



OWNER'S MANUAL

ABSFBM-80T

Spiral Mixer



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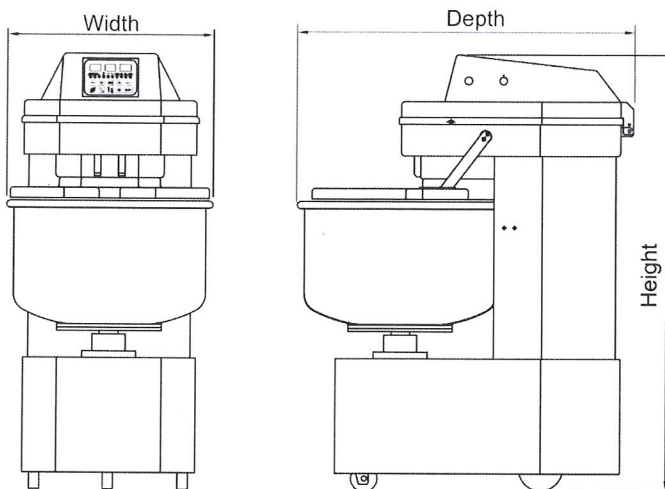
Introduction

The ABSFBM-80T is a Spiral Mixer with a Three-Timer control panel and two motors; one motor drives the hook while the other drives the bowl. The hook and bowl are made of stainless steel for long life and ease of cleaning. The full bowl cover keeps flour dust down and protects the operator from the hook while operating.

Owners and operators should carefully read and familiarize themselves with this entire manual before attempting to operate or service this machine. Complying with this manual will ensure years of safe and trouble-free operation.

All of the information, illustrations and specifications contained in this manual are based on the latest product information available at the time of printing. American Baking Systems reserves the right to make changes at any time without notice. If questions arise during the operation or servicing, please contact us before proceeding.

Specification



| Model | | ABSFBM-80T |
|----------------------|-----------|------------|
| Capacity (Pounds) | Flour | 110 |
| | Dough | 176 |
| Power | Spiral | 7.00 |
| | Bowl | 0.55 |
| Spiral Speed (rpm) | 1st speed | 122 |
| | 2st speed | 246 |
| Bowl speed (rpm) | | 13 |
| Dimension (inches) | Width | 30 |
| | Depth | 45 |
| | Height | 51 |
| Machine weight (lbs) | | 1,150 |

Installation

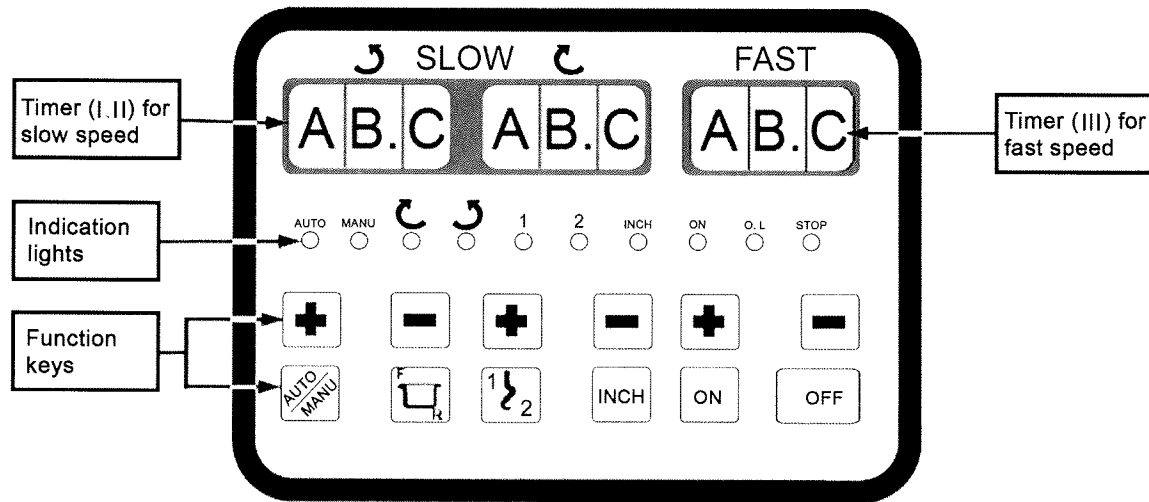
The machine is ready for installation. After uncrating your spiral mixer, inspect the machine for any damage that might have occurred during shipment. Report any damage to us before proceeding. Never attempt to operate this mixer with damaged parts.

- 1). Position the mixer in its appropriate working position, the mixer must be installed on a horizontal and solid floor.
- 2). Adjust the mixer feet to ensure that the mixer is level, and seat it firmly on all four corners. Ensure that no wheels touch the ground. The axles are not designed to support the unit while mixing.
- 3). Connect the correct power supply to the machine as indicated on the machine nameplate.

Commissioning

- 1). Start the mixer to check the direction of rotation of the kneading spiral and the bowl. When viewed from above, both kneading spiral and bowl should rotate clockwise. The arrow on the bowl indicates the correct direction of the bowl. If the rotation direction is incorrect, swap two phases in the plug (white and black wires) to reverse the rotation direction.
- 2). Test the function of the safety emergency stop button. The machine must stop immediately when you press this button.
- 3). Test the function of the limit switch for the bowl safety guard. When the guard is lifted, the machine must stop immediately.





Control Panel






1. Timers

On top of the operation panel, there are three timers: Timer I, II is for slow speed; Timer III is for fast speed. Each Timer has three digits.

The units of A and B are minutes, while C is 10 seconds, for example: 0.1 is 10 seconds, 1.2 is 1 minute and 20 seconds.

The timers are set by  and  buttons. Press  button to increase time, the maximum set time is 20 minutes. After 20 minutes is reached, the timer returns to 0 minute again. Press  button to lessen the time on the timer.

When the spiral mixer is switched ON, timers will show the set time. The timer will only be operative when mixer is in AUTO mode. The timer will start automatically when the ON button is pressed. The slow speed timer  will run first and then the slow speed timer , the fast speed timer begin to run when the timer  runs to zero. When all timers reach zero, the machine will stop mixing.

When the spiral mixer safety guard is lifted, the timer will stop with the mixer and resume when the guard is moved down and the ON button is pressed.

When the OFF button is pressed, the timers will reset to the original set time.

2. Indication lights

Indication lights indicate the running state of the spiral mixer:

A). AUTO/MANUAL lights:

When "AUTO" lamp lights up, spiral mixer is in AUTO operation.

When "MANU" lamp lights up, spiral mixer is in MANUAL operation.

B). Bowl direction lights:

When  lamp lights up, the bowl is in forward direction.

When  lamp lights up, the bowl is in reverse direction.

C). Mixer speed lights:

When 1 lamp lights up, the hook is in slow speed.

When 2 lamp lights up, the hook is in fast speed.

D). Bowl inching light:

When "INCH" lamp lights up, spiral mixer is in manual inch mode. This button is also operative when the safety guard is lifted.

E). On model light:

When "ON" lamp lights up, spiral mixer is in mixing mode.

F). O.L. Light:

When "O.L." (OVERLOAD) lamp lights up, the overload relay is on. It inform you that the mixer is overload, please switch off the mixer and decrease the mixing weight and restart the machine again.

G). Stop mode light:

When "STOP" lamp lights up, safety cover has been raised during mixing mode.

3. Function keys



AUTO / MANUAL selection



Speed selection button



Bowl direction selection



Inching button



Start button



Stop button

Operation Preparation











Check the machine's bowl is clear of all foreign objects, all switches are off and work area should be clear of bystanders.

Safety guard should be raised and pushed back fully against stop to avoid it falling onto operator. The mixer has safety interlocks to prevent mixer operation when the safety guard is lifted.





Complete ingredient should be checked to ensure accuracy in scale.

Operation Steps

1. Auto operation


- A). Press   buttons below I timer to set the desired time for reverse bowl slow mixing speed.
- B). Press   buttons below II timer to set the desired time for forward bowl slow mixing speed.
- C). Press   buttons below III timer to set the desired time for forward bowl fast mixing speed.
- D). Press  button until the "AUTO" lamp lights up.
- E). Press  button until the  lamp lights up.
- F). Press  button to start machine.

2. Manual operation

- A). Press  button until the “MANU” lamp lights up.
- B). Press  buttons to select the desired bowl direction.
- C). Press  to start.
- D). Press  button when you want to stop the machine.

The timer will not function under manual operation.

The mixer will always start with slow speed even if you have selected fast speed to start. When the mixer is running at slow speed, you can press the

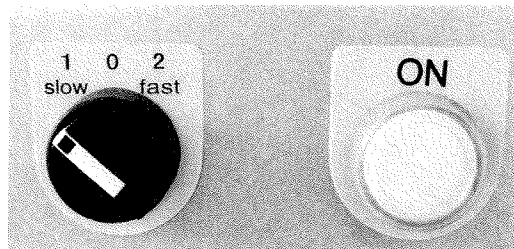
 button to engage high speed.

3. Control Buttons

When digital panel is damaged, the mixer can be operated by manual switch located at left side of top cover. You can select slow speed or fast speed manually without timer.

- A). Press “ON” to start the machine
- B). “1” means slow speed, “2” means fast speed.

In this Operation, the bowl can only rotate clockwise. And you can stop the machine by pressing the emergency stop button or opening the safety guard.



1. Use the machine with great care and never be distracted.
2. Do not wear loose fitting clothes or clothing with wide or open sleeves.
3. Do not remove, cover or alter the warning stickers or machine safety covers placed on the machine body.
4. Use machine only for what it was intended.
5. Do not set dough knives or scrapers atop machine, they could fall in during operation and ruin the machine or injure the operator.
6. Do not use the machine with temporary electrical connections or non-insulated cables.
7. Periodically check the state of the power cord and the cable clamp on the machine body, replace it if necessary by an authorized service provider.
8. Discontinue use of the machine if there are broken or missing covers, a damaged cord, or loud or odd noises coming from the machine..
9. Before cleaning or carrying out maintenance, isolate the machine from the power supply first.
10. For all extraordinary maintenance, consult with the manufacturer or authorized personnel.
11. Never insert hands or other objects into the bowl when the machine is in operation. Keep hands and clothing away from bowl rollers while bowl is turning.

CLEANING AND MAINTENANCE

1. Brush off all external surfaces. Use a soft brush and work from the top to the bottom.
2. Remove all old dough using a plastic scraper.
3. Scrape the mixing bowl, the breaker bar, the dough spiral, under the bowl cover inside the mixing bowl, and behind the mixing bowl.
4. Wipe all surfaces with warm water.
5. Apply a detergent/sanitizer and leave on all surface.
6. Scrub to loosen and remove residues.
7. Rinse the bowl and dough spiral mixer tool thoroughly with hot water on a damp rag. **DO NOT POWER WASH OR HOSE OFF MACHINE!**
8. Remove excess moisture with clean towels. Dry all surfaces.

TROUBLE SHOOTING

| Fault | Possible Cause | Remedy |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The mixer does not operate /start. | <p>Not plugged in.</p> <p>The main switch is "off".</p> <p>The bowl safety cover is open.</p> <p>The mixer overload has been tripped.</p> <p>Stop button is still locked in the down position.</p> | <p>Plug in and switch on.</p> <p>Turn the switch on.</p> <p>Place it down position.</p> <p>Contact supervisor / service agent.</p> <p>Release by rotating and pulling out.</p> |
| The mixer starts and then stops. | <p>Both high and low speed timers are set to zero.</p> <p>The mixer overload has been activated.</p> <p>Fuse blown internally.</p> | <p>Set mixing time on both timers.</p> <p>Contact supervisor / service agent.</p> <p>Contact supervisor / service agent.</p> |
| The mixer labors under load. Belts screech. | <p>Dough too stiff / tight.</p> <p>Machine malfunction.</p> | <p>Review and adjust dough consistency, eg. Add more liquid.</p> <p>Contact supervisor / Service agent.</p> |
| The mixer moves or rocks during operation. | Floor not level or the adjustable feet are located incorrectly. | Readjust level and stabilize by means of adjustable foot. |
| Excessive flour dust coming from mixer. | First speed timer set too short. | Extend first speed mix / blending cycle. |
| The mixer bowl and dough hook operate in the wrong direction. | Mixer is plugged into a new electrical socket after cleaning or moved in bakery. Polarity of 3 phase plug reversed. | <p>Return to original position in bakery.</p> <p>Consult authorized electrical service to rewire plug; swap white and black wires in plug.</p> |

TROUBLE SHOOTING

| Fault | Possible Cause | Remedy |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| The mixer does not stop | Electrical / mechanical malfunction. | Switch off power at main switch. Isolate mixer by unplugging. Attach danger tag to machine. Contact authorized service agent. |
| Bread dough too soft. | Excessive water used in dough (human error). Incorrectly metered / measured through water meter (equipment error). Over-mixed dough | Review recipe and adjust dough consistency. Contact authorized maintenance. Review/check /adjust mix cycle. |
| Final dough temperature too hot. | Water temperature too hot. Dough mixed too long. | Reduce water temperature. Shorten mix cycle. |
| Final dough temperature too cold. | Water temperature too cold. Dough mixed too short. | Increase water temperature. Lengthen mix time. |
| Dough is difficult to remove from the mixing bowl. | Dough over-mixed. | Refer-dough too soft. Run food grade oil between dough and bowl at the end of mix cycle to stop dough sticking. |

SM-80T SPIRAL MIXER PARTS LIST

| Parts Number | Parts Code | Parts Name | Specification |
|--------------|------------------|-----------------------------|-------------------------------------------------|
| SM80T001 | 16BYQJBK63-1 | Transformer | 220V/380V-26V/110V (2A) |
| | 16BYQJBK63-2 | Transformer | 415V-220V/110V/26V (2A) |
| SM80T002 | 16JDQMY2-110V | Relay | 110V |
| SM80T003 | 16JDQRHN10A-2 | Thermal Relay | RHN-10A 2.4-3.6A |
| SM80T004 | 16JDQRHN10A-4 | Thermal Relay | RHN-10A 8.5-12.5A |
| SM80T005 | 16JDQRHN10A-5 | Thermal Relay | RHN10A 12.5-18A |
| SM80T006 | 16BXSZD | Fuse Seat | |
| SM80T007 | 16JDQMY4-24V | Relay | 24V |
| SM80T008 | 16JCQCN16-1 | Contacto | 24V/50HZ |
| SM80T009 | 16LSLCI-18 | Mechanical Connector | |
| SM80T010 | 16JCQCN18-1 | Contacto | 24V/50HZ |
| SM80T011 | 16KGLMEA9112G | Microswitch | |
| SM80T012 | 15PDL1320 | Belt | 7M-1320 (6PCS) |
| SM80T013 | 15ZCL6210VV | Bearing | 6210VVRS NACHI |
| SM80T014 | 15ZCL6210 | Bearing | 6210 NACHI |
| SM80T015 | 14M370-02 | Main Shaft | |
| SM80T016 | 16KGLZA2-BS54 | Emergency-Stop Switch | |
| SM80T017 | 16KGL0T63ET3 | Power Switch | |
| SM80T018 | 14M780-02 | Safety Grids Stopper | |
| SM80T019 | 16MBOMX-005 | Digital Touch Control Panel | Two-Timer Model |
| SM80T019-1 | 16MBLOMX-019-01 | Digital Touch Control Panel | Three-Timer Model |
| SM80T020 | 13M444-03-01 | Machine Top Cover | |
| SM80T021 | 16KGLBE101 | Cover for Manual Switch | |
| | 16KGLZA-BD3 | Manual Switch | |
| SM80T022 | 16KGLAR22PR-322B | Selector Switch | |
| SM80T023 | 11M750-02 | Bowl Safty Grid | |
| SM80T024 | 14M620-02 | Mixing Bowl | |
| SM80T025 | 13M650-02 | Center Pillar | |
| SM80T026 | 13M640-02 | Clamping Block | |
| SM80T027 | 14M630-02S | Stainless Steel Dough Hook | M630-020, M630-02S |
| | 14M630-02 | Dough Hook | |
| SM80T028 | 13M802-07 | Bowl Cover | |
| SM80T029 | 16MDL80S-1 | Top Motor | B3YD112M-4/8 YD112M-8/4 220V-50HZ-3PH 2.2/4.5KW |
| | 16MDL80S-2 | Top Motor | B3YD112M-4/8 YD112M-8/4 220V-60HZ-3PH 2.4/4.5KW |
| | 16MDL80S-3 | Top Motor | B3YD112M-4/8 YD112M-8/4 380V-50HZ-3PH 2.2/4.5KW |
| | 16MDL80S-4 | Top Motor | B3YD112M-4/8 YD112M-8/4 380V-60HZ-3PH 4.5/2.2KW |
| | 16MDL80S-5 | Top Motor | B3YD112M-4/8 YD112M-8/4 415V-50HZ-3PH 2.2/4.5KW |

| | | | |
|----------|---------------|-------------------------------|------------------------------------------------|
| SM80T030 | 16MDL80X-8 | Bottom Motor | B5Y100L-8 Y100L1-8 230/400V-50/60HZ-3PH 0.75KW |
| SM80T031 | 15ZCL6202VV | Bearing | 6202VV UBC |
| SM80T032 | 14M850-02 | Bowl Roller Bolt | |
| SM80T033 | 14M840-02 | Bowl Roller | |
| SM80T034 | 15BSLHY01 | Outrigger Screw | B-M16*63 |
| SM80T035 | 14D9016150-01 | Foot Pad | |
| SM80T036 | 15ZCL6211VV | Bearing | 6211ZZ2RS NACHI |
| SM80T037 | 14M530-03 | Bearing Housing | |
| SM80T038 | 15ZCL6009VV | Bearing | 60092RS NSK |
| SM80T039 | 15ZCL6010VV | Bearing | 60102RS NACHI |
| SM80T040 | 15LZL5 | Rear Wheel | M951-02 |
| SM80T041 | 15PDL1150 | Belt | 7M-1150 (9PCS) |
| SM80T042 | 11M870-02 | Machine Rear Cover | 1.5T*399*655 SPCC |
| SM80T043 | 15ZCL6002VV | Bearing | 60022RS |
| SM80T044 | 15LZLH3 | Front Castor | M951-01 |
| SM80T045 | 13M770-02 | Bowl Cover | |
| SM80T046 | 14M830-02 | Bowl Roller Cover | |
| SM80T047 | 12M860-01 | Fixing Piece for Bowl Roller | SUS304 2t*25*55 |
| SM80T048 | 14M142-01 | Outrigger Bolt | |
| SM80T049 | 14M410-05 | Transmission Shaft | |
| SM80T050 | 14M420-05 | Transmission Shaft Housing | |
| SM80T051 | 14M560-11 | Rotating Plate | |
| SM80T052 | 15ZCL6203VV | Bearing | 62032RS UBC |
| SM80T053 | 14M170-02 | Shaft for Front Castor | |
| SM80T054 | 13M801-07 | Bowl Cover | |
| SM80T055 | 14M160-03 | Seat for Front Castor | |
| SM80T056 | 14M150-03 | Bracket for Front Castor | |
| SM80T057 | 14M600-02 | Lock Nut for Rotating Plate | |
| SM80T058 | 16JDQPYPF-14 | Relay Seat | |
| SM80T059 | 16BXSG111B | Fuse Cover | |
| SM80T060 | 16DZP280101 | Connector | |
| SM80T061 | 16JDQPYPF-08 | Relay Seat | |
| SM80T062 | 16JWB280301 | End Plate | |
| SM80T063 | 16ZB2BE102C | Normally Closed Contact Block | |
| SM80T064 | 14M320-02A | Motor Pulley | 50HZ |
| | 14M320-02 | Motor Pulley | 60HZ |
| SM80T065 | 14M330-01 | Bottom Motor Pulley | 50HZ & 60HZ |
| SM80T066 | 11M290-06 | Bottom Motor Plate | 5T*70*130 |

| | | | |
|----------|---------------|------------------------------------|-------------------|
| SM80T067 | 14M461-01 | Fixing Piece for Top Cover | |
| SM80T068 | 14M471-01 | Fixing Piece for Top Cover | |
| SM80T069 | 11M880-01 | Machine Side Cover | 1.2T*142*242 SPCC |
| SM80T070 | 14M390-01 | Cushion Block for Pulley | |
| SM80T071 | 14M380-02 | Main Shaft Pulley | |
| SM80T072 | 14M350-01 | Upper Bearing Housing | |
| SM80T073 | 14M371-02 | Spacer for Main Shaft | |
| SM80T074 | 14M360-01 | Bottom Bearing Housing | |
| SM80T075 | 15YFL50*70*9 | Oil Seal for Main Shaft | 50*70*9 |
| SM80T076 | 14M491-02 | Plate for Control Panel | |
| SM80T077 | 14M670-02 | Adjusting Wheel Mount Clip | |
| SM80T078 | 14M700-01 | Adjusting Wheel for Bowl Cover | |
| SM80T079 | 12M740-01 | Bottom Plate for Microswitch | SUS304 2t*69*98 |
| SM80T080 | 14M710-01 | Adjusting Wheel for Microswitch | |
| SM80T081 | 14M680-02 | Adjusting Wheel Mount Clip | |
| SM80T082 | 14M810-11 | Bowl Cover Bracket | |
| SM80T083 | 14M811-11 | Bowl Cover Bracket | |
| SM80T084 | 15ZCL51104 | Bearing | |
| SM80T085 | 14M180-02 | Shaft for Rear Wheel | |
| SM80T086 | 14M400-03 | Transmission Shaft Pulley | |
| SM80T087 | 11M430-03 | Fixing Piece | 10T*30*100 |
| SM80T088 | 14M845-02 | Watertight Cover | |
| SM80T089 | 12M492-50 | Fixing Piece for Control Panel | 2t*64*250 |
| SM80T090 | 12M472-03 | Fixing Piece for Control Panel | SPCC 2t*86*406 |
| SM80T091 | 14M550-01 | Protector Cover for Rotating Plate | |
| SM80T092 | 14M540-02 | Bushing | |
| SM80T093 | 14M590-04 | Pulley for Rotating Plate Assembly | |
| SM80T094 | 14M140-06 | Support Strut | |
| SM80T095 | 14D9016150-03 | Bushing | |
| SM80T096 | 2PDS20 | Stainless Steel Gasket | φ 20 |

WIRING DIAGRAM

