

SAL-U Series

Self-contained Hopper Loader

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Version: Ver.B (English)



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1. General Description



Read this manual carefully before operation to prevent personal injuries or damage of the machine.

SAL-U series self-contained hopper loader is suitable for conveying virgin material. It adopts stainless steel hopper to avoid material contamination. It looks nice, since its surface has been polished. In addition, it has a sound-proof blower cover to reduce noise produced in the process of operation. What's more, the remote operation has been realized by using a detachable controller, which is more convenient for clients to operate.



Model: SAL-1U

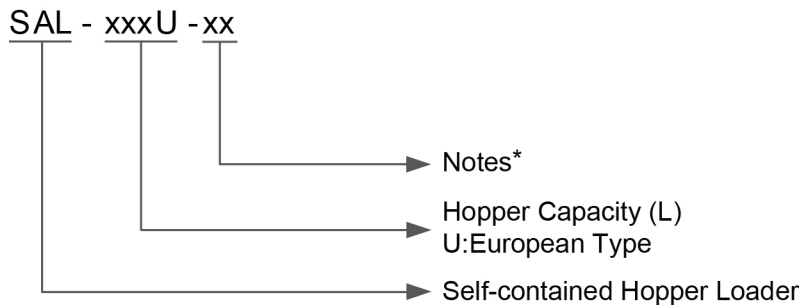


Model: SAL-6U



Model: SAL-6U-3

1.1 Coding Principle



Notes:*

A = Add Air Accumulator

P=For Polished Hopper Inside

CE=CE Conformity

1.2 Feature

1) Standard configuration

- SAL-1U~SAL-12U (-E) adopts carbon brush, which brings fast rotating speed, large air quantity and compact appearance. It's easy for transportation and installation.
- With remote wire controller and auto cleaning function, it's easy to operate.
- Possess blower soft start function and carbon brush wear warning (except for three-phase blower).
- Possess proportional valve.
- Positions of hopper and base are adjustable.
- Differential pressure switch is employed and screener blockage alarm is available (Applicable to SAL-1U~12U(E)).
- SAL-U has a magnetic proximity switch, while SAL-U-E adopts photosensor switch which is sensitive and stable.
- SAL-3U and above models have bases with diameters of Φ 275 mm, which can work with SHD-20U and models above as well as SHD-75 and models above.
- SAL-1U has a base with diameter of Φ 200 mm. It's necessary to employ an adapter flange when mounting with SHD-20U/40U.
- The whole SAL-U series is standard equipped with cloth mesh filter and auto-spraying dust cleaner. Furthermore, SAL-6U and models above can maintain operation efficiency by collocating with air accumulators to enhance spraying and reduce manual cleaning times. However, there is no need for SAL-U-3 to collocate with air accumulator and reverse washing pipe, since it has cloth mesh filter and function of blower reverse dedusting.

2) Accessory option

- provide multi-functional installation frame HMB-900 with 900 mm maximum adjustable diameter.
- Standard Collective Hopper SCH-6U/12U/24U and Euro Insulation Collective Hopper SICH-6U/12U/24U are optional; add this collective hopper at bottom of the magnetic-proximity switch hopper can be directly mounted on the injection molding machine.
- It is available to select air accumulator to enhance auto spraying function (applicable to SAL-6U /12U).
- Buzzer is optional (applicable to SAL-U-3 series).
- Option for propotion mixing SPV-U.

All maintenance work should be carried out by a person with technical training or corresponding professional experience. The manual contains instructions for both operating and maintenance. Chapter 6 contains maintenance instructions 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 after-sales service. Should you have any problem during using the machine, please contact the company or the local vendor.

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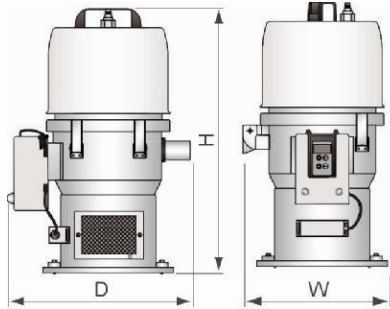
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Tel: + 91 250 3021 166.

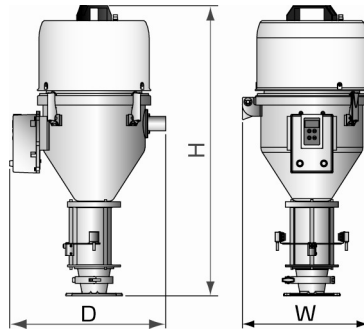
Please refer to shini.com/en/worldwide.html for local vendor near you.

1.3 Technical Specifications

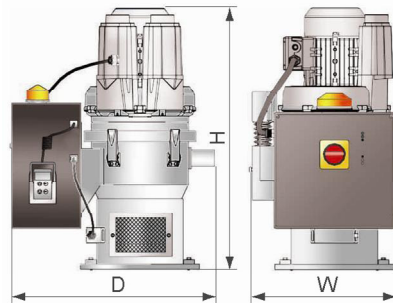
1.3.1 Dimensions



Picture 1-1: SAL-U Dimensions



Picture 1-2: SAL-U-E Dimensions



Picture 1-3: SAL-U-3 Dimensions

1.3.2 Specifications

Table 1-1: Specifications

Model	SAL-1U	SAL-3U	SAL-6U	SAL-12U	SAL-1U-E	SAL-3U-E	SAL-6U-E	SAL-12U-E	SAL-3U-3	SAL-6U-3
Blower Type	Carbon brush								Inductive	
Blower Power (kW) (50/60Hz)	0.46 / 0.55	1.15 / 1.32			0.46 / 0.55	1.15 / 1.32			0.375 / 0.42	0.75 / 0.85
Conveying Pipe Internal Dia. (inch)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Conveying Capacity (kg/hr)	30	200	300	400	30	200	300	400	200	300
Hopper Volume (L)	1	3	6	12	1.5	3	6	12	3	6
Power Supply (v)	1Φ, 115 / 230VAC, 50 / 60Hz								3Φ, 230 / 400 / 460 / 575VAC, 50 / 60Hz	
Auto-Cleaning Function	Standard									
Air Accumulator	None		Optional		None		Optional		None	
Dimensions										
H (mm)	525	555	645	745	630	740	800	935	605	675
W (mm)	270	305	340	340	260	305	340	340	335	370
D (mm)	325	305	410	410	325	370	410	410	475	540
Weight (kg)	10	11	12	14	10	13	16	18	18	33

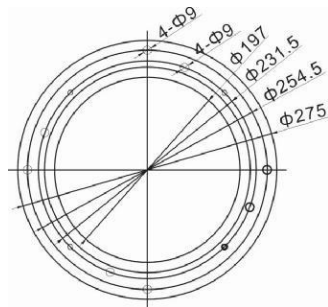
Note: 1) For hopper inside polished ones, add "P" at model behind.

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

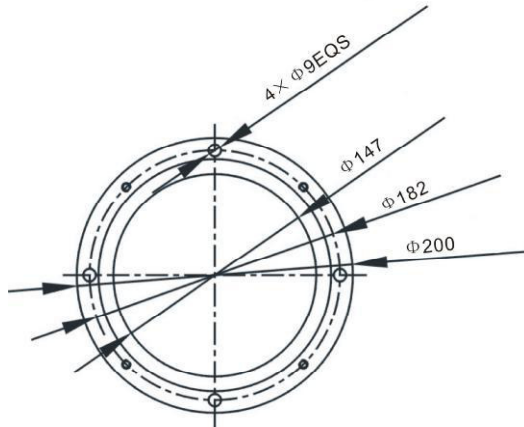
3) Compressed air supply: 4~6kgf/cm².

We reserve the right to change specifications without prior notice.

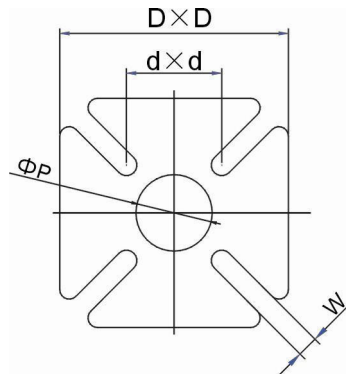
1.3.3 SAL-U-E Hopper Base Installation Size



Picture 1-4: SAL-3U Hopper Base Installation Size



Picture 1-5: SAL-1 U Hopper Base Installation Size



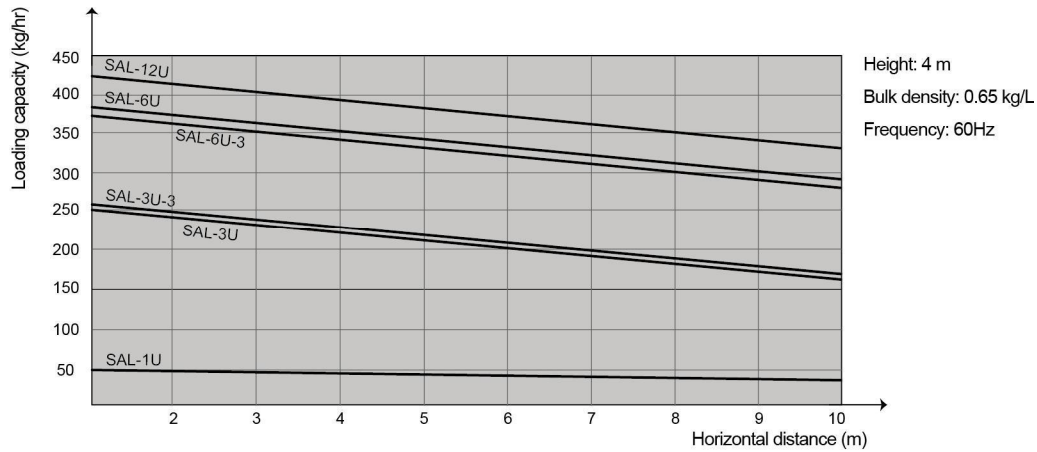
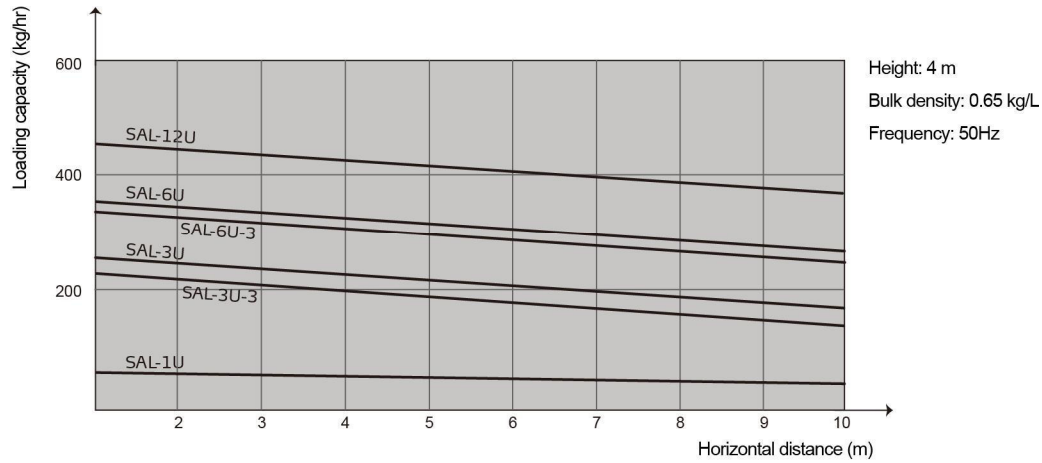
Picture 1-6: SAL-U-E(EA) Hopper Base Installation Size

1.3.4 Hopper Base Installation Size Table

Table 1-2: Hopper Base Installation Size Table

Model	D×D	d×d	W	P
SAL-1U-E	120×120	50×50	11	Φ40
SAL-3U-E	150×150	70×70	11	Φ55
SAL-6U-E	150×150	70×70	11	Φ55
SAL-6U-EA	150×150	70×70	11	Φ55
SAL-12U-E	180×180	80×80	11	Φ55
SAL-12U-EA	180×180	80×80	11	Φ55

1.3.5 Loading Capacity



Picture 1-7: Loading Capacity

1.4 Safety Regulations

Strictly abide by the following safety regulations to prevent personal injuries and damage of equipment.

1.4.1 Safety Signs and Labels



All the electrical components should be installed by electrician.
Turn off the main switch and control switch during maintenance.



Warning! High voltage!
This sign should be attached on the cover of control box!



Warning! Caution!
Be careful when at the location or area where this sign appears!



Notice!
All screws of the electrical components in it are locked tight. No need to check it regularly.

1.5 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:

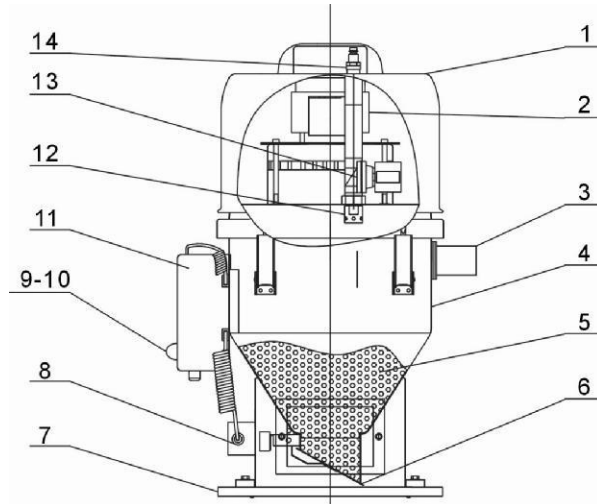
1. Any careless or man-made installations, operation and maintenances upon machines without referring to the Manual prior to machine using.
2. Any incidents beyond human controls, which include man-made vicious or deliberate damages or abnormal power, and machine faults caused by irresistible natural disasters including fire, flood, storm and earthquake.
3. Any operational actions that are not authorized by Shini upon equipment, 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-U series of self-contained Hopper Loader is suitable for conveying plastic granules. It mainly conveys materials by running the blower to produce differential pressure inside the material hopper.

2.1.1 Working Principle Diagram of SAL-U-(CA)



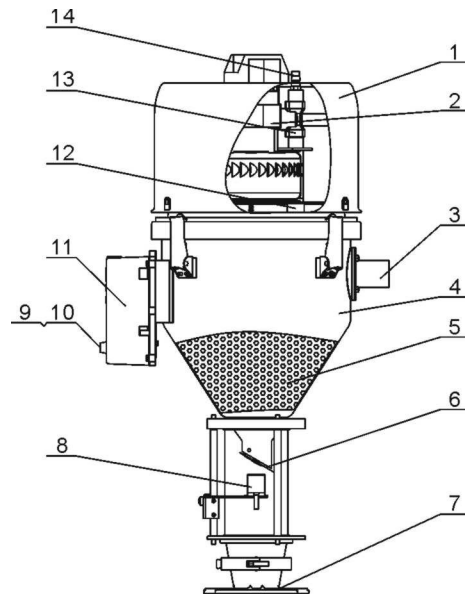
Names of Parts:

- | | | |
|-----------------------|------------------------------|------------------------|
| 1. Blower cover | 2. Blower | 3. Material inlet pipe |
| 4. Material hopper | 5. Raw material | 6. Non-return flap |
| 7. Hopper base | 8. Magnetic proximity switch | 9. Indicator (red) |
| 10. Indicator (green) | 11. Control box | 12. Auto dust cleaner |
| 13. Solenoid valve | 14. Air pipe connector | |

Picture 2-1: Working Principle of SAL-U-(CA)

After starting the machine, blower (2) begins to vacuumize material hopper (4). At the same time, the non-return flap (6) is closed. Materials in the storage bin will go into material hopper (4) from material inlet pipe (3) under differential pressure. When material conveying is completed, the blower will stop working. Materials will then fall down due to gravity. When magnetic proximity switch (8) detects that there is no material left in the hopper, the solenoid valve (13) will open. Thus, the air for cleaning will flow into auto dust cleaner (12) from the air pipe connector (14) to clean the dust covering on the filter cloth and hopper inner wall. Then, the blower will start again. When lacking materials, the alarm light (9) on control box (11) will be on to sound an alarm. The equipment equipped with air accumulator can increase air storage capacity to reinforce the dedusting efficiency of the auto dust cleaner.

2.1.2 Working Principle of SAL-U-E(EA)



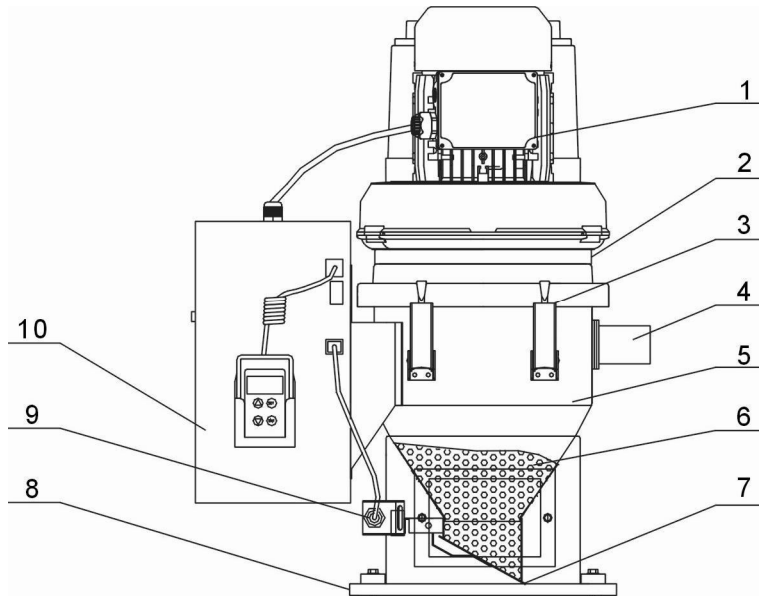
Names of Parts:

- | | | |
|-----------------------|------------------------|------------------------|
| 1. Blower cover | 2. Blower | 3. Material inlet pipe |
| 4. Material hopper | 5. Raw material | 6. Non-return flap |
| 7. Hopper base | 8. Photosensor | 9. Indicator (red) |
| 10. Indicator (green) | 11. Control box | 12. Auto dust cleaner |
| 13. Solenoid valve | 14. Air pipe connector | |

Picture 2-2: Working Principle of SAL-U-E(EA)

After starting the machine, blower (2) begins to vacuumize material hopper (4). At the same time, the non-return flap (6) is closed. Materials in the storage bin will go into material hopper (4) from material inlet pipe (3) under differential pressure. When material conveying is completed, the blower will stop working. Materials will then fall down due to gravity. When magnetic proximity switch (8) detects that there is no material left in the hopper, the solenoid valve (13) will open. Thus, the air for cleaning will flow into auto dust cleaner (12) from the air pipe connector (14) to clean the dust covering on the filter cloth and hopper inner wall. Then, the blower will start again. When lacking materials, the alarm light (9) on control box (11) will be on to sound an alarm. The equipment equipped with air accumulator can increase air storage capacity to reinforce the dedusting efficiency of the auto dust cleaner.

2.1.3 Working Principle of SAL-3U/6U-3



Names of Parts: :

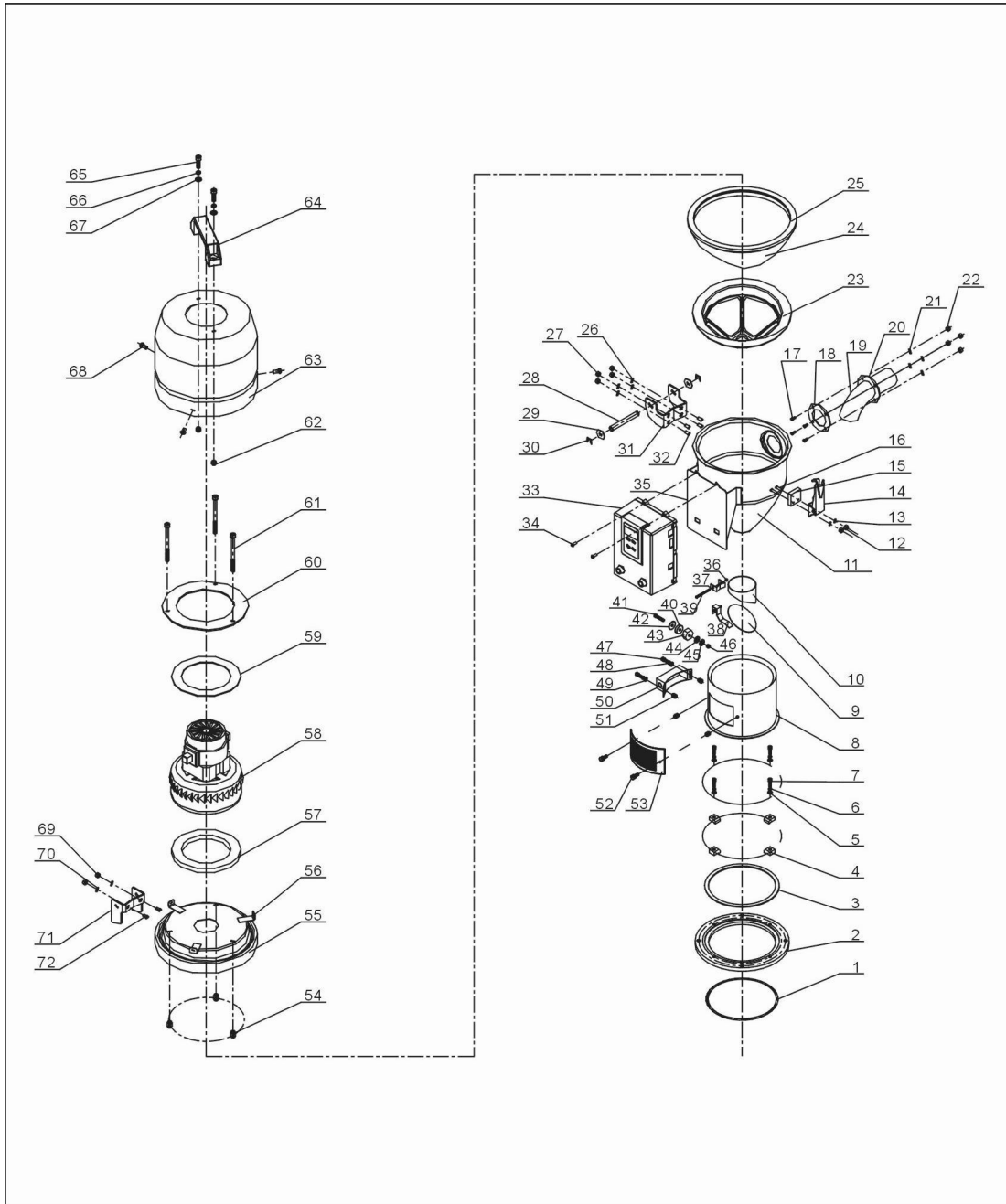
- | | | |
|--------------------|--------------------|------------------------------|
| 1. Blower | 2. Rotation hinge | 3. Snap hook |
| 4. Conveying pipe | 5. Material hopper | 6. Raw material |
| 7. Non-return flap | 8. Hopper base | 9. Magnetic proximity switch |
| 10. Control box | | |

Picture 2-3: Working Principle of SAL-3U/6U-3

After starting the machine, blower (1) begins to vacuumize material hopper (5). At the same time, the non-return flap (7) is closed. Materials in the storage bin will then go into material hopper (5) through conveying pipe (4) under differential pressure. When material conveying is completed, the blower will stop working. The materials will then fall down due to gravity. When magnetic proximity switch (7) detects that there is no material left in the hopper, the non-return flap will close again and the blower will start working. When lacking materials, the red alarm light on the control box (10) will be on to sound an alarm. Users can set blower reverse dedusting for the equipment according to the actual situation.

2.2 Assembly Drawing

2.2.1 Assembly Drawing (SAL-1U)



Remarks: Please refer to material list 2.2.2 for specific explanation of the numbers in assembly drawing.

Picture 2-4: Assembly Drawing (SAL-1U)

2.2.2 Parts List (SAL-1U)

Table 2-1: Parts List (SAL-1U)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	30	Split washer of filter cloth **	-
2	Base	YW20001500200	31	Hop-pocket**	BP82000100040
3	Base ring	-	32	Hopper ring*	YR10104000000
4	Pressure block	YW20000600500	33	Flat washer 5	YW66051000100
5	Flat washer $\Phi 6 \times 13$	YW66061300000	34	Locknut M5	YW64000500000
6	Spring washer M6	YW65006000000	35	Hinge pin	BH10006003110
7	Inner hexagon screw M6 \times 15	YW61061600300	36	Flat washer 8 \times 22	YW66082200100
8	Cross socket head cap screw	YW63032500000	37	E-rings 6	YW63051000000
9	Flat washer 3 \times 10	YW66031000000	38	Down hinge	BL32000600140
10	Flat washer 3 \times 12	YW66031200000	39	Screw M5 \times 10	YW69051000000
11	Permanent magnet	YW90213700000	40	Control box base	-
12	Magnet shield	BH12115000010	41	Control box	YR40030600000
13	Locknut M3	YW64000300000	42	Cross socket head cap screw M4 \times 6	YW63040600000
14	Shut-off plate*	BL21001501920	43	Sensor shell	-
15	Connection block for shut-off plate	-	44	Inner hexagon screw	YW61061000100
16	Lentil head screw	YW09250500000	45	Shut-off plate fixing base	-
17	Star knob M6 \times 15	YR40061500000	46	Locknut M3	YW64000300000
18	Discharge port	-	47	Shut-off plate fixing base	-
19	Ventilation window	YR40000600500	48	Cross socket head cap screw M3 \times 40	YW63034000000
20	Snap hook	YW02003000400	49	Mini-countersunk rivet screw M6	YW64060200000
21	Block	YR40000600300	50	Hopper cover	-
22	Screw M4 \times 15	YW69041500100	51	Blower fixing base	BH10063200040
23	Screw M4 \times 10	YW69041000000	52	Reverse clean pipe	-
24	Material inlet pipe fastener	YR10150300000	53	Air pipe quick connector	YW80083800200
25	Material inlet pipe	BL32333600020	54	Blower ring	-
26	Fixing plate for material inlet pipe	-	55	Carbon brush motor *	YM30122250000
27	Flat washer 4	YW66040800000	56	Fixed board 2	-
28	Locknut M4 \times 0.7	YW64040700100	57	Fixed board 1	-
29	Material storage tank	-	58	Fixed board 3	-

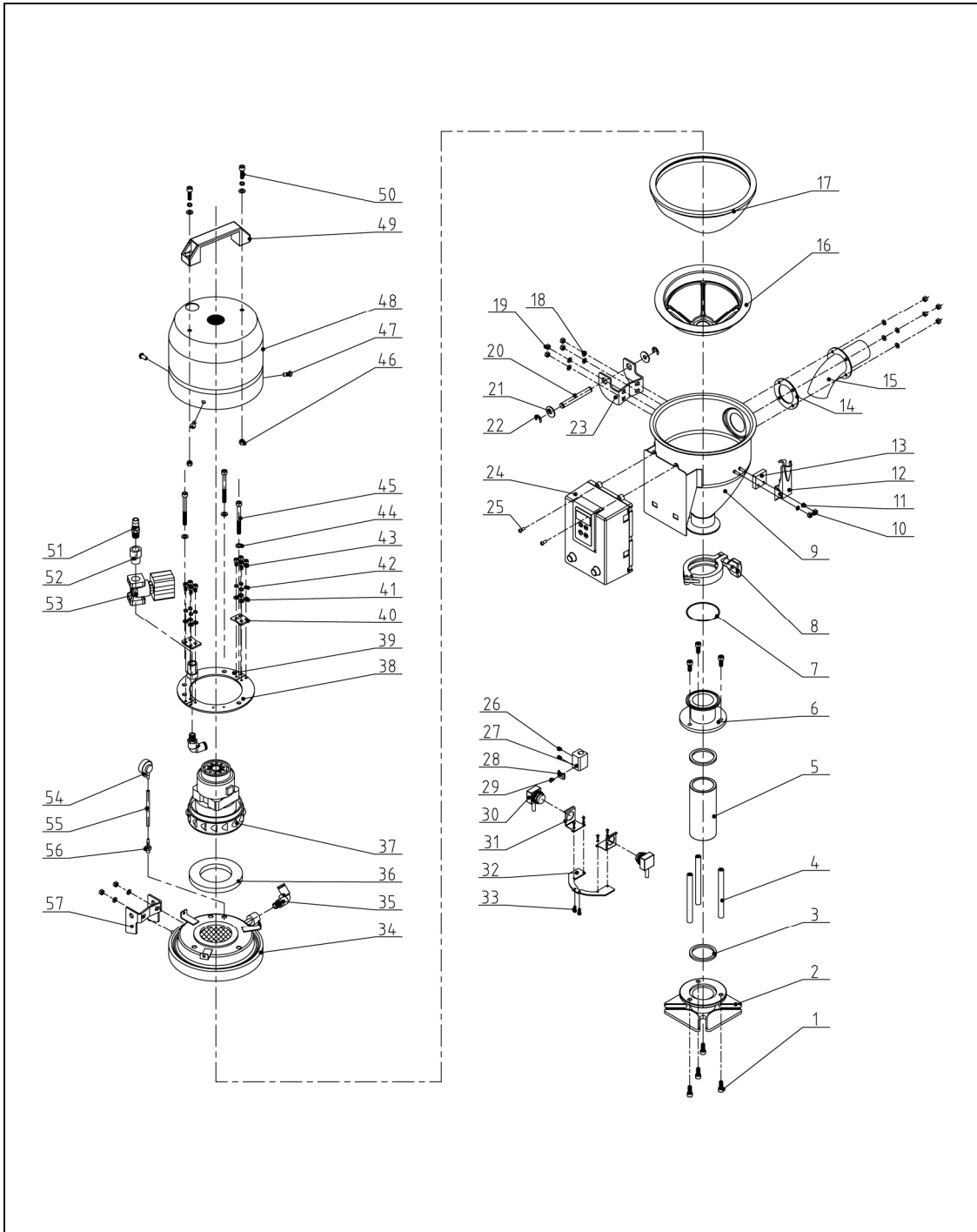
No.	Name	Part No.	No.	Name	Part No.
59	Flat washer 5	YW66051000100	68	Inner hexagon screw	YW61062000300
60	Spring washer 5	YW65050000000	69	Quick connector	YW80031400000
61	Inner hexagon screw	YW61051200100	70	Connector 3	-
62	Flat washer 6	YW66061300000	71	Solenoid valve *	YE32213100000
63	Inner hexagon screw	YW61065000100	72	Pressure switch	YE16028000000
64	Locknut	YW64000600200	73	Blue air pipe	YR60060400000
65	Cross socket head cap screw	YW62051500000	74	Pressure switch connector	BH11103000010
66	Blower cover	-	75	upper hinge	BL32000600240
67	Square aluminum handle	BW20012000040			

* means possible broken parts.

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

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

2.2.3 Assembly Drawing (SAL-1U-E)



Remarks: Please refer to material list 2.2.4 for specific explanation of the numbers in parts drawing.

Picture 2-5: Assembly Drawing (SAL-1U-E)

2.2.4 Parts List (SAL-1U-E)

Table 2-2: Parts List (SAL-1U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Inner hexagon screw M6×15	YW61061600300	30	Photosensor	YE15143900000
2	Glass pipe down flange	YW32000300000	31	Photosensor mounting block	-
3	Glass pipe ring	YW61061600300	32	Photosensor fixing plate	BL90001000120
4	Flange connection shaft	BH10101100010	33	Cross socket head cap screw M4×10	YW63041000000
5	Glass pipe**	YW70504000000	34	Mini-countersunk rivet screw M6	YW64060200000
6	Glass pipe upper flange	BW32000300210	35	Hopper cover	BL22001500821
7	Base ring	YR10000300200	36	Blower cover fixing base	-
8	Stainless steel pipe clamp	YW07002500600	37	Reverse clean pipe	YM30122250000
9	Material storage tank	BL21001502320	38	Fixing plate 2	-
10	Locknut M4×0.7	YW64040700100	39	Fixing plate 1	-
11	Flat washer 4	YW66040800000	40	Fixing plate 3	-
12	Snap hook **	YW02003000400	41	Flat washer 5	YW66051000100
13	Block	YR40000600300	42	Spring washer 5	YW65050000000
14	Material inlet pipe ring	YR10150300000	43	Inner hexagon cylinder head screw	YW61051200100
15	Material inlet pipe	BL32333600020	44	Flat washer 6	YW66061300000
16	Filter cloth split washer**	YR40001500100	45	Inner hexagon screw M6×50	YW61065000100
17	Hop-pocket**	BP82001500044	46	Locknut M6	YW64000600200
18	Flat washer 5	YW66051000100	47	Cross socket head cap screw M5×15	YW62051500000
19	Locknut M5	YW64000500000	48	Blower cover	-
20	Hinge pin	BH10006003110	49	Square aluminum handle L120	BW20012000040
21	Flat washer Φ8×22	YW66082200100	50	Inner hexagon screw M6×20	YW61062000300
22	E rings 6	YW63051000000	51	Quick connector 3" ×1/4PT	YW80031400000
23	Down hinge	BL32000600120	52	Connector 3	BH13031100010
24	Control box	YR40030600000	53	Solenoid valve	YE32213100000
25	Cross socket head cap screw M4×6	YW63040600000	54	Pressure switch	YE16028000000
26	Set screw M4×5	YW63040600000	55	Blue air pipe	YR60060400000
27	Photosensor fixing base	BL21001502420	56	Pressure switch connector	BH11103000010

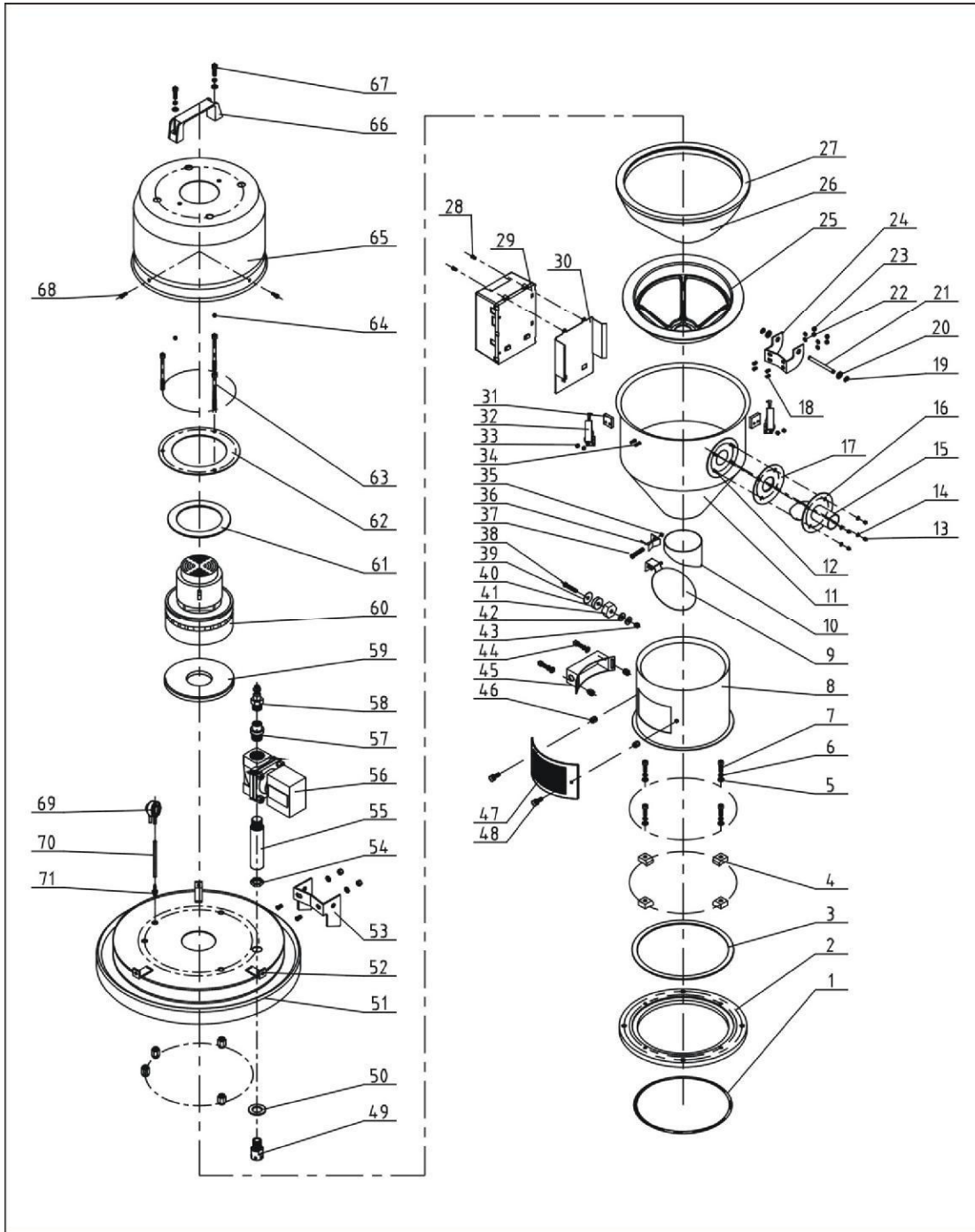
No.	Name	Part No.	No.	Name	Part No.
28	Pressure block of photosensor	BL21061600020	57	Upper hinge	BL32000600240
29	Cross socket head cap screw M4×10	YW63041000000			

* means possible broken parts.

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

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

2.2.5 Assembly Drawing (SAL-3U)



Remarks: Please refer to material list 2.2.6 for specific explanation of the numbers in parts drawing.

Picture 2-6: Assembly Drawing (SAL-3U)

2.2.6 Parts List (SAL-3U)

Table 2-3: Parts List (SAL-3U)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	32	Snap hook	YR40000600300
2	Base	YW20006000000	33	Locknut M4×0.7	YW69040700100
3	Base ring	-	34	Screw M4×15	YW64041500100
4	Pressure block	YW20000600500	35	Locknut M3	YW64000300000
5	Spring washer M6	YW65006000000	36	Fixing base of baffle plate	BL20000601220
6	Flat washer Φ6	YW66061300000	37	Cross socket head cap screw M3×40	YW63034000000
7	Inner hexagon screw M6×20	YW61062000300	38	Cross socket head cap screw M6×20	YW63062000000
8	Hopper fixing base	BL21063200020	39	Magnet cover	BL21000600120
9	Baffle plate*	BL21000302320	40	Permanent magnet	YW90257700000
10	Discharging port	BL21000600720	41	Magnet sleeve	BH12000600010
11	Material storage tank	-	42	Flat washerΦ8×22	YW66082200100
12	Screw M4×10	YW69041000000	43	Screw M6	YW64000600200
13	Locknut M4×0.7	YW64040700100	44	Inner hexagon screw M6×10	YW63061000000
14	Flat washerΦ4	YW66040800000	45	Sensor shell	YR40000600100
15	Material inlet pipe	BL32333600020	46	Mini-countersunk rivet screw M6	YW64060200000
16	Material inlet pipe fixing plate	-	47	Ventilation window	YR40000600500
17	Material inlet pipe ring	YR10150300000	48	Star spanner	YR40061500000
18	Screw M5×10	YW64040700100	49	Reverse clean pipe nozzle	BH13033000810
19	E rings 6	YW66000500000	50	Washer	BP62352100050
20	Flat washer Φ8×22	YW66082200100	51	Hopper cover	-
21	Hinge pin	BH10006003110	52	Blower fixing base	-
22	Flat washer Φ5	YW66051000100	53	Upper hinge	BL32000600240
23	Locknut M5	YW64000500000	54	Connection nut	-
24	Down hinge	BL32000600140	55	Connector 2	BH13030300010
25	Filter cloth split washer**	YR40003000100	56	Solenoid valve	YE32213100000
26	Hop-pocket **	BP82003000044	57	Connector 3	BH13031100010
27	Hopper ring*	YR10000300100	58	Quick connector	YW80031400000
28	Cross socket head cap screw M4×6	YW63040600000	59	Blower ring (down)	YR10070000000
29	Control box	YR40030600000	60	Carbon brush motor*	YM30965600000
30	Control box base	-	61	Blower ring (upper)	YP62141200000
31	Block	YW02003000400	62	Blower fixing plate	-

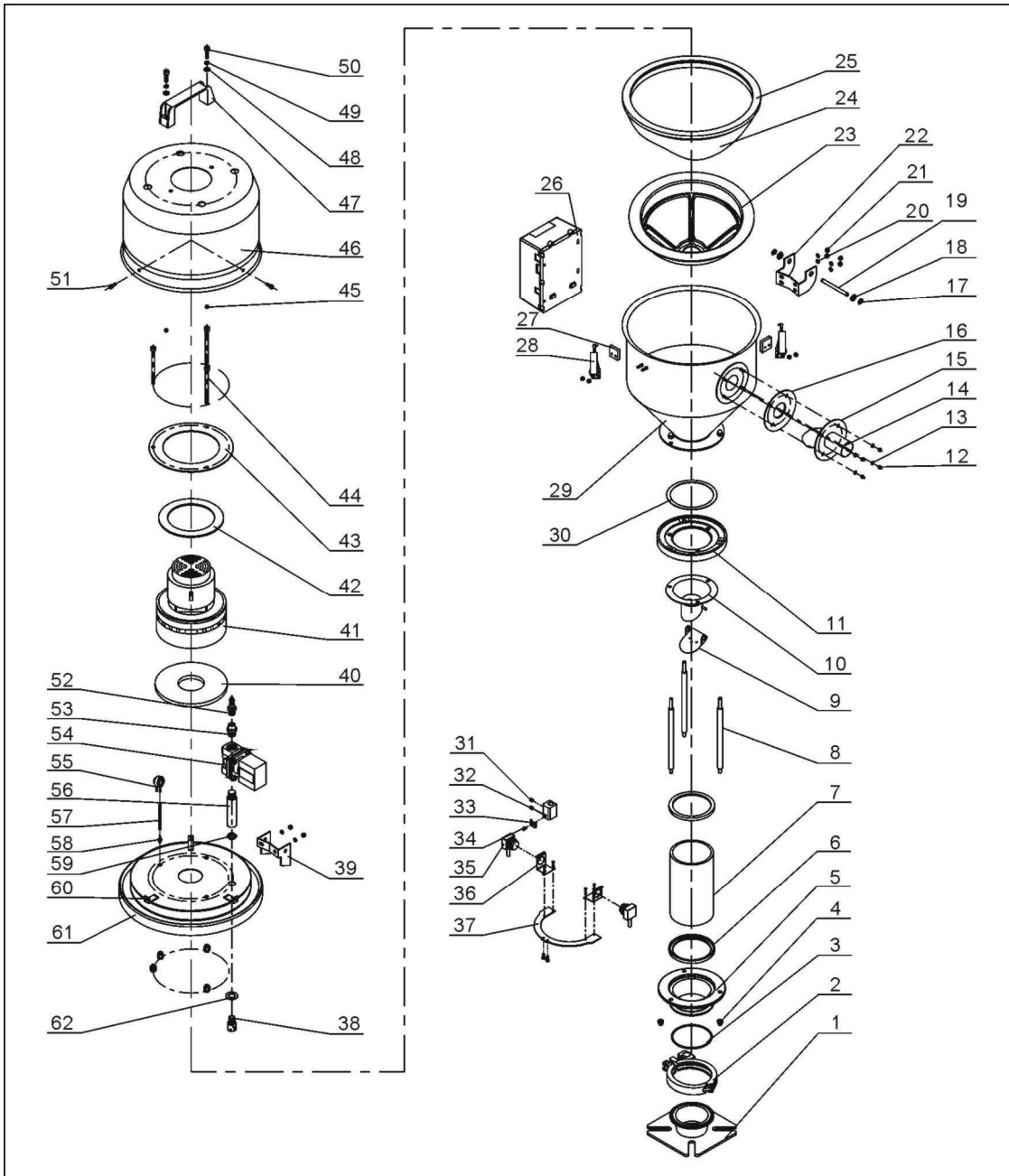
No.	Name	Part No.	No.	Name	Part No.
63	Inner hexagon screw M6×90	YW61069000100	68	Cross socket head cap screw M5×15	YW62051500000
64	Locknut M6	YW64000600200	69	Pressure switch	YE15002000100
65	Blower shell	YR40033000000	70	Blue air pipe	YR60060400000
66	L120 square aluminum handle	BW20012000040	71	Pressure switch connector	BH11103000010
67	Inner hexagon screw M6×20	YW61062000300			

* means possible broken parts.

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

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

2.2.7 Assembly Drawing (SAL-3U-E)



Remarks: Please refer to material list 2.2.8 for specific explanation of the numbers in parts drawing.

Picture 2-7: Assembly Drawing (SAL-3U-E)

2.2.8 Parts List (SAL-3U-E)

Table 2-4: Parts List (SAL-3U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Mounting flange	BL21060200820	27	Snap hook block	YR40000600800
2	3" stainless steel pipe clamp	YW07000300000	28	Snap hook	YW02003000400
3	Cap nut M6	YR20802600000	29	Material storage tank	-
4	Cap nut M6	YW64006000100	30	Hopper base plate ring	-
5	Glass pipe down flange	BW32610900010	31	Set screw M4×5	YW68004500000
6	Glass pipe ring	YR10060200000	32	Photosensor fixing base	BL90001000120
7	Glass pipe*	YW70317000600	33	Pressure block of photosensor	YW31616200000
8	Flange connection shaft	BH10000600640	34	Cross socket head cap screw M4×10	YW63041000000
9	Non-return flap	-	35	Photosensor	YE15143900000
10	Discharging port	-	36	Photosensor mounting block (come with photosensor)	-
11	Glass pipe upper flange	BW32610800010	37	Photosensor fixing plate	BL21061200020
12	Locknut M4×0.7	YW64040700100	38	Reverse clean pipe nozzle	BH13033000810
13	Flat washer 4	YW66040800000	39	Upper hinge	BL32000600240
14	Material inlet pipe	BL32333600020	40	Blower ring (down)	YR10070000000
15	Material inlet pipe fixing plate	BL20036000320	41	Carbon brush motor 1.15kW	YM30965600000
16	Material inlet pipe ring	YR10150300000	42	Blower ring (upper)	YP62141200000
17	E-rings 6	YW63051000000	43	Blower fixing board	BL21000300420
18	Flat washer M8×22	YW66082200100	44	Inner hexagon cylindrical screw M6×90	YW61069000100
19	Hinge pin	BH10006003110	45	Locknut M6	YW64000600200
20	Flat washer 5	YW66051000100	46	Blower shell	YR40000300100
21	Locknut M5	YW64000500000	47	Square aluminum handle L120	BW20012000040
22	Down hinge	BL32000600140	48	Flat washer 6	YW66061300000
23	Filter cloth split washer**	YR40003000100	49	Spring washer 6	YW65006000000
24	Hop-pocket **	BP82003000044	50	Inner hexagon cylindrical screw M6×20	YW61062000300
25	Hopper ring*	YR10000300100	51	Cross socket head cap screw M5×15	YW62051500000
26	Control box	YR40030600000	52	Quick connector 3" ×1/4PT	YW80031400000

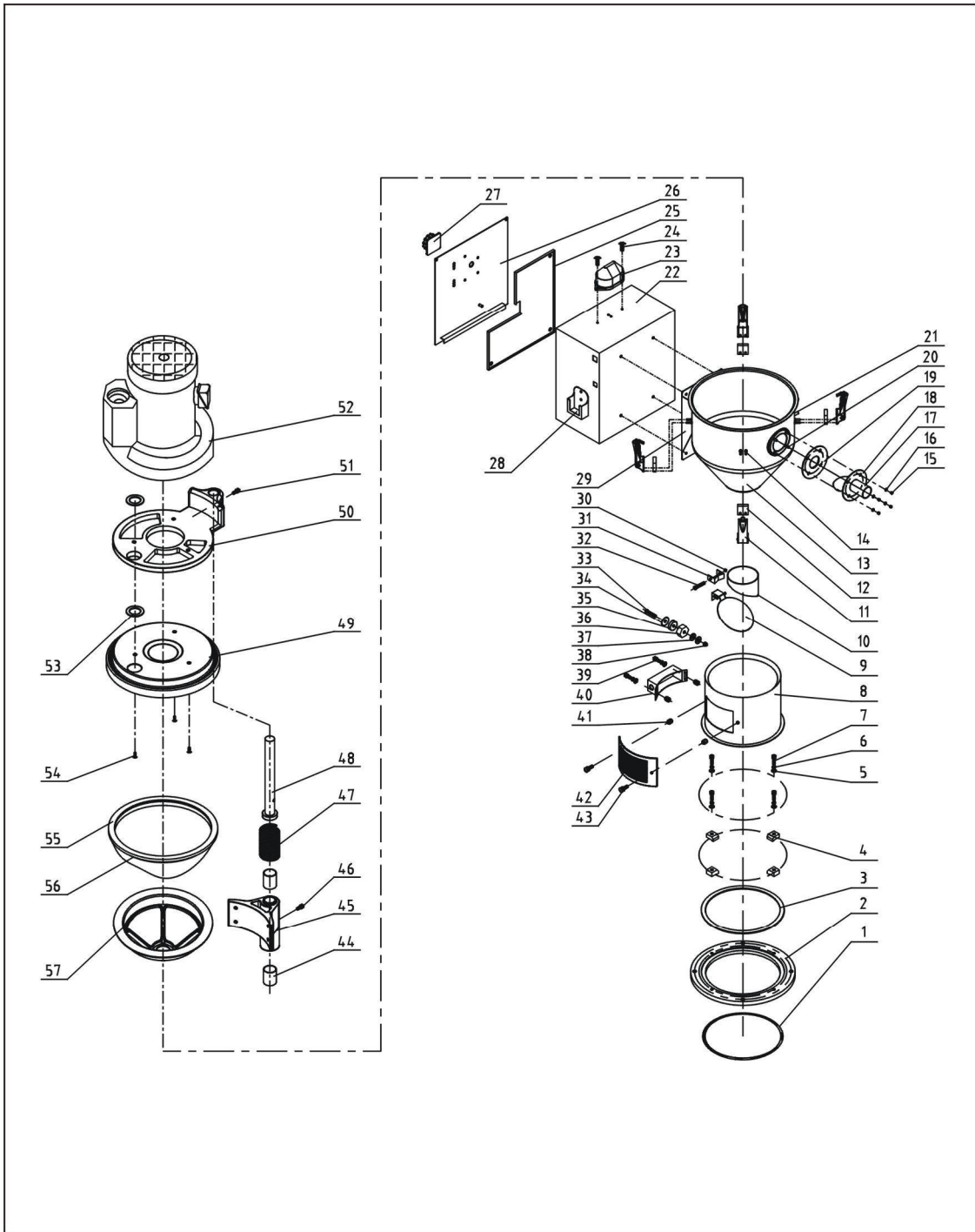
No.	Name	Part No.	No.	Name	Part No.
53	Connector 3	BH13031100010	58	Pressure switch connector	BH11103000010
54	Solenoid valve*	YE32213100000	59	Connection nut 1	BH12030400410
55	Pressure switch	YE15002000100	60	Blower cover fixing base	-
56	Connector 2	BH13030300010	61	Hopper cover	-
57	Blue air pipe $\Phi 6 \times \Phi 4$	YR60060400000	62	Washer $\Phi 30 \times \Phi 17 \times 2$	BP62352100050

* means possible broken parts.

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

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

2.2.9 Assembly Drawing (SAL-3U-3)



Remarks: Please refer to material list 2.2.10 for specific explanation of the numbers in parts drawing.

Picture 2-8: Assembly Drawing (SAL-3U-3)

2.2.10 Parts List (SAL-3U-3)

Table 2-5: Parts List (SAL-3U-3)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	30	Locknut M3	YW64000300000
2	Base	YW20006000000	31	Fixing base of baffle plate	BL20000601220
3	Base ring	-	32	Cross socket head cap screw M3×40	YW63034000000
4	Pressure block	YW20000600500	33	Cross socket head cap screw M6×20	YW63062000000
5	Spring washer	YW65006000000	34	Magnet cover	BL21000600120
6	Flat washer Φ6×13	YW66061300000	35	Permanent magnet	YW60257700000
7	Inner hexagon screw M6×20	YW61062000300	36	Magnet sleeve	BH12000600010
8	Hopper fixing base	BL21000600020	37	Flat washer 8×22	YW66082200100
9	Baffle plate*	BL21000302320	38	Locknut M6	YW64000600200
10	Discharging port	BL21000600720	39	Inner hexagon cylindrical screw M6×10	YW63061000000
11	Snap hook **	YW02003000400	40	Sensor shell	YR40000600100
12	Block	YR40000600300	41	Mini-countersunk rivet screw M6	YW64060200000
13	Material storage tank	-	42	Ventilation window	YR40000600500
14	Screw M4×15	YW69041500100	43	Star spanner	YR40061500000
15	Screw	YW64040700100	44	Shaft sleeve	YW11253000000
16	Flat washer Φ4	YW66040800000	45	Mounting base	BW21030300010
17	Material inlet pipe	BL32333600020	46	Guide pin	BH11000300000
18	Material inlet pipe fixing plate	-	47	Spring	YW01380300000
19	Material inlet pipe ring	YP10150300000	48	Shaft	BH10060300040
20	Screw M4×10	YW69041000000	49	Hopper cover	-
21	Screw M6×20	-	50	Adapter flange	BW21030300100
22	Control box	-	51	Set screw M5×15	YM30965600000
23	Alarm light	YE83305100200	52	High pressure blower 0.5HP	YM30032900000
24	Cross socket head cap screw M4×6	YW63040600000	53	Blower suction mouth ring	YR10001000000
25	Control box base plate	-	54	Cross socket head cap screw M5×25	YW62052500000

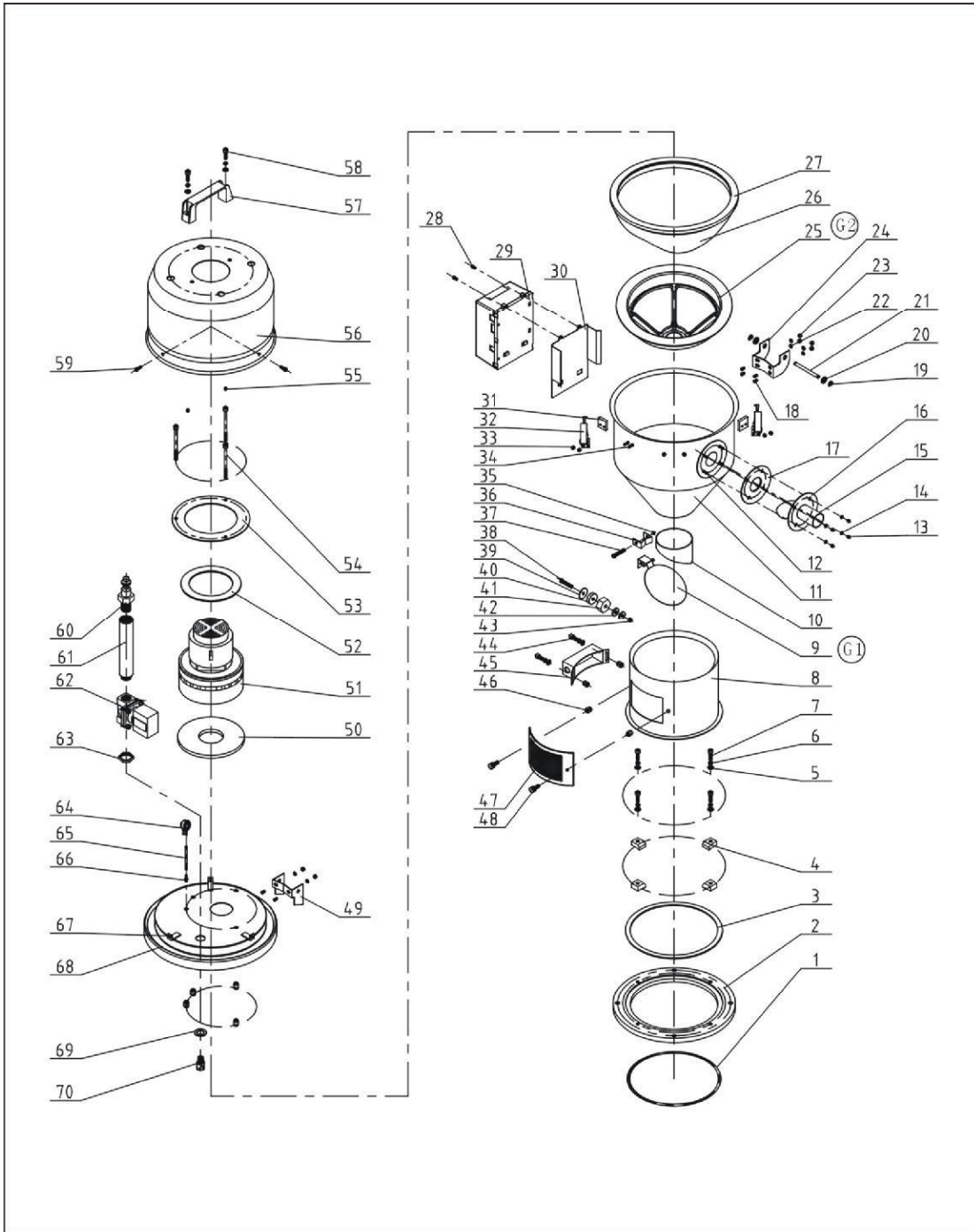
No.	Name	Part No.	No.	Name	Part No.
26	Control box cover	-	55	Hopper ring**	YR10000300100
27	Main power switch	YE10210300000	56	Hop-pocket **	BP82003000044
28	Handle box	-	57	Filter cloth split washer**	YR45003000100
29	Control box base	-			

* means possible broken parts.

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

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

2.2.11 Assembly Drawing (SAL-6U)



Remarks: Please refer to material list 2.2.12 for specific explanation of the numbers in parts drawing.

Picture 2-9: Assembly Drawing (SAL-6U)

2.2.12 Parts List (SAL-6U)

Table 2-6: Parts List (SAL-6U)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	29	Control box	YR40030600000
2	Base	YW20006000000	30	Control box base	-
3	Base ring	-	31	Block	YR40000600300
4	Pressure block	YW20000600500	32	Snap hook	YW02003000400
5	Spring washer M6	YW65006000100	33	Locknut M4×0.7	YW64040700100
6	Flat washerΦ6	YW66061300000	34	Screw M4×15	YW69041500100
7	Inner hexagon screw M6×20	YW61062000300	35	Locknut M3	YW64000300000
8	Hopper fixing base	BL21000600020	36	Fixing base of baffle plate	BL20000601220
9	Baffle plate	BL21000302320	37	Cross socket head cap screw M3×40	YW63034000000
10	Discharging port	BL21000600720	38	Cross socket head cap screw M6×20	YW63062000000
11	Material storage tank	-	39	Magnet cover	BL21000600120
12	Screw M4×10	YW69041000000	40	Permanent magnet	YW90257700000
13	Locknut M4×0.7	YW64040700100	41	Magnet sleeve	BH12000600010
14	Flat washer Φ4	YW66040800000	42	Flat washer Φ8×22	YW66082200100
15	Material inlet pipe	-	43	Locknut M6	YW64000600200
16	Material inlet pipe fixing plate	-	44	Inner hexagon cylindrical screw M6×10	YW63061000000
17	Material inlet pipe ring	-	45	Sensor shell	YR40000600100
18	Screw M5×10	YW64040700100	46	Mini-countersunk rivet screw M6	YW64060200000
19	E rings	YW66000500000	47	Ventilation window	YR40000600500
20	Flat washer Φ8×22	YW66082200100	48	Star spanner	YR40061500000
21	Hinge pin	BH10006003110	49	Upper hinge	BL32000600240
22	Flat washer Φ5	YW66051000100	50	Blower ring (down)	YR10070000000
23	Locknut M5	YW64000500000	51	Carbon brush motor*	YM30965600000
24	Down hinge	BL32000600140	52	Blower ring (upper)	YP62141200000
25	Filter cloth split washer**	YR40006000000	53	Blower fixing board	-
26	Hop-pocket **	BP82006000044	54	Inner hexagon cylindrical screw M6×90	YW61069000100
27	Hopper ring*	YR10000600200	55	Locknut M6	YW64000600200
28	Cross socket head cap screw M4×6	YW63040600000	56	Blower shell	YR40036000000

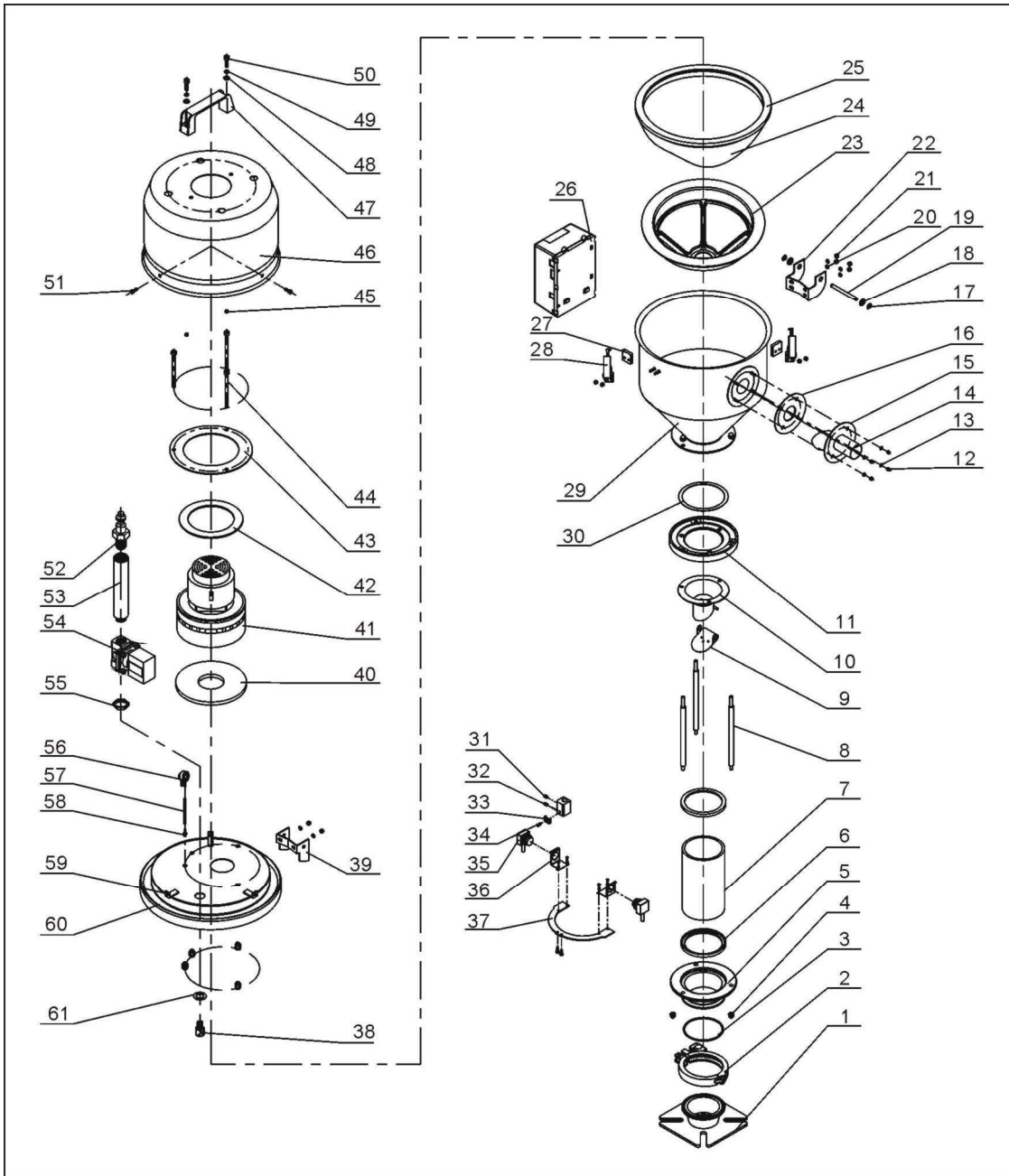
No.	Name	Part No.	No.	Name	Part No.
57	L120 Square aluminum handle	BW20012000040	64	Pressure switch	YE15002000100
58	Inner hexagon cylindrical screw M6×20	YW61062000300	65	Blue air pipe	YR60060400000
59	Cross socket head cap screw M5×15	YW62051500000	66	Pressure switch connector	BH11103000010
60	Quick connector	YW80031400000	67	Blower shell fixing base	-
61	Connector 2	BH13030300010	68	Hopper cover	-
62	Solenoid valve*	YE32213100000	69	Washer	BP62352100050
63	Connection nut	BH12030400410	70	Reverse clean pipe nozzle	BH13033000810

* means possible broken parts.

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

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

2.2.13 Assembly Drawing (SAL-6U-E)



Remarks: Please refer to material list 2.2.14 for specific explanation of the numbers in parts drawing.

Picture 2-10: Assembly Drawing (SAL-6U-E)

2.2.14 Parts List (SAL-6U-E)

Table 2-7: Parts List (SAL-6U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Mounting flange	BL21060200820	27	Snap hook block	YR40000600300
2	3" stainless steel pipe clamp	YW07000300000	28	Snap hook	YW02003000400
3	Cap nut M6	YR20802600000	29	Material storage tank	-
4	Cap nut M6	YW64006000100	30	Hopper base plate ring	-
5	Glass pipe down flange	BW32610900010	31	Set screw M4×5	YW68004500000
6	Glass pipe ring	YR10060200000	32	Photosensor fixing base	BL90001000120
7	Glass pipe*	YW70317000600	33	Photosensor pressure block	YW31616200000
8	Flange connection shaft	BH10000600640	34	Cross socket head cap screw M4×10	YW63041000000
9	Non-return flap	-	35	photosensor	YE15143900000
10	Discharging port	-	36	Photosensor mounting block (come with photosensor)	-
11	Glass pipe upper flange	BW32610800010	37	Photosensor fixing plate	BL21061200020
12	Locknut M4×0.7	YW64040700100	38	Reverse clean pipe nozzle	BH13033000810
13	Flat washer 4	YW66040800000	39	Upper hinge	BL32000600240
14	Material inlet pipe	-	40	Blower ring (down)	YR10070000000
15	Material inlet pipe fixing plate	BL20036000320	41	Carbon brush motor 1.15kW	YM30965600000
16	Material inlet pipe ring	YR10061200000	42	Blower ring (upper)	YP62141200000
17	E-rings 6	YW63051000000	43	Blower fixing board	BL21000300420
18	Flat washer M8×22	YW66082200100	44	Inner hexagon cylindrical screw M6×90	YW61069000100
19	Hinge pin	BH10006003110	45	Locknut M6	YW64000600200
20	Flat washer 5	YW66051000100	46	Blower shell	BL22001200220
21	Locknut M5	YW64000500000	47	Square aluminum handle L120	BW20012000040
22	Down hinge	BL32000600140	48	Flat washer 6	YW66061300000
23	Filter cloth split washer**	YR40006000000	49	Spring washer 6	YW65006000000
24	Hop-pocket **	BP82003000044	50	Inner hexagon cylindrical screw M6×20	YW61062000300
25	Hopper ring*	YR10000300100	51	Cross socket head cap screw M5×15	YW62051500000
26	Control box	YR40030600000	52	Quick connector 3" ×1/4PT	YW80031400000

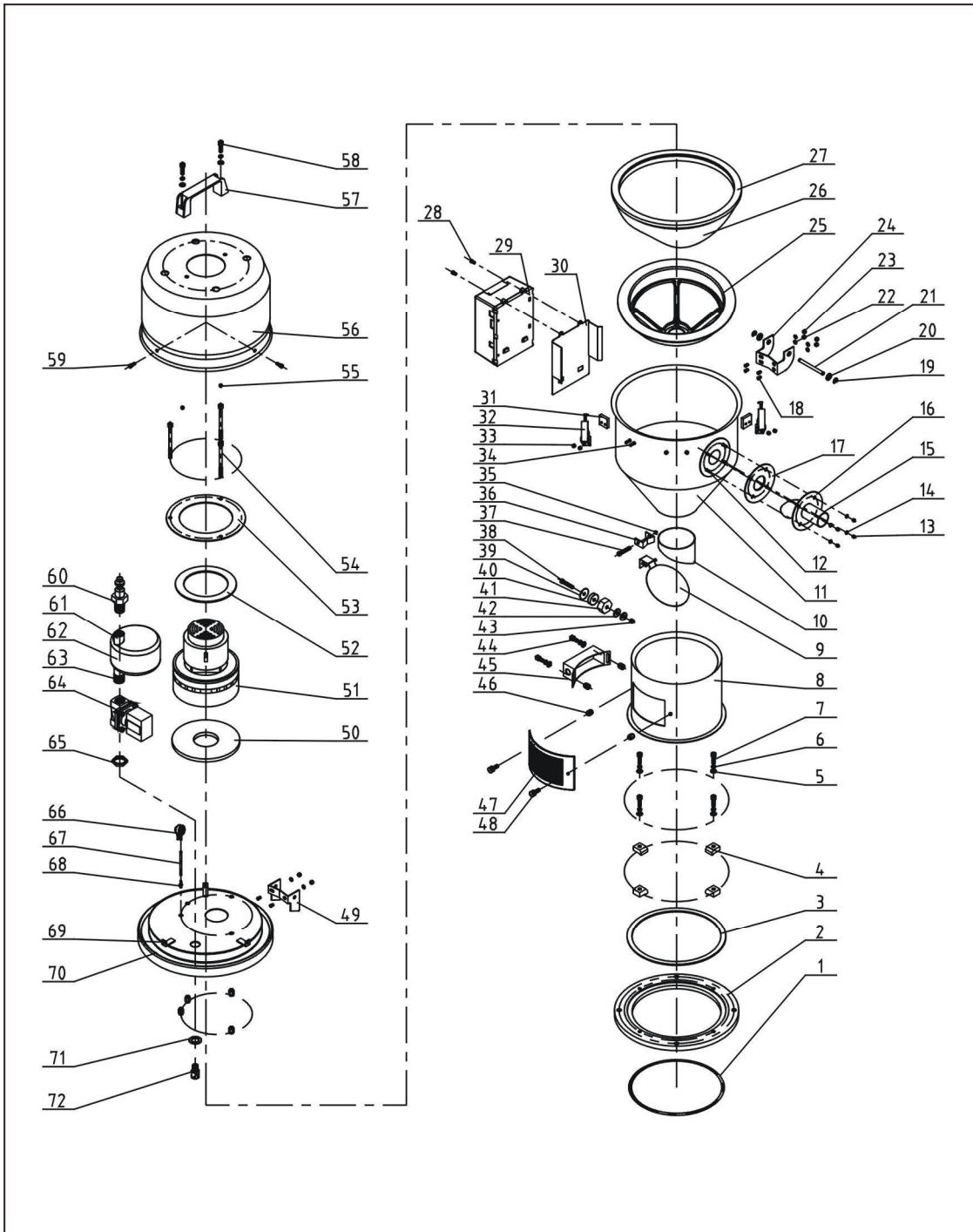
No.	Name	Part No.	No.	Name	Part No.
53	Connector 2	BH13030300010	58	Pressure switch connector	BH11103000010
54	Solenoid valve*	YE32213100000	59	Blower cover fixing base	-
55	Connection nut 1	BH12030400410	60	Hopper cover	-
56	Pressure switch	YE15002000100	61	Washer $\Phi 30 \times \Phi 17 \times 2$	BP62352100050
57	Blue air pipe $\Phi 6 \times \Phi 4$	YR60060400000			-

* means possible broken parts.

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

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

2.2.15 Assembly Drawing (SAL-6U-A)



Remarks: Please refer to material list 2.2.16 for specific explanation of the numbers in parts drawing.

Picture 2-11: Assembly Drawing (SAL-6U-A)

2.2.16 Parts List (SAL-6U-A)

Table 2-8: Parts List (SAL-6U-A)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	27	Hopper ring*	YR10000600200
2	Base	YW20006000000	28	Cross socket head cap screw M4×6	YW63040600000
3	Base ring	-	29	Control box	YR40030600000
4	Pressure block	YW20000600500	30	Control box base	-
5	Spring washer M6	YW65006000100	31	Block	YR40000600300
6	Flat washer Φ6	YW66061300000	32	Snap hook	YW02003000400
7	Inner hexagon screw M6 × 20	YW61062000300	33	Locknut M4 × 0.7	YW64040700100
8	Hopper fixing base	BL21000600020	34	Screw M4 × 15	YW69041500100
9	Baffle plate*	BL21000302320	35	Locknut M3	YW64000300000
10	Discharging port	BL21000600720	36	Fixing base of baffle plate	BL20000601220
11	Material storage tank	-	37	Cross socket head cap screw M3×40	YW63034000000
12	Screw M4×10	YW69041000000	38	Cross socket head cap screw M6×20	YW63062000000
13	Locknut M4×0.7	YW64040700100	39	Magnet cover	BL21000600120
14	Flat washer Φ4	YW66040800000	40	Permanent magnet	YW90257700000
15	Material inlet pipe	-	41	Magnet sleeve	BH12000600010
16	Material inlet pipe fixing piece	-	42	Flat washer Φ8×22	YW66082200100
17	Material inlet pipe ring	-	43	Locknut M6	YW64000600200
18	Screw M5×10	YW64040700100	44	Inner hexagon cylindrical screw M6×10	YW63061000000
19	E rings	YW66000500000	45	Sensor shell	YR40000600100
20	Flat washerΦ8 × 22	YW66082200100	46	Mini-countersunk rivet screw M6	YW64060200000
21	Hinge pin	BH10006003110	47	Ventilation window	YR40000600500
22	Flat washer Φ5	YW66051000100	48	Star spanner	YR40061500000
23	Locknut M5	YW64000500000	49	Upper hinge	BL32000600240
24	Down hinge	BL32000600140	50	Blower ring (down)	YR10070000000
25	Filter cloth split washer**	YR40006000000	51	Carbon brush motor*	YM30965600000
26	Hop-pocket **	BP82006000044	52	Blower ring (upper)	YP62141200000

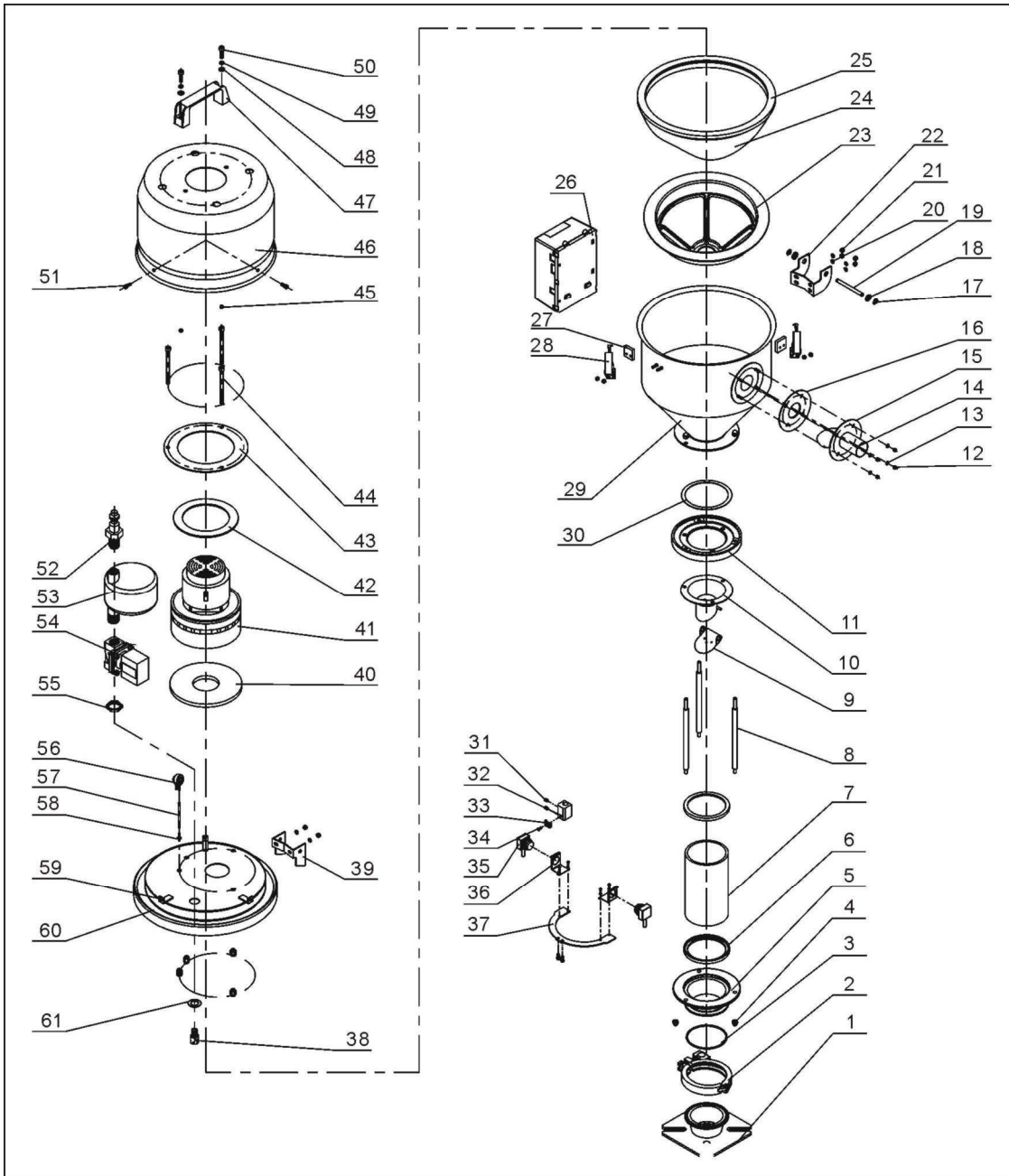
No.	Name	Part No.	No.	Name	Part No.
53	Blower fixing board	-	63	Connection nut 2	-
54	Inner hexagon cylindrical screw M6×90	YW61069000100	64	Solenoid valve*	YE32213100000
55	Locknut M6	YW64000600200	65	Connection nut	BH12030400410
56	Blower shell	YR40036000000	66	Pressure switch	YE15002000100
57	L120 Square aluminum handle	BW20012000040	67	Blue air pipe	YR60060400000
58	Inner hexagon cylindrical screw M6×20	YW61062000300	68	Pressure switch connector	BH11103000010
59	Cross socket head cap screw M5×15	YW62051500000	69	Blower cover fixing base	-
60	Quick connector	YW80031400000	70	Hopper cover	-
61	Connection nut 1	-	71	Washer	BP62352100050
62	Air accumulator	-	72	Reverse clean pipe nozzle	BH13033000810

* means possible broken parts.

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

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

2.2.17 Assembly Drawing (SAL-6U-EA)



Remarks: Please refer to material list 2.2.18 for specific explanation of the numbers in parts drawing.

Picture 2-12: Assembly Drawing (SAL-6U-EA)

2.2.18 Parts List (SAL-6U-EA)

Table 2-9: Parts List (SAL-6U-EA)

No.	Name	Part No.	No.	Name	Part No.
1	Mounting flange	BL21060200820	27	Snap hook block	YR40000600300
2	3" stainless steel pipe clamp	YW07000300000	28	Snap hook	YW02003000400
3	Cap nut M6	YR20802600000	29	Material storage tank	-
4	Cap nut M6	YW64006000100	30	Hopper base plate ring	-
5	Glass pipe down flange	BW32610900010	31	Set screw M4×5	YW68004500000
6	Glass pipe ring	YR10060200000	32	Photosensor fixing base	BL90001000120
7	Glass pipe*	YW70317000600	33	Photosensor pressure block	YW31616200000
8	Flange connection shaft	BH10000600640	34	Cross socket head cap screw M4×10	YW63041000000
9	Non-return flap	-	35	Photosensor	YE15143900000
10	Discharging port	-	36	Photosensor mounting block (come with photosensor)	-
11	Glass pipe upper flange	BW32610800010	37	Photosensor fixing plate	BL21061200020
12	Locknut M4×0.7	YW64040700100	38	Reverse clean pipe nozzle	BH13033000810
13	Flat washer 4	YW66040800000	39	Upper hinge	BL32000600240
14	Material inlet pipe	BL32000600020	40	Blower ring (down)	YR10070000000
15	Material inlet pipe fixing plate	BL20036000320	41	Carbon brush motor 1.15kW	YM30965600000
16	Material inlet pipe ring	YR10061200000	42	Blower ring (upper)	YP62141200000
17	E-rings 6	YW63051000000	43	Blower fixing board	BL21000300420
18	Flat washer M8×22	YW66082200100	44	Inner hexagon cylindrical screw M6×90	YW61069000100
19	Hinge pin	BH10006003110	45	Locknut M6	YW64000600200
20	Flat washer 5	YW66051000100	46	Blower shell	BL22001200220
21	Locknut M5	YW64000500000	47	Square aluminum handle L120	BW20012000040
22	Down hinge	BL32000600140	48	Flat washer 6	YW66061300000
23	Filter cloth split washer**	YR40006000000	49	Spring washer 6	YW65006000000
24	Hop-pocket **	BP82003000044	50	Inner hexagon cylindrical screw M6×20	YW61062000300
25	Hopper ring *	YR10000300100	51	Cross socket head cap screw M5×15	YW62051500000
26	Control box	YR40030600000	52	Quick connector 3" ×1/4PT	YW80031400000

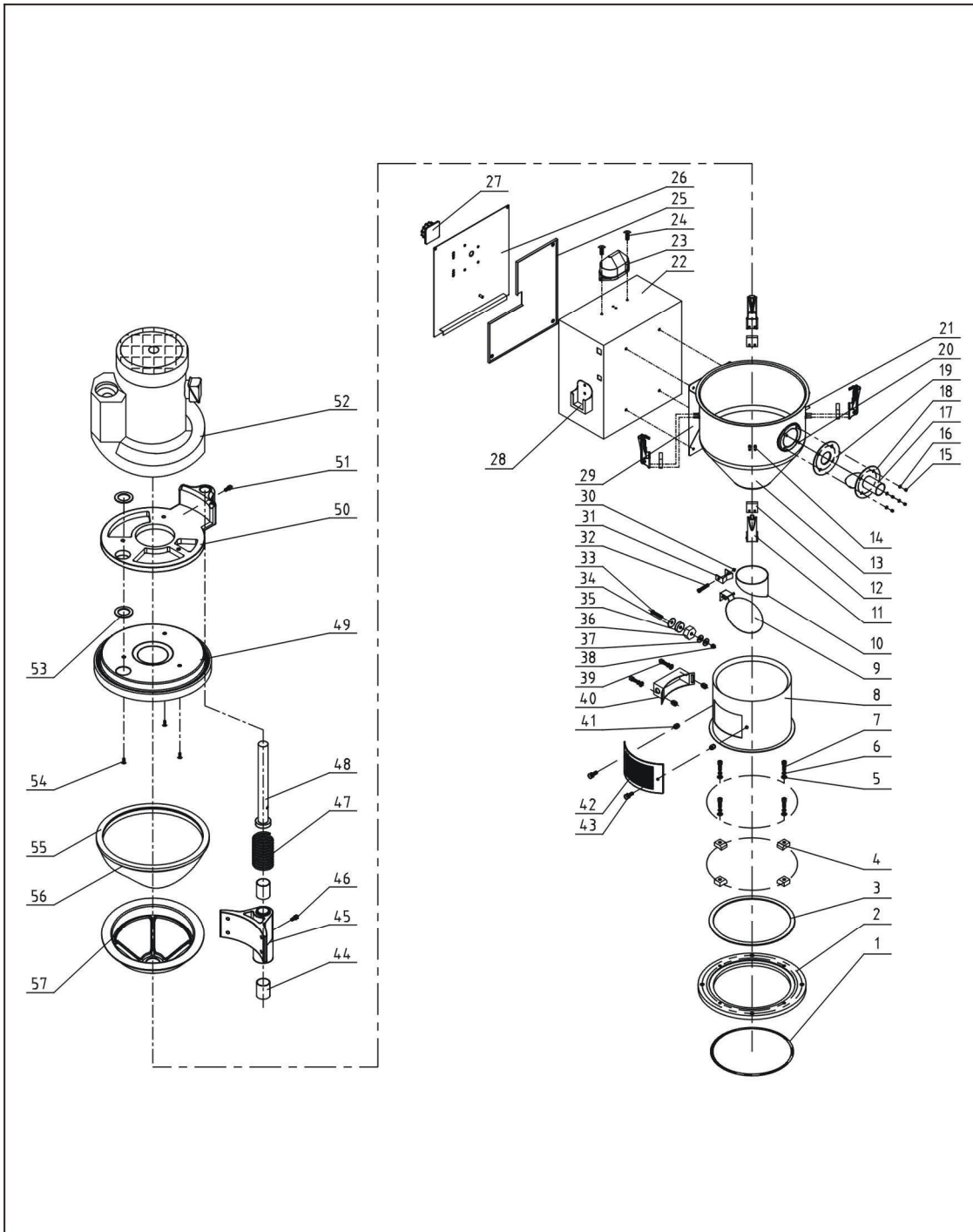
No.	Name	Part No.	No.	Name	Part No.
53	Air accumulator	-	58	Pressure switch connector	BH11103000010
54	Solenoid valve*	YE32213100000	59	Blower cover fixing base	-
55	Connection nut 1	BH12030400410	60	Hopper cover	-
56	Pressure switch	YE15002000100	61	Washer $\Phi 30 \times \Phi 17 \times 2$	BP62352100050
57	Blue air pipe $\Phi 6 \times \Phi 4$	YR60060400000			-

* means possible broken parts.

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

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

2.2.19 Assembly Drawing (SAL-6U-3)



Remarks: Please refer to material list 2.2.20 for specific explanation of the numbers in parts drawing.

Picture 2-13: Assembly Drawing (SAL-6U-3)

2.2.20 Parts List (SAL-6U-3)

Table 2-10: Parts List (SAL-6U-3)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	30	Locknut M3	YW64000300000
2	Base	YW20006000000	31	Fixing base of baffle plate	BL20000601220
3	Base ring	-	32	Cross socket head cap screw M3×40	YW63034000000
4	Pressure block	YW20000600500	33	Cross socket head cap screw M6×20	YW63062000000
5	Spring washer	YW65006000000	34	Magnet cover	BL21000600120
6	Flat washer Φ6×13	YW66061300000	35	Permanent magnet	YW60257700000
7	Inner hexagon screw M6×20	YW61062000300	36	Magnet sleeve	BH12000600010
8	Hopper fixing base	BL21000600020	37	Flat washer 8×22	YW66082200100
9	Baffle plate*	BL21000302320	38	Locknut M6	YW64000600200
10	Discharging port	BL21000600720	39	Inner hexagon cylindrical screw M6×10	YW63061000000
11	Snap hook **	YW02003000400	40	Sensor shell	YR40000600100
12	Block	YR40000600300	41	Mini-countersunk rivet screw M6	YW64060200000
13	Material storage tank	-	42	Ventilation window	YR40000600500
14	Screw M4×15	YW69041500100	43	Star spanner	YR40061500000
15	Locknut	YW64040700100	44	Shaft sleeve	YW11253000000
16	Flat washer Φ4	YW66040800000	45	Mounting base	BW21030300010
17	Material inlet pipe	BL32000600020	46	Guide pin	BH11000300000
18	Material inlet pipe fixing plate	-	47	Spring	YW01380300000
19	Material inlet pipe ring	YP10061200000	48	Shaft	BH10060300040
20	Screw M4×10	YW69041000000	49	Hopper cover	BL21060300020
21	Screw M6×20	-	50	Adapter flange	BW21030300100
22	Control box	-	51	Set screw M5×15	YM30965600000
23	Alarm light	YE83305100200	52	High pressure blower 1HP	BM30031000450
24	Cross socket head cap screw M4×6	YW63040600000	53	Blower suction mouth ring	YR10001000000
25	Control box base plate	-	54	Cross socket head cap screw M5×25	YW62052500000

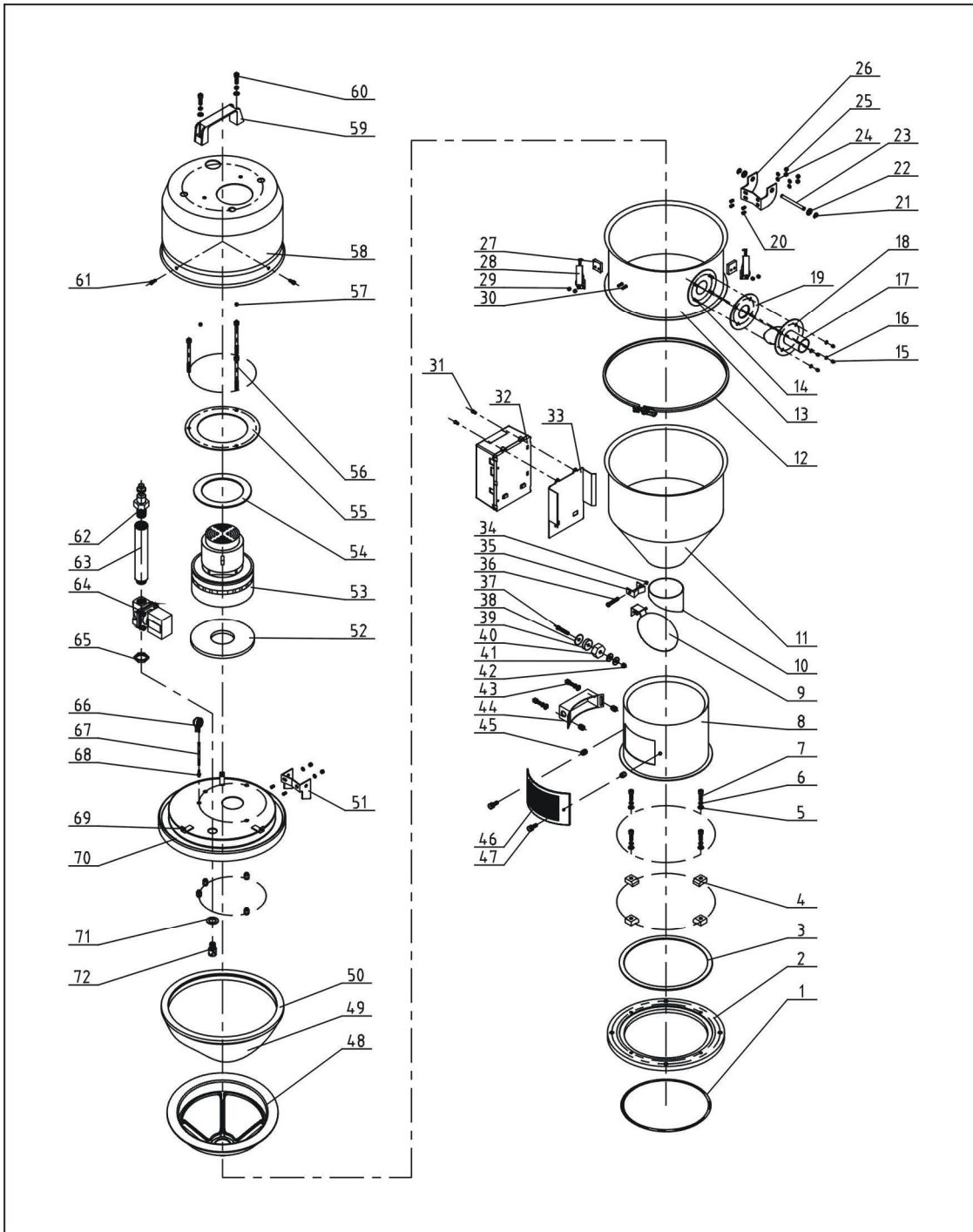
No.	Name	Part No.	No.	Name	Part No.
26	Control box cover	-	55	Hopper ring *	YR10000300100
27	Main power switch	YE10210300000	56	Hop-pocket **	BP82006000044
28	Handle box	-	57	Filter cloth split washer**	YR45003000100
29	Control box base	-			

* means possible broken parts.

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

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

2.2.21 Assembly Drawing (SAL-12U)



Remarks: Please refer to material list 2.2.22 for specific explanation of the numbers in parts drawing.

Picture 2-14: Assembly Drawing (SAL-12U)

2.2.22 Parts List (SAL-12U)

Table 2-11: Parts List (SAL-12U)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	30	Screw M4×15	YW69041500100
2	Base	YW20006000000	31	Cross socket head cap screw M4×6	YW63040600000
3	Base ring	-	32	Control box	YR40030600000
4	Pressure block	YW2000600500	33	Control box base	-
5	Spring washer M6	YW65006000100	34	Locknut M3	YW64000300000
6	Flat washer Φ6	YW66061300000	35	Fixing base of baffle plate	BL20000601220
7	Inner hexagon screw M6×20	YW61062000300	36	Cross socket head cap screw M3×40	YW63034000000
8	Hopper fixing base	BL21000600020	37	Cross socket head cap screw M6×20	YW63062000000
9	Baffle plate *	BL21000302320	38	Magnet cover	BL21000600120
10	Discharging port	BL21000600720	39	Permanent magnet	YW90257700000
11	Material storage tank	-	40	Magnet sleeve	BH12000600010
12	Pipe clamp	BH11120400010	41	Flat washer Φ8×22	YW66082200100
13	Extra large material tank	-	42	Locknut M6	YW64000600200
14	Screw M4×10	YW69041000000	43	Inner hexagon cylindrical screw M6×10	YW63061000000
15	Locknut M4×0.7	YW64040700100	44	Sensor shell	YR40000600100
16	Flat washer Φ4	YW66040800000	45	Mini-countersunk rivet screw M6	YW64060200000
17	Material inlet pipe	-	46	Ventilation window	YR40000600500
18	Material inlet pipe fixing plate	-	47	Star spanner	YR40061500000
19	Material inlet pipe ring	-	48	Filter cloth split washer**	YR40006000000
20	Screw M5×10	YW64040700100	49	Hop-pocket **	BP82006000044
21	E rings	YW66000500000	50	Hopper ring *	YR10000600200
22	Flat washerΦ8×22	YW66082200100	51	Upper hinge	BL32000600240
23	Hinge pin	BH10006003110	52	Blower ring (down)	YR10070000000
24	Flat washer Φ5	YW66051000100	53	Carbon brush motor*	YM30965600000
25	Locknut M5	YW64000500000	54	Blower ring (upper)	YP62141200000
26	Down hinge	BL32000600140	55	Blower fixing board	-
27	Block	YR40000600300	56	Inner hexagon cylindrical screw M6×90	YW61069000100
28	Snap hook	YW02003000400	57	Locknut M6	YW64000600200
29	Lockup nut M4×0.7	YW64040700100	58	Blower shell	YR40036000000

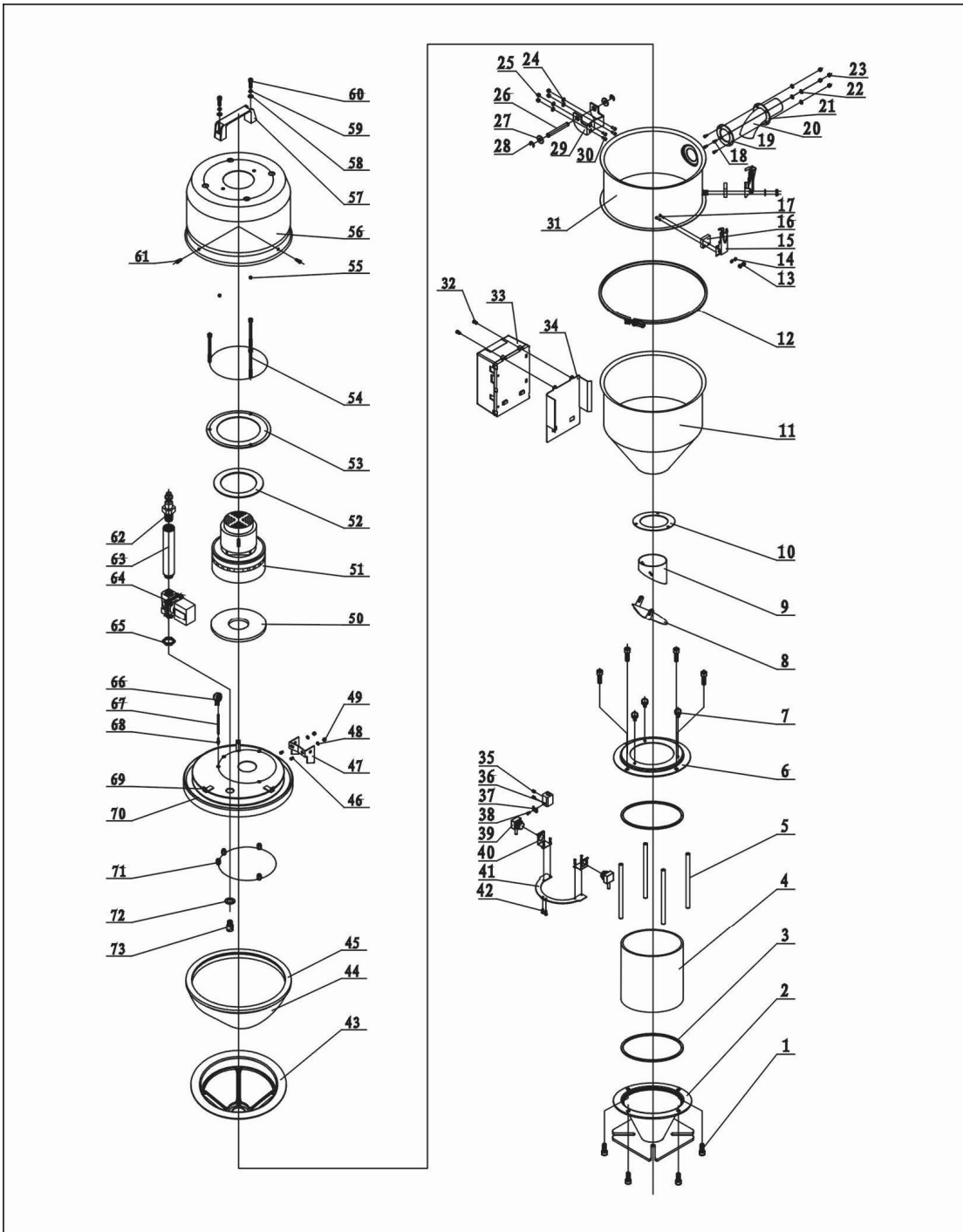
No.	Name	Part No.	No.	Name	Part No.
59	L120 Square aluminum handle	BW20012000040	66	Pressure switch	YE15002000100
60	Inner hexagon cylindrical screw M6×20	YW61062000300	67	Blue air pipe	YR60060400000
61	Cross socket head cap screw M5×15	YW62051500000	68	Pressure switch connector	BH11103000010
62	Quick connector	YW80031400000	69	Blower cover fixing base	-
63	Connector 2	BH13030300010	70	Hopper cover	-
64	Solenoid valve*	YE32213100000	71	Washer	BP62352100050
65	Connection nut	BH12030400410	72	Reverse clean pipe nozzle	BH13033000810

* means possible broken parts.

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

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

2.2.23 Assembly Drawing (SAL-12U-E)



Remarks: Please refer to material list 2.2.24 for specific explanation of the numbers in parts drawing.

Picture 2-15: Assembly Drawing (SAL-12U-E)

2.2.24 Parts List (SAL-12U-E)

Table 2-12: Parts List (SAL-12U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Inner hexagon screw M6×15	YW61061600300	31	Extra large material tank	BL21001200621
2	Glass pipe down flange	YW32000600000	32	Cross socket head cap screw	YW63040600000
3	Glass pipe ring	YR10060200000	33	Control box	YR40030600000
4	Glass pipe *	YW70908000000	34	Control box base	BL21000602020
5	Flange connection shaft	BH10101100010	35	Set screw	YW68004500000
6	Glass pipe upper flange	YW32000600200	36	Photosensor fixing base	YW20061500000
7	Plastic handle screw M6×15	YW69621600000	37	Photosensor pressure block	BL21001210020
8	Non-return flap	BL21001200520	38	Cross socket head cap screw M4×10	YW63041000000
9	Discharging port	BL27001200720	39	Photosensor	YE15143900000
10	Hopper flange	YW32000600100	40	Photosensor mounting block	-
11	Material storage tank	BL21001200820	41	Photosensor fixing plate	BL21001200120
12	Pipe clamp	BH11120400010	42	Cross socket head cap screw M4×10	YW63041000000
13	Locknut M4×0.7	YW64040700100	43	Filter cloth split washer**	YR40006000000
14	Flat washer 4	YW66040800000	44	Hop-pocket **	BP82006000044
15	Snap hook	YW02003000400	45	Hopper ring *	YR10000600200
16	Block	YR40000600300	46	Screw M5×10	YW64040700100
17	Screw M4×15	YW69041500100	47	Upper hinge	BL32000600220
18	Screw M4×10	YW69041000000	48	Flat washer 5	YW66040800000
19	Material inlet pipe ring	YR10061200000	49	Locknut	YW64000500000
20	Material inlet pipe	BL32001500020	50	Blower ring (down)	YR10070000000
21	Material inlet pipe fixing plate	BL20036000320	51	Carbon brush motor	YM30965600000
22	Flat washer 4	YW66040800000	52	Blower ring (upper)	YP62141200000
23	Locknut M4×0.7	YW64040700100	53	Blower fixing board	BL21000300420
24	Flat washer 5	YW66051000100	54	Inner hexagon cylindrical screw	YW61069000100
25	Locknut M5	YW64000500000	55	Locknut M6	YW64000600200
26	Hinge pin	BH10006003110	56	Blower shell	YR40036000000
27	Flat washer 8×22	YW66082200100	57	Square aluminum handle	BW20012000040
28	E-rings 6	YW63051000000	58	Inner hexagon cylindrical screw	YW61062000300
29	Down hinge	BL32000600120	59	Spring washer	YW65006000000
30	Screw M5×10	YW64040700100	60	Flat washer 6	YW66061300000

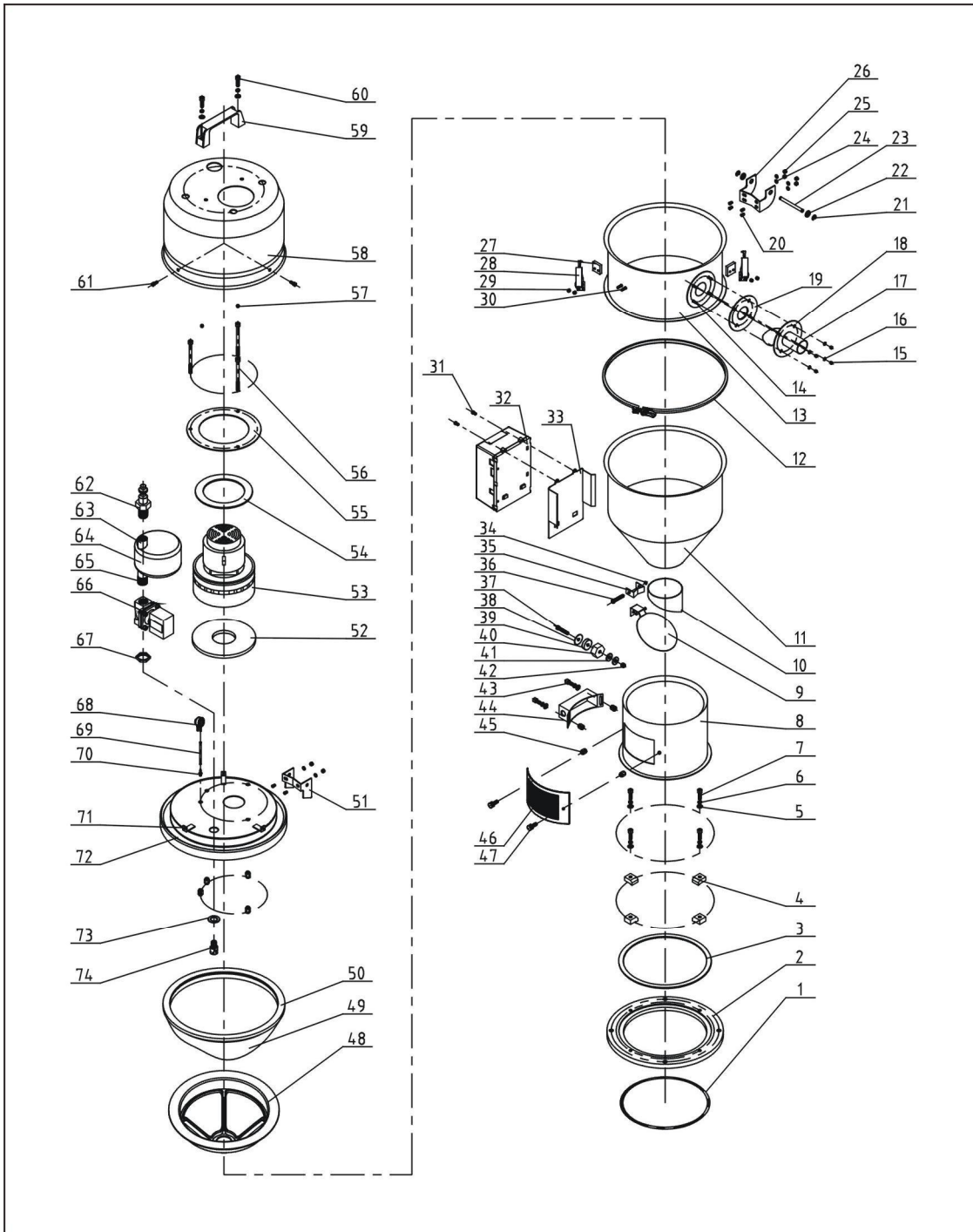
No.	Name	Part No.	No.	Name	Part No.
61	Cross socket head cap screw M5×15	YW62051500000	68	Pressure switch connector	BH11103000010
62	Quick connector	YW80031400000	69	Blower cover fixing base	BH10063200040
63	Connector 2	BH13030300010	70	Hopper cover	BL22001200721
64	Solenoid valve	YE32213000100	71	Mini-countersunk rivet screw M6	YW64060200000
65	Connection nut	BH12030400410	72	Washer	BP62352100050
66	Pressure switch	YE15002000100	73	Reverse clean pipe nozzle	BH13033000810
67	Blue air pipe	YR60060400000			

* means possible broken parts.

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

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

2.2.25 Assembly Drawing (SAL-12U-A)



Remarks: Please refer to material list 2.2.26 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-16: Assembly Drawing (SAL-12U-A)

2.2.26 Parts List (SAL-12U-A)

Table 2-13: Parts List (SAL-12U-A)

No.	Name	Part No.	No.	Name	Part No.
1	O-Type seal ring	YR20205500000	31	Cross socket head cap screw M4×6	YW63040600000
2	Base	YW20006000000	32	Control box	YR40030600000
3	Base ring	-	33	Control box base	-
4	Pressure block	YW20000600500	34	Locknut M3	YW64000300000
5	Spring washer M6	YW65006000100	35	Fixing base of baffle plate	BL20000601220
6	Flat washerΦ6	YW66061300000	36	Cross socket head cap screw M3×40	YW63034000000
7	Inner hexagon screw M6×20	YW61062000300	37	Cross socket head cap screw M6×20	YW63062000000
8	Hopper fixing base	BL21000600020	38	Magnet cover	BL21000600120
9	Baffle plate*	BL21000302320	39	Permanent magnet	YW90257700000
10	Discharging port	BL21000600720	40	Magnet sleeve	BH12000600010
11	Material storage tank	-	41	Flat washer Φ8×22	YW66082200100
12	Pipe clamp	BH11120400010	42	Locknut M6	YW64000600200
13	Extra large material tank	-	43	Inner hexagon cylindrical screw M6×10	YW63061000000
14	Screw M4×10	YW69041000000	44	Sensor shell	YR40000600100
15	Locknut M4×0.7	YW64040700100	45	Mini-countersunk rivet screw M6	YW64060200000
16	Flat washer Φ4	YW66040800000	46	Ventilation window	YR40000600500
17	Material inlet pipe	BL32000600020	47	Star spanner	YR40061500000
18	Material inlet pipe fixing plate	-	48	Filter cloth split washer**	YR40006000000
19	Material inlet pipe ring	YR10061200000	49	Hop-pocket **	BP82006000044
20	Screw M5×10	YW64040700100	50	Hopper ring *	YR10000600200
21	E rings	YW66000500000	51	Upper hinge	BL32000600240
22	Flat washerΦ8×22	YW66082200100	52	Blower ring (down)	YR10070000000
23	Hinge pin	BH10006003110	53	Carbon brush motor*	YM30965600000
24	Flat washer Φ5	YW66051000100	54	Blower ring (upper)	YP62141200000
25	Locknut M5	YW64000500000	55	Blower fixing board	-
26	Down hinge	BL32000600140	56	Inner hexagon cylindrical screw M6×90	YW61069000100
27	Block	YR40000600300	57	Locknut M6	YW64000600200
28	Snap hook	YW02003000400	58	Blower shell	YR40036000000
29	Locknut M4×0.7	YW64040700100	59	L120 Square aluminum handle	BW20012000040
30	Screw M4×15	YW69041500100	60	Inner hexagon cylindrical screw M6×20	YW61062000300

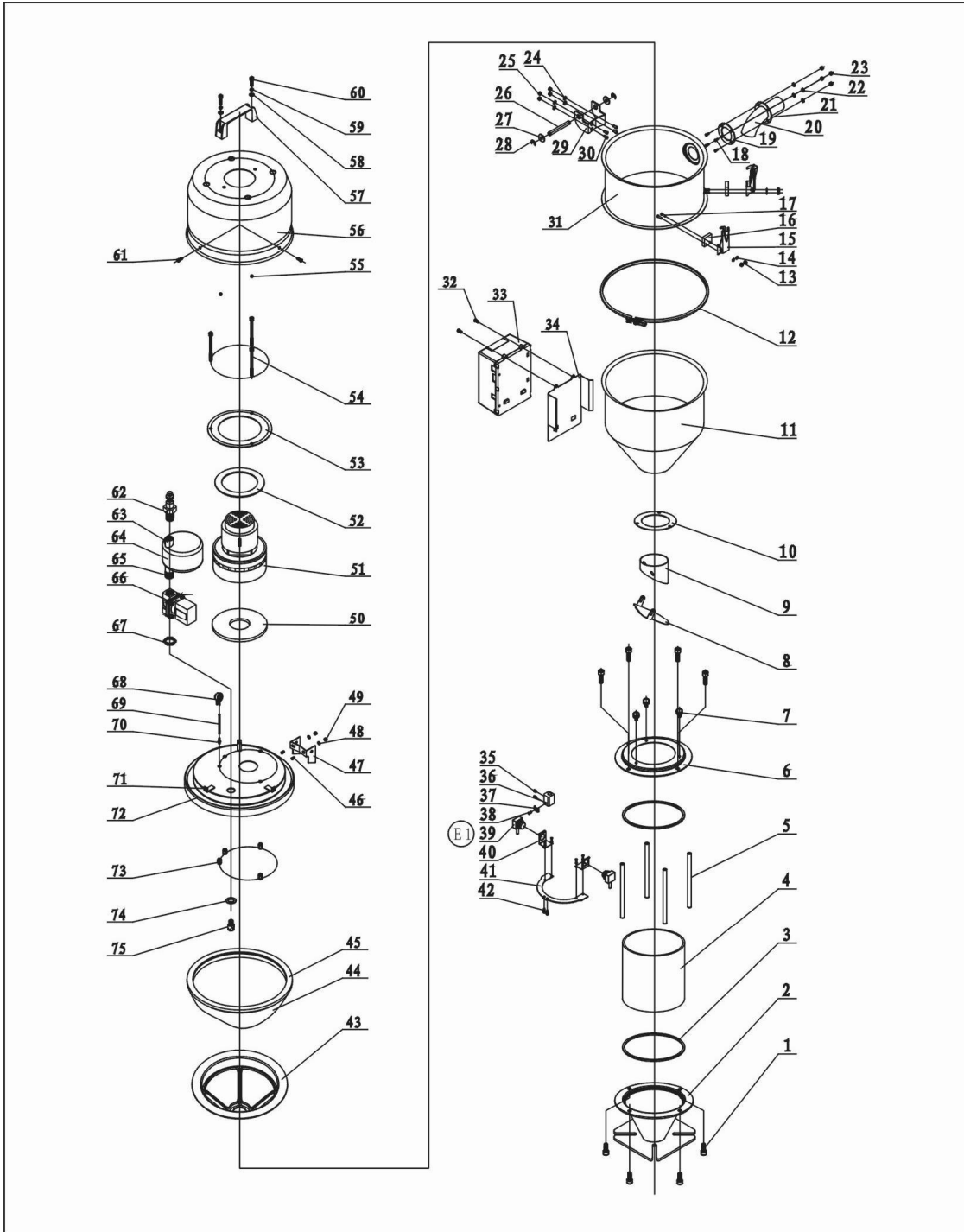
No.	Name	Part No.	No.	Name	Part No.
61	Cross socket head cap screw M5×15	YW62051500000	68	Pressure switch	YE15002000100
62	Quick connector	YW80031400000	69	Blue air pipe	YR60060400000
63	Connection nut 1	-	70	Pressure switch connector	-
64	Air accumulator	-	71	Blower cover fixing base	-
65	Connection nut 2	-	72	Hopper cover	-
66	Solenoid valve*	YE32213100000	73	Washer	BP62352100050
67	Connection nut	-	74	Reverse clean pipe nozzle	-

* means possible broken parts.

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

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

2.2.27 Assembly Drawing (SAL-12U-EA)



Remarks: Please refer to material list 2.2.26 for specific explanation of the Arabic numbers in parts drawing.

Picture 2-17: Assembly Drawing (SAL-12U-EA)

2.2.28 Parts List (SAL-12U-EA)

Table 2-14: Parts List (SAL-12U-EA)

No.	Name	Part No.	No.	Name	Part No.
1	Inner hexagon screw M6×15	YW61061600300	31	Extra large material tank	BL21001200621
2	Glass pipe down flange	YW32000600000	32	Cross socket head cap screw	YW63040600000
3	Glass pipe ring	YR10060200000	33	Control box	YR40030600000
4	Glass pipe *	YW70908000000	34	Control box base	BL21000602020
5	Flange connection shaft	BH10101100010	35	Set screw	YW68004500000
6	Glass pipe upper flange	YW32000600200	36	Photosensor fixing base	YW20061500000
7	Plastic handle screw M6×15	YW69621600000	37	Photosensor pressure block	BL21001210020
8	Non-return flap	BL21001200520	38	Cross socket head cap screw M4×10	YW63041000000
9	Discharging port	BL27001200720	39	Photosensor	YE15143900000
10	Hopper flange	YW32000600100	40	Photosensor mounting block	-
11	Material storage tank	BL21001200820	41	Photosensor fixing plate	BL21001200120
12	Pipe clamp	BH11120400010	42	Cross socket head cap screw M4×10	YW63041000000
13	Locknut M4×0.7	YW64040700100	43	Filter cloth split washer**	YR40006000000
14	Flat washer 4	YW66040800000	44	Hop-pocket **	BP82006000044
15	Snap hook	YW02003000400	45	Hopper ring *	YR10000600200
16	Block	YR40000600300	46	Screw M5×10	YW64040700100
17	Screw M4×15	YW69041500100	47	Upper hinge	BL32000600220
18	Screw M4×10	YW69041000000	48	Flat washer 5	YW66040800000
19	Material inlet pipe ring	YR10061200000	49	Locknut	YW64000500000
20	Material inlet pipe	BL32001500020	50	Blower ring (down)	YR10070000000
21	Material inlet pipe fixing plate	BL20036000320	51	Carbon brush motor	YM30965600000
22	Flat washer 4	YW66040800000	52	Blower ring (upper)	YP62141200000
23	Locknut M4×0.7	YW64040700100	53	Blower fixing board	BL21000300420
24	Flat washer 5	YW66051000100	54	Inner hexagon cylindrical screw M6×90	YW61069000100
25	Locknut M5	YW64000500000	55	Locknut M6	YW64000600200
26	Hinge pin	BH10006003110	56	Blower shell	YR40036000000
27	Flat washer 8×22	YW66082200100	57	Square aluminum handle	BW20012000040
28	E-rings 6	YW63051000000	58	Inner hexagon cylindrical screw M6×20	YW61062000300
29	Down hinge	BL32000600120	59	Spring washer	YW65006000000
30	Screw M5×10	YW64040700100	60	Flat washer 6	YW66061300000

No.	Name	Part No.	No.	Name	Part No.
61	Cross socket head cap screw M5×15	YW62051500000	69	Blue air pipe	YR60060400000
62	Quick connector	YW80031400000	70	Pressure switch connector	BH11103000010
63	Connection nut 2	BH13030300010	71	Blower cover fixing base	BH10063200040
64	Air accumulator	BL21000601420	72	Hopper cover	BL22001200721
65	Connection nut 1	BH12030400410	73	Mini-countersunk rivet screw M6	YW64060200000
66	Solenoid valve	YE32213000100	74	Washer	BP62352100050
67	Connection nut	-	75	Reverse clean pipe nozzle	BH13033000810
68	Pressure switch	YE15002000100			

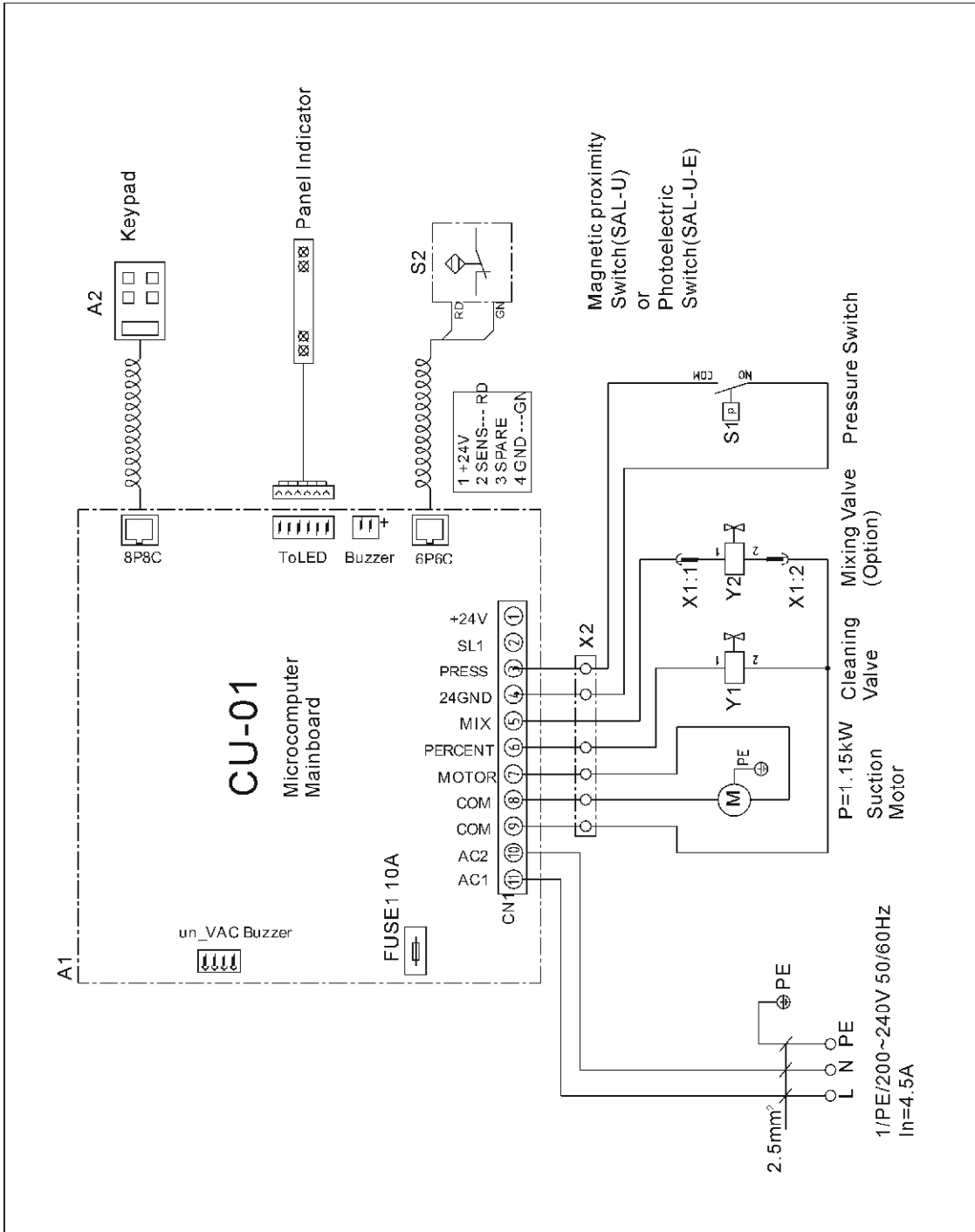
* means possible broken parts.

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

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

2.3 Electrical Diagram

2.3.1 SAL-U Main Circuit (230V)



Picture 2-18: SAL-U Main Circuit (230V)

2.3.2 SAL-U Electrical Components List (230V)

Table 2-15: Electrical Components List (SAL-1U) (230V)

NO.	Symbol	Name	SAL-1U	
			Specification	Part NO.
1	A1	Microcomputer mainboard*	230VAC 50/60Hz	YE80023560000
2	A2	Keypad*	-	YE80001000000
3	S1	Pressure switch*	250VAC 20MA	YE15002000100
4	S2	Magnetic proximity switch*	24VDC	YE15123000100
5	X1	Waterproof Connector	250V 3P	YE62163000100
6	X2	Terminal board	10A	YE61000600300
7	Y1	Solenoid valve	230V 50/60Hz	YE32213100000

* means possible broken parts.

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

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

Table 2-16: Electrical Components List (SAL-3U~12U) (230V)

NO.	Symbol	Name	SAL-3U~12U	
			Specification	Part NO.
1	A1	Microcomputer mainboard*	230VAC 50/60Hz	-
2	A2	Keypad*	-	-
3	S1	Pressure switch*	250VAC 20MA	YE15002000100
4	S2	Magnetic proximity switch*	24VDC	YE15123000100
5	X1	Waterproof Connector	250V 3P	YE62163000100
6	X2	Terminal board	10A	YE61000600300
7	Y1	Solenoid valve	230V 50/60Hz	YE32213100000

* means possible broken parts.

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

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

Table 2-17: Electrical Components List (SAL-U~E) (230V)

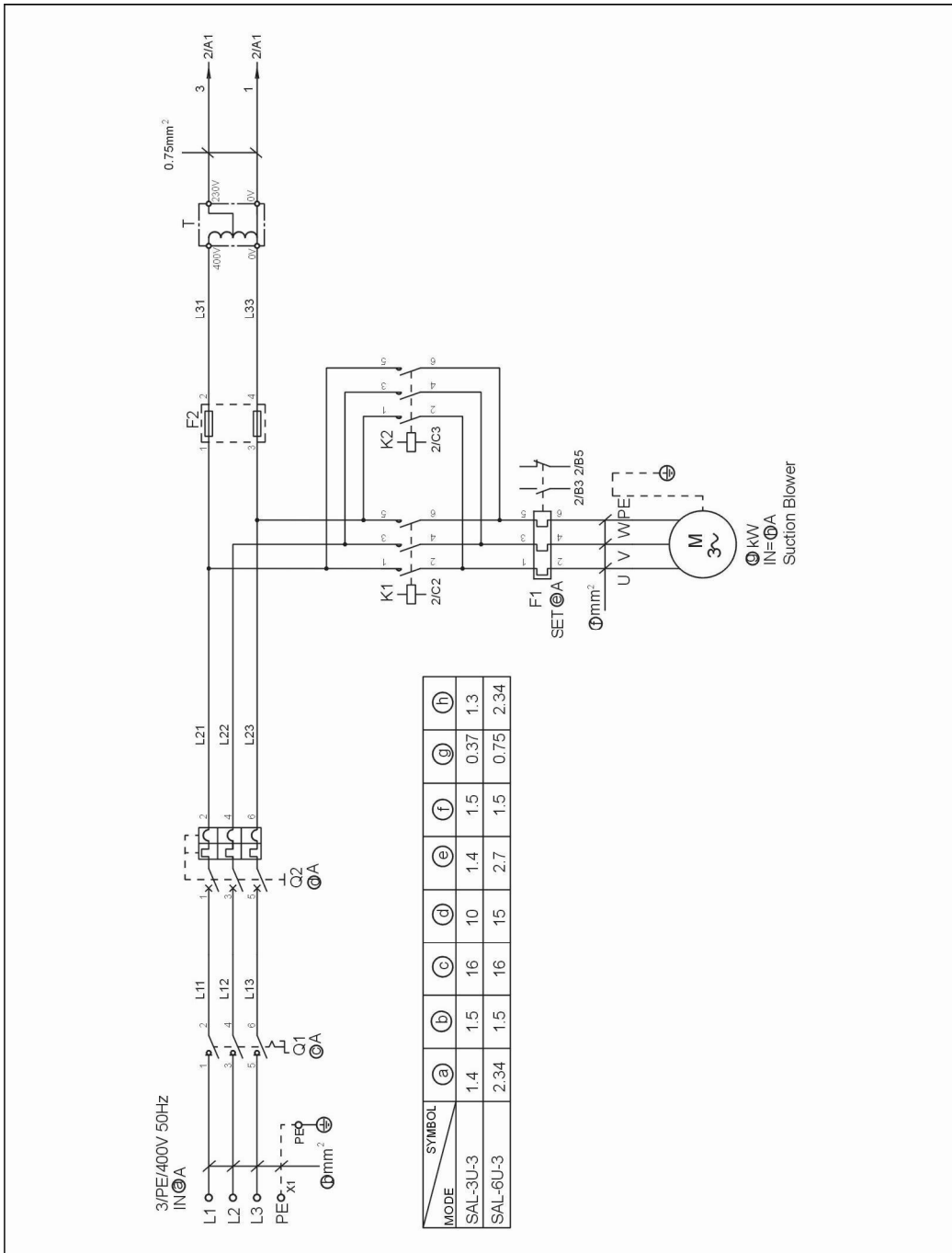
NO.	Symbol	Name	SAL-U~E	
			Specification	Part NO.
1	A1	Microcomputer mainboard*	230VAC 50/60Hz	-
2	A2	Keypad*	-	-
3	S1	Pressure switch*	250VAC 20MA	YE15002000100
4	S2	Magnetic proximity switch*	24VDC	YE15143900000
5	X1	Waterproof Connector	250V 3P	YE62163000100
6	X2	Terminal board	10A	YE61000600300
7	Y1	Solenoid valve	230V 50/60Hz	YE32213100000

* means possible broken parts.

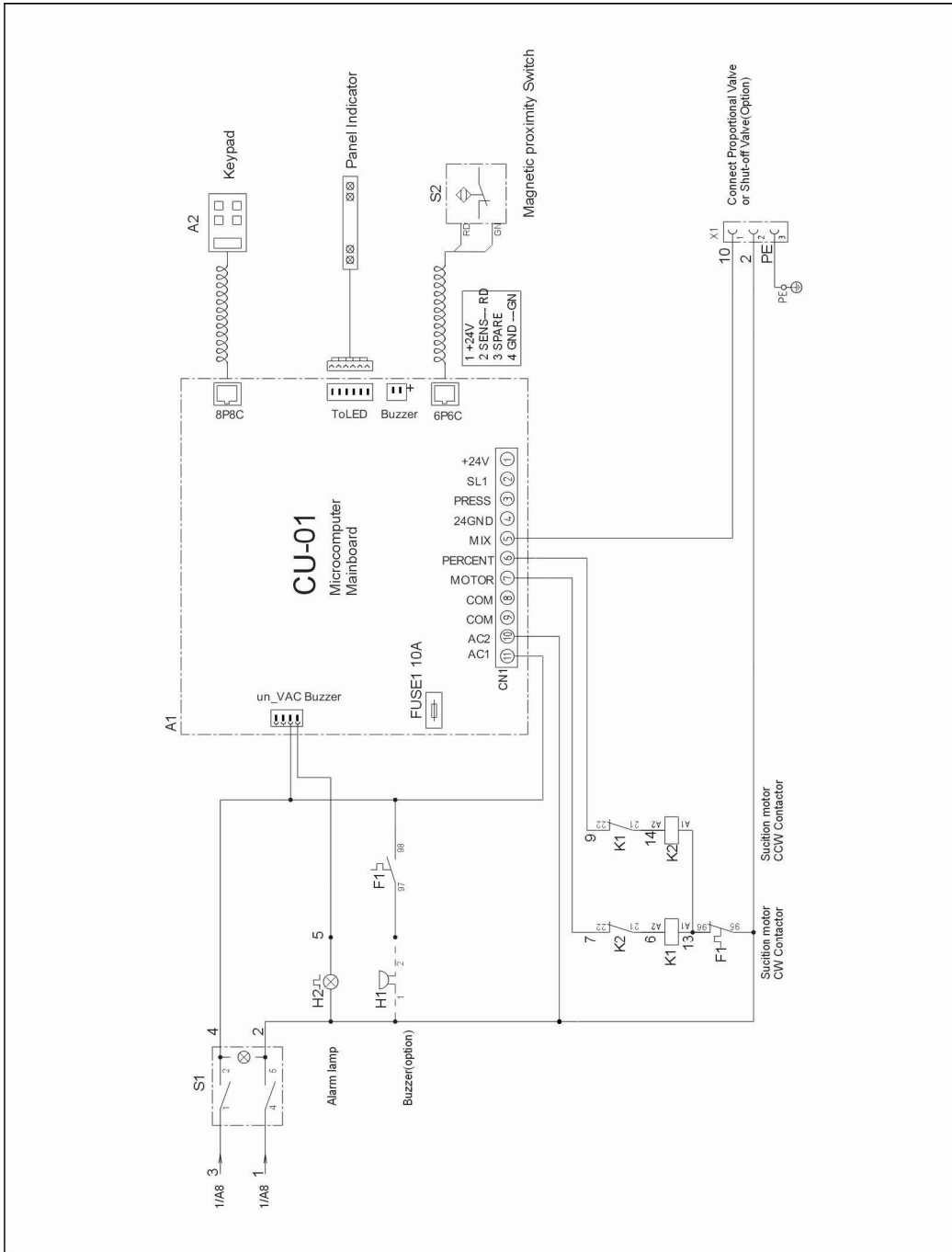
** means easy broken parts. A spare backup is suggested.

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

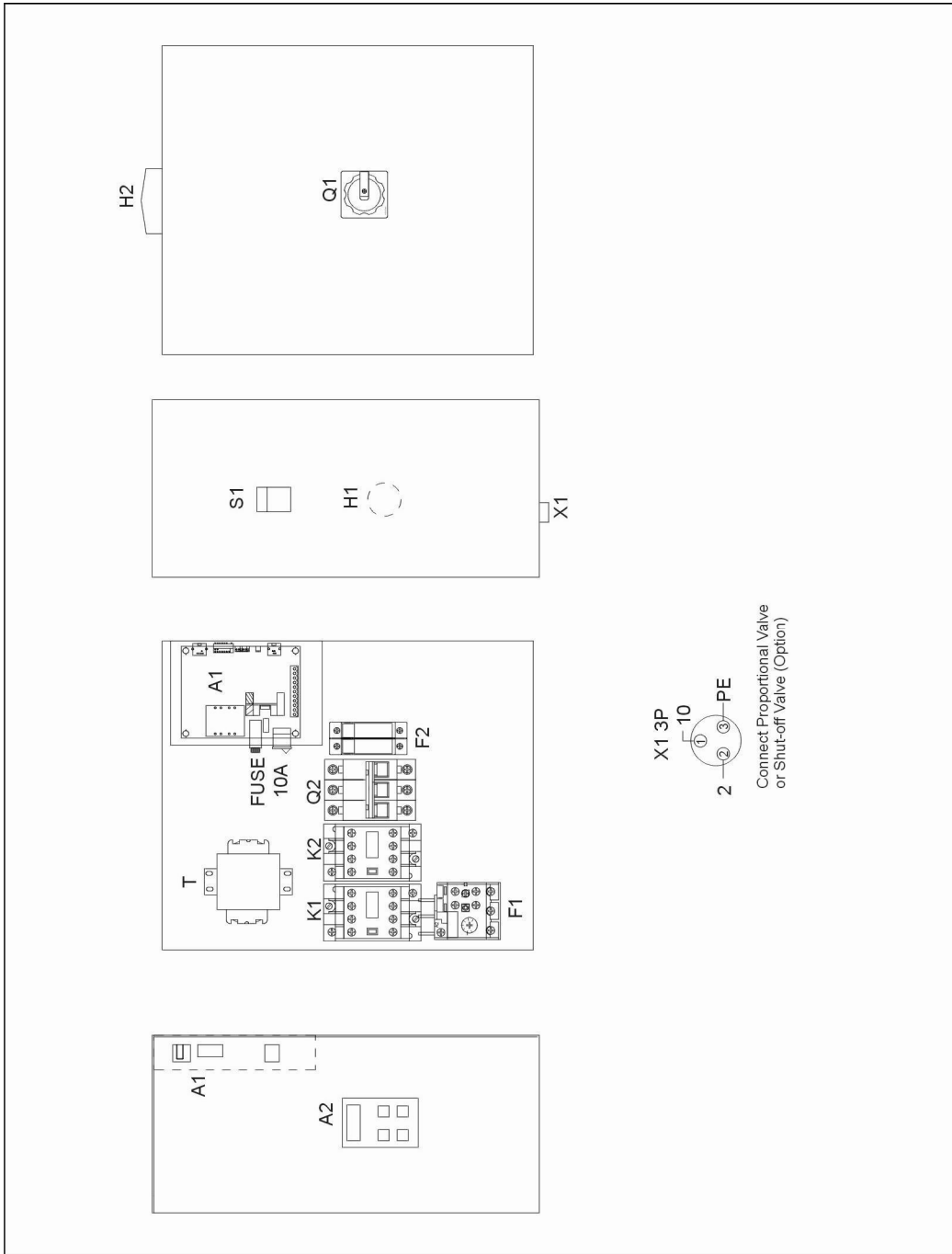
2.3.3 SAL-3U/6U-3 Main Circuit (400V)



Picture 2-19: SAL-3/6U-3 Main Circuit 1 (400V)



Picture 2-20: SAL-3/6U-3 Main Circuit 2 (400V)



Picture 2-21: SAL-3/6U-3 Main Circuit 3 (400V)

2.3.4 SAL-3U/6U-3 Electrical Components List (400V)

Table 2-18: Electrical Components List (SAL-3U-3) (400V)

NO.	Symbol	Name	SAL-3U-3	
			Specification	Part NO.
1	Q1	Main switch	16A	YE10200300000
2	Q2	Circuit breakers*	10A	YE40600300000
3	K1 K2	Contactors*	230V 50/60Hz	YE00300100000
4	T	Transformer**	IN=400V OUT=230V 350mA	YE70350400000
5	F1	Overload relays*	1~1.6A	YE01011600000
6	F2	Fuse box*	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	S1	Control switch	4P (WH)	YE10210400000
9	S2	Magnetic proximity switch*	24VDC	YE15123000100
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	YE80023100300
13	A2	Keypad**	-	YE80023100400
14	X1	Waterproof Connector	250V 3P	YE62163000100

* means possible broken parts.

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

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

Table 2-19: Electrical Components List (SAL-6U-3) (400V)

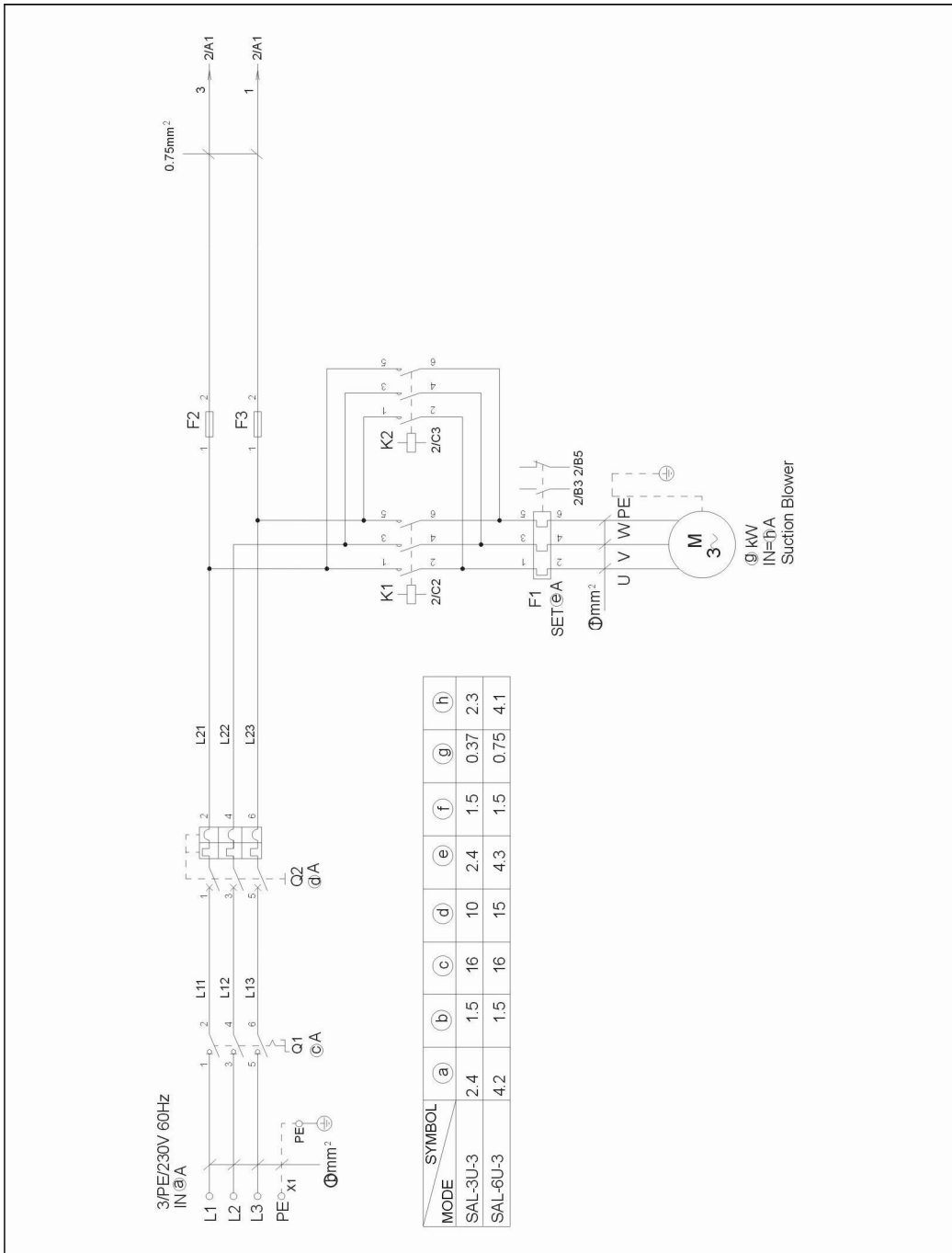
NO.	Symbol	Name	SAL-6U-3	
			Specification	Part NO.
1	Q1	Main switch	16A	YE10200300000
2	Q2	Circuit breakers*	15A	YE40601500000
3	K1 K2	Contactors*	230V 50/60Hz	YE00300100000
4	T	Transformer**	IN=400V OUT=230V 350mA	YE70350400000
5	F1	Overload relays*	2~3.2A	YE01023200000
6	F2	Fuse box*	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	S1	Control switch	4P (WH)	YE10210400000
9	S2	Magnetic proximity switch*	24VDC	YE15123000100
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	YE80023100300
13	A2	Keypad**	-	YE80023100400
14	X1	Waterproof Connector	250V 3P	YE62163000100

* means possible broken parts.

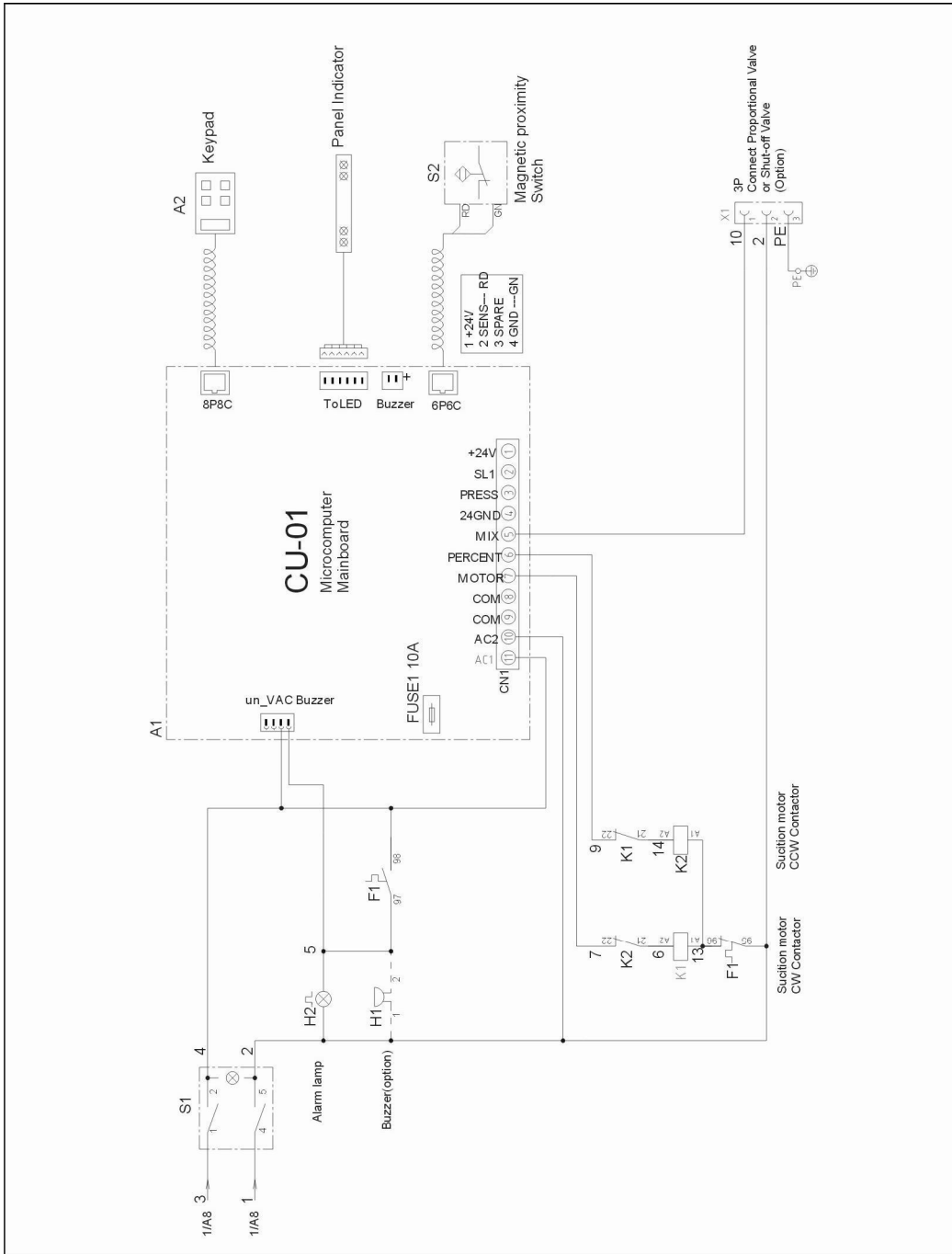
** means easy broken parts. A spare backup is suggested.

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

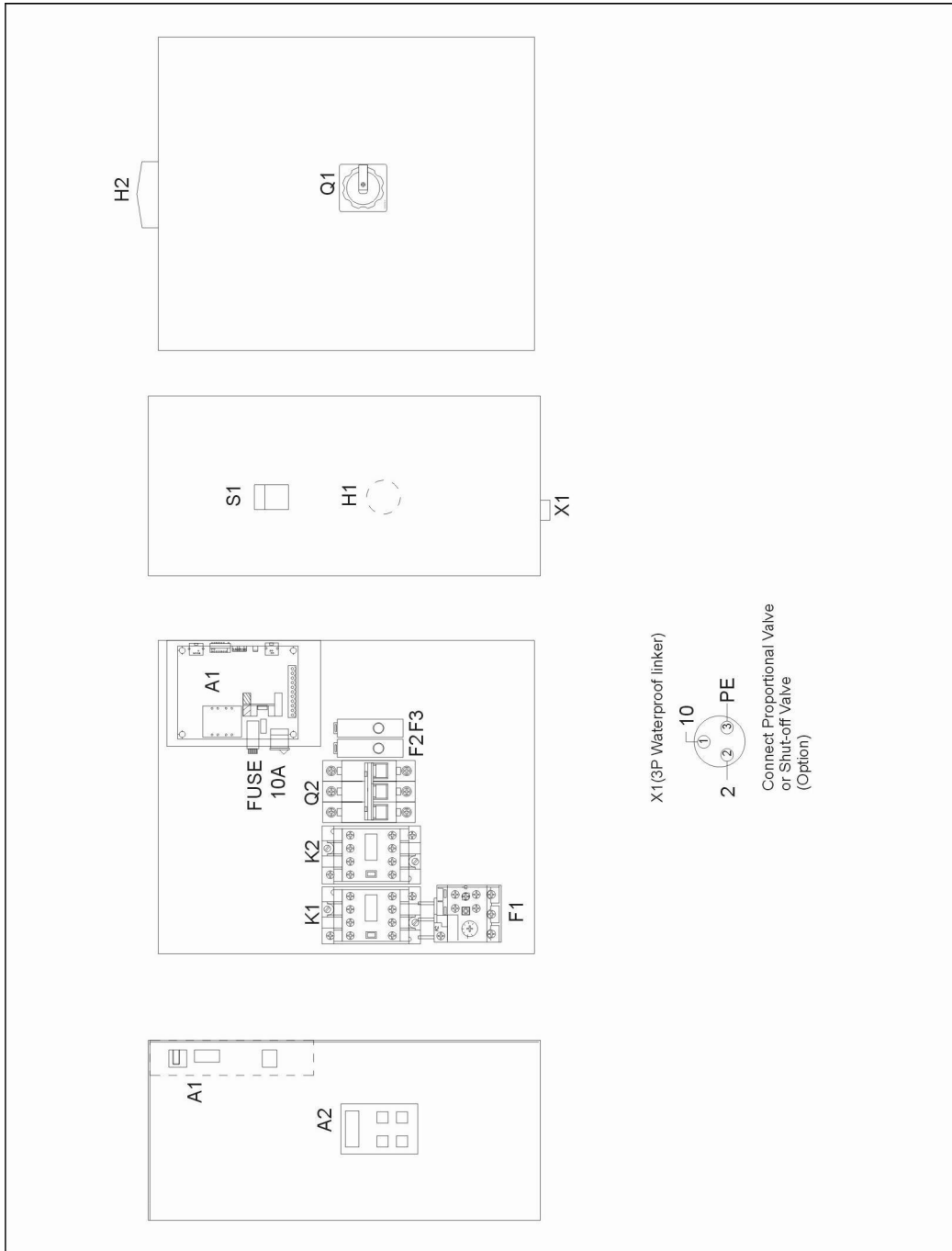
2.3.5 SAL-3U/6U-3 Main Circuit (230V)



Picture 2-22: SAL-3/6U-3 Main Circuit 1 (230V)



Picture 2-23: SAL-3/6U-3 Main Circuit 2 (230V)



Picture 2-24: SAL-3/6U-3 Main Circuit 3 (230V)

2.3.6 SAL-3U/6U-3 Electrical Components List (230V)

Table 2-20: Electrical Components List (SAL-3U-3) (230V)

NO.	Symbol	Name	SAL-3U-3	
			Specification	Part NO.
1	Q1	Main switch	16A	YE10200300000
2	Q2	Circuit breakers*	10A	YE40600300000
3	K1 K2	Contactors*	230V 50/60Hz	YE00300100000
4	F1	Overload relays*	250V 2A	YE01162500000
5	F2 F3	Fuse box*	4P (WH)	YE41001000000
6	S1	Control switch	60-250VAC 50/60Hz	YE10210400000
7	S2	Magnetic proximity switch*	230VAC 50/60Hz	YE15123000100
8	H1	Buzzer	230VAC 50/60Hz	YE84003500000
9	H2	Alarm lamp	-	YE83305100200
10	A1	Microcomputer mainboard**	250V 3P	YE80023100300
11	A2	Keypad**	0.5HP	YE80023100400
12	X1	Waterproof Connector	16A	YE62163000100

* means possible broken parts.

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

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

Table 2-21: Electrical Components List (SAL-6U-3) (230V)

NO.	Symbol	Name	SAL-6U-3	
			Specification	Part NO.
1	Q1	Main switch	16A	YE10200300000
2	Q2	Circuit breakers*	15A	YE40601500000
3	K1 K2	Contactors*	230V 50/60Hz	YE00300100000
4	F1	Overload relays*	3.2~5A	YE01032500000
5	F2 F3	Fuse box*	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	S2	Magnetic proximity switch*	24VDC	-
8	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
9	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
10	A1	Microcomputer mainboard**	230VAC 50/60Hz	YE80023100300
11	A2	Keypad**	-	YE80023100400
12	X1	Waterproof Connector	250V 3P	YE62163000100

* means possible broken parts.

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

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

2.4 Description of Electrical Components

2.4.1 Photoelectric Switch

- 1) It is applied to material conveying control and material shortage alarm for SAL-U-E series.
- 2) Mounted on photosensor fixing plate.



Picture 2-25: Photoelectric Switch

2.4.2 Magnetic Proximity Switch

- 1) It is applied to material conveying control and material shortage alarm for SAL-U-E series.
- 2) Mounted on photosensor fixing plate.



Picture 2-26: Magnetic Proximity Switch

2.5 Optional Accessories

2.5.1 Air Accumulator

2.5.1.1 Function of Air Accumulator

Air accumulator is fixed on SAL-6U/12U-(CA) which can reinforce the auto cleaning.



Picture 2-27: Air Accumulator

2.5.1.2 Specification of Air Accumulator

Air accumulator: HxD=170x76mm



Note!

Please fix the air supply correctly. Air pressure not less than 4 bar.

3. Installation and Debugging



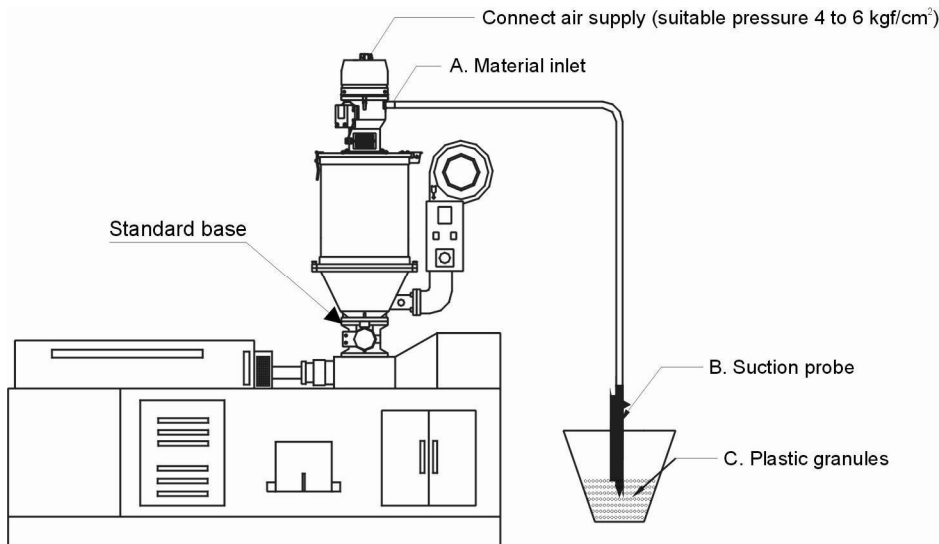
Notice!

Read this chapter carefully before installation of the machine. Install the machine by the following steps.

Power supply should be fixed by qualified technicians!

3.1 Install the equipment on dryers or molding machines.

3.1.1 Installation of SAL-U (-A)



Picture 3-1: Installation of SAL-U (-A)

Install the Hopper Loader (SAL-U) on a hopper dryer (refer to the above drawing) by fastening the screws on the hopper base. Connect one end of the conveying pipe with material inlet (A) and the other end with suction pipe (B). Then insert the end with suction pipe B into the storage tank.

3.1.2 Power Supply of SAL-U (-A)

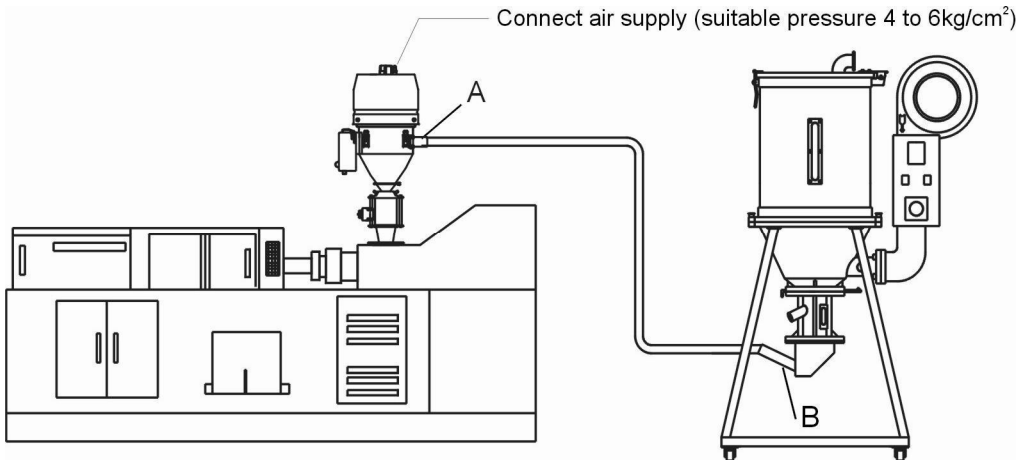
Connect SAL-1.5U / 3U / 6U / 12U-(A) with AC 1Φ 230V, 50 Hz power supply and earth wire. Connect SAL-6U-3 with AC 3Φ, 400V, 50Hz power supply and earth wire.



Warning!

Make sure that power supply is turned off before you connect the electrical wires.

3.1.3 Installation of SAL-U-E (A)



Picture 3-2: Installation of SAL-U-E (A)

Install the hopper loader (SAL-3U / 6U / 12U-E (A)) on the molding machine (refer to the above drawing) by fastening the 4 screws on the hopper base. Connect material inlet (A) with suction box (B) of the dryer. If equipped with optional air accumulator or cleaning function, please connect with air supply.

3.1.4 Power Supply of SAL-U-E(A)

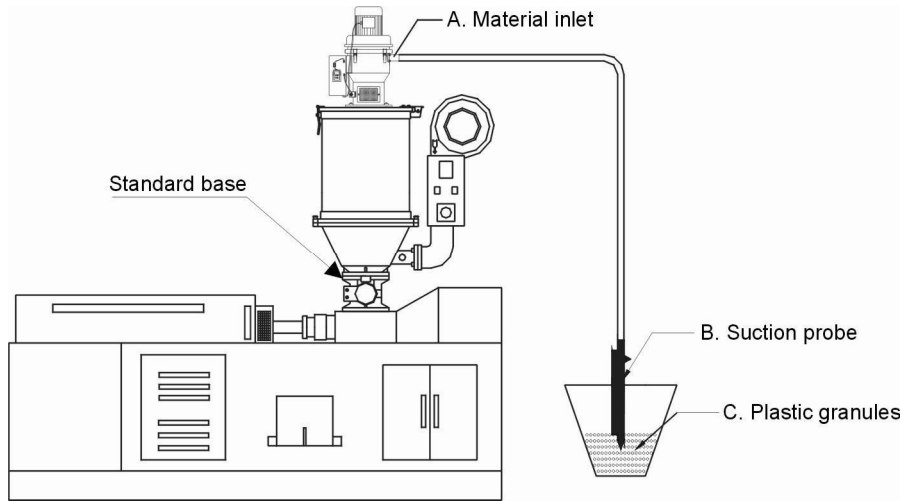
Connect SAL-U-E (A) series of machines with AC1Φ, 230V, 50Hz power supply and earth wire.



Warning!

Make sure that power supply is turned off before you connect the electrical wires.

3.1.5 Installation of SAL-3U / 6U-3



Picture 3-3: Installation of SAL-3U / 6U-3

Install the hopper loader (SAL-3U / 6U-3) on a hopper dryer (refer to the above drawing) by fastening the 4 screws on the hopper base. Connect one end of the conveying pipe with material inlet (A) and the other end with suction pipe (B). Then insert the end with suction pipe B into the storage tank.

3.1.6 Power Supply of SAL-3U /6U-3

Connect SAL-3U /6U-3 with 3 Φ , 400V, 50Hz AC power supply and earth wire.



Warning!

Make sure that power supply is turned off before you connect the electrical wires.

4. Application and Operation


4.1 Start / Stop the Machine

The start and stop of SAL-U series is controlled by start/stop switch on the control panel.

The start and stop of SAL-6U-3 is controlled by the main power switch on the control box.




4.2 Keypad on the Control Panel

 Input values before selecting or canceling items.

 Input values before selecting or saving items. It is also used to clear the alarm when alarm occurs.

 Increase value.

 Decrease value.

 +  Stop the machine in 3 seconds. By then, the machine stop working and the screen doesn't display. Press  to resume operation.




Notice!

The machine will restart if connecting the power supply again.



4.3 Parameters Setting



4.3.1 Enter Setting Mode of Layer One



Under normal operation, press  for about 1 second to enter [F.01] setting screen. Then the screen will alternately display [F.01] and the setting value respectively for 0.8 sec.



If [F.04] is set, the system will switch to [F.99]. The screen will alternately display [F.99] and the setting value respectively for 0.8 sec. Input correct password to enter [F.01].

4.3.2 Edit Parameters


Press  to increase parameter value. Hold  for about 1 second to quickly increase value to the maximum input.

Press  to decrease parameter value. Hold  for about 1 second to quickly decrease value to the minimum input.

Press  to confirm input setting and save input setting into the memory. It will switch to next item. If you did not change anything, press  to enter the next item.

Press  to cancel input values and return to the setting screen. If you did not change anything, press  to enter into next setting item.

4.3.3 Exit

Hold  for 1 second to return to default display.

If no input for 20 seconds, it will return to default display without saving changes.

4.3.4 Layer One Function List

Para. code	Functions	Value		Note
		Default	Range	
F.01	Blower suction time when lacking material. Action code: S.02	10 seconds	5-127 seconds	-
F.02	Blending time The blending time is set according to the material suction time. It is calculated by the following formula: material suction time×[F.02]%. Set 0 to disable the function.	0%	0-100%	-
F.03	Set blending times Means to start blending once every time when certain times of material suction is finished since startup. If set it to be 1, it means blending material after every time of material suction. If no require of blending, set it to be 0.	1	1-9	-
F.04	Password Layer One If [F.04] is not set as 0, the display will switch to [F.99] to require input of correct password. If the password is incorrect, the screen will return to default display. If it's set to be 0, it means turn off the password setting.	0	0-999	-



The password can be set by yourself.

Please contact us, if the equipment is lockup by password.

4.4 Function Setting

4.4.1 Enter Setting Mode

Start the machine, press **SET** for about 1 sec. to enter the initial setting mode. Hold both **SET** and **ENT** to enter parameter [F.05] in about 1 sec. The screen will alternately display [F.05] and the setting value respectively for 0.8 sec. If password [F.12] is set, the system will switch to [F.98]. The screen will alternately display [F.98] and the setting value respectively for 0.8 sec. Input correct password to enter [F.05].

4.4.2 Layer Two Function List

Para. code	Functions	Value		Note
		Default	Range	
F.05	Time delay The delayed time between material conveying cycles. Default 0: No time delay Action code: S.06	0 seconds	9990 seconds	
F.06	Auto Cleaning Duration Filter cleaning time before material suction Default 0: disable auto cleaning. Action code: S.01	3 seconds	0-99 seconds	-
F.07	Auto Cleaning Duration Filter cleaning time after material suction Default 0: disable auto cleaning Action code: S.03	3 seconds	0-99 seconds	-
F.C1	Frequency of auto cleaning. Cleaning once after several times of material suction.	3 seconds	1~99	-

Para. code	Functions	Value Default/Range		Note
F.08	<p>Check Discharging Time</p> <p>Check the time for Material discharge. If there is signal within the discharging time, enter into next action. If no signal within the discharging time, count it as one time of lacking material. If the times reach to the setting value [F.09], the machine will sound an alarm. Action code: S.04</p>	10 seconds	0-99 seconds	-
F.09	<p>No material discharge alarm</p> <p>Set times of no material falling into the material tank after which the machine sounds an alarm. Ways of clearing the alarm: 1. The alarm will be clear when the material tank receives material again. . 2. Press ENT will clear the alarm. 3. Restart the equipment. Action code: A.01</p>	3	1-9	Unit in cycle-
F.10	<p>Halt equipment for no material discharge</p> <p>Set times of no material falling into the material tank after which the machine sounds an alarm and stop working. Ways of clearing the alarm: 1. Press ENT to clear the alarm. 2. Restart the equipment. Default 99: disable this function. Action code: A.04</p>	99	[F.09]-99	-
F.11	<p>Delay setting after auto cleaning</p> <p>If set it to be 0, it means no delay after auto cleaning.</p>	3 seconds	999	-
F.12	<p>Second layer password</p> <p>If [F.12] is not set as 0, then the display will switch to [F.98] to require input of the correct password [F.05] If the password is incorrect, the screen will return to the initial display. If set it to be 0, it means to turn off the password setting.</p>	0	999	-



The password can be set by yourself.

Please contact us, if the equipment is lockup by password.

4.5 Function Setting: Special Process

4.5.1 Enter special process setting Mode

Enter setting mode according to the steps described in 6.4. Press **SET** to choose [F.11]; then keep holding **SET** and then press **ENT** for about 1 sec. to enter into the setting of [F.13]. The screen will alternately display [F.13] and the setting value respectively for 0.8 sec.

4.5.2 Special Process Function List

Para. code	Functions	Value Default/Range		Note
F.13	<p>Buzzer Tone</p> <p>Set buzzer tone</p> <p>0: uninterrupted sounding</p> <p>1: Slow, interrupted sounding</p> <p>2: Quick, interrupted sounding</p>	1	0-2	-
F.14	<p>Buzzer Time</p> <p>Default 999: Unlimited time</p>	999	999	-
F.15	<p>First carbon brush alarm</p> <p>When the carbon brush use [F.17] for a certain while, [F.14] will sound an alarm. Please replace carbon brush ASAP. The alarm will last 5 minutes, and will repeat every 15 minutes until [F.18] become 0.</p> <p>Set 0 to cancel this function.</p> <p>Action code: A.05</p>	70	0-999	1Unit=10 Hours-
F.16	<p>Second carbon brush alarm</p> <p>When the carbon brush use [F.17] for a certain while, [F.15] will sound an alarm. Please replace carbon brush. The alarm will last 5 minutes, and will repeat every 15 minutes until [F.18] become 0.</p> <p>Set 0 to cancel this function.</p> <p>Action code: A.06</p>	75	999	1Unit=10 Hours--
F.17	<p>Third carbon brush alarm</p> <p>When the carbon brush use [F.17] for a certain while, [F.16] will sound an alarm. Please replace carbon brush. The alarm will last 5 minutes, and will repeat every 15 minutes until [F.18] become 0.</p> <p>Set 0 to cancel this function.</p> <p>Action code: A.07</p>	80	999	-1Unit=10 Hours-
F.18	<p>Carbon brush service record</p> <p>Check and clear the working hours of carbon brush.</p> <p>Clear carbon brush working hours: set its value to be 0 and then press ENT to confirm.</p>	0	0-999	-

Para. code	Functions	Value		Note
F.19	<p style="text-align: center;">Blower soft start</p> <p>On and off of blower soft start function. 0 : means blower soft start is on, which means the blower is protected when starting. 1 : means blower soft start is off, which means the blower starts with full speed.</p>	0	0/1	-
F.20	<p style="text-align: center;">Blower stop delay</p> <p>The vacuum breaking valve opens to suction air from the outside while the blower delays stopping, which cools the material suction blower and prevent it from frequent stop and start. Only suitable for SAL-UG/UGP Not suitable for SAL-U which must be set to be 0.</p>	0	0~999	seconds



The password can be set by yourself.

Please contact us, if the equipment is lockup by password.

4.6 Description of Operation Procedures

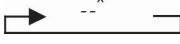

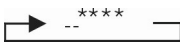
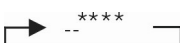
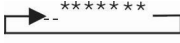


4.6.1 Operation Procedures

The equipment is capable of working without keypad connected. The following is about action codes.

Indicators	Action code	Operation procedures	Relative parameter	Parameter description	
				Default	Range
Red light on	S. 01	Auto cleaning of filter screen	F. 06	5 seconds	0-99 seconds
	S. 02	Material suction	F. 01	10 seconds	5-127 seconds
		Master batch suction	F.02	0%	0-100%
			F. 03	3	1-9 times
	S. 03	Auto cleaning of filter screen; Material starts to fall into the material tank.	F. 07	3 seconds	0-99 seconds
	S. 04	Wait for all materials to fall into the material tank.	F. 08	10 seconds	0-99 seconds
	S. 05	Check alarm information (instantly completed, no display on control panel.)	-	-	-
S. 06	Delay material suction.	F. 05	0 seconds	0-999 seconds	
Green light on	-	Stand by	-	-	-

4.6.2 Alarms

Alarm display and trouble shooting.

Alarm light symbol	Code	Possible reasons	Solutions	Remarks
	[A.01]	Material shortage alarm [F.9] 1. The setting material suction time is too short. 2. Unable to suck any material.. 3. Material suction pipe is blocked, 4. No enough suction power.	1. Add material. 2. Increase material suction time. 3. Turn off the equipment and check the pipes. The alarm will be cleared when the machine receives material again, or by pressing ENT on the control panel or by cutting off power supply.	
	[A.03]	Filter alarm Filter blocked.	1. Turn off the equipment for cleaning filter screen or replace it. The alarm will be cleared by cutting off the power or press ENT on the control panel.	
	[A.04]	Alarm for no material [F.10] After the material shortage alarm is up to certain times, the stop alarm will be given out.	Please refer to the solutions of [A.01] or modify the value of [F.10]. The alarm will be cleared by cutting off the power or press ENT on the control panel.	
	[A.05]	First carbon brush alarm After the carbon brush has been used for a certain while, [F.14] will sound an alarm.	Please replace the carbon brush. This alarm will last for 5 minutes, and will repeat every 15 minutes until the service time record of the carbon brush becomes 0.	
	[A.06]	Second carbon brush alarm After the carbon brush has been used for a certain while, [F.15] will sound an alarm.	Please replace the carbon brush and reset the service time record of the carbon brush to be 0. This alarm will last for 5 minutes, and will repeat every 15 minutes.	
	[A.07]	Third carbon brush alarm After the carbon brush has been used for a certain while, [F.16] will sound an alarm.	Please replace the carbon brush and reset the service time record of the carbon brush to be 0. This alarm won't stop until the service time record of the carbon brush becomes 0.	
	[A.08]	Data can not be stored into EEPROM.	Please contact us to replace the PCB.	



--Denotes the light is off, *Stands for flash of the light.

5. Trouble-shooting

5.1 Trouble Shooting of single phase SAL-U.

Failures	Possible reasons	Solutions
Lacking material for a long time; blower does not work	1. Failures caused by blower or magnetic proximity switch.	1. Replace or repair
	2. Magnetic proximity switch/ photoelectric switch is in poor contact or broken.	2. Adjust or replace.
	3. Signal wire is broken.	3. Reconnect the signal wire.
Blower can not fully load material hopper for several times, or machine sounds material shortage alarm.	1. No material left for conveying.	1. Add material.
	2. Air pipe leakage.	2. Firmly lock the air pipe or replace it.
	3. Filter is blocked.	3. Clean the filter.
Blower can not work.	Blower is burn out.	Replace.
Fuse melts after turning on the machine.	Short circuit.	Check electrical circuit.
Blower keeps working after material hopper is full-loaded.	<ol style="list-style-type: none"> 1. Failures of circuit board 2. The touch spots of the solenoid valve contact with each other. 3. The sensor is in poor induction. 	Repair or replace.

5.2 Trouble Shooting of 3-phase SAL-U

Failures	Possible reasons	Solutions
Lacking material for a long time; blower does not work	1. Failures caused by blower or magnetic proximity switch.	1. Replace or repair
	2. Magnetic proximity switch is in poor contact or broken.	2. Adjust or replace.
	3. Signal wire is broken.	3. Reconnect the signal wire.
Blower keeps working after material hopper is full-loaded.	Contactors malfunction.	Repair or replace it.
Blower can not fully load material hopper for several times, or machine sounds material shortage alarm.	1. No material left for conveying.	1. Add material.
	2. Air pipe leakage.	2. Firmly lock the air pipe or replace it.
	3. Filter is blocked.	3. Clean the filter.
Blower can not work.	Blower is burn out.	Replace.
Fuse melts after turning on the machine.	Short circuit	Check electrical circuit.
Blower overload alarm	1. Filter is blocked.	Clean the filter and press Reset on the  overload relay.
	2. Phase shortage	Check the electrical circuit and press  Reset on the overload relay.

6. Maintenance and Repair

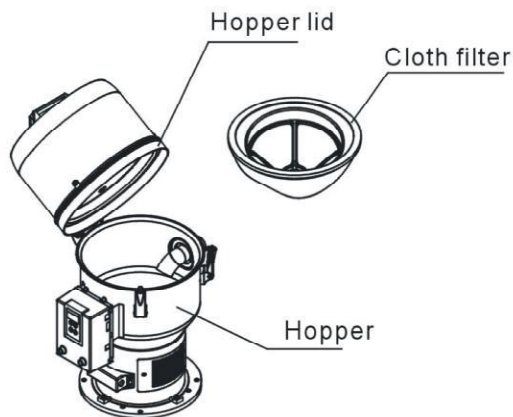


All the repair work should be done by professionals in order to prevent personal injuries and damage of the machine.

6.1 Cloth Filter

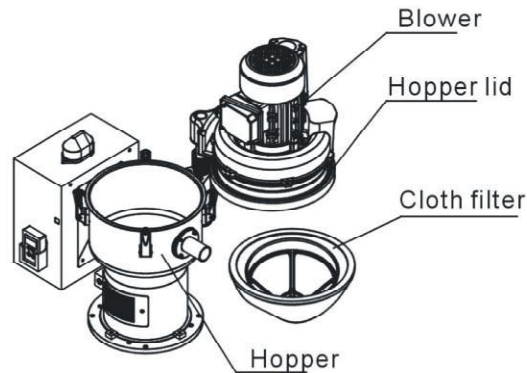
Cloth Filter SAL-U

1. Loosen the snap hooks on the loader, uplift the hopper 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.



Cloth Filter SAL-U-3

1. Loosen the snap hooks on the loader, externally rotate the hopper cover, take out the filter bag and clear away the dust on it.
2. Filter bag cleaning period: Daily.



6.2 Material Hopper

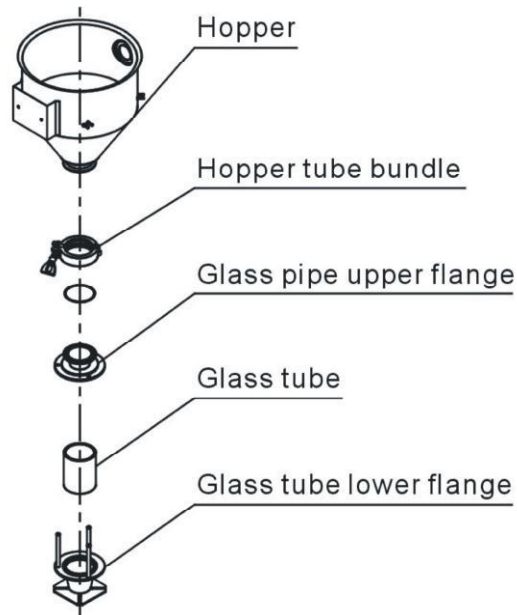
After a period time of operation, materials will adhere to the inner surface of material hopper. Please clean material hopper in time to ensure the optimal performance of equipment.

- (1) Loosen the snap hooks on the loader and open the hopper cover to take out the filter bag.
- (2) Put it back.

6.3 Glass Pipe

Glass Tube

Loosen the pipe clamp and take down the hopper; unscrew the screws of upper flange on the glass pipe. Then take out and clean the glass pipe.



Note!

Be careful not to break the glass pipe when cleaning.

6.4 Magentic Proximity Switch, Photoelectric Switch

Magentic proximity switch

When the indicator of the proximity switch doesn't work, check the switch and replace with a new one if it doesn't work well.

- 1) Loosen the set screws of the outer box of the sensor.
- 2) Adjust the depth of the sensor going into the sensor shell or move it up and down until the indicator lights up. It means magnet is detected. By then, just tighten all screws.
- 3) If put a magnet close to the sensor, the indicator still doesn't light up, please check the connection.

Photoelectric Switch

When the indicator of the photoelectric switch doesn't work, check the switch

contact. If it's in poor contact, please adjust or replace it.

- 1) Check if it's in poor contact
- 2) Please replace a new switch if it's damaged.

6.5 Maintenance Schedule

6.5.1 About the Machine

Model _____ SN _____ Manufacture date _____

Voltage _____ Φ _____ V Frequency _____ Hz Power _____ kW

6.5.2 Installation & Inspection

- Check if the suction pipe has been correctly connected.
- Check if that pipe clips is secured.
- Check if mounting base is secured.

Electrical Installation

- Voltage: _____ V _____ Hz
- Fuse: One-phase: _____ A Three-phase: _____ A
- Check power phase.

6.5.3 Daily Checking

- Check main power switch.
- Check filter
- Check working status of the blower.

6.5.4 Weekly Checking

- Check all the electrical cables.
- Check if there are loose connections of electrical components.
- Check the screw of the base is secured.
- Check the air filter.

6.5.5 Monthly Checking

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