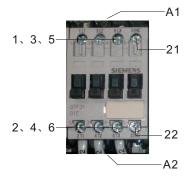
#### 8.11.1 AC Contactor

It is mainly used to connect and disconnect power suply over long distance.

A1-A2: contactor coil

21-22: NC contact

21-2. 3-4. 5-6: NO contact



#### 8.11.2 Photoelectrical Sensor

- It is used to detect whether there is material in the hopper tube or not, and send out relevant signals to the machine.
- 2) A pair of photoelectrical sensors are installed on the screw post of glass tube.





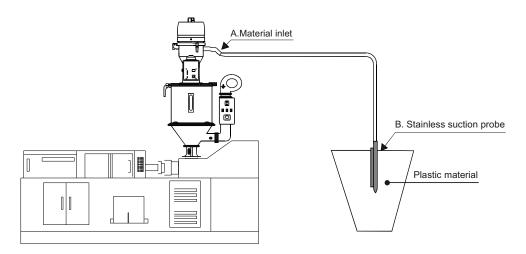
## 9. Installation and Debugging



Make a careful study of this chapter before installation. The machine must be installed according to the steps below. Power supply should be connected by qualified electricians.

#### 9.1 Installation of SAL-330 / 360

#### 9.1.1 Installation Methods of SAL-330 / 360



Install the whole suction machine (SAL-330 / 360) onto the hopper dryer (see the picture above), fix the four fixation holes in the mounting base. Connect one end of the conveying hose to material inlet (A), and the other end to the stainless suction probe (B), then insert the probe into the storage bucket. Please connect the machine with air supply, the air pressure is 4-6kgf/cm<sup>2</sup>.

#### 9.1.2 Electrical Circuit Connection of SAL-330 / 360

Please connect SAL-330 / 360 series of machines with AC  $1\Phi$ , 230V 50Hz power supply and earth wire.

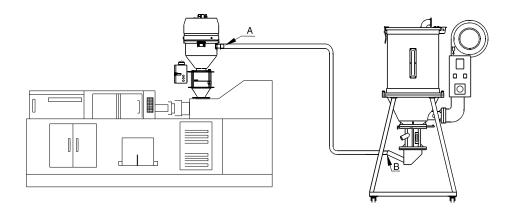


Please make sure that the main power is shut off when you connect the machine with power supply!



#### 9.2 Installation of SAL-330E / 360E

#### 9.2.1 Installation methods of SAL-330E / 360E



Install the whole suction machine onto the hopper dryer (see the picture above), fix the four fixation holes in the mounting base. Connect the material inlet (A) to the suction mouth (B) of suction box of dryer. Please connect the machine with air supply, the air pressure is 4-6kgf/cm<sup>2</sup>.

#### 9.2.2 Electrical circuit connection of SAL-330E / 360E

Please connect SAL-330E / 360E series of machines with AC 1  $\Phi$  , 230V 50Hz power supply and earth wire.



Please make sure that the main power is shut off when you connect the machine with power supply!



#### 9.3 Installation Space

During installation of the machine, keep at least 1m installation space around the machine as shown by the picture.

Do not install the machine in a position crowded with other objects. This would cause inconvenience to operation, maintenance and repair.

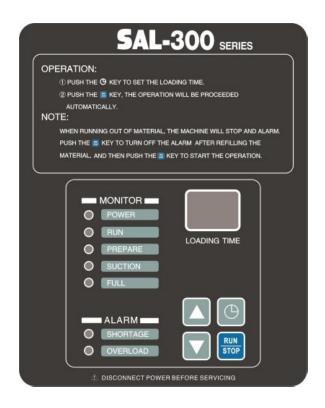
Do not sit on the machine.

Keep away flammable and explosive goods.





## 10. Application and Operation



#### 10.1 Start / Stop of the Machine

The start/stop of the SAL-330 (E) / 360 (E) series hopper loaders are controlled by the RUN/STOP switch on the control panel.

#### 10.2 Control Panel

- 1. Press  $\Theta$  to set a proper conveying time of material. For commonly used materials, set the conveying time as 20 seconds.
- 2. Press to make the machine start loading material. Press again to stop working of the machine.



The machine will stop working and sound the alarm at the time of material shortage. Press to switch off the machine. After adding material or fixing the problem, press to make the machine resume working.

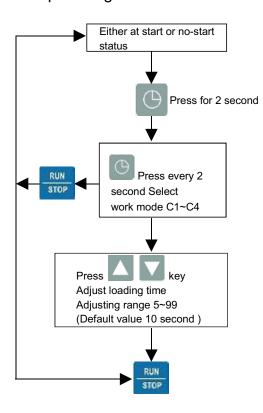
Please clean the filter screen periodically to keep effective suction power.



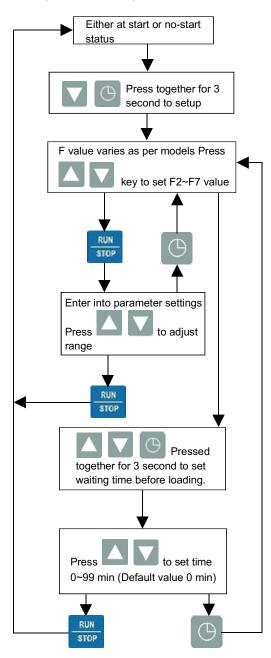
#### 10.3 Function Setup

#### 10.3.1 Setup

#### Setup loading mode and time



#### Setup advanced parameters





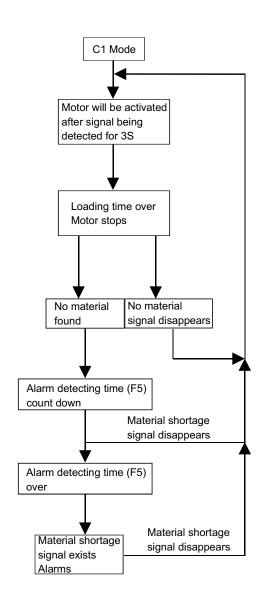
#### 10.3.2 Actions

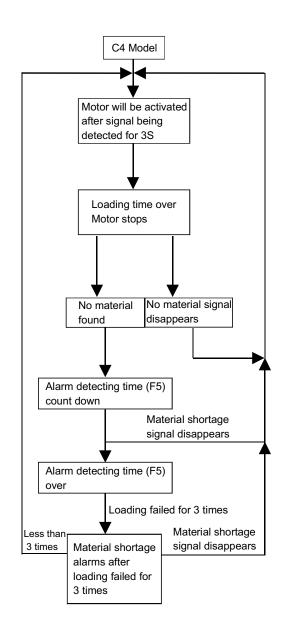
- 1. Press down to switch between start / stop status.
- 2. Press key to select loading mode.

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

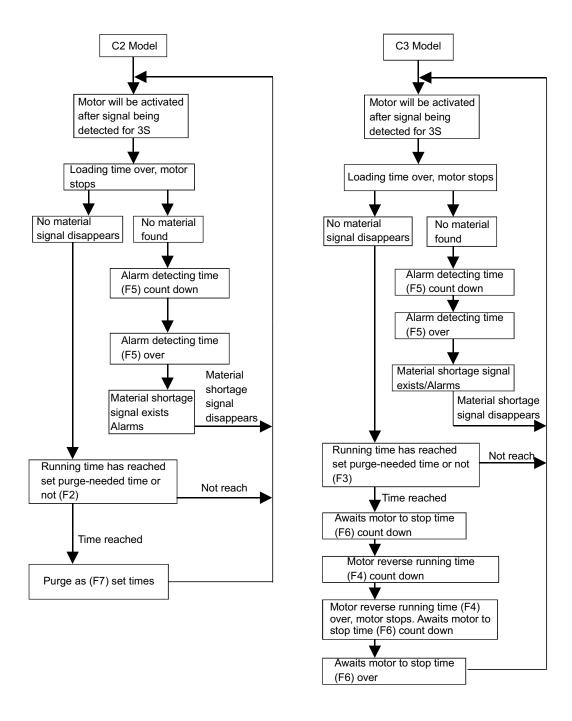
- 3. At standby state, the seven sectional display will display loading time.
- 4. Action flow:













### 10.3.3 Parameter List

- F2: To purge for every how many running times, default value is 3 times----adjusting range1~10 times. (Applicable to C2)
- F3: Motor reverse running for cleaning for every how many running times, default value is 3 timesadjusting range 1~10 time. (Applicable to C3)
- F4 : Motor reverse running time, default value is 10 second-------Adjusting range 5~30 second. (Applicable to C3)
- F5 : Alarm detecting time, default value is 20 second------Adjusting range 10~40 second. (Applicable to C1,C2,C3,C4)
- F6 : Awaits motor to stop time, default value is 30 second------Adjusting range 30~99 second. (Applicable to C3)
- F7 : Purge times, default value is 2 times-----Adjusting range 1~5 times. (Applicable to C2)
- F8 : Loading latency time, and default value is 0-----Adjusting range 0~99 times. (per minute)

To set F5 and F8 at C1.

To set F2, F5, F7 and F8 at C2.

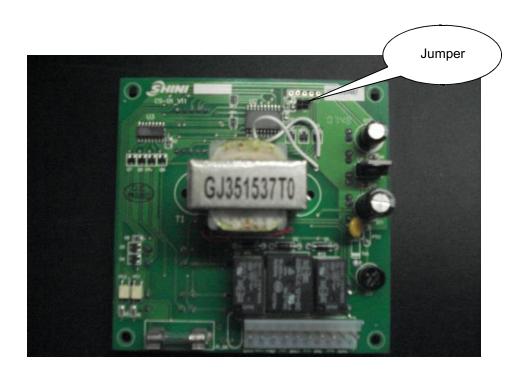
To set F3, F4, F5, F6 and F8 at C3.

To set F5 and F8 at C4.



### 10.3.4 Other settings

- 1. Any setting before power on will be saved automatically and back to shut off state after 5 second of no operation.
- 2. Any setting after power on will be saved automatically and back to standby state after 5 second of no operation.
- 3. No material shortage signal is being detected even after all action is over, then if press ✓ key for 3 second, motor will perform reverse running action, when release the ✓ keys to stop motor and await the motor stop count down and back to standby state to detect material shortage signal.
- 4. Function of the jumper: functions of C1, C3 and C4 will be activated when jumping out which is applicable to SAL-700G / 800G / 430 / 460. When disconnected, only functions of C1, C2 and C4 are available which can be used for SAL-700G / 800G / 330 / 360.





# 11. Trouble-shooting

# 11.1 Trouble Shooting for SAL-330 (E) /360 (E) Series

Failures	Possible causes	Solutions	
Motor does not work long after material discharged	Did not turn on main power or control switch or poor connection of the switches	Turn on main power switch and control switch and make sure they keep good contact.	
	Poor connection of microswitch or photoelectrical sensor	Adjust or replace	
	Signal wire broken	Refix signal wire	
Motor keep on working after the hopper is full filled	Contactor malfunctions	Repair or replace contactor	
Can not full-load the material for several times or alarm indicating material shortage	Material is used up	Add material to storage bin	
	Leakage in conveying hose	Lock up or replace conveying hose	
	Filter screen is blocked	Clear up filter screen	
Motor does not work	Short of phase or motor failures	Repair or replace	
Fuse melt after startup of the machine	Short circuit or motor failures	Check electrical circuit	
The alarm indicating	Filter screen is blocked	After cleaning of filter screen, press Reset on the overload relay.	
motor overload	Phase shortage	After fixed the circuit, press Reset on the overload relay.	



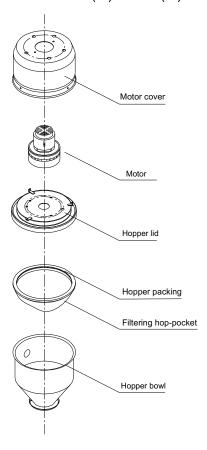
# 12. Maintenance and Repair

All repair work should be done by professionals to prevent personain juries and damages of the machine.

### 12.1 Filter Screen

For SAL-330 (E) / 360 (E) series, filter screens are fitted. They need to be cleaned periodically or at the time when conveying capacity of the machine d ecreases. Loosen the clips or screws at the hopper lid, take down the hopper lid and take the filter screen out. Clear up all the dusts and impurities on the filter screen to make smooth airflow through the screen so that suction power of the machine can be enhanced.

SAL-330 (E) / 360 (E)





2) Check the status of motor perfomance. If the motor can not start or makes loud noises, repair or replace the motor.

### 12.1.1 Weekly Checking

- 1) Check if there are worn-out eletrical wires, replace broken wires immediately.
- 2) Check that the keys on the control panel are functioning well.
- 3) Check if there are loose screws at material inlet and the seal ring is in the right place.



Note! Cut off main power when checking the electrical wire.

### 12.1.2 Monthly Checking

- 1) Check whether the hopper lid is fastened tightly by the snap hooks.
- 2) Check the reverse stopping flap. If it is out of shape, replace it.
- 3) Check the functions of microswitch or photoelectrical sensor. Adjust or replace if they are poorly connected.

## 12.1.3 The Useful of the Key Parts of the Product

Name of the parts	Uesful life
Motor	Above 5 years
Circuit-Break	Above 100,000 act

### 12.2 Hopper

- 1) Loose the snap hook, and take out hopper lid.
- 2) Use high pressure air to blow away all the material remains.
- 3) Re-fix the hopper lid and fasten the snap hook.



Notal

please make sure that the main switch is shut off before cleaning.



#### 12.3 Glass Tube

When you find there are materials adhering to the inner surface of the glass tube, please get rid of material remains soonly to make the machine work properly.

- 1) Unscrew the tightening screws of hopper bowl, and take it down.
- 2) Take down the retaining plate of control box.
- 3) Loosen the flange on the glass tube, take out the glass tube and make it clean.



Note!

Be careful not to break the glass tube during cleaning.

#### 12.4 Blower

- Clear the blower from inside out regularly. If there are too much dirts accumulated on the blower, the function of the blower will be affected, such as temperature rising, reduced air volume and higher noise level and vibration. All the above factors are liable to cause mechanical problems.
- 2) The bearing, seal ring and silencer are consumable parts. They should be replaced after a period of time. The fans, covers, and metal grids also need to be replaced when necessary.



12.5. Maintenance Schedule		
12.5.1 About the Machine		
Model:	SN:	Manufacturing date:
Voltage:V	Frequency: Hz	Total power: kW
12.5.2 Check after Installation	on	
Check that the convey	ying hose is correctly c	onnected.
Check that the convey	ying hose is tightly con	nected.
Check that the mount	ing base is tightly fixed	l.
Electrical Specification	ons	
Voltage:V	′ Hz	
Fuse melting current:	One phaseA	Three-phaseA
Check phase sequen	ce of power supply	



# 12.5.3 Daily Checking

1 1	1 1	<u> </u>
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance
<u> 1 1 </u>	1 1	<u> 1 1                                 </u>
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance
<u> </u>	<u> </u>	1 1
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance
<u> 1 1 </u>	<u> 1 1                                 </u>	1.1
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance
<u> 1 1                                 </u>	<u> 1 1                                 </u>	<u> </u>
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance
11	<u> 1 1                                 </u>	1.1
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance
11	<u> 1 1                                 </u>	1 1
Check main power switch	Check main power switch	Check main power switch
Check filter screen	Check filter screen	Check filter screen
Check motor performance	Check motor performance	Check motor performance



# 12.5.4 Weekly Checking

	<u> </u>
Check if there are damaged electrical wires	Check if there are damaged electrical wires
Check if there are loose connections of electrical components	Check if there are loose connections of electrical components
Check if the screws of flange at material inlet are loose or not	Check if the screws of flange at material inlet are loose or not
<u> 1 1                                 </u>	<u> 1 1                                  </u>
Check if there are damaged electrical wires	Check if there are damaged electrical wires
Check if there are loose connections of electrical components	Check if there are loose connections of electrical components
Check if the screws of flange at material inlet are loose or not	Check if the screws of flange at material inlet are loose or not
<u> </u>	<u> 1 1                                  </u>
Check if there are damaged electrical wires	Check if there are damaged electrical wires
Check if there are loose connections of electrical components	Check if there are loose connections of electrical components
Check if the screws of flange at material inlet are loose or not	Check if the screws of flange at material inlet are loose or not
<u> 1 1                                 </u>	<u> </u>
Check if there are damaged electrical wires	Check if there are damaged electrical wires
Check if there are loose connections of electrical components	Check if there are loose connections of electrical components
Check if the screws of flange at material inlet are loose or not	Check if the screws of flange at material inlet are loose or not
<u> 1 1                                 </u>	<u> </u>
Check if there are damaged electrical wires	Check if there are damaged electrical wires
Check if there are loose connections of electrical components	Check if there are loose connections of electrical components
Check if the screws of flange at material inlet are loose or not	Check if the screws of flange at material inlet are loose or not
<u> 1 1                                 </u>	<u> </u>
Check if there are damaged electrical wires	Check if there are damaged electrical wires
Check if there are damaged electrical wires  Check if there are loose connections of electrical components	Check if there are damaged electrical wires  Check if there are loose connections of electrical components



# **Local Warranty Statement**

- 1. Local warranty applies to the country of purchase only. Once the product is transited out of the country of purchase, this warranty is invalidated.
- 2. The warranty is only applicable to the original purchaser and in the country of purchase.
- 3. The warranty covers parts and labour only; and excludes freight and on-site call-out charges.
- 4. Your SHINI product is guaranteed against manufacturing defects for a period of twelve (12) months from the date of purchase locally unless stated otherwise.
- 5. The warranty shall immediately cease and become void if the product is found to have been modified or repaired by an unauthorized person.
- 6. The warranty is subjected to the following limitations and exclusions:
  - (a) Malfunctions or damages resulting from not complying with the recommended manner as outlined in our operation manual in relation with the application, installation, operation and maintenance.
  - (b) Defects from using wrong electrical supply, misuse or damage by negligence and abuse.
  - (c) Malfunctions or damages resulting from natural disaster, fire, civil unrest and / or accidents.
  - (d) Wear parts and accessories.
- 7. If your SHINI product is not the same place of purchase, you can still send the product to your local SHINI's branch or distributor for servicing at your full costs according to the individual country service policy.
- 8. If there is no SHINI's branch or distributor in your country, although obviously there is no warranty covered by SHINI, you may direct contact SHINI requesting for the supply of replacement parts at your full costs.
- 9. All the electricity installation ,connection and maintenance should be carried out by the specialists or contact SHINI or its local agents.



10. The warranty is deemed valid only	if the followings are completely filled in:
Purchaser's name and address:	
Your supplier's name and address:	
	(company stamp)
Product model:	Serial number:
Invoice Number:	Date of purchase:
Please send all queries and comme	nts to:
Shini Plastics Technologies, Inc.	nto to.
Corporate Strategic Center	
Dalang, Dongguan, Guangdong, Ch	ina
Tel: (0769) 8331 3588 Fax: (0769)	
E-mail: shini@shini.com	0001 0000
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- 冷热交换系列
- 粉碎回收系列
- 自动化系列
- 热流道系统
- 系统化对策

- Drying & Dehumidifying
- Feeding & Conveying
- Dosing & Mixing
- Heating & Cooling
- Granulating & Recycling
- Automation System
- Hot Runner System
- System Solutions

# 信 易 塑 胶 科 技 集 团 SHINI PLASTICS TECHNOLOGIES, INC.

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