SAL-UG

Separate-vacuum Hopper Loader

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SHINI

Contents

1. General Description 9

1.1 Coding Principle 10

1.2 Feature 10

1.3 Technical Specifications 12

1.3.1 Technical Specifications (Main Unit) 12

1.3.2 Specifications 13

1.3.3 Loading capacity 14

1.4 Safety Regulations 15

1.4.1 Safety Signs and Labels 15

1.4.2 Signs and Labels 15

1.5 Exemption Clause 15

2. Structure Characteristics and Working Principle 17

2.1 Main Functions 17

2.1.1 Working Principle of SAL-1HP/2HP 17

2.1.2 Working Principle of SAL-1HP/2HP (E) 18

2.1.3 Working Principle of SAL-3.5HP~SAL-20HP 19

2.2 Assembly Drawing 20

2.2.1 Assembly Drawing (SAL-1HP/2HP-UG) 20

2.2.2 Parts List (SAL-1HP/2HP-UG) 21

2.2.3 Assembly Drawing (SAL-3.5HP/5HP-UG) 22

2.2.4 Parts List (SAL-3.5HP/5HP-UG) 23

2.2.5 Assembly Drawing (SAL-7.5HP/10HP-UG) 24

2.2.6 Parts List (SAL-7.5HP/10HP-UG) 25

2.2.7 Assembly Drawing (SAL-20HP-UG) 26

2.2.8 Parts List (SAL-20HP-UG) 27

2.2.9 Assembly Drawing (SHR-6U/12U) 28

2.2.10 Parts List (SHR-6U/12U) 29

2.2.11 Assembly Drawing (SHR-24U/36U) 30

2.2.12 Parts List (SHR-24U/36U) 31

2.2.13 Assembly Drawing (SHR-48U/96U) 32

2.2.14 Parts List (SHR-48U/96U) 33

2.2.15 Assembly Drawing (SHR-6U-E) 34
2.2.16 Parts List (SHR-6U-E) 35
2.2.17 Assembly Drawing (SHR-12U-E) 36
2.2.18 Parts List (SHR-12U-E) 37
2.2.19 Assembly Drawing (SHR-24U-E) 38
2.2.20 Parts List (SHR-24U-E) 39
2.3 Electrical Diagram 40
2.3.1 Main Circuit (400V) 40
2.3.2 Electrical Components Layout (400V) 42
2.3.3 Electrical Components List (400V) 43
2.3.4 Main Circuit (230V) 50
2.3.5 Electrical Components Layout (230V) 52
2.3.6 Electrical Components List (230V) 53
2.4 Description of Electrical Components 60
2.4.1 Opposite-type Photoelectric Switch 60
2.4.2 Magnetic Proximity Switch 60
2.5 Optional Accessories 61
2.5.1 Air Accumulator 61
2.5.1.1 Function of air Accumulator 61
2.5.1.2 Specification of air Accumulator 61
2.5.2 Fillter Screen 61
2.5.2.1 Which Condition Need to Xhoose this Filter Screen 61
2.5.2.2 Spec of the Fillter Screen 61

3. Installation and Debugging 62
3.1 Install the Machine on the Dryer 62
3.1.1 Installation Elements 62
3.1.2 Installation Steps 62
3.1.3 Power Supply 62

4. Application and Operation 63
4.1 Start / Stop of the Machine 63
4.2 Keys on the Control Panel 63
4.3 Parameter Setting 63
4.3.1 Enter Basic Setting Mode 63
4.3.2 Modify a Parameter 64

4.3.3 Finish Parameter Setting 64
4.3.4 Basic Parameter List 64
4.4 Process Setting 65
4.4.1 Enter into process setting mode 65
4.4.2 Modify a Parameter 65
4.4.3 Finish Parameter Setting 65
4.4.4 Process Parameter List 66
4.5 Special Process Setting 67
4.5.1 Enter into Special Step Setting Mode 67
4.5.2 Modify a Parameter 67
4.5.3 Finish Parameter Setting 67
4.5.4 Parameter List of Special Process Setting 68
4.6 Explanation of Operation Procedures 69
4.6.1 Operation Procedures 69
4.6.2 Alarms 70

5. Trouble-shooting 72

6. Maintenance and Repair 73
6.1 Material Hopper 73
6.2 Main Body 74
6.3 Glass Tube 74
6.4 Reed Switch, Photoelectric Switch 74
6.5 Weekly Checking 75
6.6 Monthly Checking 75
6.7 Maintenance Schedule 75
6.7.1 About the Machine 75
6.7.2 Installation & Inspection 76
6.7.3 Daily Checking 76
6.7.4 Weekly Checking 76
6.7.5 Monthly Checking 76

Form Index

Chart 1-1: Hopper Base Installation Size Chart 13
Chart 1-2: Specifications 13

Chart 2-1: Parts List (SAL-1HP/2HP-UG) 21
Chart 2-2: Parts List (SAL-3.5HP/5HP-UG) 23
Chart 2-3: Parts List (SAL-7.5HP/10HP-UG) 25
Chart 2-4: Parts List (SAL-20HP-UG) 27
Chart 2-5: Parts List (SHR-6U/12U) 29
Chart 2-6: Parts List (SHR-24U/36U) 31
Chart 2-7: Parts List (SHR-48U/96U) 33
Chart 2-8: Parts List (SHR-6U-E) 35
Chart 2-9: Parts List (SHR-12U-E) 37
Chart 2-10: Parts List (SHR-24U-E) 39
Chart 2-11: Electrical Components List (SAL-1HP-UG)(400V) 43
Chart 2-12: Electrical Components List (SAL-2HP-UG) (400V) 44
Chart 2-13: Electrical Components List (SAL-3.5HP-UG) (400V) 45
Chart 2-14: Electrical Components List (SAL-5HP-UG) (400V) 46
Chart 2-15: Electrical Components List (SAL-7.5HP-UG) (400V) 47
Chart 2-16: Electrical Components List (SAL-10HP-UG) (400V) 48
Chart 2-17: Electrical Components List (SAL-20HP-UG) (400V) 49
Chart 2-18: Electrical Components List (SAL-1HP-UG)(230V) 53
Chart 2-19: Electrical Components List (SAL-2HP-UG)(230V) 54
Chart 2-20: Electrical Components List (SAL-3.5HP-UG)(230V) 55
Chart 2-21: Electrical Components List (SAL-5HP-UG)(230V) 56
Chart 2-22: Electrical Components List (SAL-7.5HP-UG)(230V) 57
Chart 2-23: Electrical Components List (SAL-10HP-UG)(230V) 58
Chart 2-24: Electrical Components List (SAL-20HP-UG)(230V) 59

Picture Index

Picture 1-1: SAL-UG 12
Picture 1-2: Dimensions of Material Hopper 12
Picture 1-3: Loading capacity 14
Picture 2-1: Working Principle of SAL-1HP/2HP 17
Picture 2-2: Working Principle of SAL-1HP/2HP (E) 18
Picture 2-3: Working Principle of SAL-3.5HP~SAL-20HP 19
Picture 2-4: Assembly Drawing (SAL-1HP/2HP-UG) 20

Picture 2-5: Assembly Drawing (SAL-3.5HP/5HP-UG) 22
Picture 2-6: Assembly Drawing (SAL-7.5HP/10HP-UG) 24
Picture 2-7: Assembly Drawing (SAL-20HP-UG) 26
Picture 2-8: Assembly Drawing (SHR-6U/12U) 28
Picture 2-9: Assembly Drawing (SHR-24U/36U) 30
Picture 2-10: Assembly Drawing (SHR-48U/96U) 32
Picture 2-11: Assembly Drawing (SHR-6U-E) 34
Picture 2-12: Assembly Drawing (SHR-12U-E) 36
Picture 2-13: Assembly Drawing (SHR-24U-E) 38
Picture 2-14: Circuit Diagram 1 (400V) 40
Picture 2-15: Circuit Diagram 2 (400V) 41
Picture 2-16: Electrical Components Layout (400V) 42
Picture 2-17: Main Circuit (230V) 50
Picture 2-18: Control Circuit Diagram (230V) 51
Picture 2-19: Electrical Components Layout (230V) 52
Picture 2-20: Opposite-type Photoelectric Switch 60
Picture 2-21: Magnetic Proximity Switch 60
Picture 2-22: Air Accumulator 61
Picture 2-23: Fillter Screen 61
Picture 3-1: Installation Elements 62
Picture 4-1: Keys on the Control Panel 63

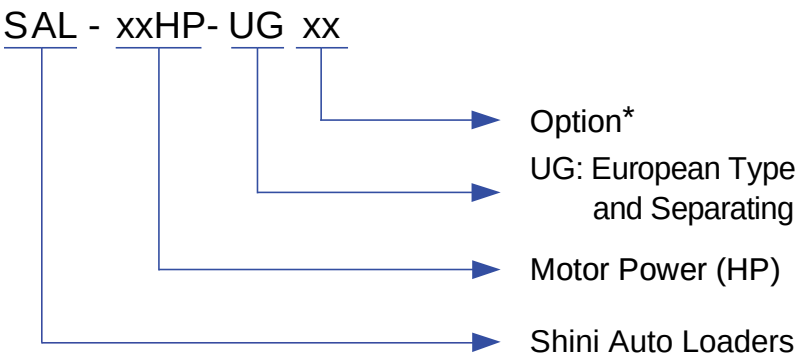
1. General Description

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

SAL-UG series separate-vacuum hopper loader are based on the established design and now feature more attractive appearance, better performance, and improved ease of operation. The whole range comprises of seven models equipped with vacuum blower from 1 to 15 HP. Economy models can be offered on request.

Model: SAL-5HP-UG&SHR-24U

1.1 Coding Principle



Note: *

D=Double-stage Blower P=Powder Loader

A = Add Air Accumulator CE= CE Conformity

1.2 Feature

1) Standard configuration

- Data backed up on EPROM in case of power failure and does not require back up battery.
- It consists of a cyclone dust separator and a dust collective bin to effectively reduce the load of filter.
- Function for setting regrind mix ratio via optional SPV-U.
- Standardly equipped with warning lamp as the alarm device.

2) Accessory option

- In the case of much impurity or recycled materials included in raw materials, main unit can be equipped with air accumulator auto washing unit as options, and add "A" at the model behind. (Suitable for SAL-3.5HP-UG and models above)
- Optionally provide multi-functional installation frame HMB-900 with 900 mm largest dia.adjusting range for selection.
- Standard Collective Hopper SCH-6U/12U/24U and Euro Insulation Collective Hopper SICH-6U/12U/24U are optional(Except for SAL-UGP series, which will use special collective hopper).
- Optional cyclone dust separator is available for SAL-1HP/2HP-UG.
- Buzzer available as an option.
- Quick mixing valve can be opted to work with proportional valve to enhance mixing effect.

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 6, 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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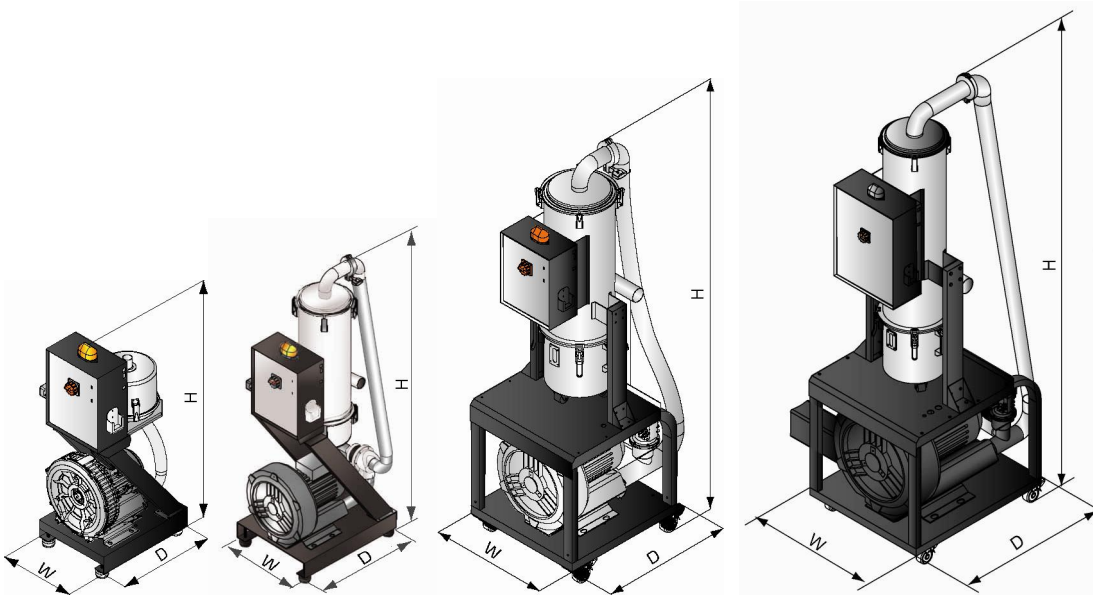
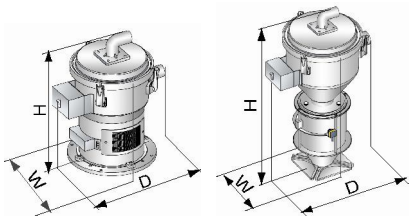
1.3 Technical Specifications

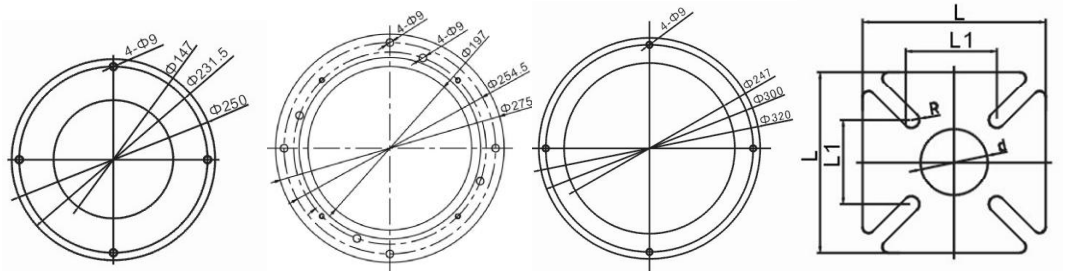
1.3.1 Technical Specifications (Main Unit)



1&2HP 3.5&5HP 7.5&10HP 20HP-D

Picture 1-1: SAL-UG





Picture 1-2: Dimensions of Material Hopper

Chart 1-1: Hopper Base Installation Size Chart

Model	L(mm)	L1(mm)	d(mm)	R(mm)
SHR-3U-E	120	50	40	R6.5
SHR-6U-E	150	70	55	R6.5
SHR-12U-E	180	80	55	R6.5
SHR-24U-E	180	85	80	R6.5

1.3.2 Specifications

Chart 1-2: Specifications

Main Unit				Hopper Receiver				Loading Pipe Dia. (Inch)	Air Suction Pipe Dia. (Inch)	Loading Capacity (kg/hr)
Model	Motor Power (kW) (50 / 60Hz)	Dimensions (mm) H×W×D	Weight (kg)	Recommended Model	Hopper Capacity (L)	Dimensions (mm) H×W×D	Weight (kg)			
SAL-1HP-UG	0.75 / 0.85 (3Φ)	665×370×405	46	SHR-6U×1	6	420×285×360	6	1.5	1.5	300
				SHR-6U-E×1		600×270×360	8			
SAL-2HP-UG	1.5 / 1.8 (3Φ)	665×370×405	46	SHR-12U×1	12	470×315×400	7	1.5	1.5	550
				SHR-12U-E×1		700×315×400	12			
SAL-3.5HP-UG	2.4 / 2.6 (3Φ)	1380×490×570	73	SHR-24U×1	24	690×315×400	9	2	2	750
				SHR-24U-E×1		690×315×400	13			
SAL-5HP-UG	3.75 / 4.2 (3Φ)	1380×490×570	74	SHR-24U×1	24	1120×360×400	9	2	2	900
				SHR-24U-E×1		1120×360×400	13			
SAL-7.5HP-UG	5.5 / 6.3 (3Φ)	1830×585×790	156	SHR-36U×1	36	930×315×400	11	2	2.5	1100
SAL-10HP-UG	7.5 / 8.6 (3Φ)	1830×585×790	160	SHR-36U×1	36	930×315×400	11	2	2.5	1500
SAL-20HP-UG	13 / 18.7 (3Φ)	2200×745×1030	246	SHR-48U×1	48	975×350×485	15	3	3.5	2000

Note: 1) "G" stands for separate design of main unit and hopper receiver (S). We reserve the right to change specifications without prior notice.

2) "SHR-U-E" stands for photosensor hopper receiver, "SHR-U" refers to vacuum hopper receiver.

3) For hopper inside polished ones, add "P" at hopper model behind.

4) It is available to select ACF-1 cyclone dust separator (Applicable to SAL-1HP-UG or SAL-2HP-UG main unit).

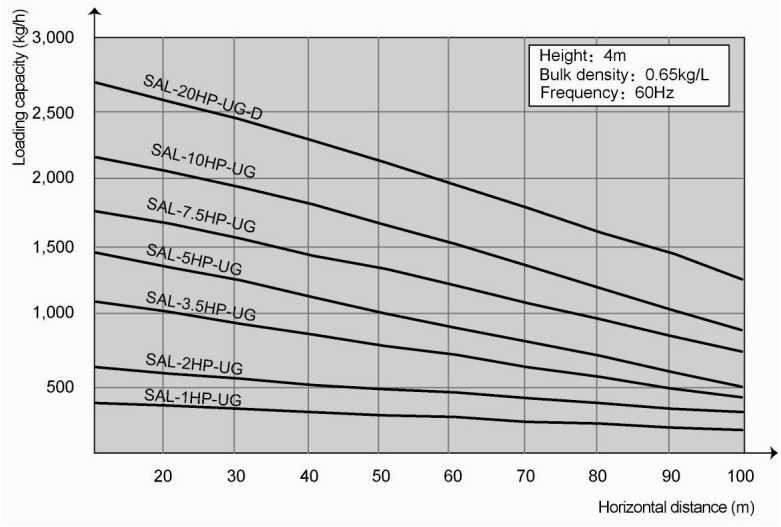
5) Main unit can be equipped with air accumulator auto washing unit as options, and add “A” at the model behind. (Suitable for SAL-3.5HP-UG and models above)

6) Vacuum breaking diaphragm valve is standard for SAL-3.5HP-UG and models above to protect motor.

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

8) Power supply: 3Φ, 230/400/460/575VAC, 50/60Hz.

1.3.3 Loading capacity



Picture 1-3: Loading capacity

1.4 Safety Regulations

Strictly abide by the following safety regulations to prevent damage of the machine or personal injuries.

1.4.1 Safety Signs and Labels

All the electrical components should be installed by professional technicians.

Turn off the main switch and control switch during maintenance or repair.

Warning! High voltage!

This sign is attached on the cover of control box!

Warning! Be careful!

Be more careful at the place where this sign appears!

Attention!

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

1.4.2 Signs and Labels

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

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.

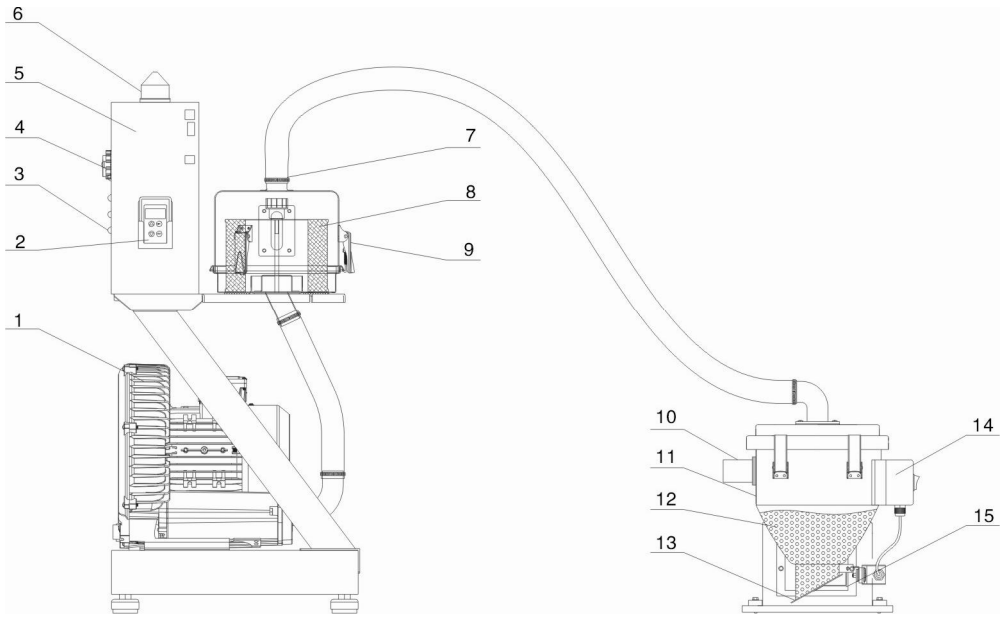
2. Any incidents beyond human reasonable controls, which include man-made vicious or deliberate damages or abnormal power, and machine faults caused by irresistible natural disasters including fire, flood, storm and earthquake.
3. Any operational actions that are not authorized by Shini upon machine, 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 Main Functions

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

2.1.1 Working Principle of SAL-1HP/2HP



Names of Parts:

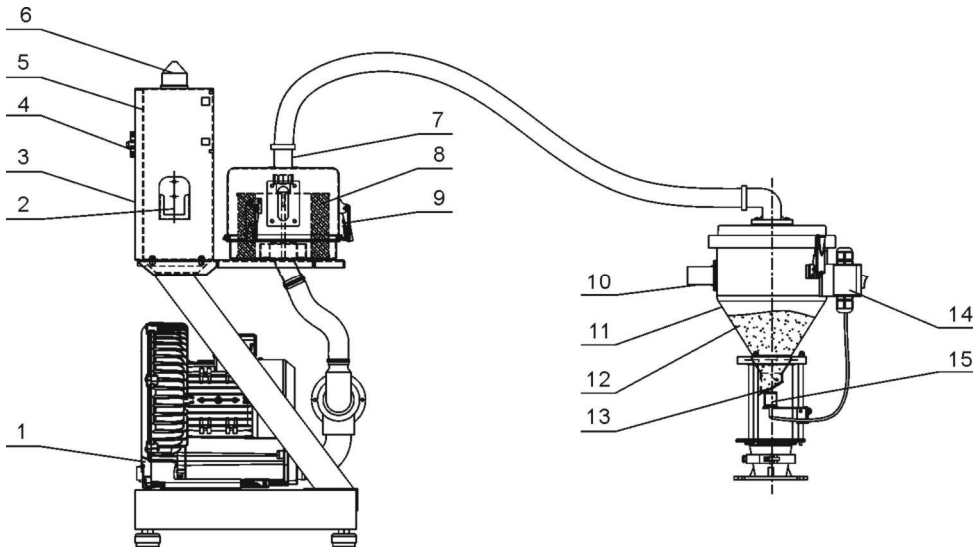
1. Blower	2. Red alarm	3. Alarm light 2	4. Main switch
5. Electrical control box	6. Alarm light 1	7. Air suction pipe	8. Air filter
9. Spring clip	10. Material inlet	11. Material hopper	
12. Raw materials	13. Reverse stopping flap		
14. Junction box	15. Magnetic proximity switch		

Picture 2-1: Working Principle of SAL-1HP/2HP

Vacuum inside of material hopper (11), meanwhile non-return flap (13) is closed. Materials will be drawn into material hopper (11) by pressure difference through material inlet (10). When material suction is completed, materials automatically fall down by self-gravity. Motor will start to work again when reed switch (15) detects no materials left in the hopper. If the machine cannot draw

materials for three times, the red alarm lamp (6) on control box and alarm lamp (3) will blink.

2.1.2 Working Principle of SAL-1HP/2HP (E)



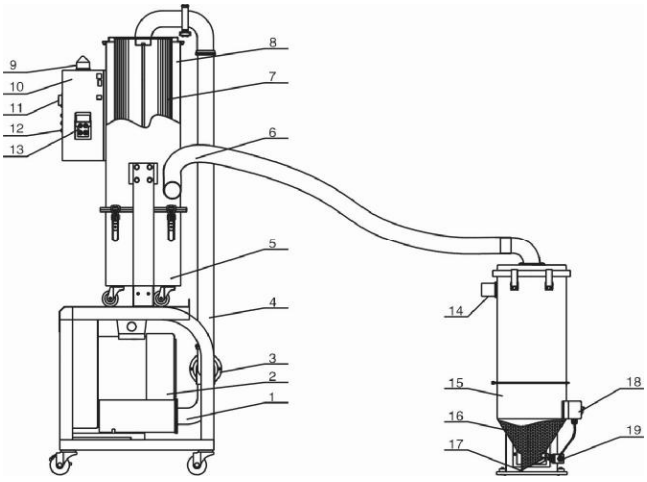
Names of Parts:

1. Blower	2. Red alarm	3. Alarm light 2	4. Main switch
5. Electrical control box	6. Alarm light 1	7. Air suction pipe	8. Air filter
9. Spring clip	10. Material inlet	11. Material hopper	
12. Raw materials	13. Reverse stopping flap		
14. Junction box	15. Photosensor		

Picture 2-2: Working Principle of SAL-1HP/2HP (E)

After starting the machine, motor (1) begins to work to produce high-pressure vacuum inside of material hopper (11), meanwhile non-return flap (13) is closed. Materials will be drawn into material hopper (10) by pressure difference through material inlet (11). When material suction is completed, materials automatically fall down by self-gravity. Motor will start to work again when magnetic proximity switch (15) detects no materials left in the hopper. If the machine cannot draw materials for three times, the red alarm lamp (6) on control box and alarm lamp (3) will blink.

2.1.3 Working Principle of SAL-3.5HP~SAL-20HP



Names of Parts:

1. Blower suction pipe 2. Blower 3. Vacuum breaking diaphragm valve
4. Steel wire hose 5. Dust collecting barrel 6. Air suction pipe
7. Air filter 8. Dust separating barrel 9. Control caninet
10. Alarm light 1 11. Main switch 12. Alarm light 2
13. Hand-held control panel 14. Material inlet 15. Material hopper
16. Raw materials 17. Reverse stopping flap
18. Junction box Magnetic proximity switch 19. Magnetic proximity switch

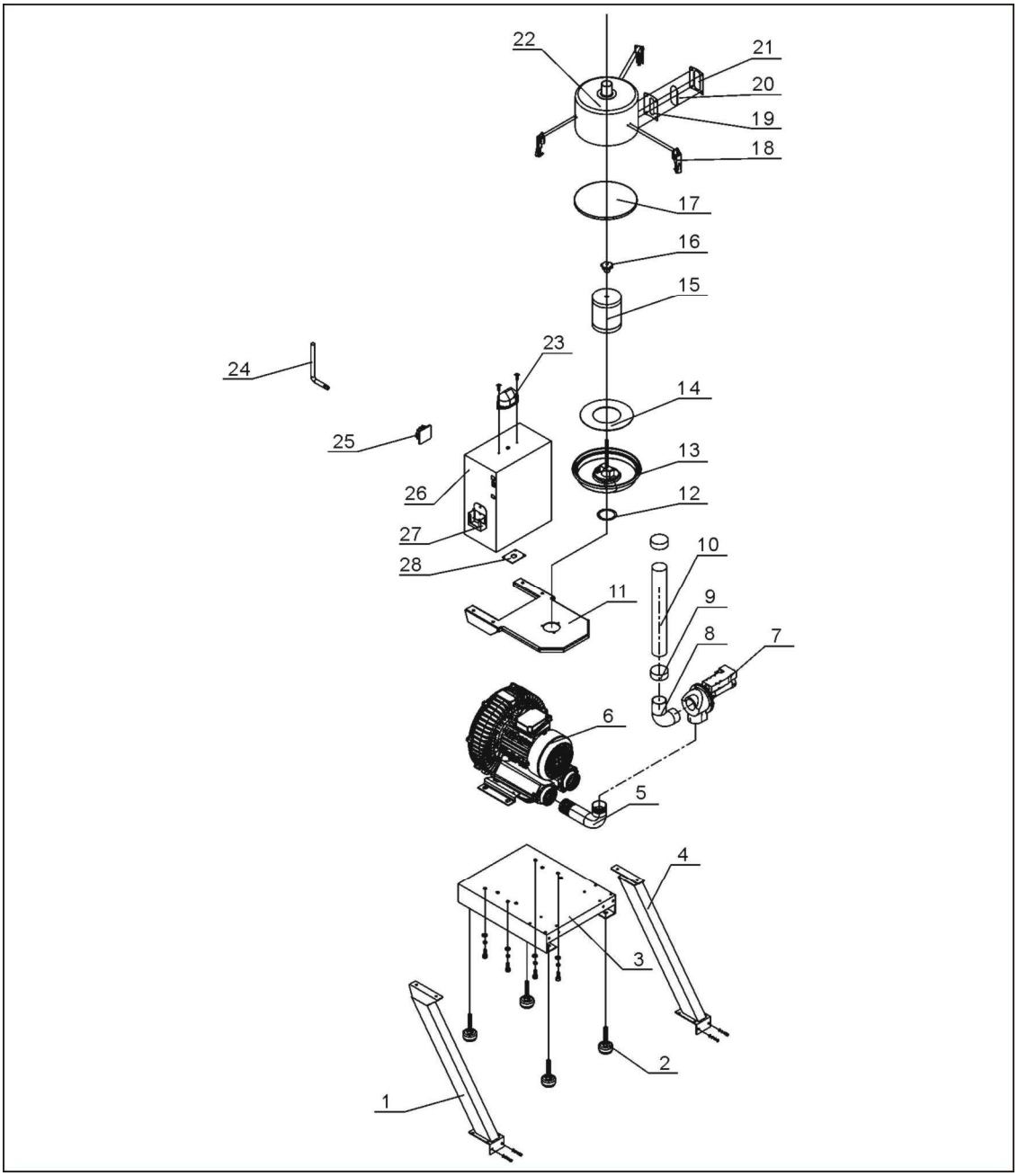
Picture 2-3: Working Principle of SAL-3.5HP~SAL-20HP

After starting the machine, blower (1) begins to work to produce high-pressure vacuum inside of material hopper (15), meanwhile close the reverse stopping flap (17). Materials will be drawn into material hopper by pressure difference through material inlet (14). When material suction is completed, materials automatically fall down by self-gravity. Motor will start to work again when magnetic proximity switch (19) detects no materials left in the hopper. If the machine cannot suck materials for three times, the red alarm lamp (10) and alarm lamp (12) on control box will blink.

When blower (2) sucks materials, the air inside the air-inputting pipe will be conveyed by the cyclone device into filter (7) for filtering. Few dust adhibits in the filter. After the blower finishes the suction, the vacuum breaking diaphragm valve (3) installed between the blower and filter will create a reverse impulsive airflow to shake down the dust sticking to the filter to the dust collection bucket (5).

2.2 Assembly Drawing

2.2.1 Assembly Drawing (SAL-1HP/2HP-UG)



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

Picture 2-4: Assembly Drawing (SAL-1HP/2HP-UG)

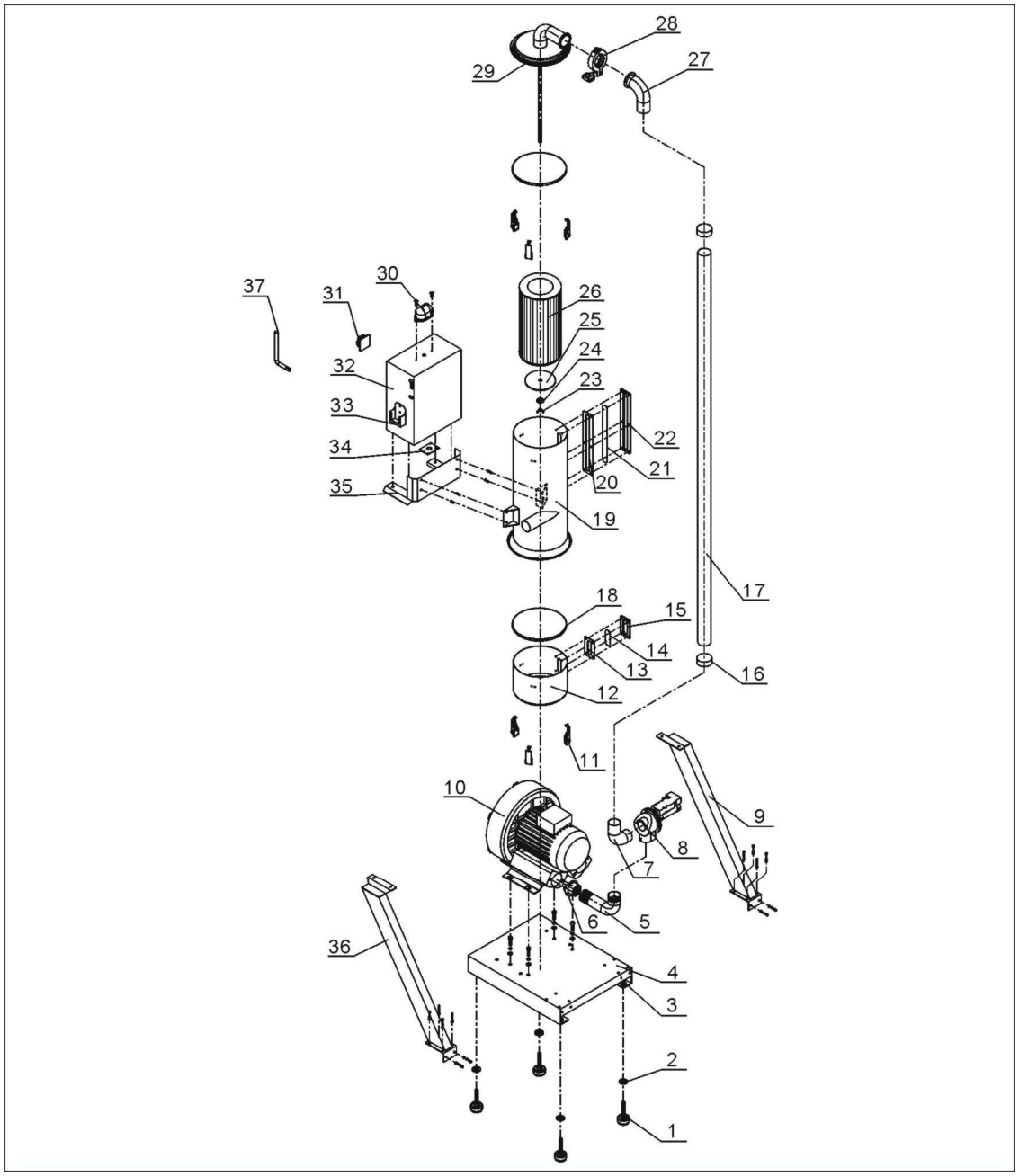
2.2.2 Parts List (SAL-1HP/2HP-UG)

Chart 2-1: Parts List (SAL-1HP/2HP-UG)

No.	Name	Part No.	No.	Name	Part No.
1	Left standing pole	-	15	Air filter*	YR50708000000
2	Anti-vibration pad Φ50	YW03005000000	16	Star nut 5/16”	YW09051600000
3	Base	-	17	Filter container seal ring**	YR10708000100
4	Right standing pole	-	18	Spring clip*	YW02003000400
5	Air inlet pipe	-	19	Seal ring	YW09000000400
6	High pressure pipe 1HP	BM30031000150	20	Acryl	YR40001200100
	High pressure pipe 2HP	BM30042000050	21	Lron sheet of 4-hole sight glass	YR40000400000
7	Vacuum breaking diaphragm valve 1.5”	BY20015000050	22	Filter barrel	-
8	Vacuum breaking diaphragm valve pipe connector	-	23	Alarm light	YE83305100200
9	Clip 2”	YW02000200000	24	Dedicated wrench for anti-theft screw	JT40450000000
10	Steel wired plastic pipe 1.5”	YR60157000000	25	Main switch *	YE10210300000
11	Filter fixing bracket	-	26	Control box	-
12	Filter barrel base fastener	-	27	Controller holder	BL21000100420
13	Filter barrel lid assembly	-	28	Fixing plate	-
14	Filter barrel lid barrel	YR10030000000			

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

2.2.3 Assembly Drawing (SAL-3.5HP/5HP-UG)



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

Picture 2-5: Assembly Drawing (SAL-3.5HP/5HP-UG)

2.2.4 Parts List (SAL-3.5HP/5HP-UG)

Chart 2-2: Parts List (SAL-3.5HP/5HP-UG)

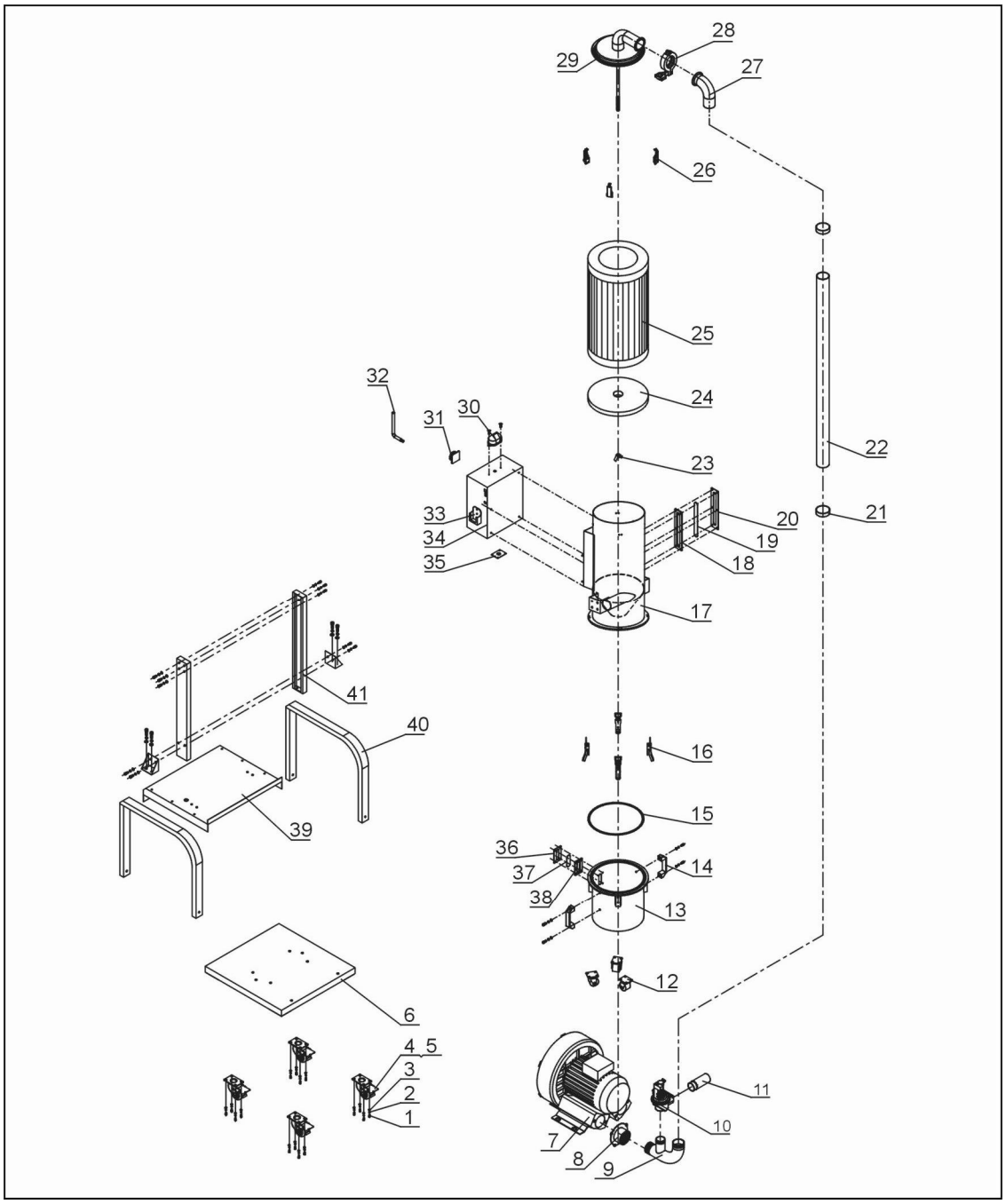
No.	Name	Part No.	No.	Name	Part No.
1	Anti-vibration pad Φ50	YW03005000000	19	Filter barrel assembly	-
2	Filter barrel lid 8	YW66082200100	20	Seal ring	YR40000600000
3	Nut M12	YW64012100000	21	Acryl	YR40001200000
4	Base	BL21003500120	22	Lron sheet of 6-hole sight glass	YW09000600000
5	Air inlet fastener	BL26003506520-	23	Butterfly nut 5/16”	YW69051600000
6	Blower flange	-	24	Filter fixing plate 8	YW66082200100
7	Vacuum breaking diaphragm valve pipe connector	-	25	Stator	BL21003500520
8	Vacuum breaking diaphragm valve 1.5″	BY20015000050	26	Air filter ADC2	YR50181100000
9	Right standing column	-	27	Air suction pipe	-
10	High pressure pipe 3.5HP	BM30053500050	28	Coupling clip	YW07000200000
	High pressure pipe 5HP	BM30055000050	29	Filter barrel lid assembly	-
11	Spring clip*	YW02003000400	30	Alarm light	YE83305100200
12	Dust collection bin	BL26003507021	31	Main power switch	YE10210300000
13	Seal ring	YR40000400000	32	Control box	-
14	Acryl	YR40001200100	33	Controller holder	-
15	Lron sheet of 4-hole Sight glass	YW09000000400	34	Fixing plate	-
16	Clip 2.5”	YW02002500000	35	Insulation material	-
17	Steel wired plastic Pipe 2”	YR60205000100	36	Dedicated wrench for anti-theft screw	JT40450000000
18	Dust collecting barrel Seal ring*	YR10708000100	37	Left standing pole	-

* means possible broken parts.

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

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

2.2.5 Assembly Drawing (SAL-7.5HP/10HP-UG)



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

Picture 2-6: Assembly Drawing (SAL-7.5HP/10HP-UG)

2.2.6 Parts List (SAL-7.5HP/10HP-UG)

Chart 2-3: Parts List (SAL-7.5HP/10HP-UG)

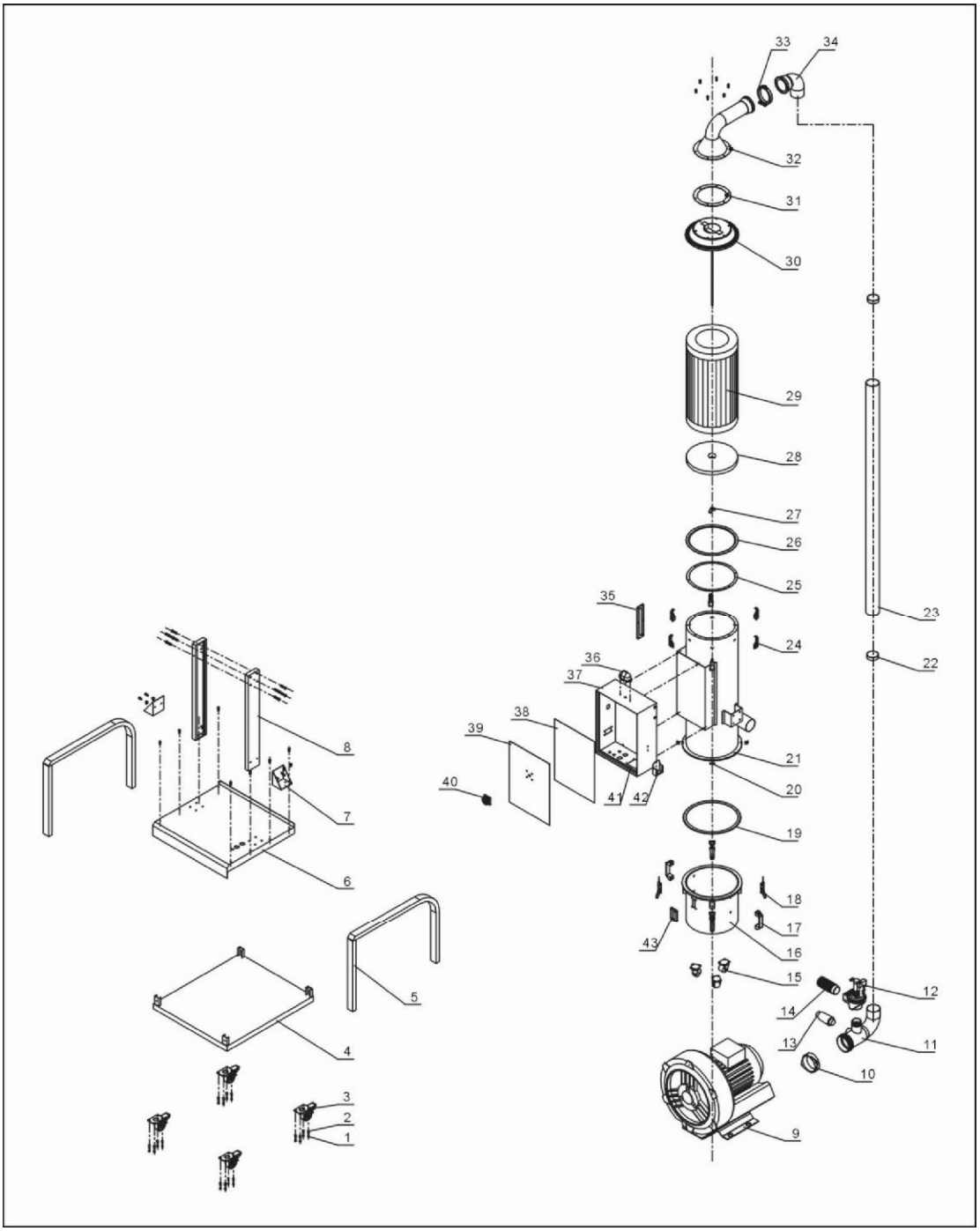
No.	Name	Part No.	No.	Name	Part No.
1	Outer hexagon bolt M6×16	YW60061600100	20	Six holes material window sheet iron	YW09000600000
2	Flat washer 6	YW66061300000	21	Stainless steel pipe bundle 3”	YW02000300000
3	Spring washer 6	YW65006000100	22	Wire hose 2.5”	YR60253000000
4	Braking caster 3”	YW03000300000	23	Butterfly nut 5/16”	YW69051600000
5	Freestyle caster 3”	YW03000300200	24	Filter stator	BL26007504720
6	Base	BL26007502721	25	Filter ADC22	YR50221400000
7	Single-stage high pressure blower 7.5HP	BM30075000050	26	Snap hook	YW02003000400
	Double-stage high pressure blower 7.5HP	YM30635500000	27	Air suction pipe	-
	Single-stage high pressure blower 10HP	BM30081000050	28	Pipe clamp	YW07002500600
	Double-stage high pressure blower 10HP	YM30637500000	29	Filter cover assembly	-
8	Blower flange	-	30	Alarm light	YE83305100200
9	Air inlet pipe	BL26007504920	31	Main power switch	YE10210300000
10	Vacuum diaphragm valve 2”	BY20500000050	32	Dedicated wrench for anti-theft screw	JT40450000000
11	Air refill filter screen	-	33	Handle box	BL26010241820
12	Caster 2.5”	YW03002500000	34	Control box	-
13	Dust collecting barrel	BL26007502421	35	Line jig fixed plate	-
14	Aluminum handle L120	BW20012000040	36	Four hole material window sheet iron	YW09000000400
15	Dust collecting fastener	-	37	Four hole material window fastener	YR40000400000
16	Big handle	YW02003000100	38	Four hole acryl	YR40001200100
17	Dust collecting barrel assembly	-	39	Intermediate plate	
18	Six holes material window fastener	YR40000600000	40	Stand	
19	Six holes acryl	YR40001200000	41	Filter barrel upright	

* means possible broken parts.

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

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

2.2.7 Assembly Drawing (SAL-20HP-UG)



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

Picture 2-7: Assembly Drawing (SAL-20HP-UG)

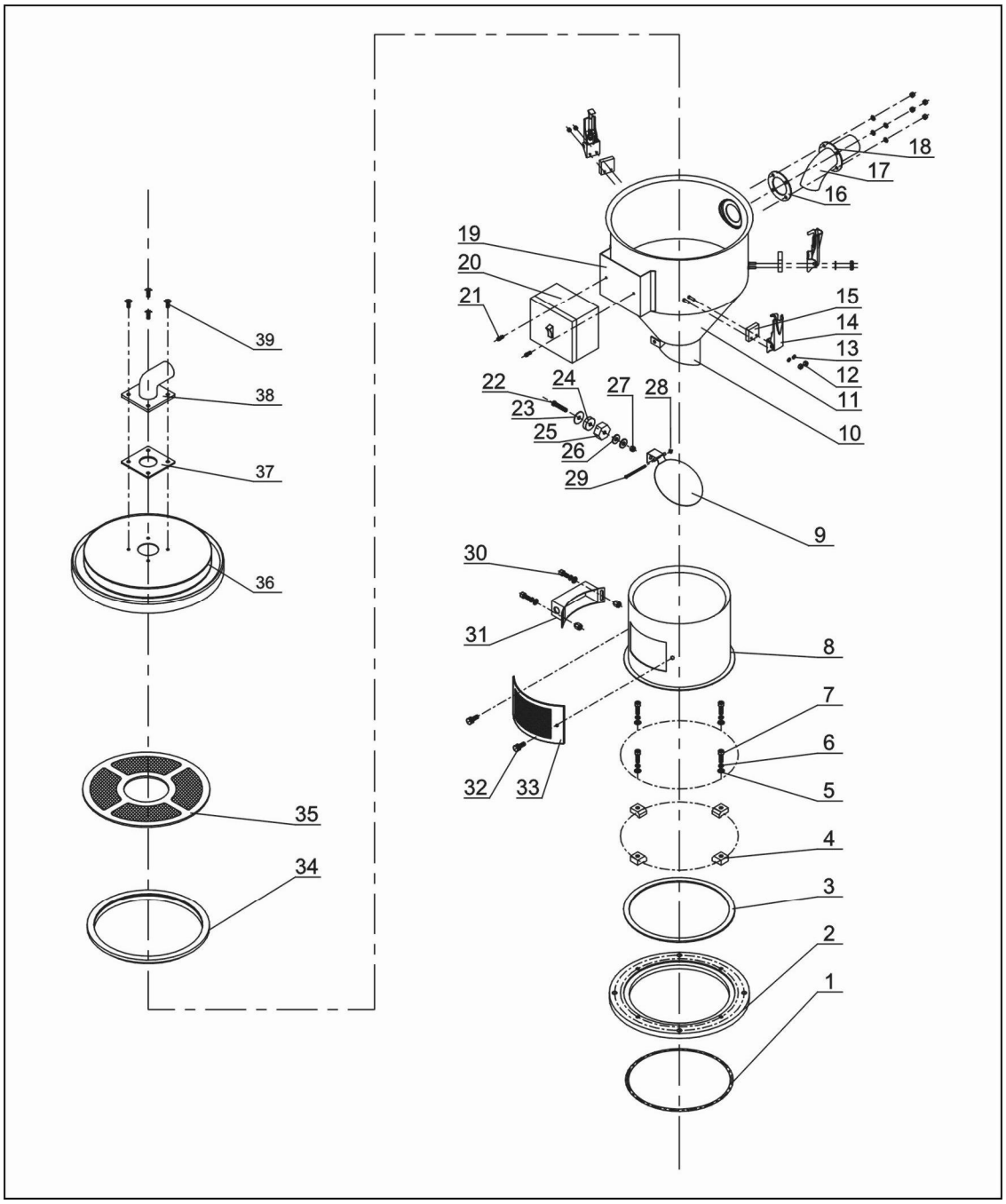
2.2.8 Parts List (SAL-20HP-UG)

Chart 2-4: Parts List (SAL-20HP-UG)

No.	Name	Part No.	No.	Name	Part No.
1	Hexagon screw bolt M6×16	YW60061600100	22	Stainless steel tube bundl 4”	YW02000400000
2	Flat gasket6	YW66082200100	23	Steel wired plastic pipe 3.5”	YR60003500000
3	Castor with brake 3”	YW03000300000	24	Snap hook	YW02003000400
	Mobile castor 3”	YW03000300200	25	Fastener for filtering barrel pressure block	-
4	Base	-	26	Fastener for filtering barrel	-
5	Supporting frame	-	27	Butterfly nut 5/16”	YW69051600000
6	Middle plate	-	28	Filter fixation sheet	BL26007504720
7	Pillar support	-	29	Filter	YR50226000000
8	Pillar of filter barrel	-	30	Filter barrel lid assembly	-
9	High-pressure blower 20HP	YM30092900000	31	Motor air inlet fastener	-
10	Blower flange	-	32	Air suction inlet	-
11	Air inlet fastener	-	33	Stainless steel pipe clamp 4”	YW07000400000
12	Vacuum separator SPDV-50	BY20500000050	34	Air suction pipe	-
13	Pressure relief valve RV-01	YW90000100000	35	Six holes material window	BH90000600050
14	Air refill filter screen	-	36	Alarm light	YE83305100200
15	Black castor 2”	YW03000200000	37	Control box	-
16	Dust collection bin	-	38	Control box bottom plate	-
17	Square aluminum handle L120	BW20012000040	39	Control box plate cover	-
18	Large handle	YW00121000100	40	Main power switch	YE10210300000
19	Fastener for dust collection barrel	-	41	Line jig fixed plate	-
20	Snap hook pothook	-	42	Handle box	-
21	Filter barrel assembly	-	43	Four hole material window	BH90000400050

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

2.2.9 Assembly Drawing (SHR-6U/12U)



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

Picture 2-8: Assembly Drawing (SHR-6U/12U)

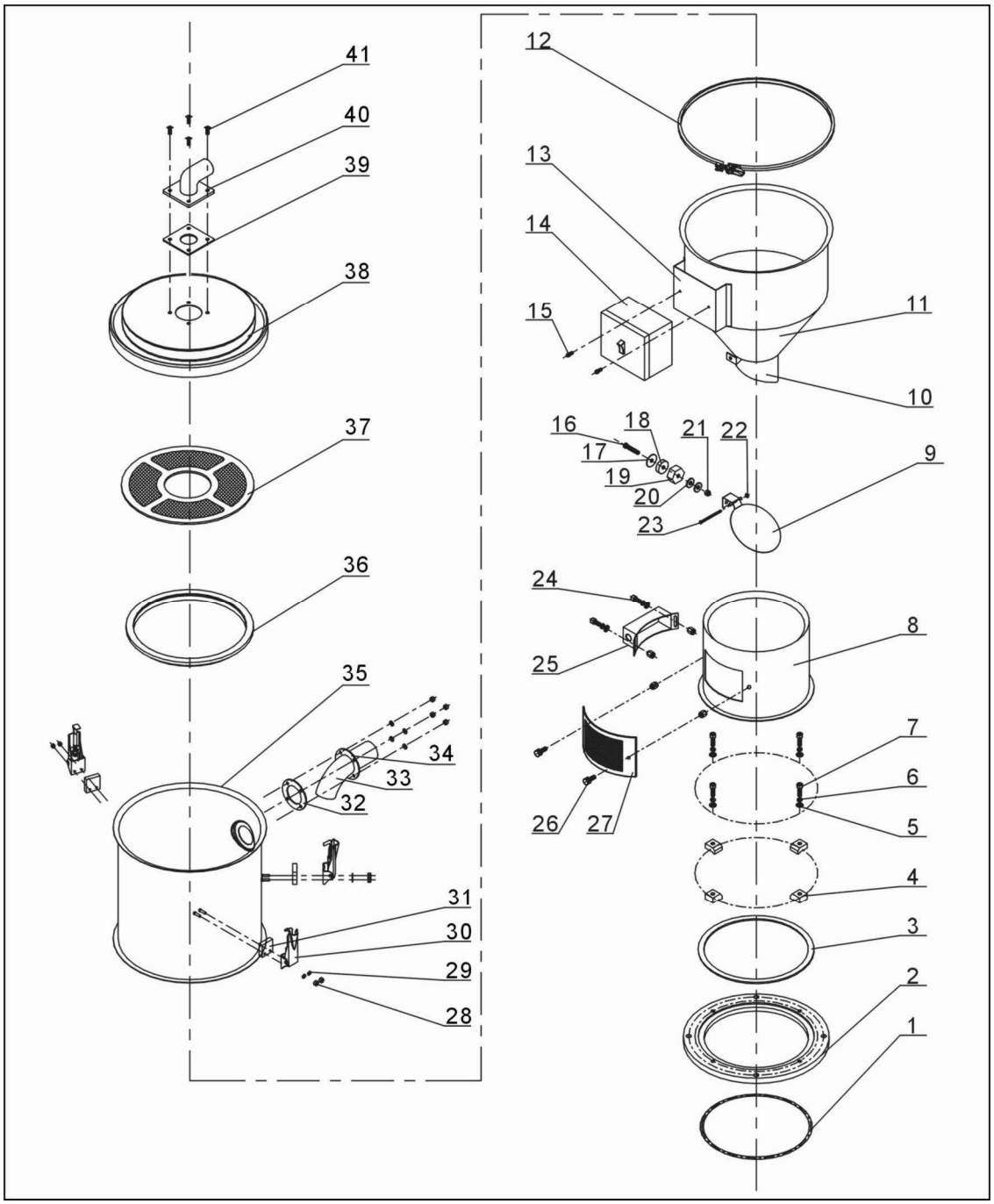
2.2.10 Parts List (SHR-6U/12U)

Chart 2-5: Parts List (SHR-6U/12U)

No.	Name	Part No.	No.	Name	Part No.
1	O-ring inner diameter Φ200×5.5	YR20205500000	21	Cross recess pan head screw M4×6	YW63040600000
2	Base	-	22	Cross recess pan head screw M6×20	YW63062000000
3	Base fastener	-	23	Magnet cover	-
4	Pressing piece	-	24	Permanent magnet Φ25×Φ7×7	YW90257700000
5	Flat washer 6	YW66061300000	25	Magnet set	-
6	Spring washer 6	YW65006000000	26	Flat washer 8×22	YW66082200100
7	Socket head cap screw M6×20	YW61062000200	27	Locknut M6	YW64000600200
8	Hopper fixed seat	-	28	Locknut M3	YW64000300000
9	Discharging plate	-	29	Cross recess pan head screw M3×40	YW63034000000
10	Discharging port	-	30	Socket head cap screw M6×10	YW63061000000
11	Material storage hopper	-	31	Sensor shell	-
12	Locknut M4×0.7	YW64040700100	32	Star knob	-
13	Flat washer 4	YW66040800000	33	ventilated window	-
14	Snap hook	YW02003000400	34	Hopper fastener	-
15	Snap hook pad	YR40000600300	35	Filter screen	-
16	material pipe fastener	-	36	Hopper cover	-
17	Material pipe	-	37	Air pipe fastener	YR10000000200
18	Material pipe stator	-	38	Air pipe	YR20001500000
19	Electrical cabinet base	-	39	Cross recess pan head screw M5×15	YW62051500000
20	Electrical cabinet	-			

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

2.2.11 Assembly Drawing (SHR-24U/36U)



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

Picture 2-9: Assembly Drawing (SHR-24U/36U)

2.2.12 Parts List (SHR-24U/36U)

Chart 2-6: Parts List (SHR-24U/36U)

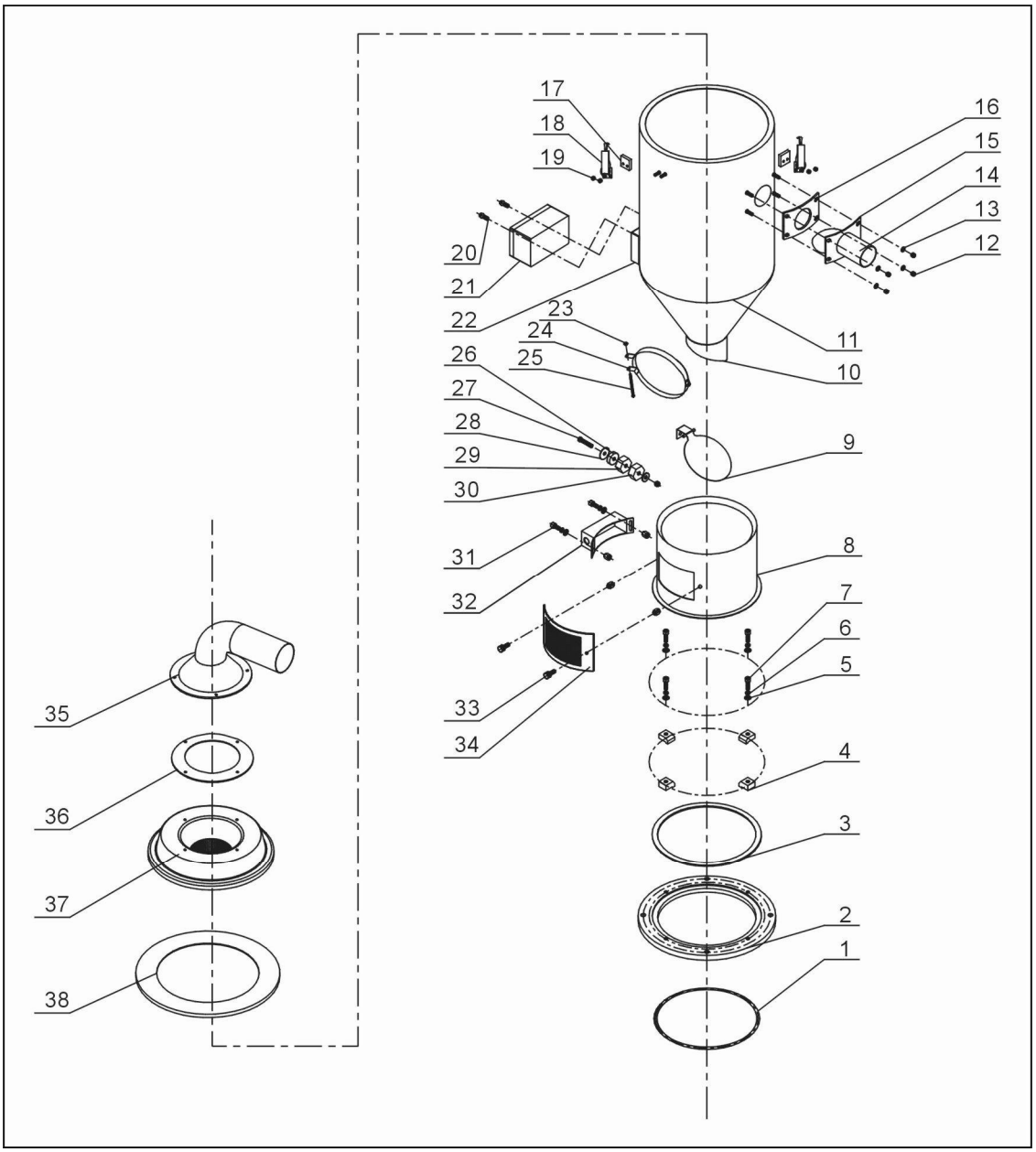
No.	Name	Part No.	No.	Name	Part No.
1	O-RING INNER DIAMETER Φ200×5.5	YR20205500000	22	Locknut M3	YW64000300000
2	Base	-	23	Cross recess pan head screw M3×40	YW63034000000
3	Base fastener	-	24	Socket head cap screw M6×10	YW63061000000
4	Pressing piece	-	25	Sensor shell	-
5	Flat washer 6	YW66061300000	26	Star knob	-
6	Spring washer 6	YW65006000000	27	ventilated window	-
7	Socket head cap screw M6×20	YW61062000200	28	Locknut M4×0.7	YW64040700100
8	Hopper fixed seat	-	29	Flat washer 4	YW66040800000
9	Discharging plate	-	30	Snap hook	YW02003000400
10	Discharging port	-	31	Snap hook pad	YR40000600300
11	Material storage hopper	-	32	material pipe fastener	-
12	Pipe bundle	-	33	Material pipe	-
13	Electrical cabinet base	-	34	Material pipe stator	-
14	Electrical cabinet	-	35	Enlarged hopper	-
15	Cross recess pan head screw M4×6	YW63040600000	36	Hopper fastener	-
16	Cross recess pan head screw M6×20	YW63062000000	37	Filter screen	-
17	Magnet cover	-	38	Hopper cover	-
18	Permanent magnet Φ25×Φ7×7	YW90257700000	39	Air pipe fastener	YR10002500000
19	Magnet set	-	40	Air pipe	-
20	Flat washer 8×22	YW66082200100	41	Cross recess pan head screw M5×15	YW62051500000
21	Locknut M6	YW64000600200			

* means possible broken parts.

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

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

2.2.13 Assembly Drawing (SHR-48U/96U)



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

Picture 2-10: Assembly Drawing (SHR-48U/96U)

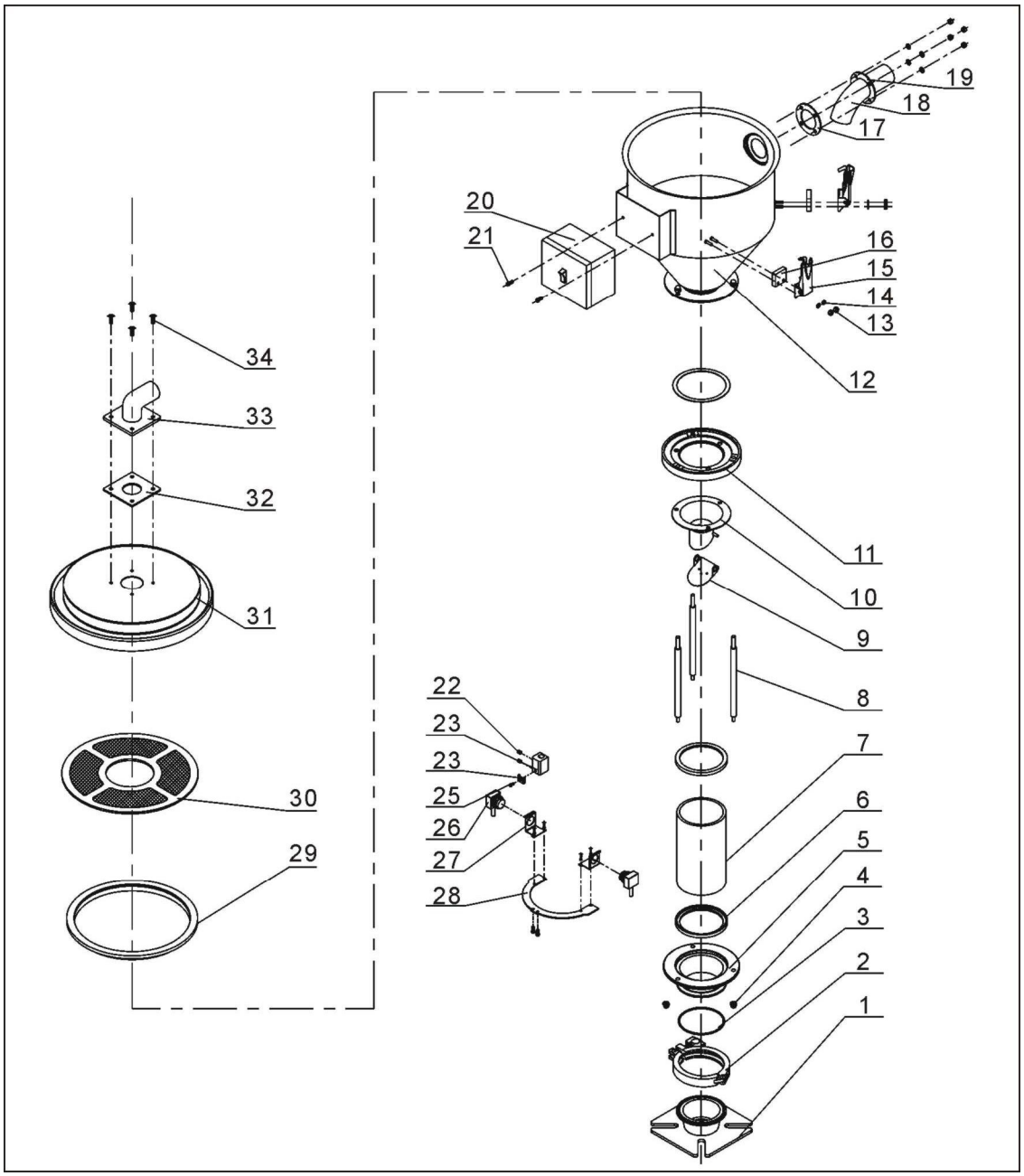
2.2.14 Parts List (SHR-48U/96U)

Chart 2-7: Parts List (SHR-48U/96U)

No.	Name	Part No.	No.	Name	Part No.
1	O-RING INNER DIAMETER Φ250×5.3	YR20255300000	20	Cross recess pan head screw M4×6	YW63040600000
2	Base	-	21	Electrical cabinet	YR40010000000
3	Base fastener	-	22	Electrical cabinet base	-
4	Pressing piece	-	23	Locknut M6	YW64000600200
5	Flat washer 6	YW66061300000	24	Fixed seat of discharging plate	-
6	Spring washer 6	YW65006000000	25	Cross recess pan head screw M6×40	-
7	Socket head cap screw M6×20	YW61062000200	26	Permanent magnet Φ25×Φ7×7	YW90257700000
8	Hopper fixed seat	-	27	Cross recess pan head screw M6×20	YW63062000000
9	Discharging plate	-	28	Magnet cover	-
10	Discharging port	-	29	Magnet set	-
11	Material storage hopper	-	30	Balancing weight	-
12	Locknut M5	YW64000500000	31	Socket head cap screw M6×20	YW63061000000
13	Flat washer 5	YW660051000100	32	Sensor shell	-
14	Material pipe	-	33	Star knob M6×15	-
15	Material pipe stator	-	34	ventilated window	-
16	material pipe fastener	-	35	Air pipe	-
17	Snap hook pad	YR40000600300	36	Air pipe fastener	-
18	Snap hook	YW02003000400	37	Hopper lid	-
19	Locknut M4×0.7	YW64040700100	38	Hopper cover fastener	YR10005000100

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

2.2.15 Assembly Drawing (SHR-6U-E)



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

Picture 2-11: Assembly Drawing (SHR-6U-E)

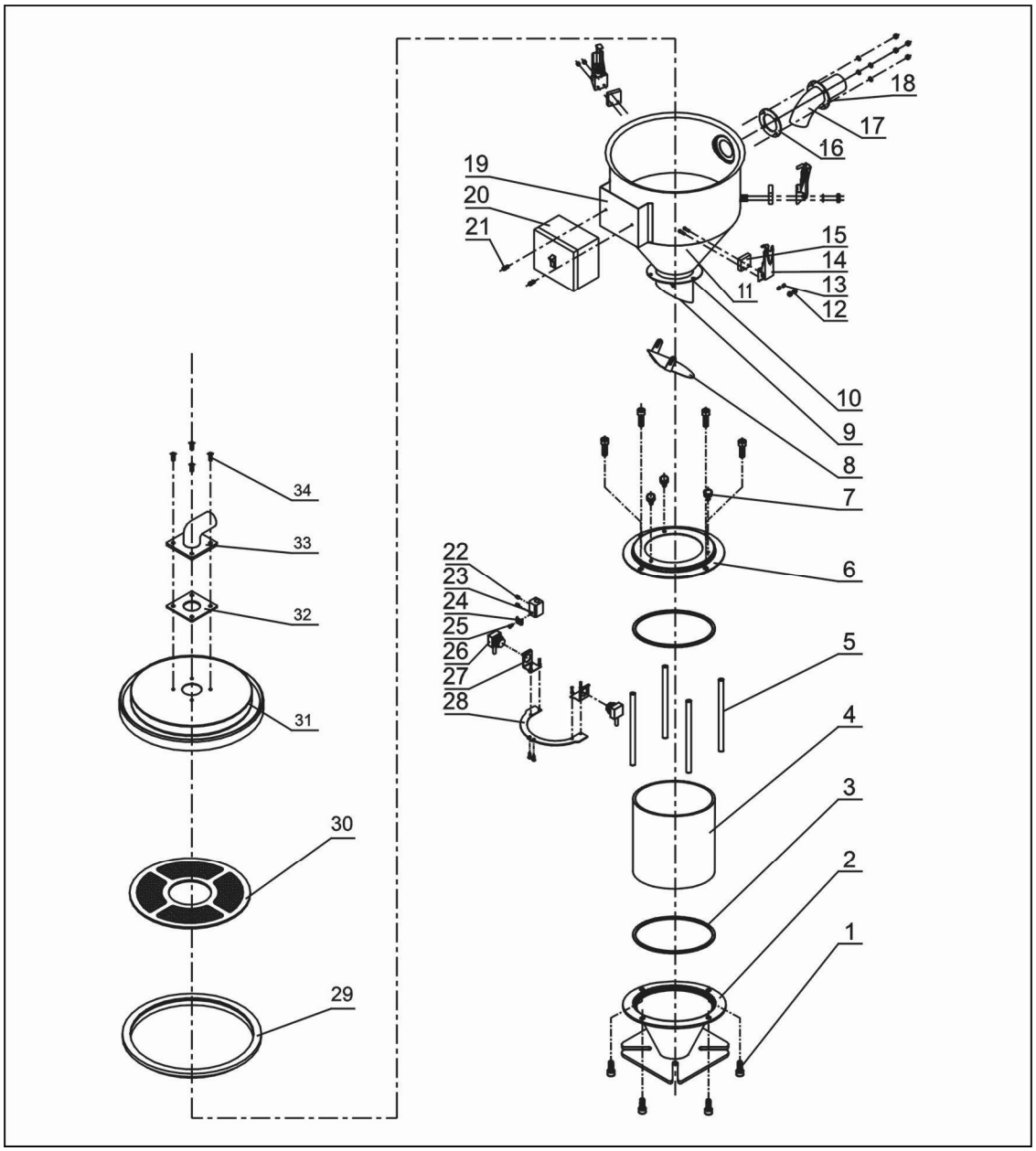
2.2.16 Parts List (SHR-6U-E)

Chart 2-8: Parts List (SHR-6U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Installation flange	BL21060200820	18	Material pipe	-
2	3” stainless steel pipe clamp	YW07000300000	19	Material pipe stator	-
3	O type seal ring	YR20802600000	20	Terminal mounting box	YR40010000200
4	Cap nut M6	YW64006000100	21	Cross recess pan head screw M4×6	YW63040600000
5	Lower flange of glass tube	BW32610900010	22	Set screw M4×5	YW68004500000
6	Glass tube fastener	YR10060200000	23	Fixed plate of photosensor	BL90001000120
7	Glass tubeΦ90×Φ80×117	YW70317000600	24	Pressing piece of photosensor wire	YW31616200000
8	Flange connecting rod	BH10000600640	25	Cross recess pan head screw M4×10	YW63041000000
9	Non-return valve	-	26	Photosensor	YE15143900000
10	Discharging port	-	27	Photosensor installation block	-
11	Upper flange of glass tube	BW32610800010	28	Photosensor stator	BL21061200020
12	Material storage hopper	-	29	Hopper fastener	YR10000300100
13	Locknut M4×0.7	YW64040700100	30	Filter screen	BL21000600620
14	Flat washer 4	YW66040800000	31	Hopper cover	BL21000602820
15	Snap hook	YW02003000400	32	Air pipe fastener	YR10000000200
16	Bearer	YR40000600300	33	Air pipe	YR20001500000
17	Material pipe fastener	YR10150300000	34	Cross recess pan head screw M5 ×15	YW62051500000

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

2.2.17 Assembly Drawing (SHR-12U-E)



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

Picture 2-12: Assembly Drawing (SHR-12U-E)

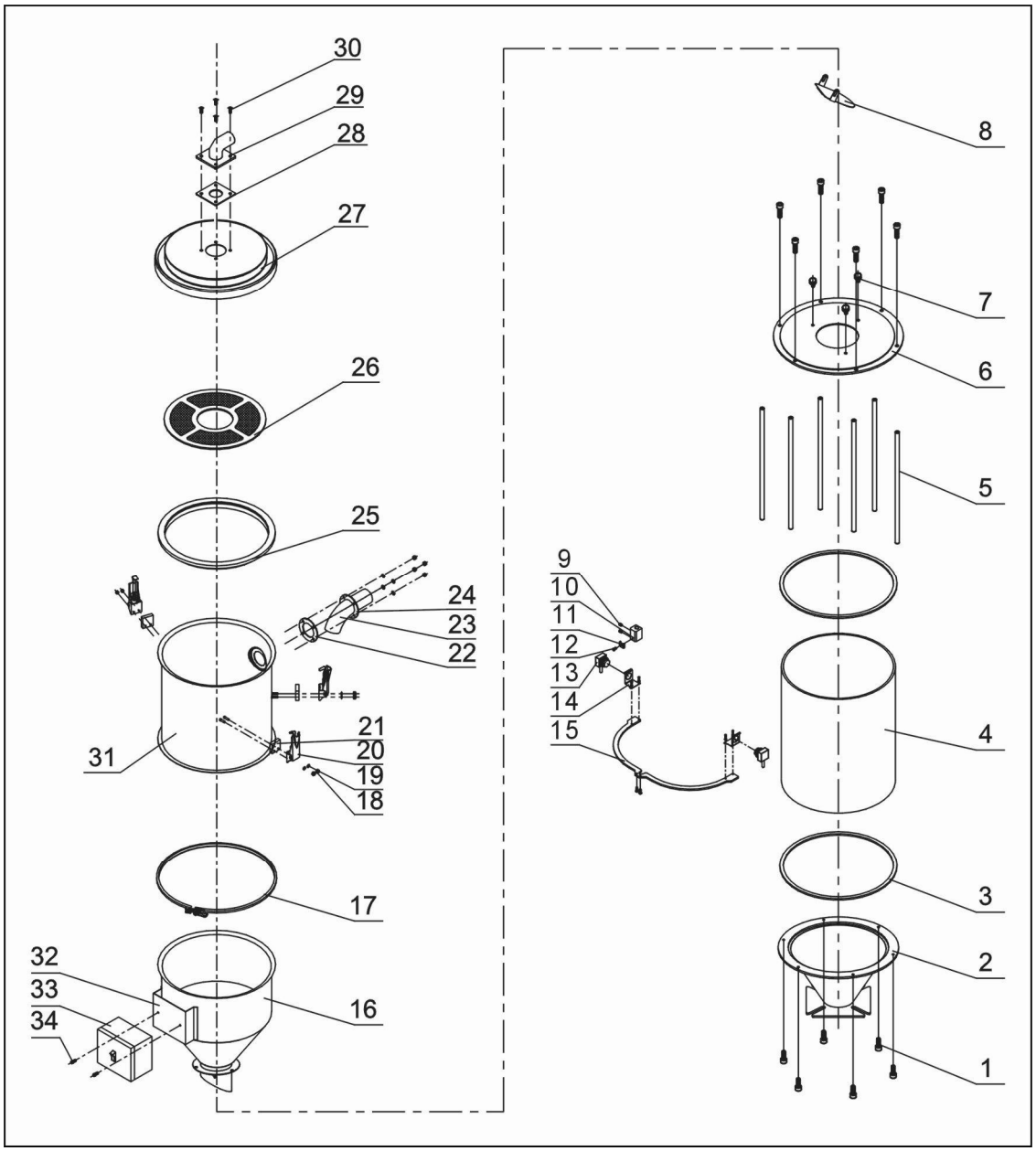
2.2.18 Parts List (SHR-12U-E)

Chart 2-9: Parts List (SHR-12U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Socket head cap screw M6×15	YW61061600300	18	Material pipe stator	-
2	Lower flange of glass tube	-	19	Electrical cabinet base	-
3	Glass tube fastener	YR10001200100	20	Electrical cabinet	-
4	Glass tube Φ170×Φ160×170	-	21	Cross recess pan head screw M4×6	YW63040600000
5	Flange connecting rod	-	22	Set screw M4×5	YW68004500000
6	Upper flange of glass tube	-	23	Fixed plate of photosensor	-
7	Ebonite screw M6×15	YW69621600000	24	Pressing piece of photosensor wire	-
8	Non-return valve	-	25	Cross recess pan head screw M4×10	YW63041000000
9	Discharging port	-	26	Photosensor	YE15143900000
10	Hopper flange	-	27	Photosensor installation block	-
11	Material storage hopper	-	28	Photosensor fixed block	-
12	Locknut M4×0.7	YW64040700100	29	Filter screen	-
13	Flat washer 4	YW66040800000	30	Hopper fastener	-
14	Snap hook	YW02003000400	31	Hopper cover	-
15	Bearer	YR40000600300	32	Air pipe fastener	YR10000000200
16	material pipe fastener	-	33	Air pipe	YR20001500000
17	Material pipe	-	34	Cross recess pan head screw M5×15	YW62051500000

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

2.2.19 Assembly Drawing (SHR-24U-E)



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

Picture 2-13: Assembly Drawing (SHR-24U-E)

2.2.20 Parts List (SHR-24U-E)

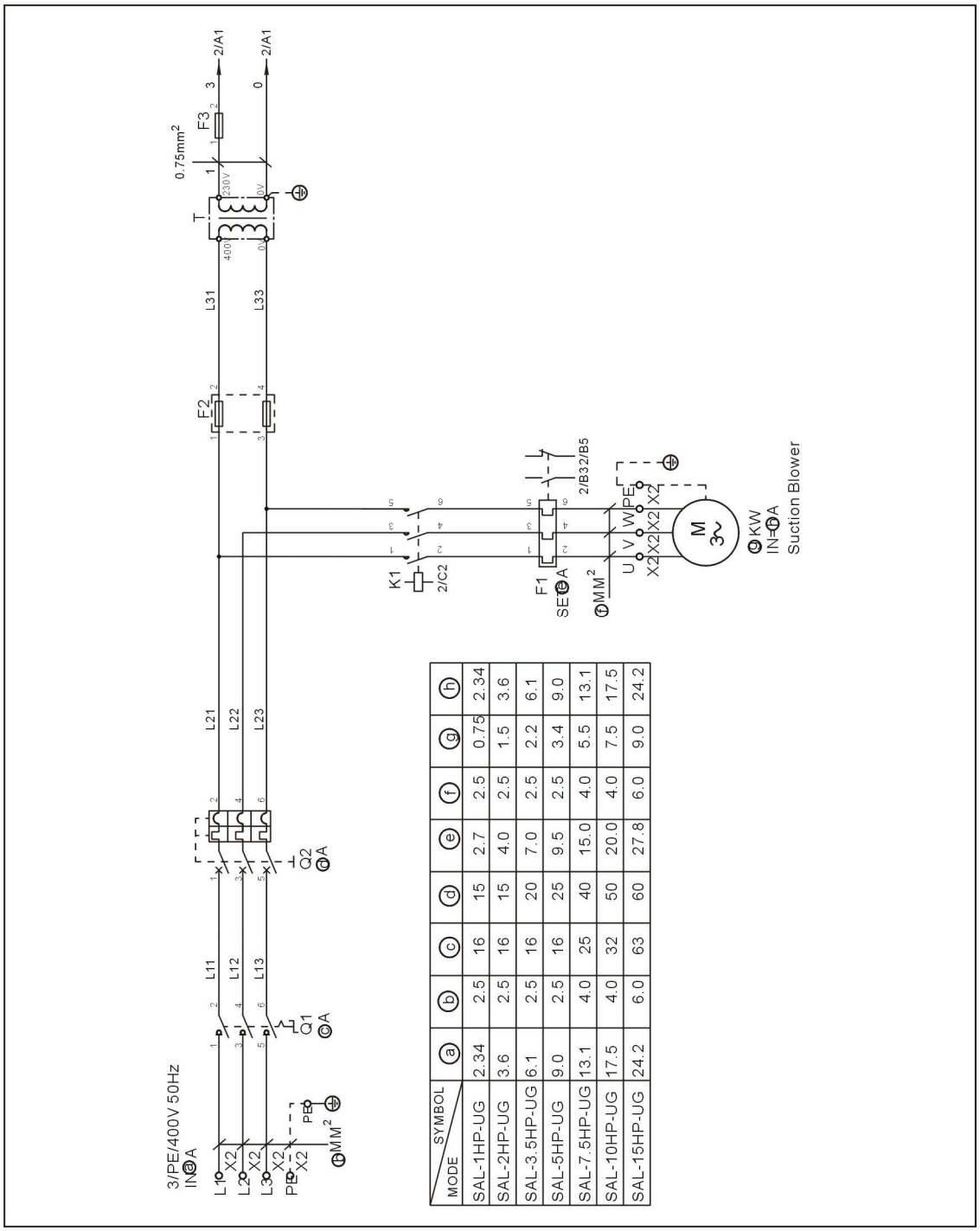
Chart 2-10: Parts List (SHR-24U-E)

No.	Name	Part No.	No.	Name	Part No.
1	Socket head cap screw M6×15	YW61061600300	18	Locknut M4×0.7	YW64040700100
2	Lower flange of glass tube	-	19	Flat washer 4	YW66040800000
3	Glass tube fastener	-	20	Snap hook	YW02003000400
4	Glass tube Φ280×Φ270×340	-	21	Bearer	YR40000600300
5	Flange connecting rod	-	22	material pipe fastener	-
6	Upper flange of glass tube	-	23	Material pipe	-
7	Ebonite screw M6×15	YW69621600000	24	Material pipe stator	-
8	Non-return valve	-	25	Hopper fastener	-
9	Set screw M4×5	YW68004500000	26	Filter screen	-
10	Fixed plate of photosensor	-	27	Hopper cover	-
11	Pressing piece of photosensor wire	-	28	Air pipe fastener	YR10002500000
12	Cross recess pan head screw M4×10	YW63041000000	29	Air pipe	-
13	Photosensor	YE15143900000	30	Cross recess pan head screw M5×5	YW62051500000
14	Photosensor installation block	-	31	Enlarged hopper	-
15	Photosensor fixed block	-	32	Electrical cabinet base	-
16	Material storage hopper		33	Electrical cabinet	-
17	Pipe bundle		34	Cross recess pan head screw M4×6	YW63040600000

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

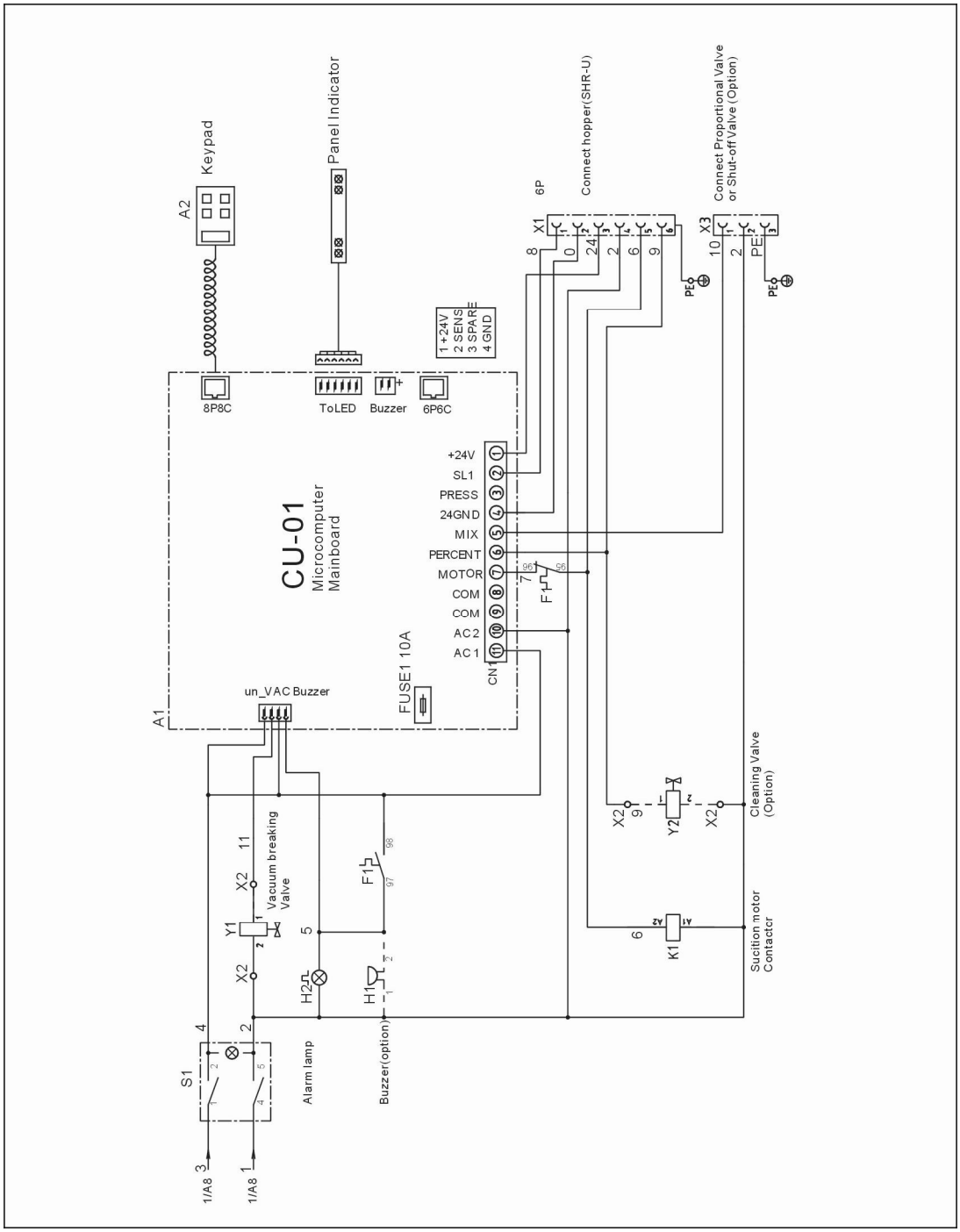
2.3 Electrical Diagram

2.3.1 Main Circuit (400V)



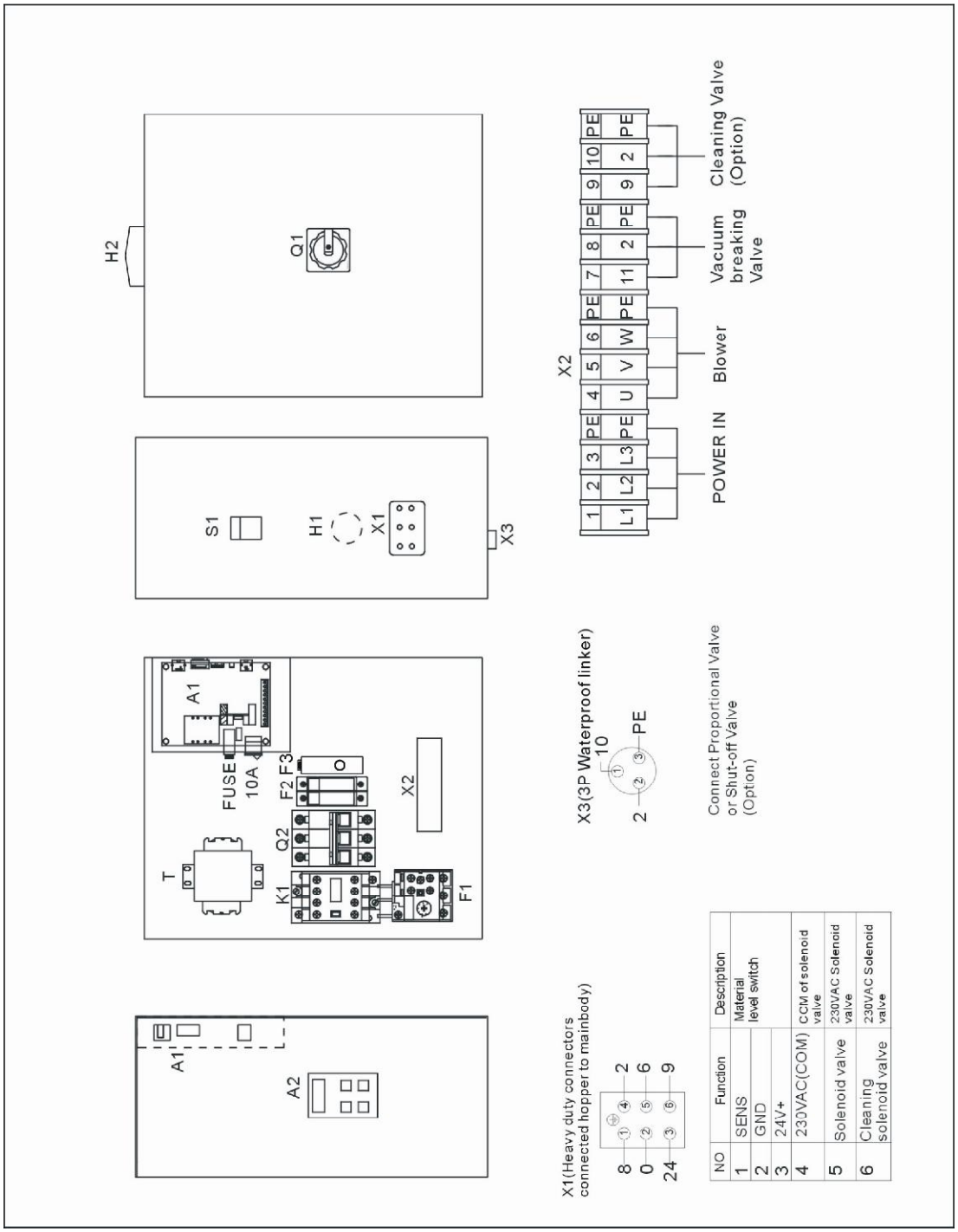
MODE \ SYMBOL	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ	ⓗ
SAL-1HP-UG	2.34	2.5	16	15	2.7	2.5	0.75	2.34
SAL-2HP-UG	3.6	2.5	16	15	4.0	2.5	1.5	3.6
SAL-3.5HP-UG	6.1	2.5	16	20	7.0	2.5	2.2	6.1
SAL-5HP-UG	9.0	2.5	16	25	9.5	2.5	3.4	9.0
SAL-7.5HP-UG	13.1	4.0	25	40	15.0	4.0	5.5	13.1
SAL-10HP-UG	17.5	4.0	32	50	20.0	4.0	7.5	17.5
SAL-15HP-UG	24.2	6.0	63	60	27.8	6.0	9.0	24.2

Picture 2-14: Circuit Diagram 1 (400V)



Picture 2-15: Circuit Diagram 2 (400V)

2.3.2 Electrical Components Layout (400V)



Picture 2-16: Electrical Components Layout (400V)

2.3.3 Electrical Components List (400V)

Chart 2-11: Electrical Components List (SAL-1HP-UG)(400V)

NO.	Symbol	Name	SAL-1HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	16A	YE10200300000
2	Q2	Circuit breakers*	15A	YE40601500000
3	K1	Contactors**	230V 50/60Hz	YE00300000000
4	T	Transformer**	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	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	2.5mm^2	YE61250040000
16	-	Terminal board	2.5mm^2 PE	YE61253500000
17	-	Terminal board	2.5mm^2	YE61250040000
18	-	Terminal board	2.5mm^2 PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	1HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-12: Electrical Components List (SAL-2HP-UG) (400V)

NO.	Symbol	Name	SAL-2HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	16A	YE10200300000
2	Q2	Circuit breakers*	15A	YE40601500000
3	K1	Contactors**	230V 50/60Hz	YE00300000000
4	T	Transformer**	350mA	YE70350400000
5	F1	Overload relays	3.2~5A	YE01032500000
6	F2	Fuse box**	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	$2.5mm^2$	YE61250040000
16	-	Terminal board	$2.5mm^2$ PE	YE61253500000
17	-	Terminal board	$2.5mm^2$	YE61250040000
18	-	Terminal board	$2.5mm^2$ PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	2HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-13: Electrical Components List (SAL-3.5HP-UG) (400V)

NO.	Symbol	Name	SAL-3.5HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	16A	YE10200300000
2	Q2	Circuit breakers*	20A	YE40602000000
3	K1	Contactors**	230V 50/60Hz	YE00300000000
4	T	Transformer**	350mA	YE70350400000
5	F1	Overload relays	5~8A	YE01050800000
6	F2	Fuse box**	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	$2.5mm^2$	YE61250040000
16	-	Terminal board	$2.5mm^2$ PE	YE61253500000
17	-	Terminal board	$2.5mm^2$	YE61250040000
18	-	Terminal board	$2.5mm^2$ PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	3.5HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-14: Electrical Components List (SAL-5HP-UG) (400V)

NO.	Symbol	Name	SAL-5HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	16A	YE10200300000
2	Q2	Circuit breakers*	25A	YE40602500000
3	K1	Contactors**	230V 50/60Hz	YE00300000000
4	T	Transformer**	350mA	YE70350400000
5	F1	Overload relays	6.3~10A	YE01631000000
6	F2	Fuse box**	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	$2.5mm^2$	YE61250040000
16	-	Terminal board	$2.5mm^2$ PE	YE61253500000
17	-	Terminal board	$2.5mm^2$	YE61250040000
18	-	Terminal board	$2.5mm^2$ PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	5HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-15: Electrical Components List (SAL-7.5HP-UG) (400V)

NO.	Symbol	Name	SAL-7.5HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	25A	YE10210300000
2	Q2	Circuit breakers*	40A	YE40604000000
3	K1	Contactors**	230V 50/60Hz	YE00320000000
4	T	Transformer**	350mA	YE70350400000
5	F1	Overload relays	10~16A	YE01101600100
6	F2	Fuse box**	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	$2.5mm^2$	YE61250040000
16	-	Terminal board	$2.5mm^2$ PE	YE61253500000
17	-	Terminal board	$2.5mm^2$	YE61250040000
18	-	Terminal board	$2.5mm^2$ PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	7.5HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-16: Electrical Components List (SAL-10HP-UG) (400V)

NO.	Symbol	Name	SAL-10HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	32A	YE10220300000
2	Q2	Circuit breakers*	50A	YE40605000000
3	K1	Contactors**	230V 50/60Hz	YE00330000000
4	T	Transformer**	350mA	YE70350400000
5	F1	Overload relays	12.5~20A	YE01125200100
6	F2	Fuse box**	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	2.5mm^2	YE61250040000
16	-	Terminal board	2.5mm^2 PE	YE61253500000
17	-	Terminal board	2.5mm^2	YE61250040000
18	-	Terminal board	2.5mm^2 PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	10HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

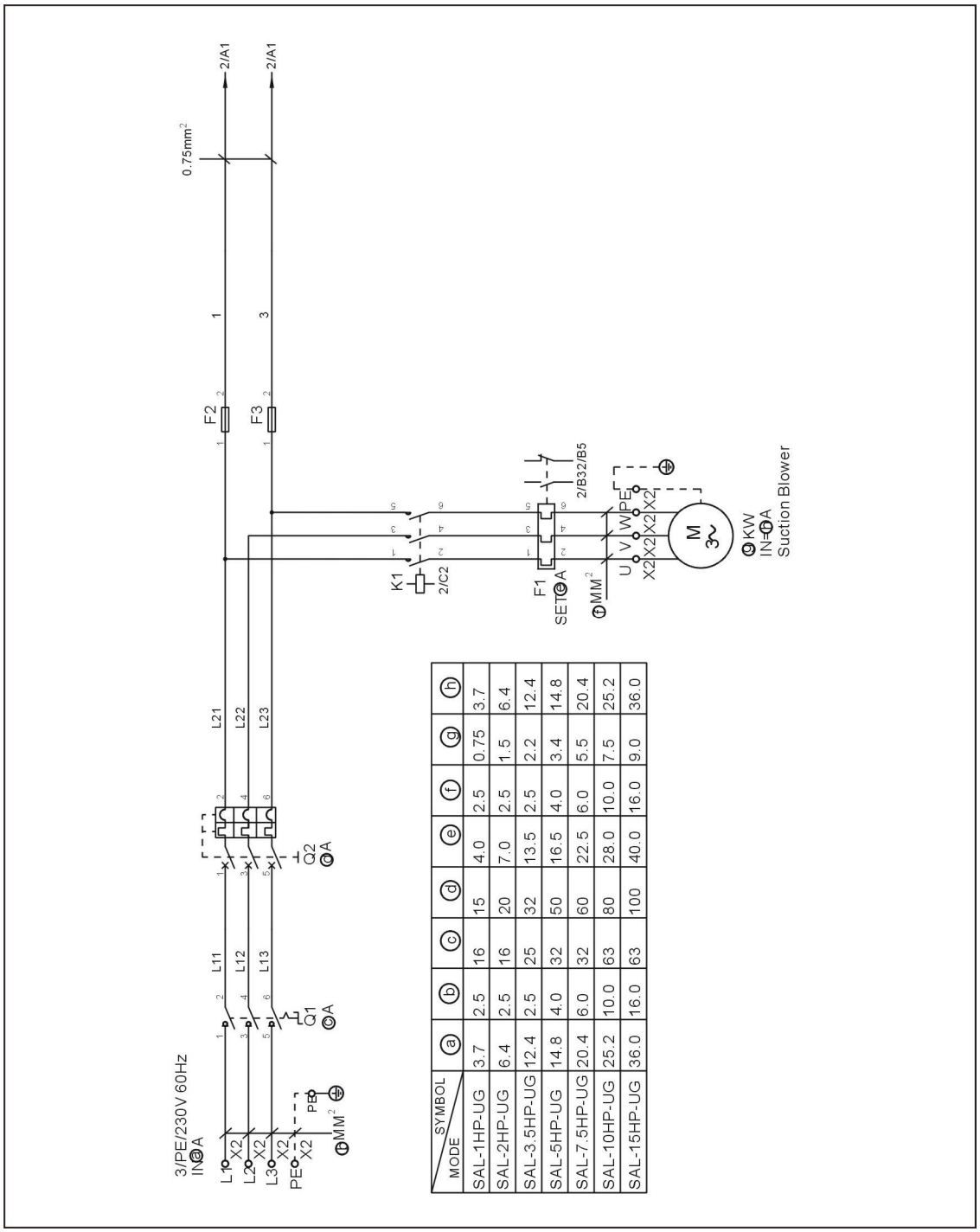
* means possible broken parts.
** means easy broken part. and spare backup is suggested.
Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

Chart 2-17: Electrical Components List (SAL-20HP-UG) (400V)

NO.	Symbol	Name	SAL-20HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	63A	YE10250400000
2	Q2	Circuit breakers*	60A	YE40606000000
3	K1	Contactors**	230V 50/60Hz	YE00340000000
4	T	Transformer**	350mA	YE70350400000
5	F1	Overload relays	20~32A	YE01203200200
6	F2	Fuse box**	500V 32A	YE41032200000
7	-	Fuse**	500V 2A 10×38	YE46002000100
8	F3	Fuse**	250V 2A	YE41001000000
9	S1	Control switch	4P (WH)	YE10210400000
10	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
11	H2	Alarm lamp*	230VAC 50/60Hz	YE83305100200
12	A1	Microcomputer mainboard**	230VAC 50/60Hz	-
13	A2	Keypad**	-	-
14	X1	Heavy duty cconnectors	16A 400V	YE68061640100
15	X2	Terminal board	$2.5mm^2$	YE61250040000
16	-	Terminal board	$2.5mm^2$ PE	YE61253500000
17	-	Terminal board	$2.5mm^2$	YE61250040000
18	-	Terminal board	$2.5mm^2$ PE	YE61253500000
19	X3	Waterproof linker	250V 3P	YE62163000100
20	M	Blower**	20HP	-
21	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
22	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

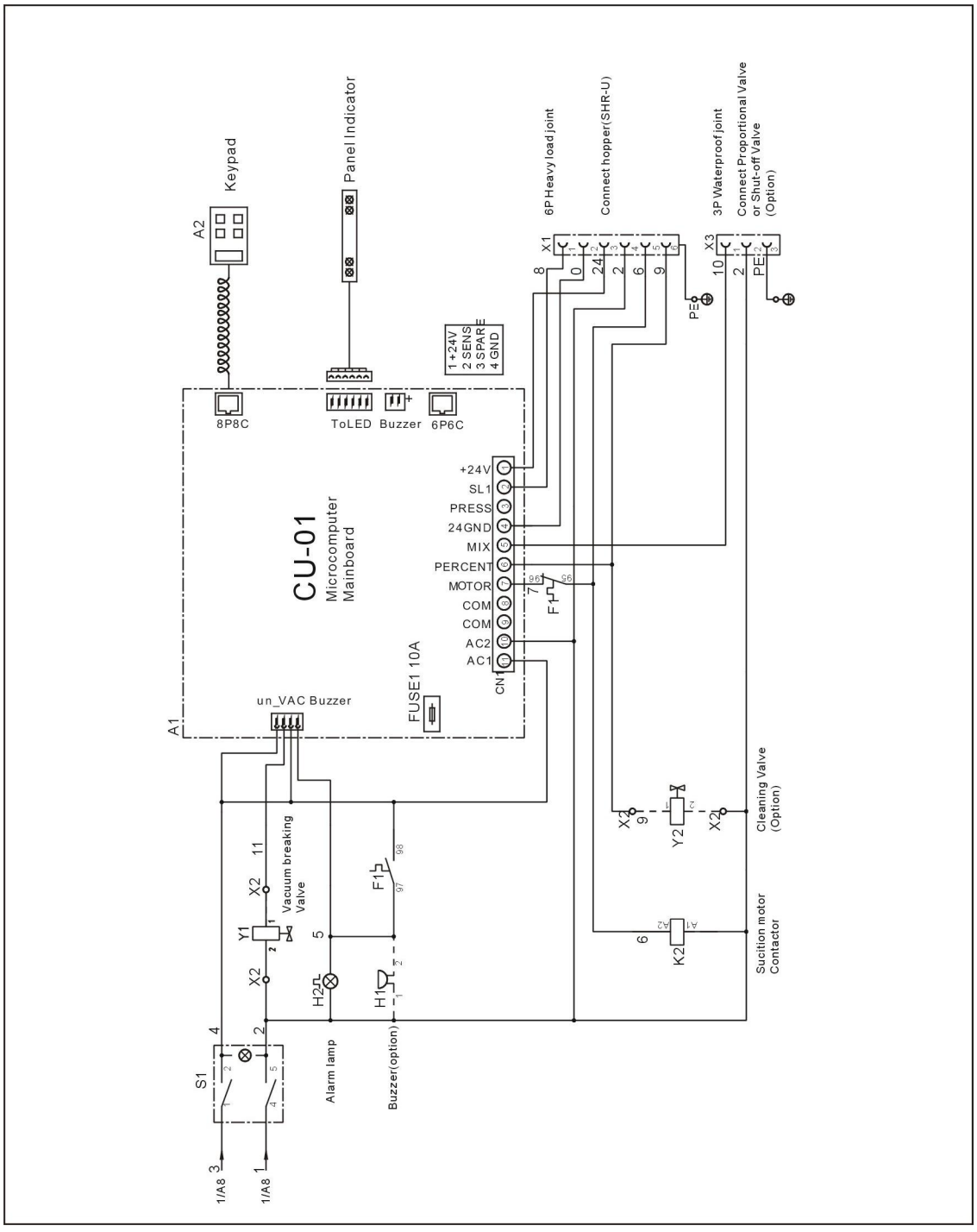
* means possible broken parts.
** means easy broken part. and spare backup is suggested.
Please confirm the version of manual before placing the purchase order to guarantee that the item number of the spare part is in accordance with the real object.

2.3.4 Main Circuit (230V)



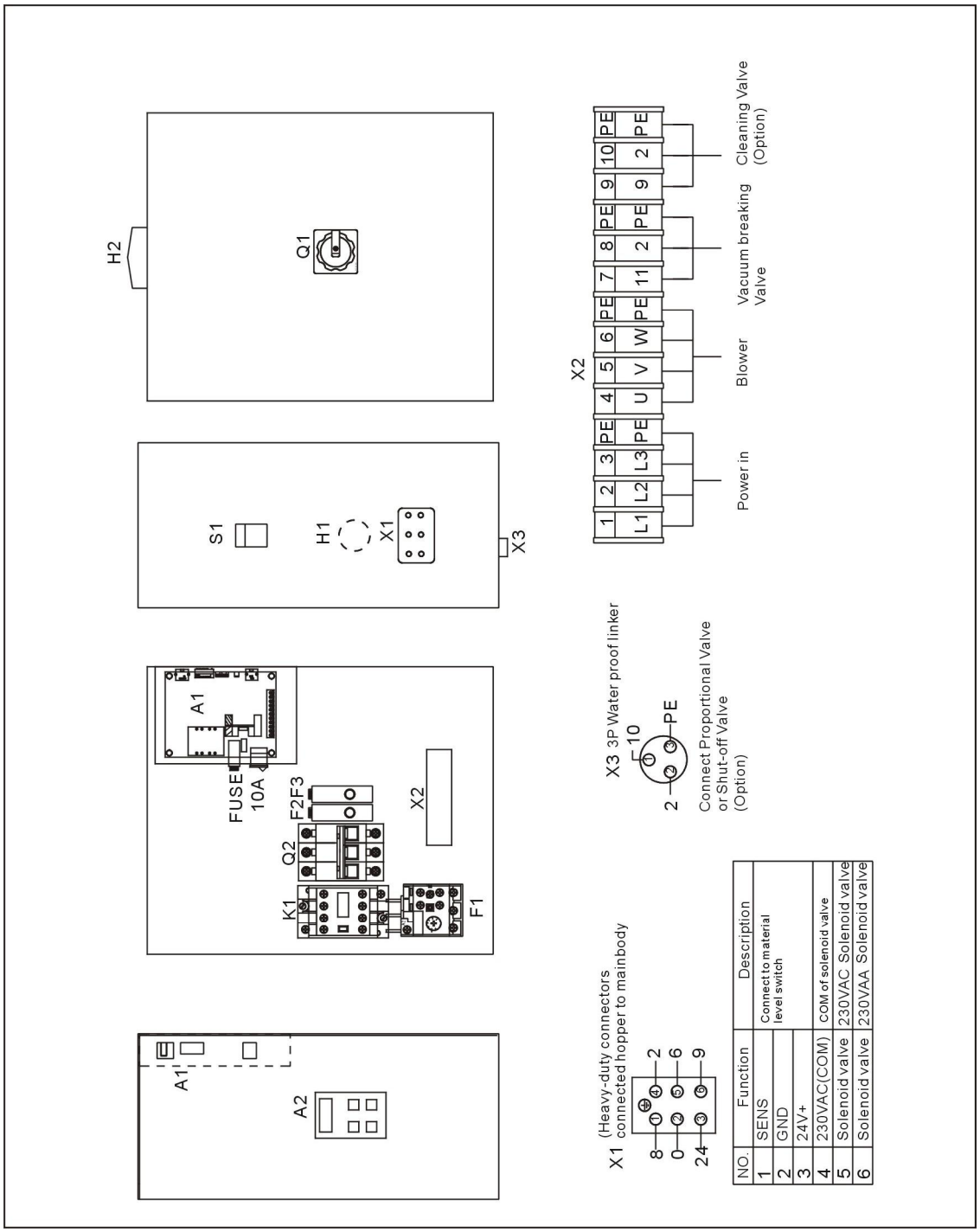
SYMBOL / MODE	ⓐ	ⓑ	ⓒ	ⓓ	ⓔ	ⓕ	ⓖ	ⓗ
SAL-1HP-UG	3.7	2.5	16	15	4.0	2.5	0.75	3.7
SAL-2HP-UG	6.4	2.5	16	20	7.0	2.5	1.5	6.4
SAL-3.5HP-UG	12.4	2.5	25	32	13.5	2.5	2.2	12.4
SAL-5HP-UG	14.8	4.0	32	50	16.5	4.0	3.4	14.8
SAL-7.5HP-UG	20.4	6.0	32	60	22.5	6.0	5.5	20.4
SAL-10HP-UG	25.2	10.0	63	80	28.0	10.0	7.5	25.2
SAL-15HP-UG	36.0	16.0	63	100	40.0	16.0	9.0	36.0

Picture 2-17: Main Circuit (230V)



Picture 2-18: Control Circuit Diagram (230V)

2.3.5 Electrical Components Layout (230V)



Picture 2-19: Electrical Components Layout (230V)

2.3.6 Electrical Components List (230V)

Chart 2-18: Electrical Components List (SAL-1HP-UG)(230V)

NO.	Symbol	Name	SAL-1HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	16A	YE10200300000
2	Q2	Circuit breakers*	15A	YE40601500000
3	K1	Contactors**	230V 50/60Hz	YE00300000000
4	F1	Overload relays	3.2~5A	YE01032500000
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	1HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-19: Electrical Components List (SAL-2HP-UG)(230V)

NO.	Symbol	Name	SAL-2HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	16A	YE10200300000
2	Q2	Circuit breakers*	20A	YE40602000000
3	K1	Contactors**	230V 50/60Hz	YE00310000000
4	F1	Overload relays	5~8A	YE01050800000
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	2HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-20: Electrical Components List (SAL-3.5HP-UG)(230V)

NO.	Symbol	Name	SAL-3.5HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	25A	YE10210300000
2	Q2	Circuit breakers*	32A	YE40603200000
3	K1	Contactors**	230V 50/60Hz	YE00320000000
4	F1	Overload relays	8~12.5A	YE01812500100
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	3.5HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-21: Electrical Components List (SAL-5HP-UG)(230V)

NO.	Symbol	Name	SAL-5HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	32A	YE10220300000
2	Q2	Circuit breakers*	50A	YE40605000000
3	K1	Contactors**	230V 50/60Hz	YE00330000000
4	F1	Overload relays	12.5~20A	YE01125200100
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	5HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-22: Electrical Components List (SAL-7.5HP-UG)(230V)

NO.	Symbol	Name	SAL-7.5HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	63A	YE10250400000
2	Q2	Circuit breakers*	60A	YE40606000000
3	K1	Contactors**	230V 50/60Hz	YE00340000000
4	F1	Overload relays	16~25A	YE01162500300
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	7.5HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-23: Electrical Components List (SAL-10HP-UG)(230V)

NO.	Symbol	Name	SAL-10HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	63A	YE10250400000
2	Q2	Circuit breakers*	80A	YE40800300000
3	K1	Contactors**	230V 50/60Hz	YE00350000000
4	F1	Overload relays	25~36A	YE01253600200
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	10HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

Chart 2-24: Electrical Components List (SAL-20HP-UG)(230V)

NO.	Symbol	Name	SAL-20HP-UG	
			Specification	Part NO.
1	Q1	Main switch*	63A	YE10250400000
2	Q2	Circuit breakers*	100A	YE40100300000
3	K1	Contactors**	230V 50/60Hz	YE00472200100
4	F1	Overload relays	32~50A	YE01325000200
5	F2,F3	Fuse**	250V 2A	YE41001000000
6	S1	Control switch	4P (WH)	YE10210400000
7	H1	Buzzer	60-250VAC 50/60Hz	YE84003500000
8	H2	Alarm lamp	230VAC 50/60Hz	YE83305100200
9	A1	Mirocomputer mainboard**	230VAC 50/60Hz	-
10	A2	Keypad**	-	-
11	X1	Heavy duty connectors	16A 400V	YE68061640100
12	X2	Terminal board	$2.5mm^2$	YE61250040000
13	-	Terminal board	$2.5mm^2$PE	YE61253500000
14	-	Terminal board	$2.5mm^2$	YE61250040000
15	-	Terminal board	$2.5mm^2$PE	YE61253500000
16	X3	Waterproof linker	250V 3P	YE62163000100
17	M	Blower**	20HP	-
18	Y1	Solenoid vavle*	230V 50/60Hz	YE32051800300
19	Y2	Solenoid vavle*	230V 50/60Hz	YE32212000000

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

2.4 Description of Electrical Components

2.4.1 Opposite-type Photoelectric Switch

1) Used for SAL-U-GE series for control of material conveying and material shortage alarm.
2) A pair of photoelectrical sensors is installed on the fastening screw of glass tube.

Picture 2-20: Opposite-type Photoelectric Switch

2.4.2 Magnetic Proximity Switch

1) Used for SAL-U-G series for control of material conveying and material shortage alarm.
2) It is installed at the bottom of material hopper.

Picture 2-21: 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 spray washing.

Picture 2-22: Air Accumulator

2.5.1.2 Specification of air Accumulator

Air accumulator: HxD=170x76mm

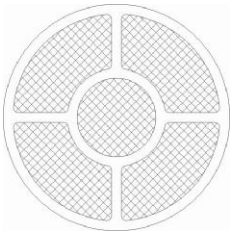
Note!

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

2.5.2 Fillter Screen

2.5.2.1 Which Condition Need to Xhoose this Filter Screen

This type fillter screen can used up to 30% grinding material can increased working life.



Picture 2-23: Fillter Screen

2.5.2.2 Spec of the Fillter Screen

Screen number: 14 Steel dia.: 0.5mm

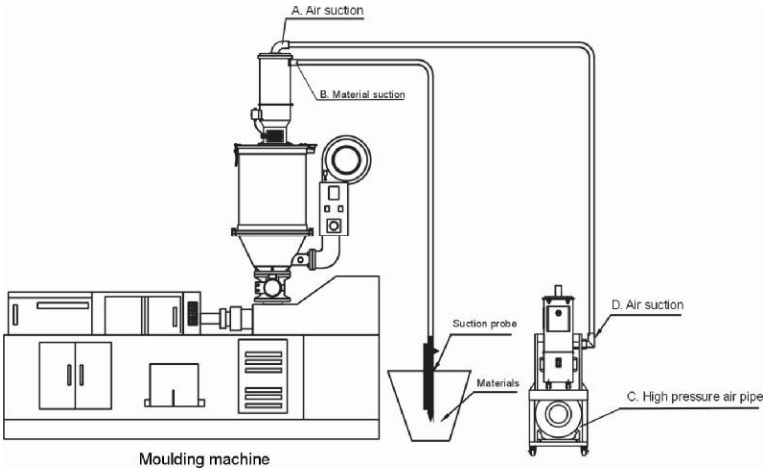
3. Installation and Debugging

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

Power supply should be fixed by qualified technicians!

3.1 Install the Machine on the Dryer

3.1.1 Installation Elements



Picture 3-1: Installation Elements

3.1.2 Installation Steps

1) Put the main body of the machine at a proper place and connect it with power supply.
2) Install material hopper onto the dryer and connect it with signal wires from the main body.
3) Use steel wire conveying hose to connect air suction pipe (A) on material hopper with air suction pipe (D) on main body. Material suction (B) should be connected with material suction probe (B) in material storage bin.
4) Connect high pressure air pipe (C) with air supply (pressure at 3~6kg/cm^2).

3.1.3 Power Supply

Make sure that the power supply conforms with required specifications before installation. SAL-UG (E) Series should be Connected with 3Φ 400V 50Hz Power supply or other specifications if required.

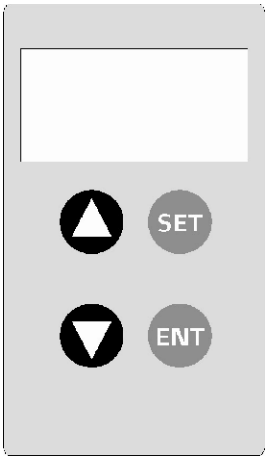
Make sure main switch is turned off before you connect the power.

4. Application and Operation

4.1 Start / Stop of the Machine

The start/stop of SAL-UG series is controlled by main switch in front of control box and alternative switch on the left side.

4.2 Keys on the Control Panel



Picture 4-1: Keys on the Control Panel

SET Choose an item or cancel current input.

ENT Choose an item and store current input value. It is also used to clear the alarm when alarm occurs.

▲ Increase setting value.

▼ Decrease setting value.

▲ + ▼ Stop the machine in 3 sec. Press SET to resume operation.

4.3 Parameter Setting

4.3.1 Enter Basic Setting Mode

During normal operation, press SET for about 1 sec. to enter [F.01] setting screen. [F.01] and its value show alternatively after 0.8 sec. If you want to set [F.04], the system will show [F.99]. [F.99] and its value will show alternatively after 0.8 sec. Input correct password to enter [F.01], then press SET to switch to [F.04].

4.3.2 Modify a Parameter

Press ▲ to increase parameter value. Keep on pressing ▲ to quickly increase it's value until the maximum of it. Press ▼ to decrease parameter value. Keep on pressing ▼ to reduce it's value until the minimum of it. Press ENT to confirm parameter setting to store its value into the microprocessor and enter next setting item. If you did not change anything, press ENT to enter into next setting item. Press SET to cancel parameter setting and return back to current setting screen. If you did not change anything, press SET to enter into next setting item.

4.3.3 Finish Parameter Setting

Keep on pressing SET for about 1 sec. to return to normal display mode. If you did not touch any keys for 20 seconds, the machine will return to normal display mode without storing any changes of the parameter.

4.3.4 Basic Parameter List

Para. code	Functions	Value		Note
F.01	Blower suction time when lacking material. Action code: S.02	10 seconds	5-127 seconds	-
F.02	Material mixing time This function will be started simultaneously with material conveying. It is set as a percentage of conveying time: it's value is calculated by following formula: conveying time×[F.02]%. Set it's value as 0 to disenable it.	0% Not enabled	0-100%	-
F.03	Material mixing frequency setting [F.02] means to start material mixing after a certain times of material conveying. Set [F.02] as 1, which means to start material mixing at every material conveying. Set it's value as 0 to cancel material mixing.	1	1-9	-
F.04	First layer lockup When to enter first layer setting, if [F.04] is not set as 0, then the screen will switch to [F.99], and require you to input a password before setting [F.01]. If the password is incorrect, the screen will return to normal display mode. Set [F.04] as 0 to cancel the password.	0	0-999	-

At delivery, the machine was not coded. You can set a code for the machine. In case of losing the code, please contact our company.

4.4 Process Setting

4.4.1 Enter into process setting mode

Start the machine, press SET for about 1 sec. To enter basic setting mode. Then press SET and ENT at the same time to enter parameter [F.05] setting. [F.05] and it's value show alternatively. If you have set [F.12], the system will switch to [F.98]. Enter correct password to enter [F.05], then press SET to switch to [F.12].

4.4.2 Modify a Parameter

Press ▲ to increase parameter value. Keep on pressing ▲ to quickly increase it's value until the maximum of it. Press ▼ to reduce parameter value. Keep on pressing ▼ to reduce it's value until the minimum of it. Press ENT to confirm parameter setting and store it's value into the micro-processor and to enter next setting item. If you did not change anything, press SET to enter into next setting item. Press SET to cancel parameter setting and return back to current setting screen. If you did not change anything, press ENT to enter into next setting item.

4.4.3 Finish Parameter Setting

Keep on pressing SET for about 1 sec. to return to normal display mode. If you did not touch any keys for 20 secretary, the machine will return to normal display mode without storing any changes of the parameter.

4.4.4 Process Parameter List

Para. code	Functions	Value		Note
F.05	Material conveying delayed time The delayed time between first material conveying and later conveying action. 0 stands for no delaying time. Action code: S.06	0 seconds	9990 seconds	10 seconds for unit
F.06	Filter screen cleaning time before material conveying 0 stands for no filter cleaning action. Action code: S.01	3 seconds	0-99 seconds	-
F.07	Filter screen cleaning time after material conveying 0 stands for no filter cleaning action. Action code: S.03	3 seconds	0-99 seconds	-
F.C1	Cycle of mesh cleaning Mesh cleaning is done after several times' suction	3 seconds	1~99 seconds	-
F.08	Check material discharging time Check material discharging time after material conveying. If there are directive signals, then the machine gets into next procedure. If not, add 1 to material shortage counter. When this situation continues until material shortage times exceed the setting value of [F.09], the machine will raise the alarm. Action code: S.04	10 seconds	0-99 seconds	-
F.09	Material shortage alarm If there are not any materials for discharging for several times, the machine would sound the alarm. 1. The alarm will be reset if the machine can get material again. 2. Press ENT on the control panel to clear the alarm 3. Restart the machine. Action code: A.01	3	1-9	-
F.10	Material shortage counting and stop of the machine If there are not any materials for discharging, the machine would stop and sound the alarm. 1. Press ENT to clear the alarm. 2. Restart the machine. Set it's value as 99 to cancel this function. Action code: A.04	99	[F.09]-99	-
F.11	Setting waiting time before or after loading Set screen clean as 0, for either before or after each loading. So it is waiting to be shut before loading.If set 0 for screen clean after loading, so it is waiting to be shut after loading. Set as 0, which indicates no waiting before or after loading.	30	999	-

Para. code	Functions	Value		Note
F.12	Second layer lockup When to enter scond layer setting, if [F.12] is not set as 0, then the screen will switch to [F.98], and require you to input a password before setting [F.05]. If the password is incorrect, the screen will return to normal display mode. Set [F.05] as 0 to cancel the password.	0	999	-

At delivery, the machine was not coded. You can set a code for the machine. In case of losing the code, please contact our company.

4.5 Special Process Setting

4.5.1 Enter into Special Step Setting Mode

Enter into setting mode according to the steps descripped in 4.4. Press SET to choose [F.11], then press SET for about 1 sec. to enter into the setting of [F.13]. [F.13] and it's value will show alternatively.

4.5.2 Modify a Parameter

Press ▲ to increase parameter value. Keep on pressing ▲ to quickly increase it's value until the maximum of it. Press ▼ to decrease parameter value. Keep on pressing ▼ to reduce it's value until the minimum of it. Press ENT to confirm parameter setting and store it's value into the microprocessor and to enter next setting item. If you did not change anything, press ENT to enter into next setting item. Press SET to cancel parameter setting and return back to current setting screen. If you did not change anything, press SET to enter into next setting item.

4.5.3 Finish Parameter Setting

Keep on pressing SET for about 1 sec. to return to normal display mode. If you did not touch any keys for 20 seconds, the machine will return to normal display mode without storing any changes of the parameter.

4.5.4 Parameter List of Special Process Setting

Para. code	Functions	Value		Note
F.13	Buzzer working mode Setup buzzer working mode 0: uninterrupted sounding 1: Slow, interrupted sounding 2: Quick, interrupted sounding	0	0-2	-
F.14	Set buzzer sounding period Set buzzer sounding period: Set [F.13] as 999 to cancel buzzer sounding function.	999	999	-
F.15	First carbon brush alarm When carbon brush working hours [F.17] get to a certain point, [F.14] will raise the alarm. Please replace the carbon brushes. The alarm will last 5 minutes, and will repeat every 15 minutes until [F.17] set as 0. Set [F.14] as 0 to cancel this function. Action code: A.05	80 Unit 10 Hrs	0-999	-
F.16	Second carbon brush alarm When carbon brush working hours [F.17] get to a certain point, [F.15] will raise the alarm. Please replace the carbon brushes. The alarm will last 5 minutes, and will repeat every 15 minutes until [F.17] set as 0. Set [F.15] as 0 to cancel this function. Action code: A.06	100 Unit 10 Hrs	[F.14]-999	-
F.17	Third carbon brush alarm When carbon brush working hours [F.17] get to a certain point, [F.16] will raise the alarm until [F.17] set as 0. Please repalce the carbon brushes.Set [F.16] as 0 to cancel this function. Action code: A.07	110 Unit 10 Hrs	[F.15]-999	-
F.18	Carbon brush usage record Checking and clear the working hours of carbon brush. Clear carbon brush working hours: set its value as 0, press ENT to confirm.	0	0-999 Set its alue as 0 to lear the record.	-
F.19	Motor startup protective switch Set to on or off the motor startup protective switch 0: if it is on, which indicates slow speed protection of the start up loading motor 1: if it is off, which indicates full speed protection of the start up loading motor.	0	0: soft start on 1: soft start off	-
F.20	Motor Delay Stop Time When motor delay stop, vaccum breaking valve is opened and suck up air, to cool conveying blower and avoid starting/stopping frequently. Olny suitable for SAL-UG/UGP Not suitable for SAL-U. Must be set to “0”.	0	0~999 seconds	-

At delivery, the machine was not coded. You can set a code for the machine. In case of losing the code, please contact our company.

4.6 Explanation of Operation Procedures

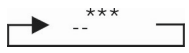
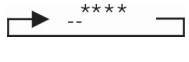
4.6.1 Operation Procedures

The machine can work without control panel connected with it. The following is an explanation of operation procedures.

Indicators	Action code	Operation procedures	Relative parameter	Parameter description	
				Default	Range
Red light flickering	S. 01	Filter cleaning	F. 06	3 seconds	0-99 seconds
	S. 02	Material suction	F. 01	10 seconds	5-127 seconds
		Masterbatch suction	F.02	0%	0-100%
			F. 03	3	1-9 times
	S. 03	Filter cleaning and material falling into storage bin	F. 07	3 seconds	0-99 seconds
	S. 04	Wait until materials completely discharged	F. 08	10 seconds	0-99 seconds
	S. 05	Check alarm information (instantly completed, no display on control panel.)	-	-	-
	S. 06	Delayed time for material conveying.	F. 05	0 seconds	0-999 seconds
Green light shines	-	Time for material conveying confirmation	-	-	-

4.6.2 Alarms

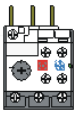
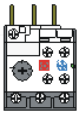
Alarm information display and relative solutions.

Red alarm light	Code	Possible reasons	Solutions	Remarks
	[A.01]	Material shortage alarm [F.9] 1. Material loading time is too short. 2. Can not get any materials. 3. Conveying hose blocked, 4. Not enough suction power.	1. Add material. 2. Increase material conveying time. 3. Stop the machine and check the conveying hose. The alarm will be cleared when the machine can again load the material, or by pressing ENT on the control panel or by cutting off power supply.	
	[A.03]	Filter trouble alarm 1. Filter blocked	1. Stop the machine to clean filter screen or replace it. The alarm will be cleared by cutting off the power or press ENT on the control panel.	
	[A.04]	Non-operation alarm [F.10] 1. After a certain period time of material shortage, the machine will stop working.	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. Please fix the control panel onto the machine and modify its value.	
	[A.05]	First carbon brush alarm When carbon brush working hours [F.17] gets to a certain point(800 hrs), [F.14] will raise the alarm.	Please prepare the carbon brush for replacement. The alarm will last for 5 minutes. The machine will repeat the alarm every 15 minutes until you reset carbon brush working hour.	

Red alarm light	Code	Possible reasons	Solutions	Remarks
	[A.06]	Second carbon brush alarm When carbon brush working hours [F.17] gets to a certain point(1000 hrs), [F.15] will raise the alarm.	Please replace the carbon brush and reset carbon brush working hour. The alarm will last for 5 minutes. Themachine willl repeat the alarm every 15 minutes until you reset carbon brush working hour.	
	[A.07]	Third carbon brush alarm When carbon brush working hours [F.17] gets to a certain point (1100 hrs), [F.16] will raise the alarm.	Please replace the carbon brush and reset carbon brush working hour. The machine won't stop the alarm until carbon brush working hour is reset.	

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

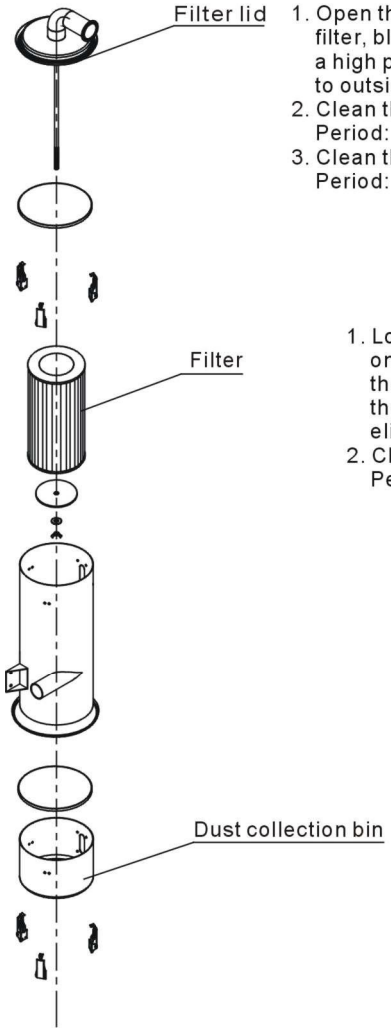
5. Trouble-shooting

Failures	Possible reasons	Solutions
Motor does not work long after material discharge.	1. Main power switch or control switch is off or poorly connected.	1. Turn on main switch and control switch and make sure they are well connected.
	2. Poor contact of magnetic proximity switch.	2. Adjust or replace.
	3. Signal wire is broken.	3. Reconnect
Motor keeps on working after material hopper is full-loaded.	Contactor malfunction.	Repair or replace contactor
Motor can not fully load material hopper, or machine sounds material shortage alarm.	1. No materials left for conveying.	1. Adding material.
	2. Air pipe breakage.	2. Firmly lock it or replace.
	3. Cloth filter is blocked.	3. Clean cloth filter.
Motor can not work.	Phase shortage or motor is burt out.	Check or replace.
Fuse melts each time you turn on the machine.	Short circuit or motor is burt out.	Check electrical circuit.
Motor overload alarm	1. Filter screen is blocked.	Clean the filter screen and press Reset on the overload relaly. 
	2. Phase shortage	Check the electrical circuit and press Reset on the overload relaly. 

6. Maintenance and Repair

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

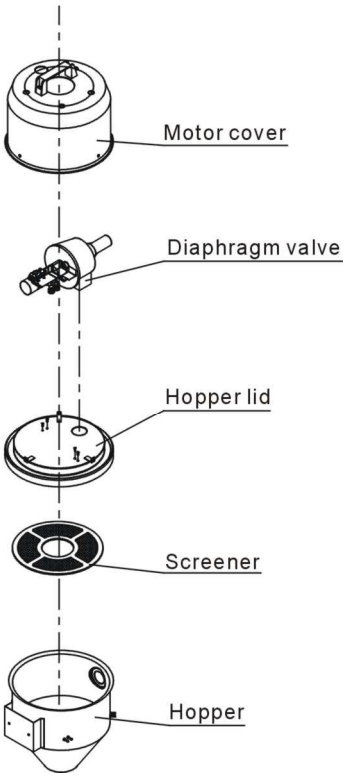
Main body, Filter Inspection and Storage Hopper Cleanup



1. Open the filter lid and remove the filter, blow away the dust on it with a high pressure air gun from inside to outside.
2. Clean the filter.
   Period: daily
3. Clean the dust collection bin.
   Period: daily

Hopper, Screener

1. Loosen the snap hook on the hopper, remove the hopper lid, take out the screener and eliminate the dust on it.
2. Clean the Screener.
   Period: daily



6.1 Material Hopper

Clean material hopper periodically or when you find conveying capacity reduced. Please loose the spring clips, take down the hopper lid, and take out filter screen. Remove all the dusts and fines on filter screen and inside of

material hopper.

6.2 Main Body

Take out the air filter to make it clean periodically or when you find conveying capacity reduced. Always keep smooth air flow through air filter to maintain good conveying capacity.

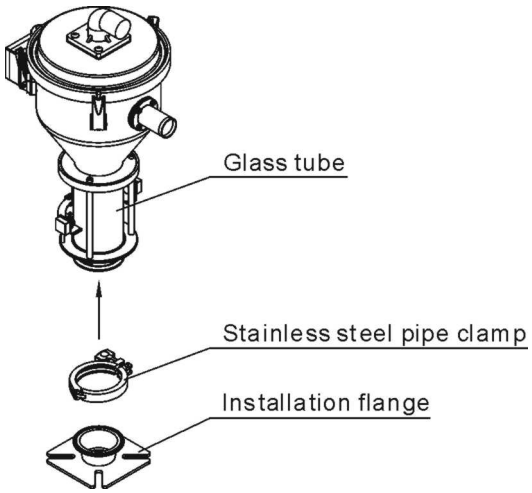
Cleaning steps:

1) Loosen spring clips of filter cover and butterfly screws, and take out the filter.
2) Remove the dusts adhering to the filter to keep good suction power.

6.3 Glass Tube

When you find that there are material grains clinging to the inner surface of glass tube, please make it clean timely to keep proper function of the machine.

1) Loosen the stainless steel pipe clamp and take down the installation flange.
2) Blow the glass pipe with the air gun according to the direction of arrow to blow away materials on the glass pipe or clean it with cloth.



Note!

Be careful not to break glass tube during cleaning.

6.4 Reed Switch, Photoelectric Switch

Reed switch

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

1) Unscrew the outer box of the sensor.
2) Adjust the depth or move position the sensor inserted into the box, the indicator lamp lights means that magnetism has been detected and the swith is well worked.
3) If magnetism cannot be detected by magnets, please check whether the switch is bad contacted or damaged.

Photoelectric Switch

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

1) Check whether the wires are bad contacted.
2) Please replace with a new one if the switch is damaged.

6.5 Weekly Checking

1) Check if there are broken electrical wires or not. Replace the broken wires immediately.
2) Check the function of the keys on the control panel.
3) Check if screws at material inlet and the seal ring are loose or not.

Note!

Cut off power supply when you check electrical wires.

6.6 Monthly Checking

1) Check if the clips of hopper lid is loose or not.
2) Check if the reverse stopping flap is out of shape. If it is, please replace it.
3) Check the performance of magnetic proximity switch or photo sensor. If there is poor contact, place fix the problem or replace it.

6.7 Maintenance Schedule

6.7.1 About the Machine

Model _____ SN _____ Manufacture date _____

Voltage_____Φ_____V Frequency _____ Hz Power _____ kW

6.7.2 Installation & Inspection

☐Check if the takeover pipe has been correctly connected.

☐Check if that pipe is locked up by clips.

☐Check if mounting base is locked tightly.

Electrical Installation

☐Voltage: _____ V _____ Hz

☐Fuse melting current: One-phase: A _____ Three-phase: _____A

☐Check phase sequence of power supply.

6.7.3 Daily Checking

☐Check main power switch.

☐Check filter mesh.

☐Check working status of the motor.

6.7.4 Weekly Checking

☐Check all the electrical cables.

☐Check if there are loose connections of electrical components.

☐Check the screw of the feed-in pipe's flange is loosed or not.

☐Check the air filter.

6.7.5 Monthly Checking

☐Check the spring lock on the hopper cover is loosed or not.

☐Check the reversal stop piece is deformed or not.

☐Check the performance of magnetic proximity switch/photoelectrical sensor.