



Operation and Safety Manual
ABSPMS-80L and ABSPMS-80/60L



Serial Number: _____ **Model: ABSPMS-80L**

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OPERATION MANUAL AND PARTS LIST FOR PLANETARY MIXER SM-80L

1. SPECIFICATION

Model	SM-80L
Capacity	80-quarts
Agitator Speed	133-400rpm
Flour weight	22.5Kg/ 50 pounds
Motor Power	4.5kw
Machine Weight	635Kg/ 1395 pounds
Dimension(W×D×H)	87 × 125 × 175 cm 34 x 50 x 69 inches

2. ATTACHMENT



Whipping Ball

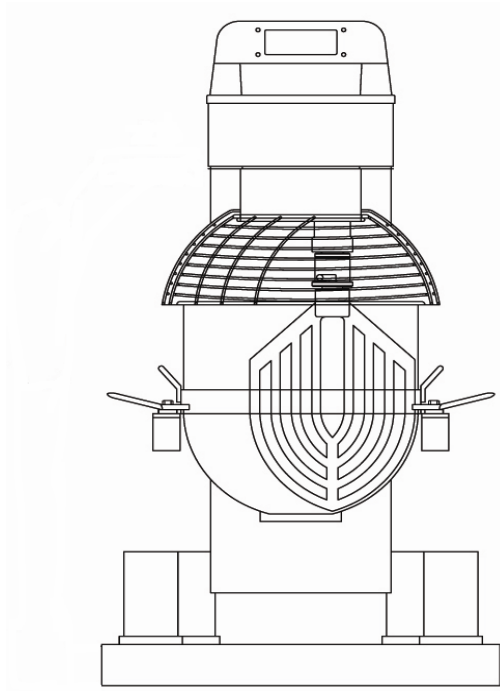
Hook

Beater

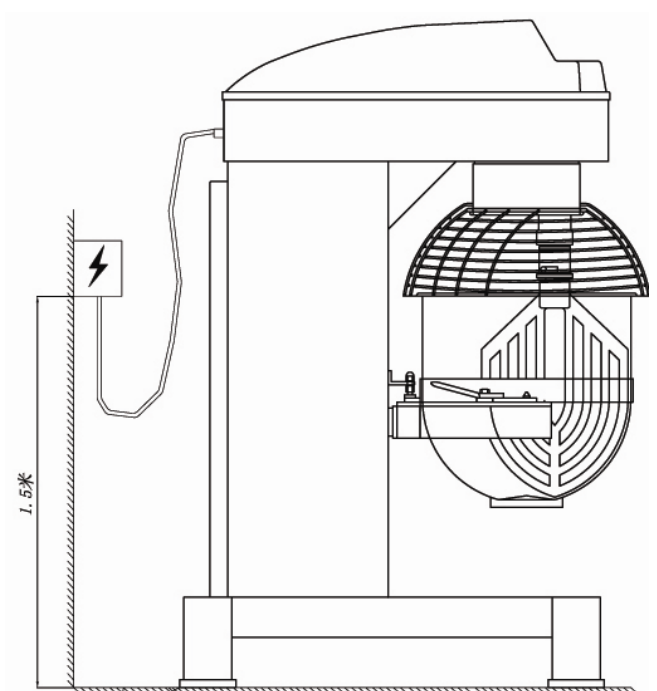
Use of attachment

- 1) Hook: dough, pastries, pizza, brioches, biscuits, dumplings, stuffing, sausage...etc.
- 2) Beater: short pastry, chow pastry, royal icing, mixing of meats, mashed potatoes.
- 3) Whipping Ball: butter cream, whipped cream, ice cream, Fontainebleau (mixture of cottage cheese and cream), pancakes, mayonnaise and also for finely mashed potatoes using whole potatoes (after they have been broken down by beater or hook)

3. INSTALLATION



Picture1











Picture2












- 1) The machine is ready for installation when it arrives. Remove from crating and check for any damage that may have occurred during transport. Report any damage or missing items immediately.
- 2) The machine must be installed on a level floor. If the floor is not level, a rubber mat can be used to support the machine.
- 3) Please connect the power supply to the machine as indicated on the nameplate.
- 4) After the machine has been connected to the electric supply, first of all, check the rotation of the mixing head. When looking overhead, the mixer head should rotate clockwise. The arrow on the bowl indicates the proper rotating direction of mixing arm.

4. OPERATION

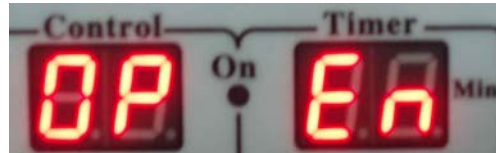
(1) PANEL INSTRUCTION



The right display below the word “control”  is the speed display. The green  is the start button, the red  is the stop button,  and  are the speed shift buttons. During operation, press the  or  buttons to reduce or increase the speed indicated on the display , the number ranges from 01 to 10, 01 is for the slowest speed, 10 is for the fastest speed. You can change speed while the machine is running (there is no need to stop the machine when changing speeds).

- ① The right display below the word “timer”  is the time display, the number units are in minutes. The clock  and  or  are the timer control buttons. Press , and the time on the display will increase by 10 with each push, up to 70 minutes. When the number on the display  is 70, if we press the clock button again, “—” will be displayed, as it is resetting to ‘zero time’. Press the  or  arrows and the numbers on the display will increase or reduce from 01 to 99 (the number is a multiple of 1), When the number on  is 01, if we press ,  will display “--”(no time).

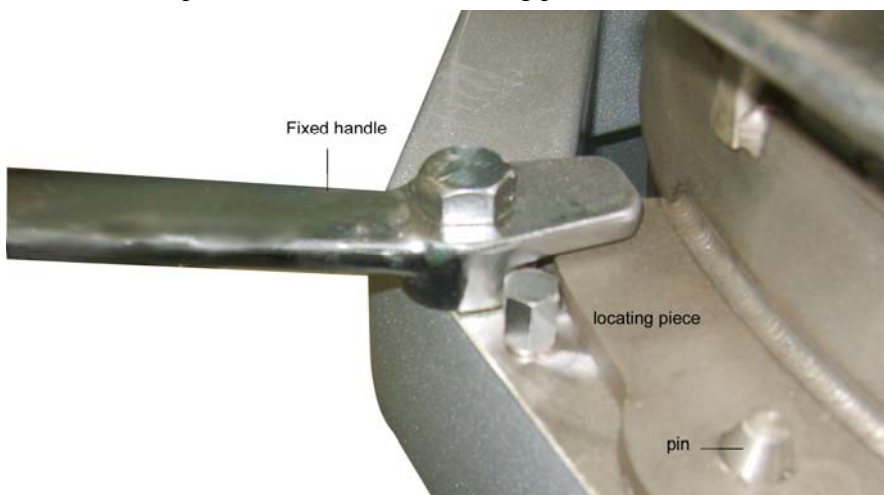
- ② “On” light indicates machine is running. Solid light indicates the machine is running in un-timed operation. Flashing “ON” light indicates the machine is running on timer. No light means machine is stopped, and that either the stop button was depressed or the timer had timed out.
- ③ If the safety grid is open, or bowl lift is not in the full up position, the display will show



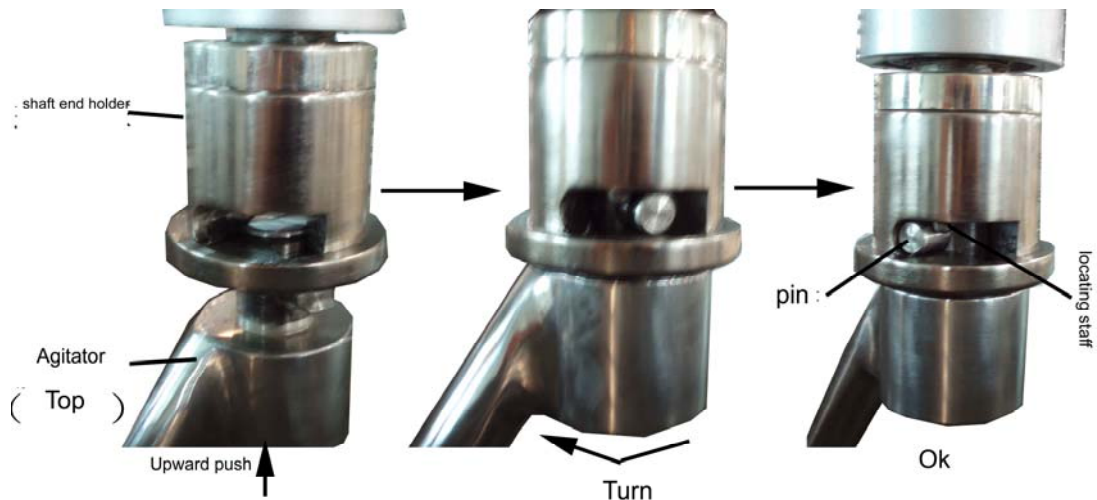
- ④ Red button is the emergency stop button. By pressing this button the machine and all functions will stop immediately. To restart the machine, turn the red knob in the direction of the arrow on the switch and it will release. Then press the green button on the right side of the machine to restore power to the controls.
- ⑤ The Black switch is the lift switch. Turn switch to left to lower the bowl lift, and to the right to raise it. **Take care to have the bowl locks UNLOCKED before you lower bowl onto bowl dolly or damage will result.**

(2) OPERATION STEPS

- (1) Turn the lift switch to “down” to lower the bowl to the bottom position.
- (2) Insert the pin into the hole of the locating piece on the bowl, and lock the fixed handle.



- (3) Install the desired attachment (see photo below)



- (4) Turn the lift switch to “up” to lift the bowl to the top position.
- (5) Put the ingredients into the bowl.
- (6) Close the bowl safety cover.
- (7) Set the mixing speed, mixing time, and turn on the machine.
- (8) Choose your speed based on your dough/batter properties and desired mixing results.
- (9) During operation process, you can put additional material into the bowl through filler chute (see below).



- (10) Open the safety grid when the mixing is complete.
- (11) Turn the bowl lock handles to loosen the bowl (see picture).
- (12) Turn the lift switch to “down” to lower the bowl to the bottom position.
- (13) Take out the agitator.
- (14) Remove product.

5. SAFETY INSTRUCTIONS

- (1) Please read this operation manual carefully before operating or maintaining this machine. Please obey all listed placards and notifications on the machine and in this manual.
- (2) Do NOT overload the mixer.
- (3) All the safety covers and panels should be closed during operation.
- (4) Check operation of all safety switches and safety covers prior to each days use.
- (5) Check condition of power cord and plug weekly.
- (6) Check whether the machine will stop when opening the safety grid or lowering the bowl.
- (7) All operators should comply with all safety precautions and should not use while wearing loose clothing or items that could become entangled in mixing arm.
- (8) Only the operator of the machine should be near machine while in operation. Operator should not lean on the machine.
- (9) You must call a qualified technician if there is an electrical problem or broken parts on the machine. Contact American Baking Systems for advise or help with locating a local technician.
- (10) Turn power off before maintaining or cleaning machine.
- (11) The machine must be grounded at the electrical source.
- (12) Turn off the power after daily use. The main switch on the right side of the machine turns off all power to the unit and is lockable for service.
- (13) ONLY use your finger to press buttons on the control panel. Never use tools, knives or any other objects to push any buttons on ANY control panel.

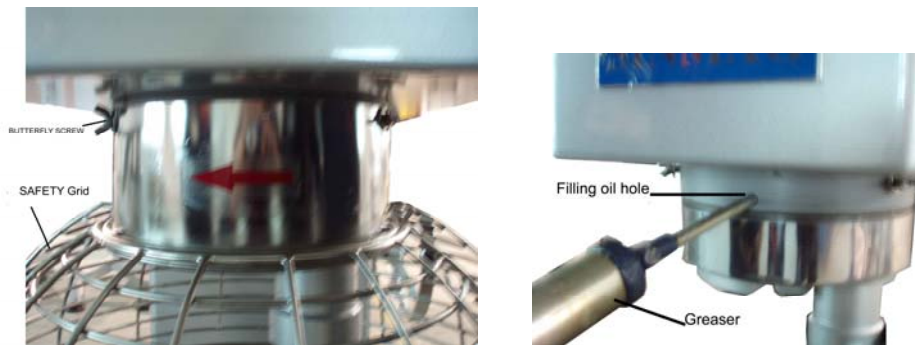
6. CLEANING AND MAINTENANCE

- (1) Shut the power off at main switch before cleaning the machine!
- (2) Use a damp cloth to clean the machine after daily use, do not wash it with a hose or power washer as this will damage the machine.
- (3) Clean the bowl and attachments after each use. Tools and bowl can be machine washed or sink washed when off of the machine.
- (4) Keep the bowl-agitator and other parts that come in contact with ingredients clean before daily use.
- (5) Every 2 or 3 months open the access covers and clean the inside of the machine to prevent flour dust buildup and to check for any foreign items in the machine.

① Maintenance

(1) Check all components to see whether they are in good status and the drive belts are tight and in good condition once a month. There should be a quarter inch of deflection in the center of the belts between the pulleys when pushed with your finger.

(2) Grease the drive gear wheel, as shown below:



A Loosen three wing nuts, then lift the safety grid up, then turn the safety grid in the direction of arrow, then ease the bowl cover downward. (see picture above, left), This will uncover an oiling hole where grease can be added to the planetary.

B Three or four pumps with a grease gun should be sufficient to lube planetary gear and ring. (see picture above, right)



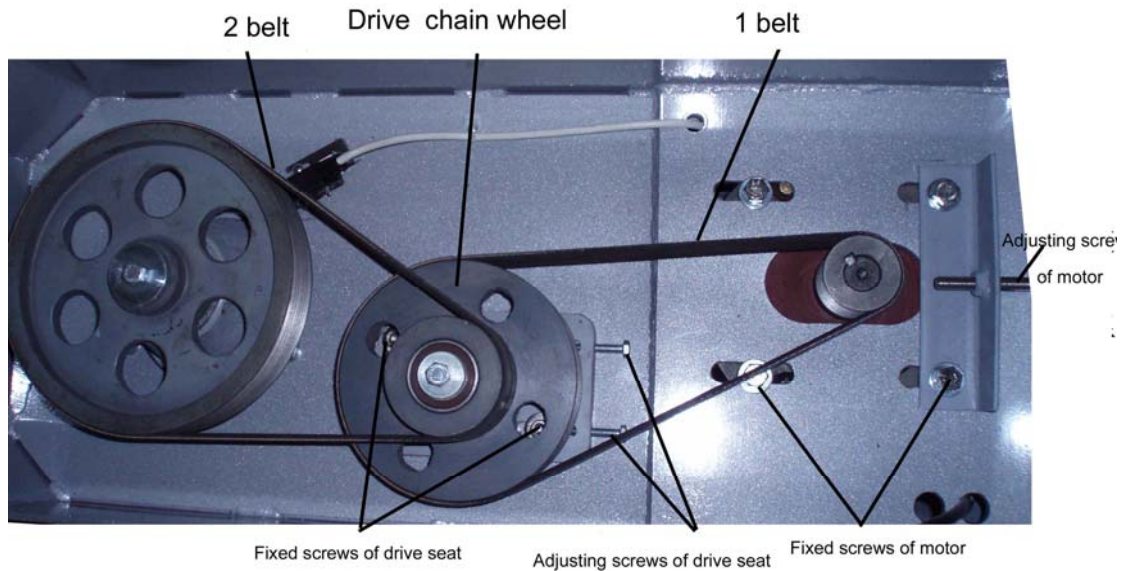
C Turn on the machine to check the machine while running and listen for any odd noises, If everything sounds normal, clear excess oil from around the oiling hole with cloth.

D Install the bowl cover safety grid and tighten the wing nuts.

E Every 3 months, open the back cover, grease the worm gear for bowl lift, chain, and other moving parts on bowl lift.

③ Belt Adjustment

(1) During operation, if mixing tool skips, the belt is loose, follow instructions below to repair.



A Turn off the main switch, open the top cover (remark: don't damage the cables connecting the top cover and machine). The cover will not come off of machine, place it on a hard surface or have a helper hold the cover. DO NOT allow top cover to hang off of control wires.

B Loosen the fixed screws of motor and fixed screws of drive seat 2 ~ 3 rounds. Do not take them off. (NOTE: when loosening the fixed screws of drive seat, keep holes of belt wheel in line with fixed screws of drive seat AS SHOWN ABOVE).

C Turn the adjusting screws of drive seat to adjust the tension of belt 2. Turn screws clockwise to increase the tension and counter-clockwise is to reduce the tension.

D Tighten the fixed screws of drive seat.

E Turn the adjusting screws of motor to adjust the tension of belt 1. Turn screws clockwise to increase the tension, and counter-clockwise to reduce the tension.

F Tighten the fixed screws of motor.

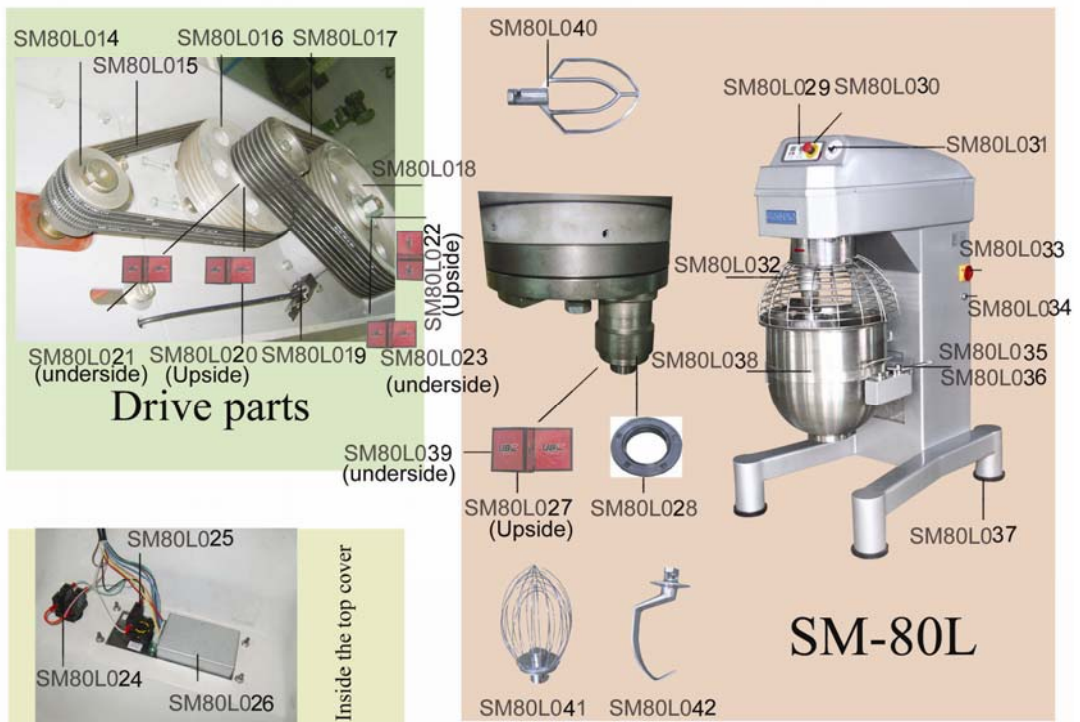
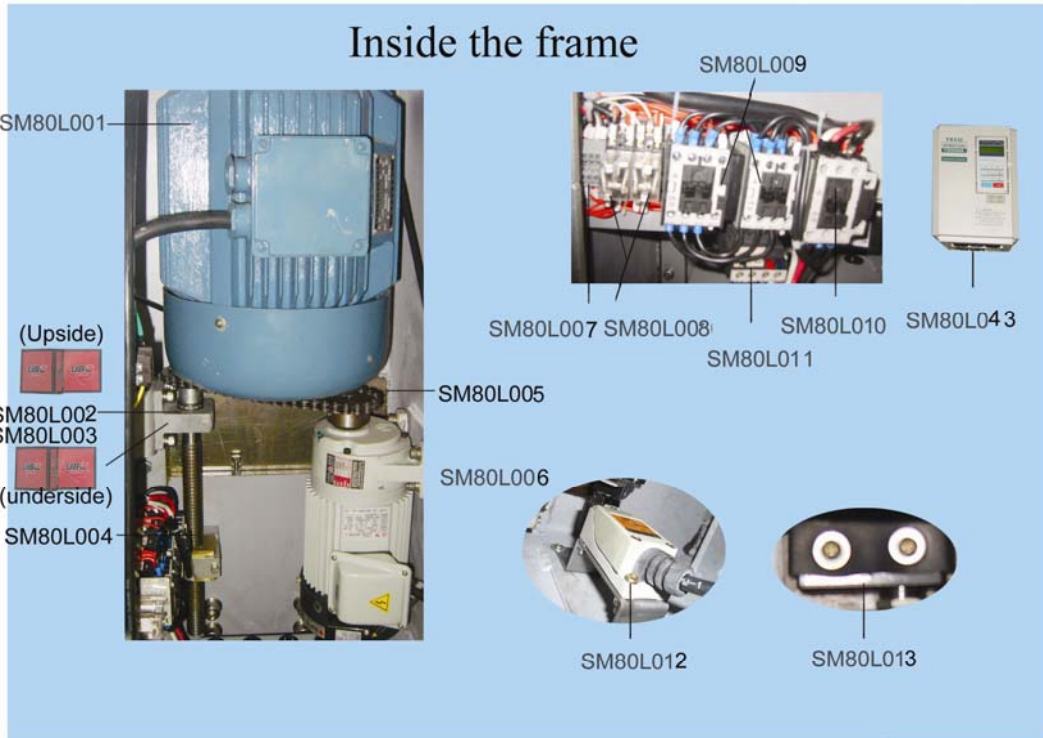
G Turn on the machine and listen for any sounds out of the ordinary.

7. TROUBLESHOOTING

Item	Possible reason	Method
1.Mixer rotates in reverse direction.	Check whether the any of the two cables are in reverse connection.	Exchange any of the two cables – any of the two except for ground.
2.Machine shakes during operation.	<ul style="list-style-type: none"> a) The floor is not level. b) Foot pad is unstable (if equipped). 	<ul style="list-style-type: none"> a) Move to a level floor. b) Readjust the foot pad to restore the machine's stability.
3.The mixer still rotates after the safety cover has been opened.	<ul style="list-style-type: none"> a) There is something wrong with micro switch. b) The arm that actuates microswitch is sticking or dirty. 	<ul style="list-style-type: none"> a) Change the microswitch. b) Check the actuator to see if damaged or dirty. Repair as needed.
4.Attachments loose or fall off during mixing.	<ul style="list-style-type: none"> a) Pin on the attachment is loose/missing/worn. b) Machine is rotating in wrong direction. c) Spring ball on attachment hub stuck. In up position. 	<ul style="list-style-type: none"> a) Replace attachment pin. b) Switch two electrical leads in plug until rotation is correct. c) Loosen spring ball and oil with mineral oil.
5. Main shaft does not turn.	<ul style="list-style-type: none"> a) Check the power. b) Check the main switch. c) Check if the bowl arms are all the way up. d) Check if any damage on operation panel. e) Check if contactor pulling in. f) Check if any overload relay is tripped. 	Contact the factory for further instructions.
6.Main shaft can not stop.	<ul style="list-style-type: none"> a) Check if any damage on operation panel. b) Check the contactor for loose wires or failed operation. 	Contact the factory for further instructions.
7.Main shaft does not run continuously.	<ul style="list-style-type: none"> a) Check for loose wires at contactor. b) Check if overloads are tripped. c) Check if any damage on operation panel. 	Contact the factory for further instructions.
8. Electrical short.	<ul style="list-style-type: none"> a) Check if any damage on cables. b) Check if any moisture in electrical box. c) Check if any damage on wiring of transformer caused by moisture or other. 	Contact the factory for further instructions.

	<p>reasons.</p> <p>d) Check if any electric shorts on motor.</p>	
<p>9. Main shaft will stop unexpectedly.</p>	<p>a) Check setting on overload protection on motor.</p> <p>b) Check if there is anything abnormal on motor.</p> <p>c) Check if there is something wrong with operation panel.</p>	<p>Contact the factory for further instructions.</p>
<p>10.Strange noise made by motor.</p>	<p>a) Check if there is enough water in the dough.</p> <p>b) Check if the noise is made by motor bearing or belts.</p>	<p>Contact the factory for further instructions.</p>

8. PARTS LIST



SM-80L PLANETARY MIXER PARTS LIST

Parts List	Parts Code	Parts Name	Specification
SM80L001	16MDL80L-1	Motor	380V-50Hz-3PH
SM80L002	15ZCL51104VV	Bearing	51104VV
SM80L003	15ZCL6004VV	Bearing	60042RS
SM80L004	14SM80L-20	Screw	
SM80L005	15LTL415H-55	Chain	
SM80L006	16JSJ80L	Motor	380v 3PH
SM80L007	16DZP280101	Plate	
SM80L008	16JDQJZX-18FF-1	Auxiliary relay	
SM80L009	16JCQCN16-2	Electromagnetic contactor	220V 50Hz
SM80L010	16JCQCN18-3	Electromagnetic contactor	220V 50Hz
SM80L011	16JDQRHN10A-11	Thermal relay	
SM80L012	16KGLTZ8108	Micro Switch	
SM80L013	16KGLTM1307	Micro Switch	
SM80L014	14SM80L-17E	Small belt wheel	
SM80L015	15PDL1090	Belt	7M-1090
SM80L016	14SM80L-70E	Drive belt wheel	
SM80L017	15PDL1180	Belt	
SM80L018	14SM80L-16E	Large belt wheel	
SM80L019	16KGLTM1307	Micro Switch	
SM80L020	15ZCL6306VV	Bearing	6306VV

SM80L021	15ZCL6207VV	Bearing	6207VV
SM80L022	15ZCL3308AVV	Bearing	3308AVV
SM80L023	15ZCL3309AVV	Bearing	3309AVV
SM80L024	16KGLM22	Lift switch	
SM80L025	16ANL03	Emergency switch	
SM80L026	16MBLOMX-022-T2	Panel	
SM80L027	15ZCL6207VV	Bearing	
SM80L028	15YFL456810	Oil seal	TC45*68*10
SM80L029	16MBLOMX-022-T2	Panel	
SM80L030	16ANL03	Emergency switch	
SM80L031	16KGLM22	Lift switch	
SM80L032	11SM80L-48	Safety grid	
SM80L033	16KGL3P20A	Main switch	
SM80L034	16ANL04	Start button	
SM80L035	14SM60L-33-02	Press handle(left)	
SM80L036	14SM60L-33-03	Press handle(right)	
SM80L037	14SM60L-23	Rubber mat	
SM80L038	11SM80L-29	Kneading bowl	
SM80L039	15ZCL6008VV	Bearing	
SM80L040	13SM80L-99	Beater	
SM80L041	14SM80L-100	Whipping ball	
SM80L042	11SM80L-98	Hook	
SM80L043	16BPQ80L-1	Transducer	7200MA 220V5.5KW

9 . ELECTRIC DIAGRAM

ELECTRIC CONTROL PANEL FOR SM-80L (380V-THREE PHASE)

- RED :+10V DC INPUT POWER SUPPLY
- BLUE :0-10V DC INPUT SIMULATION
- GREEN:PURPLE
- GRAY :OUTPT FROM RELAY
- ORANGE :INVERTER ON/OFF
- YELLOW :COM
- S :EMERGENCY STOP SWITCH
- LS1 :SAFETY GUARD LIMIT SWITCH
- LS2 :BOWL POSITION LIMIT SWITCH

