

# **SAL-330/360**

**Self-contained Hopper Loader**

Date: June, 2020

Version: Ver.B





## Content

|  |           |
|--|-----------|
| <b>1. General Description .....</b>  | <b>5</b>  |
| 1.1 Coding Principle.....  | 5         |
| 1.2 Features.....  | 5         |
| 1.3 Options .....  | 5         |
| 1.4 Technical Specifications .....   | 7         |
| 1.4.1 External Dimensions .....  | 7         |
| 1.4.2 Mounting Base Specifications .....   | 7         |
| 1.4.3 Loading Capacity.....  | 8         |
| 1.4.4 Specification List .....   | 8         |
| 1.5 Safety Regulations.....  | 9         |
| 1.6 Exemption Clause.....  | 11        |
| <b>2. Structure Characteristics and Working Principle.....</b>                       | <b>12</b> |
| 2.1 Working Principle .....  | 12        |
| 2.2 Assembly Drawing .....   | 13        |
| 2.3 Main Electrical Components Description .....                                     | 15        |
| 2.3.1 AC Contactor.....  | 15        |
| <b>3. Installation and Debugging .....</b>   | <b>16</b> |
| 3.1 Installation of SAL-330 / 360.....   | 16        |
| 3.1.1 Installation Methods of SAL-330 / 360.....                                     | 16        |
| 3.1.2 Installation Methods of SAL-330/360 Optional Proportional Valve<br>SPV-U ..... | 17        |
| 3.2 Installation Space.....  | 18        |
| <b>4. Application and Operation.....</b>   | <b>19</b> |
| 4.1 Control Panel .....  | 20        |
| 4.2 Function Setup.....  | 21        |
| 4.2.1 Setup.....   | 21        |
| 4.2.2 Actions .....  | 22        |
| 4.2.3 Parameter List .....   | 25        |
| 4.2.4 Other Settings .....   | 25        |
| <b>5. Troubleshooting .....</b>  | <b>26</b> |
| 5.1 Troubleshooting for SAL-330/360 Series .....                                     | 26        |

|   |           |
|---|-----------|
| <b>6. Maintenance and Repair .....</b>      | <b>27</b> |
| 6.1 Filter Screen .....                     | 27        |
| 6.1.1 Service Life of Product Key Part..... | 28        |
| 6.2 Hopper.....                             | 28        |
| 6.3 Cloth Filter .....                      | 28        |
| 6.4 Blower.....                             | 29        |
| 6.5 Maintenance Schedule .....              | 30        |
| 6.5.1 About the Machine .....               | 30        |
| 6.5.2 Check after Installation.....         | 30        |
| 6.5.3 Daily Checking .....                  | 30        |
| 6.5.4 Weekly Checking.....                  | 30        |
| 6.5.5 Monthly Check.....                    | 30        |
| <b>7. Circuit Diagram.....</b>              | <b>31</b> |

### Table Index

|   |    |
|---|----|
| Table 1-1: Specification List.....        | 8  |
| Table 4-1: Control Panel Description..... | 19 |

### Picture Index

|  |    |
|--|----|
| Picture 1-1: External Dimensions .....                   | 7  |
| Picture 1-2: Mounting Base Specifications .....          | 7  |
| Picture 1-3: Loading Capacity .....                      | 8  |
| Picture 2-1: Working Principle .....                     | 12 |
| Picture 2-2: Assembly Drawing(SAL-330) .....             | 13 |
| Picture 2-3: Assembly Drawing(SAL-360) .....             | 14 |
| Picture 2-4: Contactor.....                              | 15 |
| Picture 3-1: Installation Methods of SAL-330/360 .....   | 16 |
| Picture 3-2: Installation Method of Optional SPV-U ..... | 17 |
| Picture 3-3: Installation Space .....                    | 18 |
| Picture 4-1: Control Panel .....                         | 19 |
| Picture 6-1: Filter Screen.....                          | 27 |
| Picture 6-2: Cloth Filter.....                           | 28 |

## 1. 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.

### 1.1 Coding Principle



### 1.2 Features

- I Stainless steel hopper, motor overload protector.
- I SAL-330/360 integrated design features compact structure and light weight.
- I When mounted at the inlet of the injection molding machine, SAL requires to work with the storage collective hopper SCH-U or SICH-U.
- I All the machines are equipped with auto reverse cleaning kit and cloth mesh filter.
- I This series is equipped with manual control switch for easy power switching when the machine is installed at a high place.

### 1.3 Options

- I Quick mixing valve can be opted to work with proportional valve to enhance mixing effect. Add "QM" at the end of model code.
- I For polished hopper inside ones, add "P" at the end of the model code.

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.

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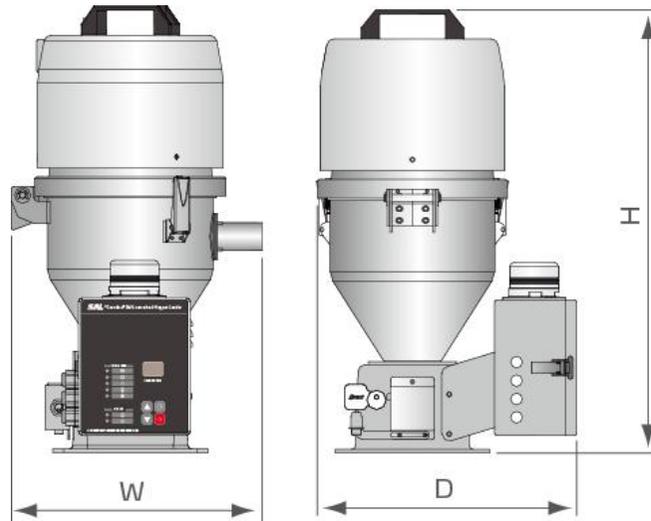
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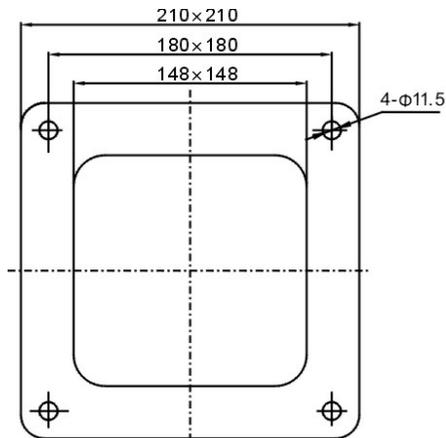
## 1.4 Technical Specifications

### 1.4.1 External Dimensions



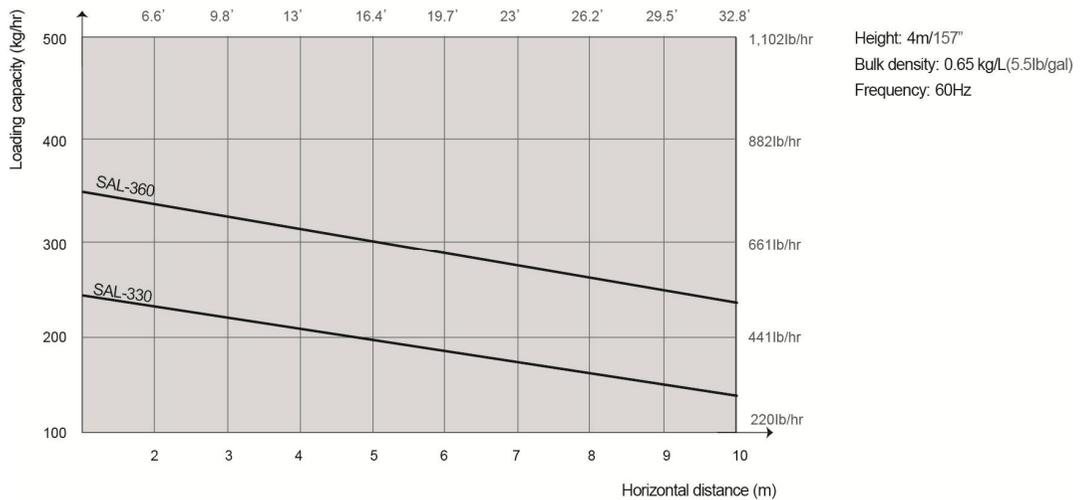
Picture 1-1: External Dimensions

### 1.4.2 Mounting Base Specifications



Picture 1-2: Mounting Base Specifications

### 1.4.3 Loading Capacity



Picture 1-3: Loading Capacity

### 1.4.4 Specification List

Table 1-1: Specification List

| Model                                   | SAL-330               | SAL-360      |
|---|-----------------------|--------------|
| Ver.                                    | B                     | B            |
| Motor Type                              | Carbon brush          | Carbon brush |
| Motor Power(kW)(50 / 60Hz)              | 1.15                  | 1.15         |
| Conveying Pipe Dia.(Inch)               | 1.5                   | 1.5          |
| Conveying Capacity (kg / hr, 50Hz/60Hz) | 200/240               | 300/350      |
| Hopper Capacity (L)                     | 3                     | 6            |
| Input Voltage                           | 1 $\Phi$ , 230V, 50Hz |              |
| Material Level Control                  | Microswitch           |              |
| Cloth Filter                            | Standard              |              |
| Auto-cleaning                           | Standard              |              |
| Dimensions                              |                       |              |
| H(mm)                                   | 610                   | 670          |
| W(mm)                                   | 345                   | 385          |
| D(mm)                                   | 355                   | 380          |
| Weight (kg)                             | 13                    | 14           |

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

2) 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.V.

## 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.



Attention!

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.

### Transportation and Storage of the Machine

#### Transportation

- 1) SAL series hopper loader are packed in paper cartons. Handle with care when to move the machine by hands.
- 2) Do not rotate the machine and avoid collision with other objects during transportation to prevent improper functioning.
- 3) 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.
- 4) The machine and its attached parts can be kept at a temperature from  $-25^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$  for long distance transportation and for a short distance, it can be transported with temperature under  $+70^{\circ}\text{C}$ .

#### Storage

- 1) SAL series hopper loader should be stored indoors with temperature kept from  $5^{\circ}\text{C}$  to  $40^{\circ}\text{C}$  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 nomore 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<sub>2</sub> dry powder fire extinguisher should be applied.

## 1.6 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).

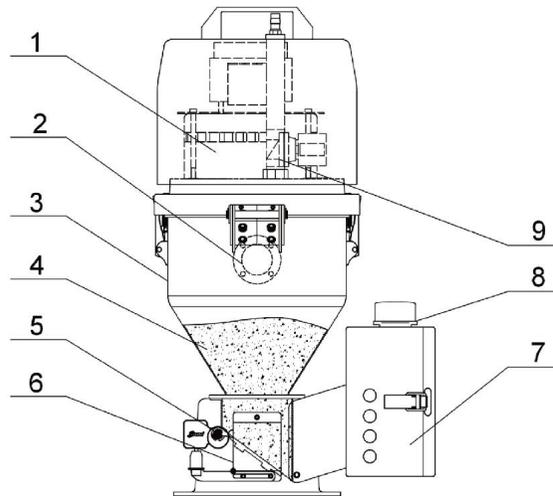
Shini is exempted from liability for any costs, fees, claims and losses caused by reasons below:

- 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.

## 2. Structure Characteristics and Working Principle

### 2.1 Working Principle

SAL-330/360 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.



Picture 2-1: Working Principle

- |                        |                        |                            |
|------------------------|------------------------|----------------------------|
| 1. Carbon brush blower | 2. Material inlet pipe | 3. Storage hopper          |
| 4. Material            | 5. Discharging plate   | 6. Microswitch             |
| 7. Control box         | 8. Alarm light         | 9. Reverse cleaning device |

After starting the machine, reverse cleaning device (9) begins to wash the dust covered in the hop- pocket and hopper. After that, carbon brush blower (1) starts to work and produces vacuum in the storage hopper (3). Meanwhile, close the discharging plate (5), and the material in the storage bucket will be conveyed through material inlet pipe (2) into the material storage hopper (3) under the function of minus pressure and the air flow. After finishing material suction, carbon brush blower(1) stops working and the materials(4) will fall down by self-gravity. When microswitch (6) detects that no materials remain in the storage hopper(3), and after the dust get through the reverse cleaning device(9), the carbon brush blower(1) starts to work again. When blower cannot suck materials from the storage bucket, the alarm light (8) in the control box (7) will be blinking to indicate that the materials are not enough.

## 2.2 Assembly Drawing

机型版本号: Ver. B

Scale: 1:1

Sheet: 1 of 1

| No. | Material number | Name  |
|-----|-----------------|---|
| 42  | YW90033005500   | [Dish-bag]pumping device SAL-330-A-119e-BIAC110V                |
| 43  | YW90033005500   | [Dish-bag]pumping device SAL-330-A-119e-BIAC220V                |
| 41  | BH12030400410   | Connecting nut 1  |
| 40  | BR10281500050   | Reverse-cleaning pipe fastener SAL-3128e-5mm                    |
| 39  | BH33033000810   | Reverse-cleaning pipe nozzle                                    |
| 38  | BP82003000444   | Fiber cloth bag   |
| 37  | YK20003000100   | Split washer of filter cloth *                                  |
| 36  | YK10000000000   | White iron hopper (a la later has mold)                         |
| 35  | YK09024000000   | Yellow hopper (plastic enamel view)91-41-32-wr-Nehil (has mold) |
| 34  | BH10061100040   | Stainless steel rim rod   |
| 33  | YW61050400000   | Open flat round head rivet GB/T 1819 4.8-A2-70(SUS)             |
| 32  | YW61050400000   | Inner hexagon flat-end set screw GB/T 771 M6x10-Longrine        |
| 31  | YW20021000000   | Counter weight hammer   |
| 30  | BH15050100310   | Ejector pin assembly  |
| 29  | YW62061000000   | Large cross socket flat head screw GB/T 818 M4x12-Longrine      |
| 28  | YW10103000000   | Discharging plate spring  |
| 27  | YW69061700000   | Discharge plate rivet   |
| 26  | BW20001000100   | Aluminum accessories  |
| 25  | YK65041000000   | Cross recessed pan head screw GB/T 818 M4x12-Longrine           |
| 24  | YK05303000000   | Hexanohex SAL-330-A-999a(x3white) (has mold)                    |
| 23  | YK15102000000   | Position limit switch YK_XV_5/16G2                              |
| 22  |                 | Storage tank  |
| 21  | YW66051300000   | Flat washer 5.5x13x1-Longrine                                   |
| 20  | YK64000500000   | Hexagonal nut M6 anti-loose                                     |
| 19  | BL32061100340   | Upper hinge   |
| 18  | BL32061200040   | Lower hinge   |
| 17  | B1-0006003110   | Hinge   |
| 16  | YK65102500000   | Flat gasket 10x25x1.5-Longrine                                  |
| 15  | YK66000600000   | Open ring GB/T696 6   |
| 14  | YK66061300000   | Flat washer A grade GB/T917 6-Longrine                          |
| 13  | YK65060500100   | Standard spring washer GB/T93 6-Longrine                        |
| 12  | YK61062000300   | Inner hexagon cylindrical screw GB/T771 M6x20-2.9-Longrine      |
| 11  | BW20012000040   | Aluminum square handle L120                                     |
| 10  | YK40000300100   | Motor cover *   |
| 9   | YK40000300100   | Snap hook block   |
| 8   | YK20030100040   | Spring buckle adjustable SAL-6U-A-35                            |
| 7   | YK66041700100   | Hexagon lock nut with non-metallic insert GB/T8881 M4           |
| 6   | YK69041500100   | Flat screw M4x5   |
| 5   | BL32000500020   | Material inlet pipe   |
| 4   | YK69041000000   | Flat screw M4x9   |
| 3   | YK69061200000   | Feed pipe-tighten   |
| 2   |                 | Control box   |
| 1   | BA1001000260    | Square base (thin)  |

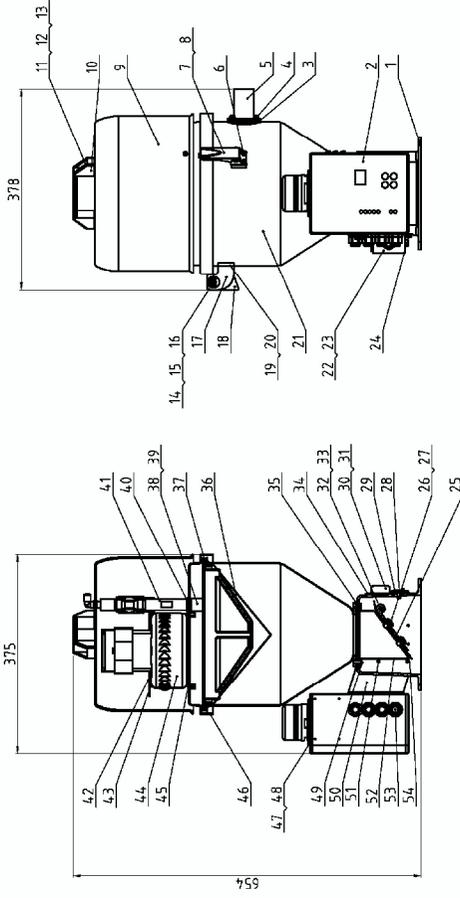
  

| Mark | Before Mod. | After Mod. | Modified Date | Checked by | Designed by | Drawn by | Version | Title   | Drawing No. | Scale | Sheet |
|------|-------------|------------|---------------|------------|-------------|----------|---------|---------|-------------|-------|-------|
|      |             |            |               |            |             |          |         | SAL-330 |             | 1:1   | 1     |

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Shini Plastics Technologies, Inc.

Picture 2-2: Assembly Drawing(SAL-330)

料型版本号: Ver.B



Technical req.  
 1. Main performance parameters:  
 a. Max. conveying ability: 200kg/hr(Standard fast bulk density 0.65kg/L);  
 b. Machine power: 1 phase,230VAC,50Hz;  
 c. Motor power 1.15kW;  
 d. Effective hopper capacity: 3L  
 2. Assembly req.:  
 a. When assembly, the gap between the adjustable discharge plate and the discharge port is about 8 mm.

Notes: Parts with \* are easily broken parts.

|     |                |   |
|-----|----------------|---|
| 4.1 | YW90036006600  | Cloth-bag purging device SAL-338-A-1Ver.9A/C/D/V                      |
| 4.0 | YW90036006600  | Cloth-bag purging device SAL-338-A-1Ver.9A/C2/B/V                     |
| 4.0 | BL12030400410  | Connecting nut  |
| 3.9 | BR10281500950  | Reverse-cleaning pipe fastener SAL-3028-15mm                          |
| 3.8 | BH13033000810  | Reverse-cleaning pipe nozzle  |
| 3.7 | BP20203000844  | Hopper fastener and filter bag assembly                               |
| 3.6 | YR40003000100  | Filter ring   |
| 3.5 | YR10000000600  | Gate fastener*  |
| 3.4 | YR40002700000  | Versum hopper plastic exhaust underpart-4L-3L ver.14(Hitec has model) |
| 3.3 | BH10061000640  | Iron rod SMH-6L-A-14  |
| 3.2 | YW60504000000  | Open flat round head blind rivet GB/T 1018 K19-A2-70S19               |
| 3.1 | YW68051000000  | Inner hexagon cylindrical screw GB/T11626-Longzhe                     |
| 3.0 | YW20602100000  | With heavy punch  |
| 2.9 | BH11060000310  | Ejector pin assembly  |
| 2.8 | YW62061000000  | Large cross socket flat head screw JIS1111 M6x10-Longzhe              |
| 2.7 | YW10031000000  | Discharging plate spring  |
| 2.6 | YW09061700000  | Discharge plate rivet   |
| 2.5 | BW20000100100  | Aluminum accessories  |
| 2.4 | YW63061000000  | Cross recessed pan head screw GB/T-818 Mx2 L Longzhe                  |
| 2.3 | YR40309000000  | Hexenrib shaft-30-4-9(standard has model)                             |
| 2.2 | YF45112000000  | Limit switch YBLXW-5/11C2   |
| 2.1 |                | Storage tank  |
| 2.0 | YW66051300000  | Flat washer S5.5x13x1 Longzhe   |
| 1.9 | YW64400500000  | Hexagonal nut M5 anti-rust  |
| 1.8 | BL32000610240  | Upper hinge SAL-6L-11   |
| 1.7 | BL32000610160  | Lower hinge SAL-6L-12   |
| 1.6 | BH100060003110 | Hinge SAL-6U-31   |
| 1.5 | YW66102500000  | Flat gasket 10x25x1-Longzhe   |
| 1.4 | YW66003000000  | Open ring GB/T 8196.6   |
| 1.3 | YW66016300000  | Flat washer A grade GB/T9114-Longzhe                                  |
| 1.2 | YW45000000100  | Standard spring washer GB/T93.1-Longzhe                               |
| 1.1 | YW61052000300  | Inner hexagon cylindrical screw GB/T 1018 M6x20-12.9-Longzhe          |
| 1.0 | BW20012000400  | Aluminum square handle L120   |
| 9   | YR40000300100  | Motor cover*  |
| 8   | YR40000600800  | Spoke base part SAL-604(Hitec has model)                              |
| 7   | YW02003020400  | Spring ball SAL-6U-A-36   |
| 6   | YW66404000100  | Non-metal insert hexagon nut GB/T898.1 M4                             |
| 5   | BL20000000200  | Radial inner pipe   |
| 4   | YW66005100000  | Flat washer A grade GB/T9114-Longzhe                                  |
| 3   | YR10061200000  | Control box   |
| 2   | BA10040002600  | Square base (Hitec)   |

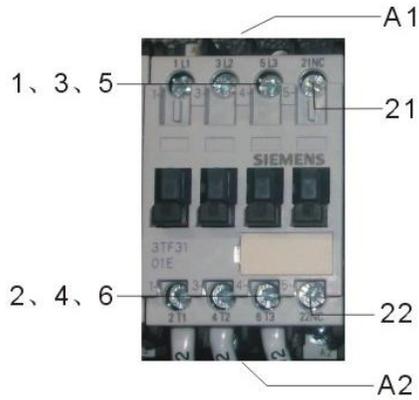
|     |                 |                                   |
|-----|-----------------|-----------------------------------|
| No. | Material number | Name                              |
|     |                 | Drawing NO.                       |
|     |                 | Scale                             |
|     |                 | 1:7                               |
|     |                 | Num.                              |
|     |                 | 1                                 |
|     |                 | Part                              |
|     |                 | Surface                           |
|     |                 | Partical number                   |
|     |                 | Assembly                          |
|     |                 | SHINI                             |
|     |                 | 德昂熱熱機股份有限公司                       |
|     |                 | Shini Plastics Technologies, Inc. |

Picture 2-3: Assembly Drawing(SAL-360)

## 2.3 Main Electrical Components Description

### 2.3.1 AC Contactor

It is mainly used to connect and disconnect power supply



Picture 2-4: Contactor

A1-A2: Contactor coil

21-22: Contact

21-2, 3-4, 5-6: Main contact

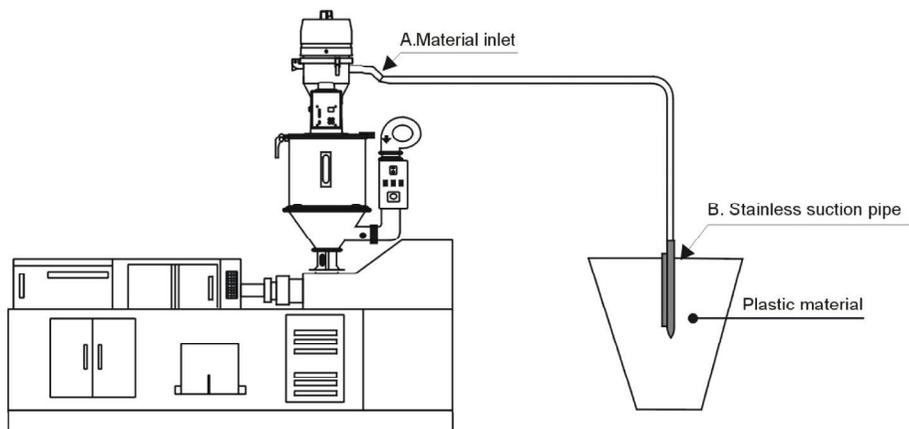
### 3. Installation and Debugging

Make a careful study of this chapter before installation.

**Note: The machine must be installed according to the steps below. Power supply should be connected by qualified electricians.**

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

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



Picture 3-1: Installation Methods of SAL-330/360

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.

## Machine Installation

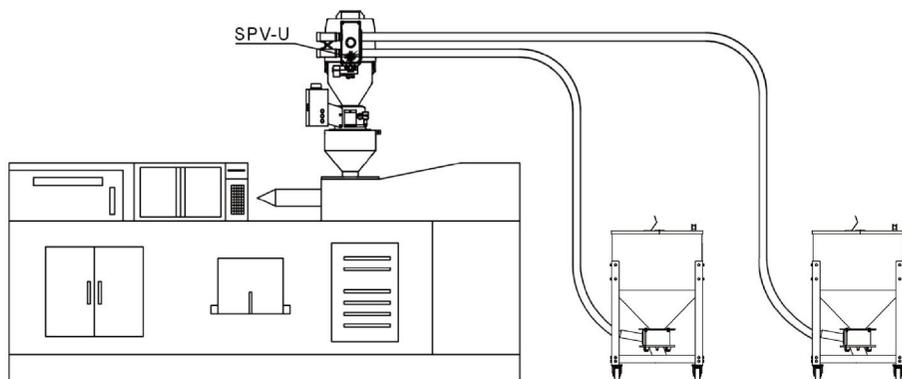
Install the whole suction machine (SAL-330 / 360) onto the hopper dryer (see the picture above), fix the four fixation holes in the mounting base. Connect one end of the conveying hose to material inlet (A), and the other end to the stainless suction pipe (B), then insert the pipe into the storage tank.

## Circuit Connection

The machine requires compressed air to finish filter cleaning function, so please connect to the compressed air. The pressure of compressed air: 4~6kgf/cm<sup>2</sup>

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

### 3.1.2 Installation Methods of SAL-330/360 Optional Proportional Valve SPV-U



Picture 3-2: Installation Method of Optional SPV-U

## Machine Installation

Mount SPV-U at material inlet of SAL-330/360, connect two material inlets of SPV-U to two feeding pipes respectively, insert another end of the feeding pipes in the hoppers.

## Circuit Connection

The machine requires compressed air to finish filter cleaning function, so please connect to the compressed air. The pressure of compressed air: 4~6kgf/cm<sup>2</sup>

## 3.2 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.

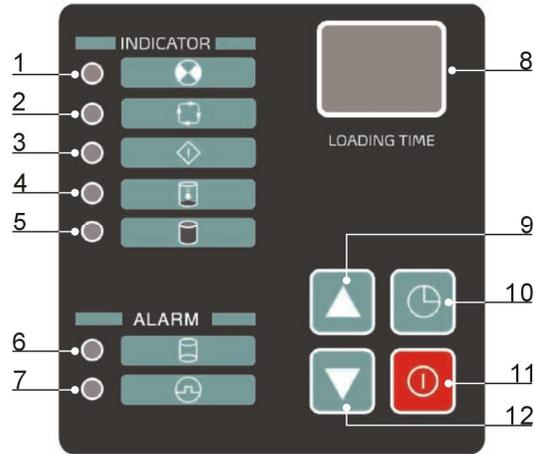
Do not sit on the machine.

Keep away flammable and explosive goods.



Picture 3-3: Installation Space

## 4. Application and Operation



Picture 4-1: Control Panel

Table 4-1: Control Panel Description

| 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         |

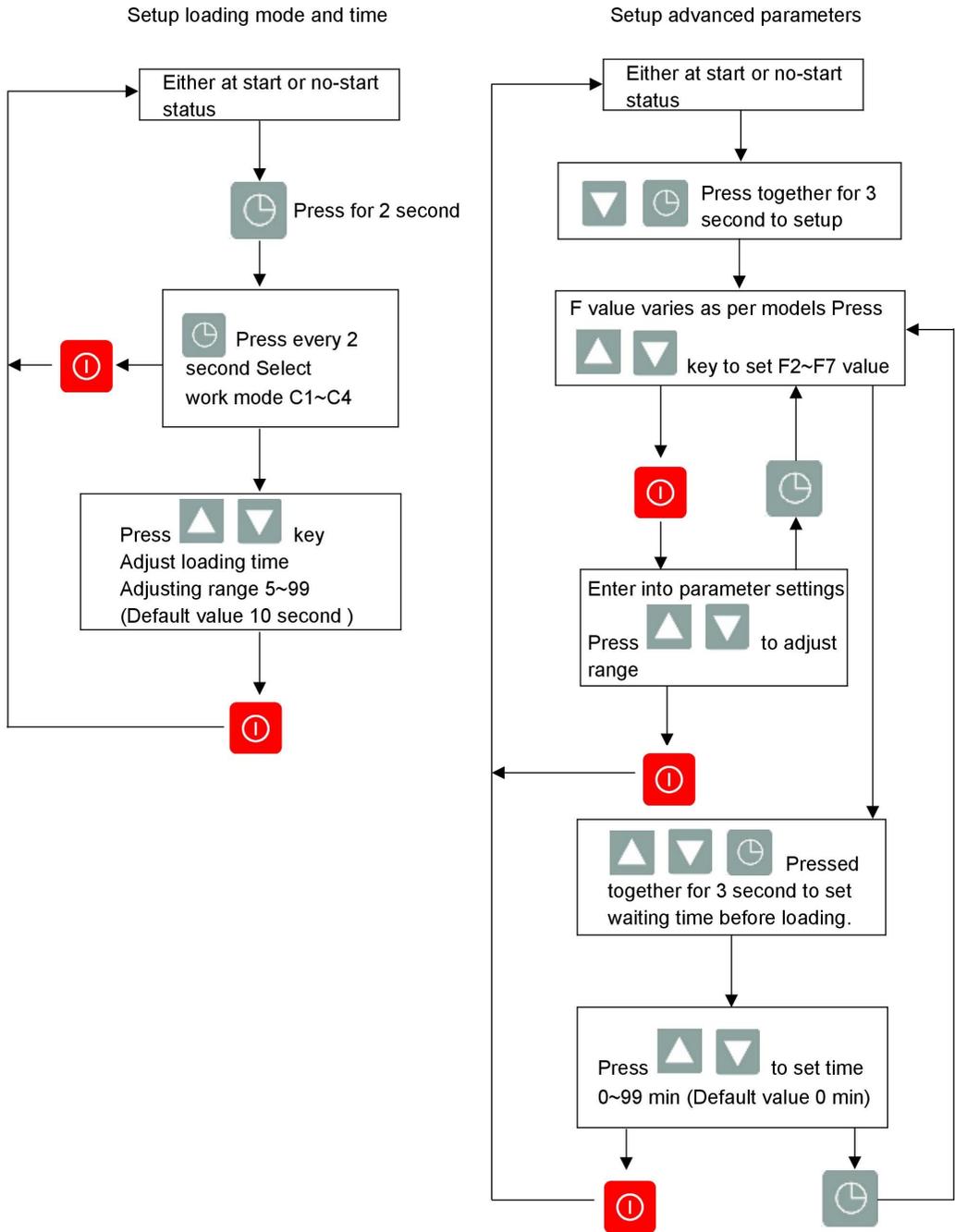
## 4.1 Control Panel

1. Press  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.

***Note: 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.***

## 4.2 Function Setup

### 4.2.1 Setup

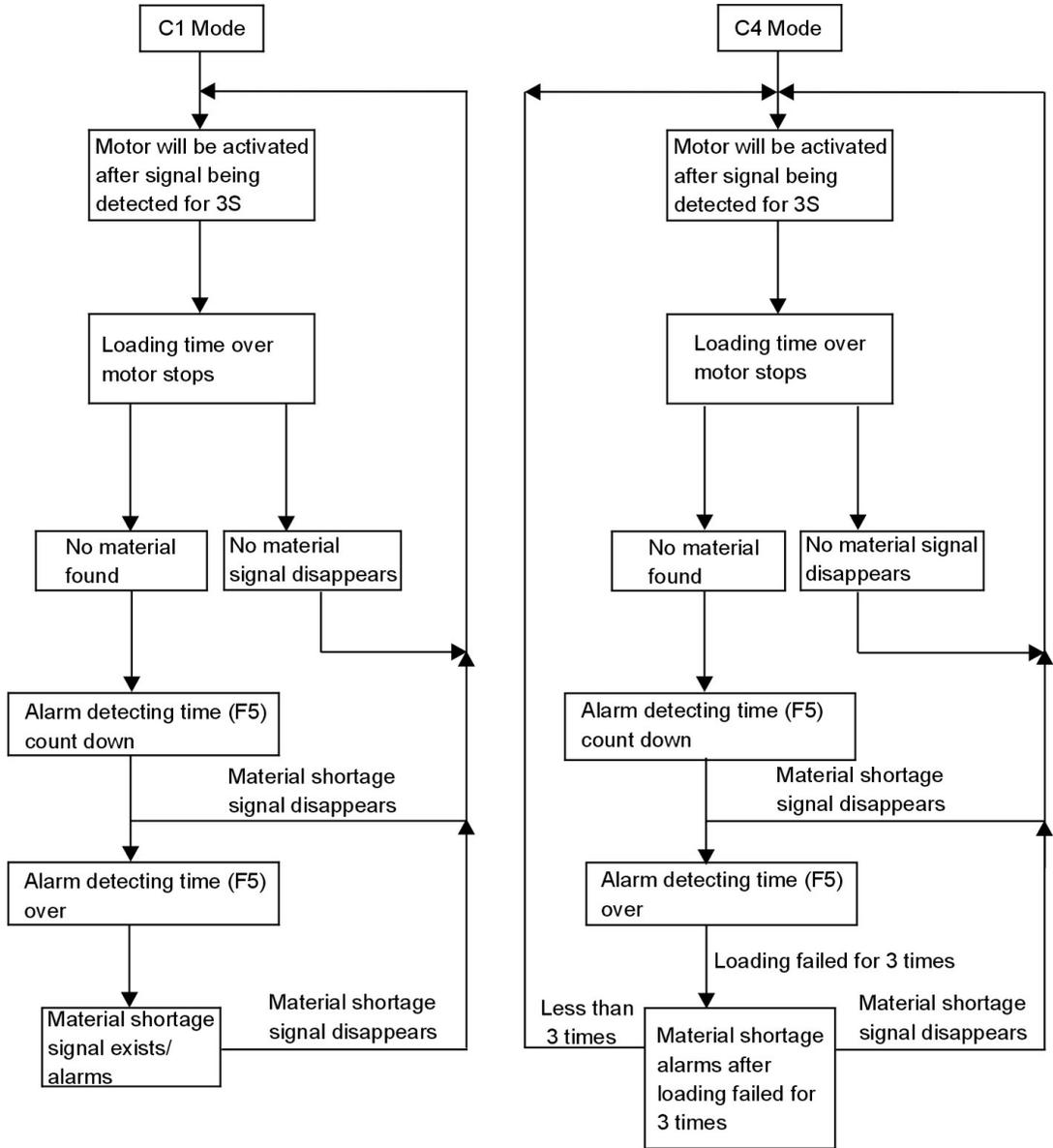


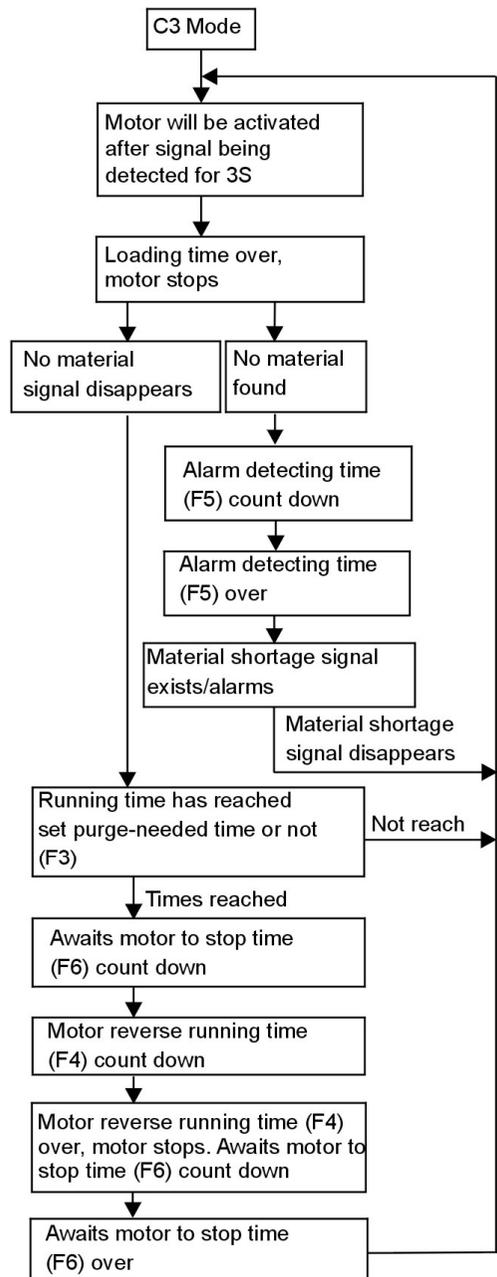
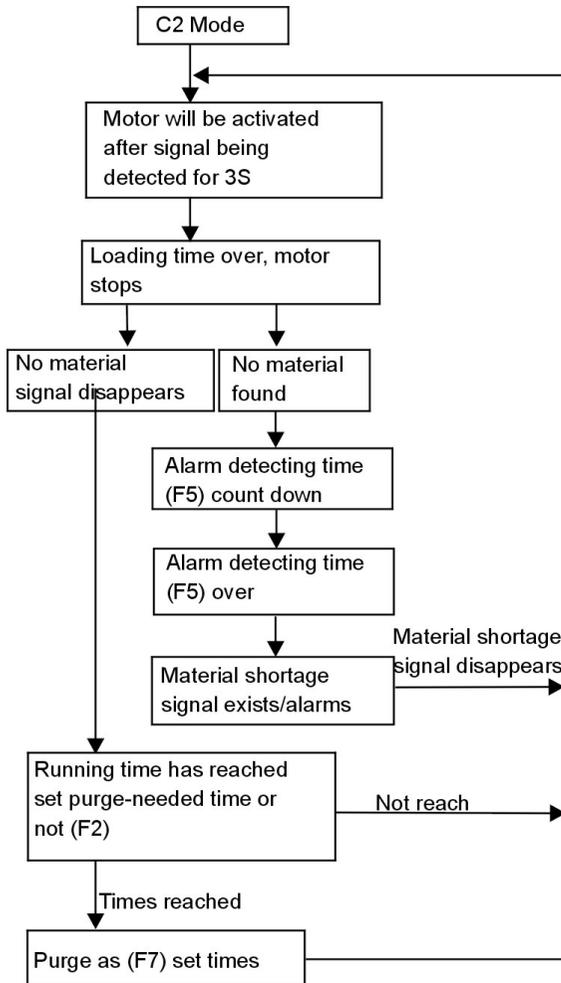
## 4.2.2 Actions

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

| Mode | Meaning   | Suitable model                       |
|------|---|--------------------------------------|
| 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:





### 4.2.3 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 |

### 4.2.4 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. (The function only suitable for SAL-430/460 model)
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.



## 5. Troubleshooting

### 5.1 Troubleshooting for SAL-330/360 Series

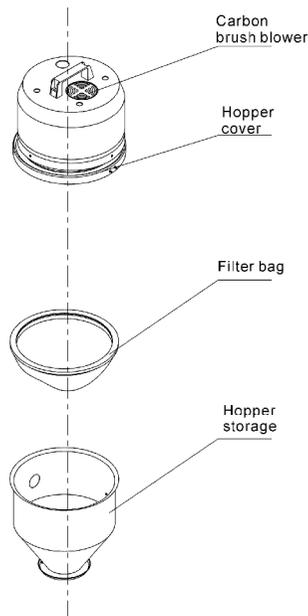
| Failures   | Possible Causes   | Solutions  |
|--|---|--|
| Motor does not work long after material discharged                                     | Did not turn on main power or control switch or poor connection of the switches | Turn on main power switch and control switch and make sure they keep 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                                  | Contactors 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 motor overload  | Filter screen is blocked  | After cleaning of filter screen, press Reset on the overload relay.                |
|  | Phase shortage  | After fixed the circuit, press Reset on the overload relay.                        |
| Poor material liquidity in the pipe  | Over or lack of air quantity  | Adjust air inlet location of the suction box.<br>Avoid small bending of the elbow. |

## 6. Maintenance and Repair

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

### 6.1 Filter Screen

- 1) For SAL-330/360 series, filter screens are fitted. They need to be cleaned periodically or at the time when conveying capacity of the machine decreases. 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.



Picture 6-1: Filter Screen

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

### 6.1.1 Service Life of Product Key Part

| Name of the Parts | Service Life      |
|-------------------|-------------------|
| Motor             | Above 5 years     |
| Contactactor      | Above 100,000 act |

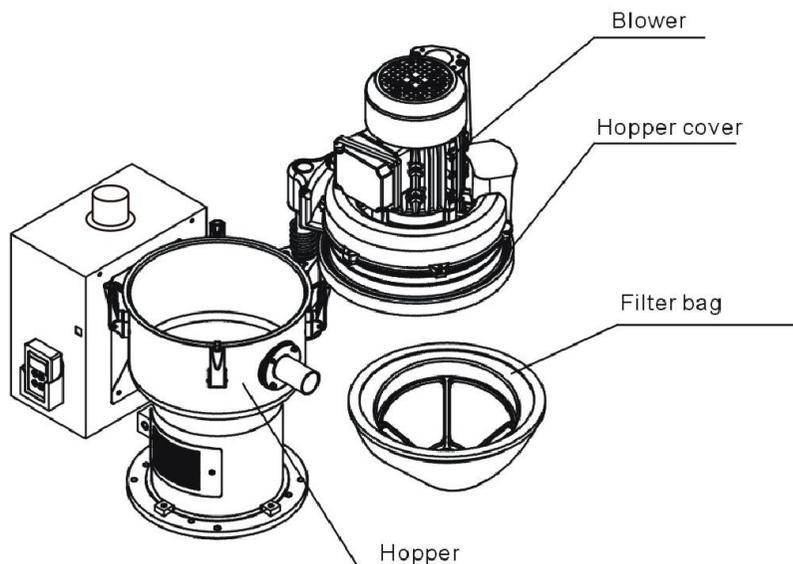
## 6.2 Hopper

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

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

## 6.3 Cloth Filter

- 1) Loosen the spring fastener on the loader, uplift the loader cover and externally rotate it along the axis, take out the filter bag and clear away the dust on it.
- 2) Filter bag cleaning period: Daily.



Picture 6-2: Cloth Filter

## 6.4 Blower

- 1) Clear the blower from inside out regularly. If there are too much dirt accumulated on the blower, the function of the blower will be affected, such as temperature rising, reduced air volume, 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 screen also need to be replaced when necessary.

## 6.5 Maintenance Schedule

### 6.5.1 About the Machine

Model: \_\_\_\_\_ SN: \_\_\_\_\_ Manufacturing date: \_\_\_\_\_

Voltage: \_\_\_\_\_  $\Phi$  \_\_\_\_\_ V Frequency: \_\_\_\_\_ Hz Total power: \_\_\_\_\_ Kw

### 6.5.2 Check after Installation

- Check that the conveying hose is correctly connected.
- Check that the conveying hose is tightly connected.
- Check that the mounting base is tightly fixed.

#### Electrical Specifications

- Voltage: \_\_\_\_\_ V \_\_\_\_\_ Hz
- Fuse burnt current: One phase \_\_\_\_\_ A Three-phase \_\_\_\_\_ A
- Check phase sequence of power supply

### 6.5.3 Daily Checking

- Check main power switch
- Check filter screen
- Check motor performance

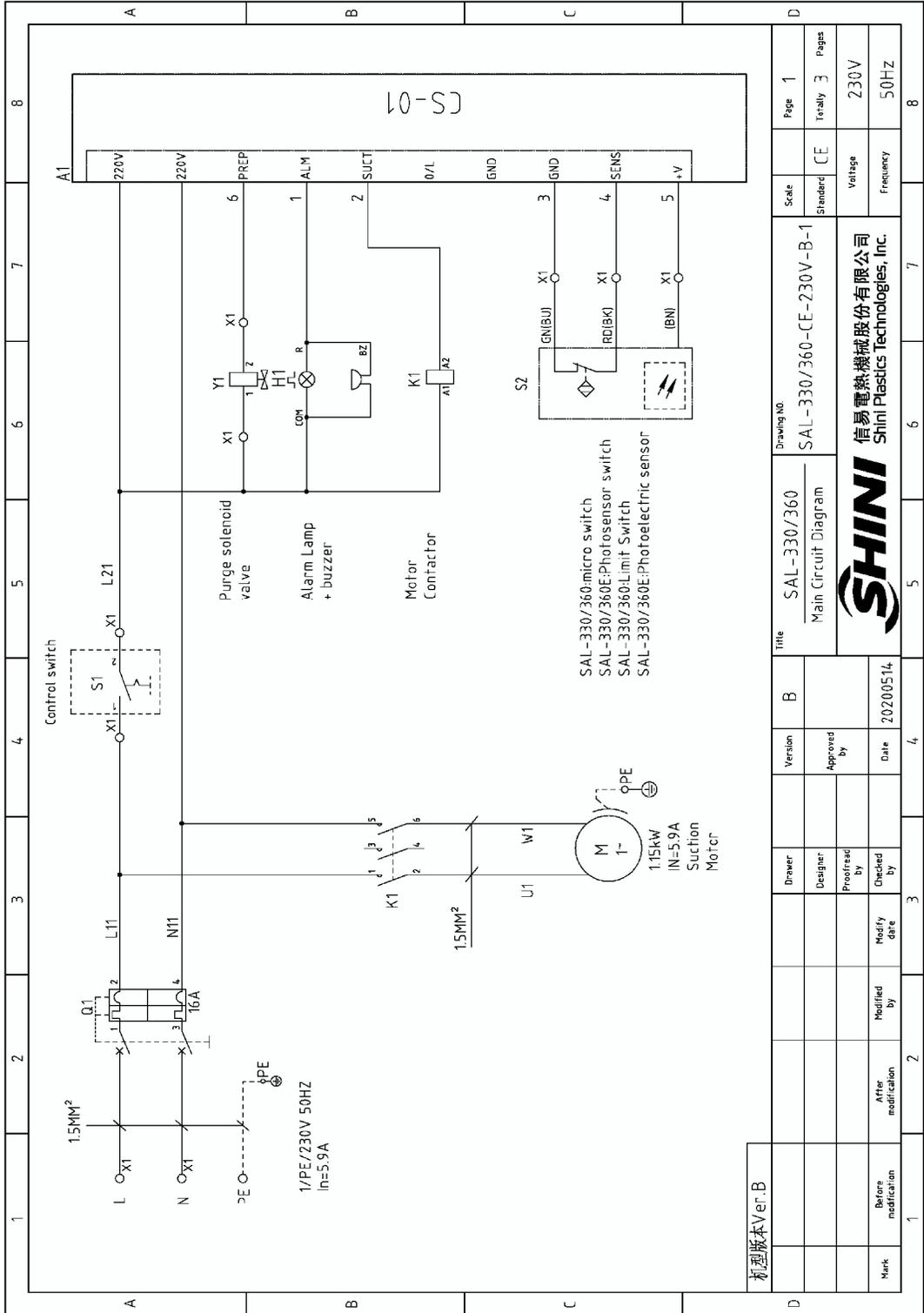
### 6.5.4 Weekly Checking

- Check if there are damaged electrical wires
- Check if there are loose connections of electrical components
- Check if the screws of flange at material inlet are loose or not

### 6.5.5 Monthly Check

- Check the spring lock on the hopper cover is loosed or not.
- Check the non-return valve is deformed or not.
- Check the performance of magnetic proximity switch/photoelectrical sensor.

# 7. Circuit Diagram





| 1  |        | 2                             |              | 3              |                    | 4                            |                 | 5                                 |  | 6         |  | 7       |  | 8    |  |
|--|--------|-------------------------------|--------------|----------------|--------------------|------------------------------|-----------------|-----------------------------------|--|-----------|--|---------|--|------|--|
| NO                                       | Symbol | Name                          | Manufacturer | Type           | Specification      | Number                       | Material number | Remark                            |  |           |  |         |  |      |  |
| 1  | Q1     | Circuit_Breakers              | TECO         | BM-63C/2016S   | 16A                | ·                            | YE40201600100   |                                   |  |           |  |         |  |      |  |
| 2  | K1     | AC Contactors                 | SCHNEIDER    | LC1-D09M7C220V | 230V 50/60HZ       | ·                            | YE00109700100   |                                   |  |           |  |         |  |      |  |
| 3  | S1     | Control Switch                | ---          | 303            | 0.75*2C*1.3M       | ·                            | YE10030300300   |                                   |  |           |  |         |  |      |  |
| 4  | S2     | Micro switch                  | JUCHE        | LXW5-11G2      | 250V 10A           | ·                            | YE14511200000   | (1)                               |  |           |  |         |  |      |  |
| 5  | H1     | Alarm Lamp+ buzzer            | HONGYUN      | ----           | AC 115/230V        | ·                            | BL90011500020   |                                   |  |           |  |         |  |      |  |
| 6  | A1     | Microcomputer Mainboard       | YUJUN        | CS-01          | 230VAC 50/60HZ     | ·                            | YE80122000000   |                                   |  |           |  |         |  |      |  |
| 7  | X1     | Connection terminal           | HONEYWELL    | SK2.5          | 2.5mm <sup>2</sup> | 9                            | YE60002503200   |                                   |  |           |  |         |  |      |  |
| 8  |        | Grounding terminal            | HONEYWELL    | GK2.5          | 2.5mm <sup>2</sup> | 2                            | YE60002503400   |                                   |  |           |  |         |  |      |  |
| 9  |        | Terminal fittings E/GK series | HONEYWELL    | ---            | PCS                | 2                            | YE60000003900   |                                   |  |           |  |         |  |      |  |
| 10                                       | M      | Motor                         | AMETEK       | ---            | 230VAC 1.15KW      | ·                            | ---             | (1)                               |  |           |  |         |  |      |  |
| B  |        |                               |              |                |                    |                              |                 |                                   |  |           |  |         |  |      |  |
| C  |        |                               |              |                |                    |                              |                 |                                   |  |           |  |         |  |      |  |
| D  |        |                               |              |                |                    |                              |                 |                                   |  |           |  |         |  |      |  |
| 机版本Ver.B                                 |        |                               |              |                |                    |                              |                 |                                   |  |           |  |         |  |      |  |
| Note: (1) Means not part of control box. |        |                               |              |                |                    |                              |                 |                                   |  |           |  |         |  |      |  |
|  |        | Drawer                        |              | Version        |                    | Title                        |                 | Drawing NO.                       |  | Scale     |  | Page    |  | 8    |  |
|  |        | Designer                      |              | Approved by    |                    | Electrical Components List 1 |                 | SAL-330/360                       |  | Standard  |  | 3       |  | 3    |  |
|  |        | Proofread by                  |              | Date           |                    | SHINI                        |                 | SAL-330/360-CE-230V-B-3           |  | CE        |  | Voltage |  | 230V |  |
|  |        | Checked by                    |              | 20200514       |                    | 信易塑料机械股份有限公司                 |                 |                                   |  | Frequency |  | 50HZ    |  |      |  |
| Mark                                     |        | Before modification           |              | Modified by    |                    | SHINI                        |                 | Shini Plastics Technologies, Inc. |  |           |  |         |  |      |  |
| 1  |        | 2                             |              | 3              |                    | 4                            |                 | 5                                 |  | 6         |  | 7       |  | 8    |  |