



OWNER'S MANUAL

ABSFBM-120T

Spiral Mixer



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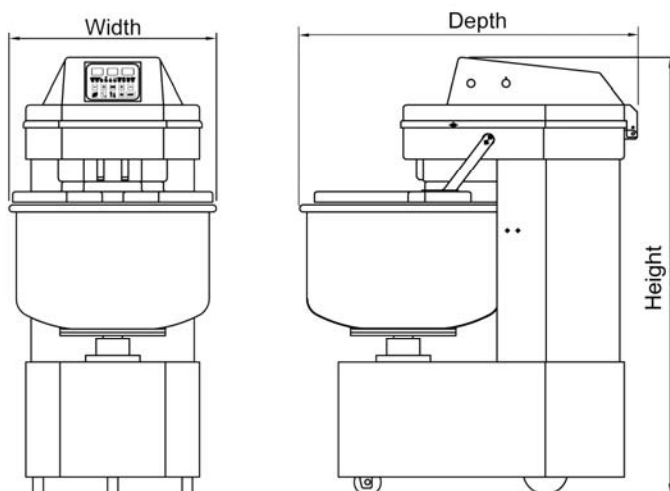
Introduction

The ABSFBM-120T 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-120T
Capacity (Pounds)	Flour	165
	Dough	264
Power	Spiral	9.00
	Bowl	0.55
Spiral Speed (rpm)	1st speed	110
	2st speed	220
Bowl speed (rpm)		13
Dimension (inches)	Width	33
	Depth	52
	Height	58
Machine weight (lbs)		1,350

Installation

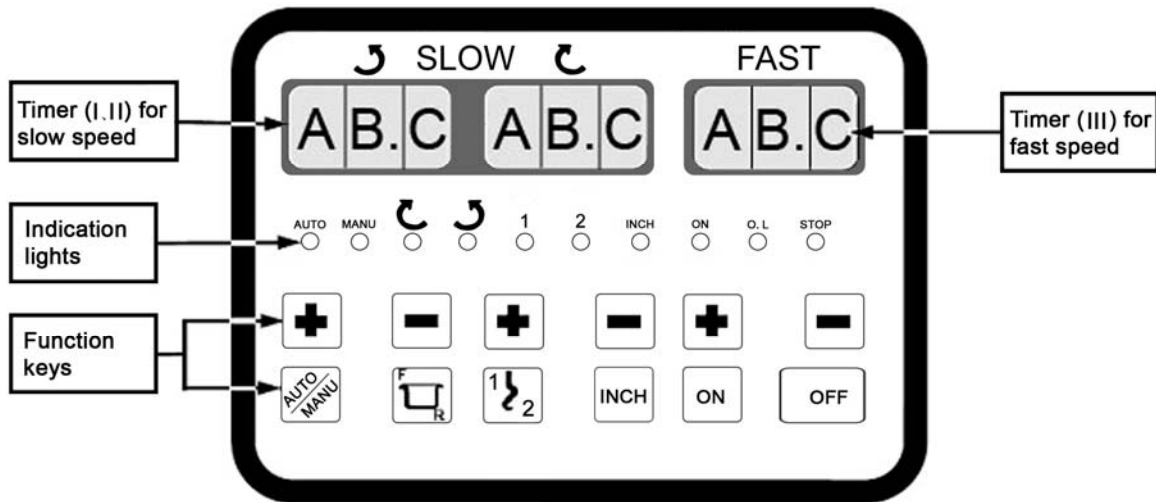
The machine is ready for installation. After uncrating your spiral mixer, inspect the machine for any damage that might have occurred during shipment. Report any damage to us before proceeding. Never attempt to operate this mixer with damaged parts.

- 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 unit of A and B is minute 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 the slow speed state.

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

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.



CAUTION

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.

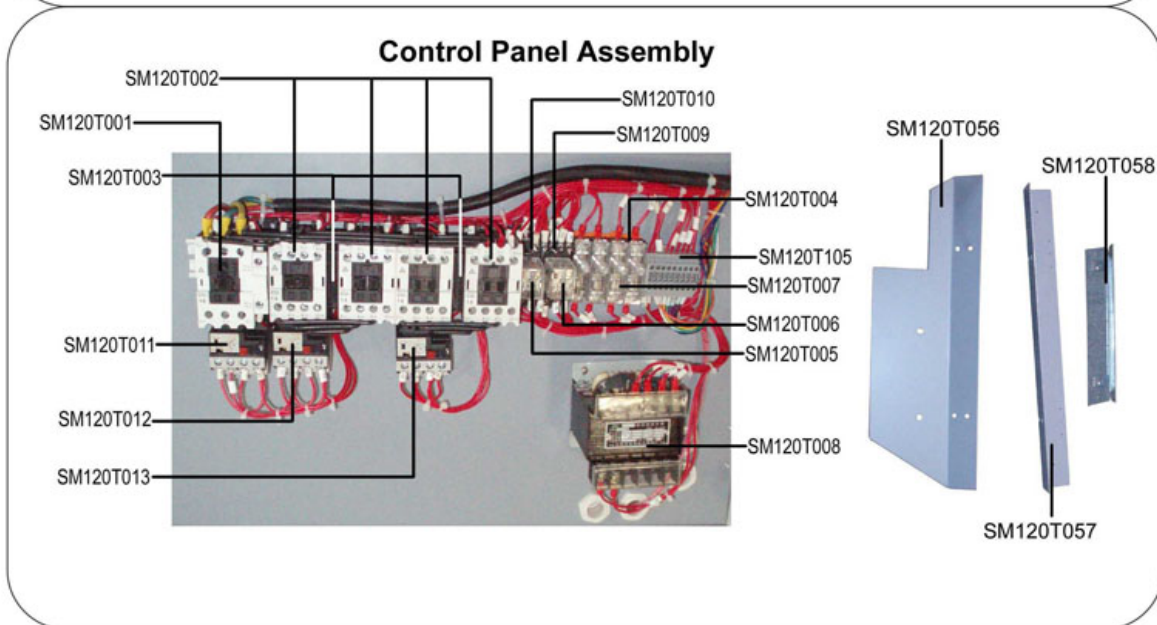
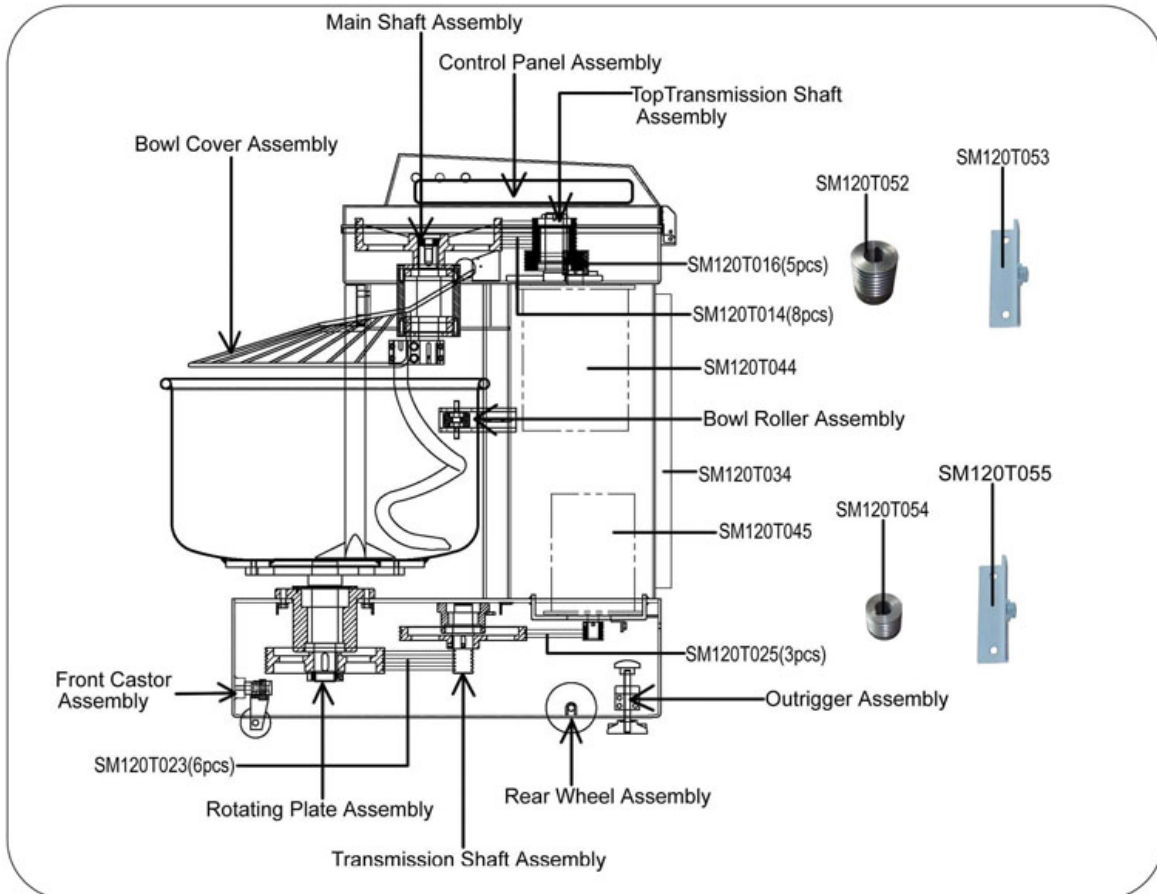
TROUBLE SHOOTING

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.

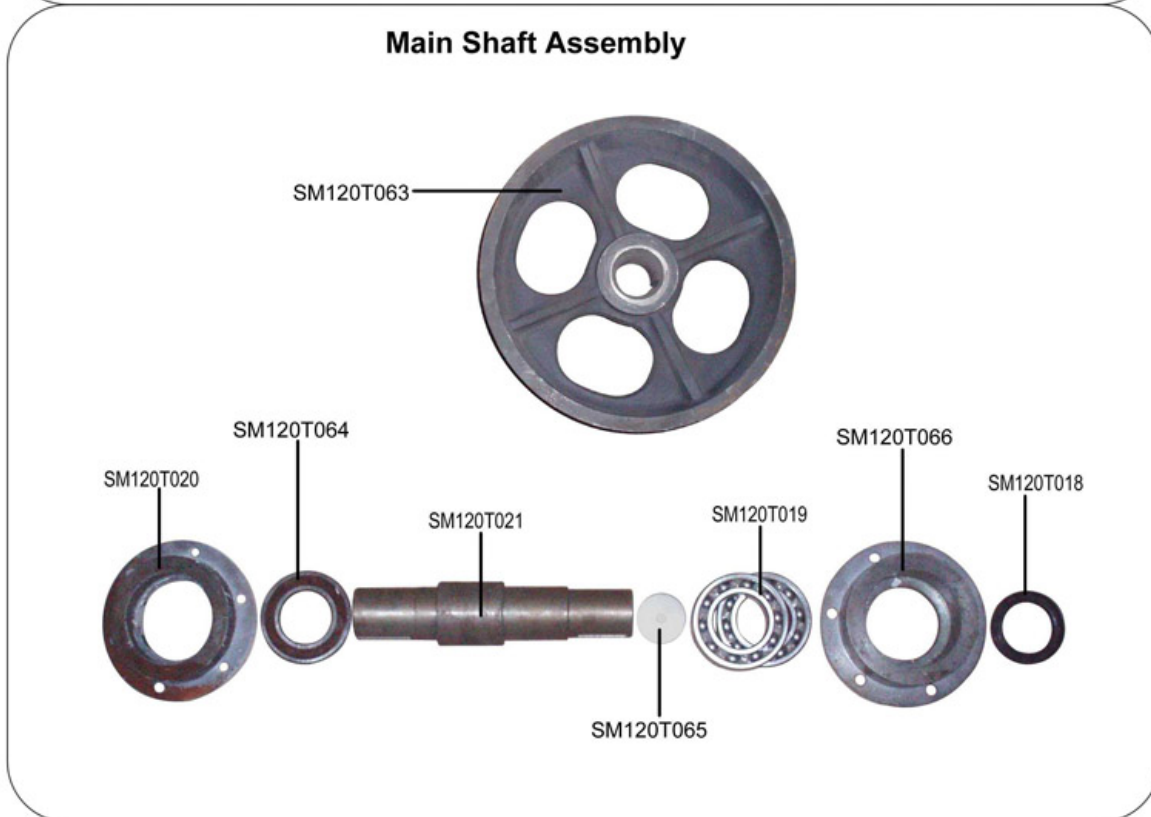
PARTS LIST



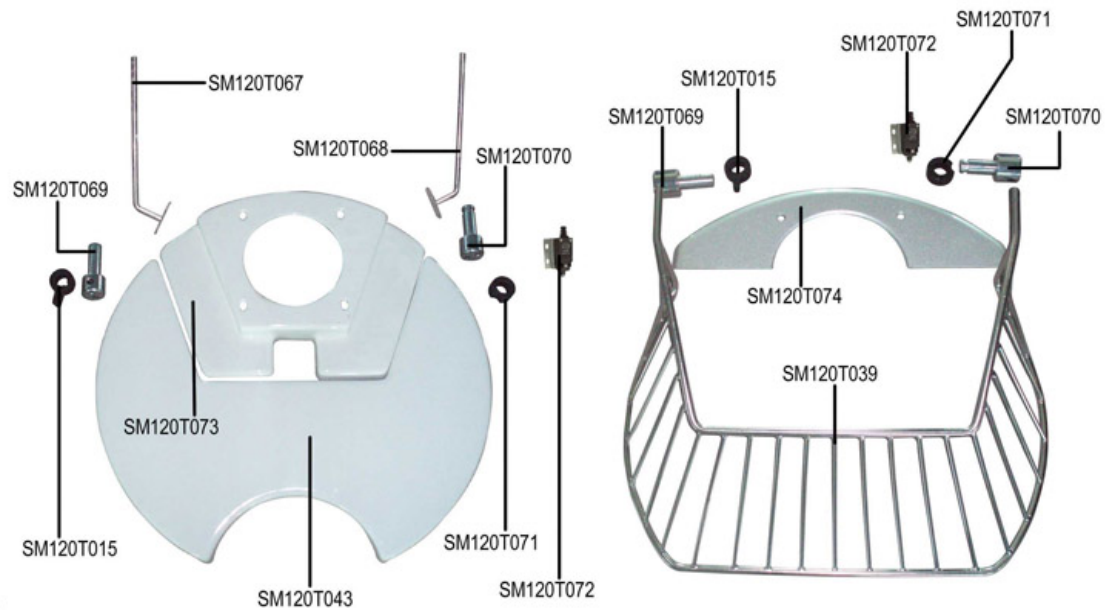
PARTS LIST



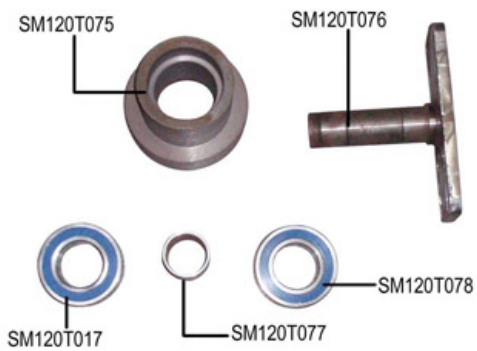
Main Shaft Assembly



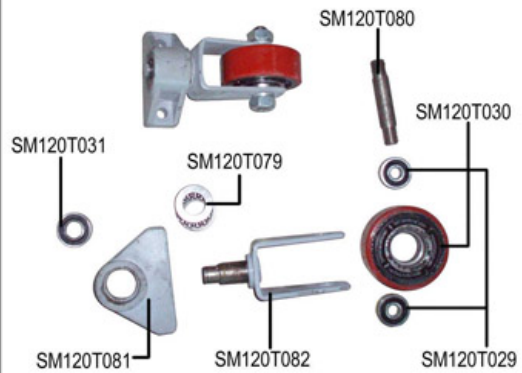
Bowl Cover Assembly



Top Transmission Shaft Assembly



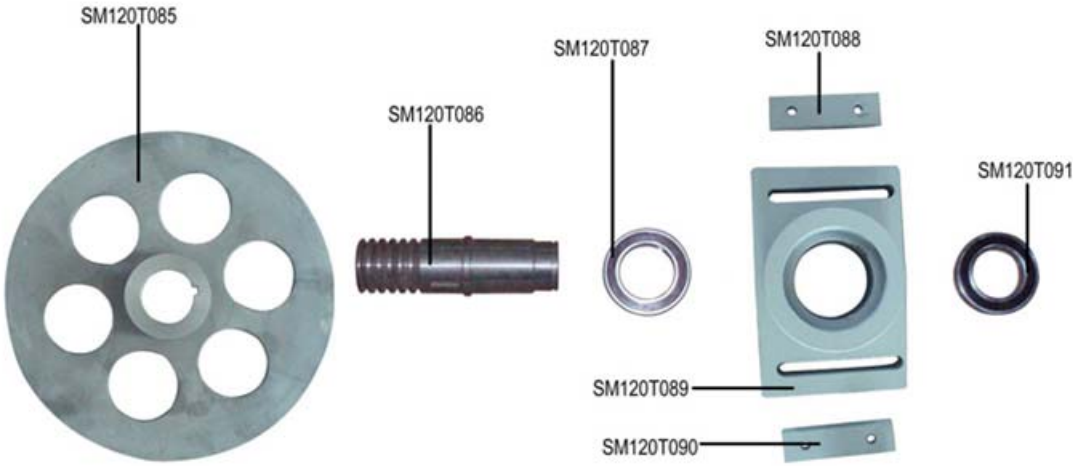
Front Castor Assembly



Rear Wheel Assembly



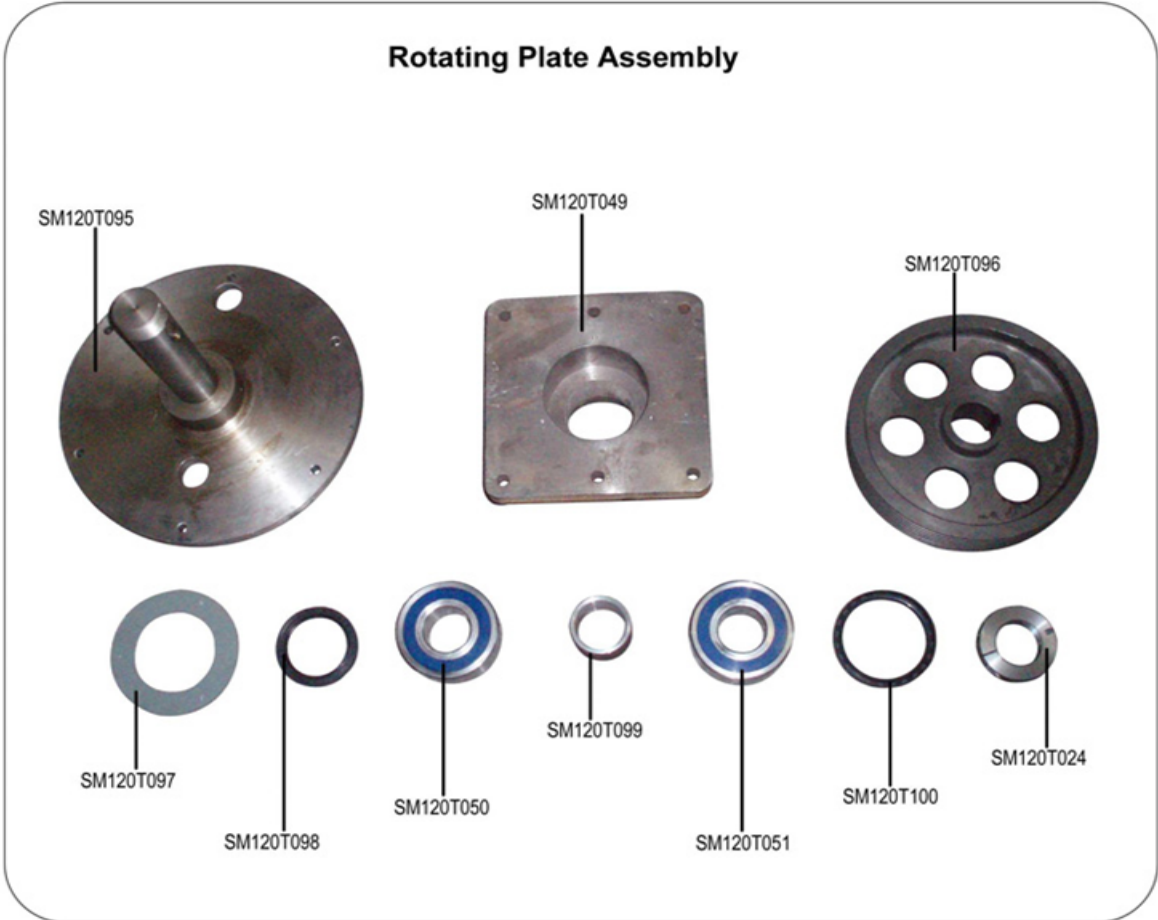
Transmission Shaft Assembly



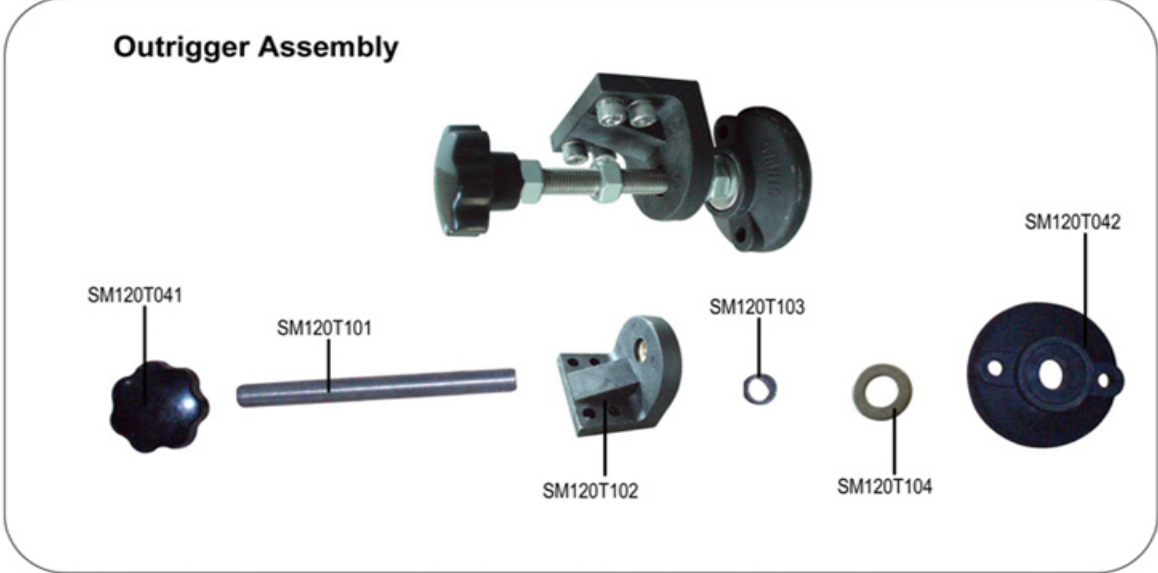
Bowl Roller Assembly



Rotating Plate Assembly



Outrigger Assembly



PARTS LIST

Parts Number	Parts Code	Parts Name	Specification
SM120T001	16JCQCN18-1	Contactora	
SM120T002	16JCQCN16-1	Contactora	
SM120T003	16LSLCI-18	Mechanical Connector	
SM120T004	16BXSZD	Fuse Seat	
SM120T005	16JDQMY4-24V	Relay	AC 24V
SM120T006	16JDQMY2-110V	Relay	AC 110V
SM120T007	16BXSG111B	Fuse Cover	
SM120T008	16BYQJBK100-1	Transformer	380V-220V/110V 30W-26V 70W
SM120T009	16JDQPYPF-14	Relay Seat	
SM120T010	16JDQPYPF-08	Relay Seat	
SM120T011	16JDQRHN10A-5	Thermal Relay	
SM120T012	16JDQRHN10A-8	Thermal Relay	
SM120T013	16JDQRHN10A-2	Thermal Relay	
SM120T014	15PDL1600	Belt	7M-1600 (8pcs)
SM120T015	14M700-01	Adjusting Wheel	
SM120T016	15PDL7M-925	Belt	7M-925 (5pcs)
SM120T017	15ZCL3209VV	Bearing	3209VV
SM120T018	15YFL50*70*9	Oil Seal	50*70*9
SM120T019	15ZCL6210	Bearing	6210
SM120T020	14M350-01	Top Bearing Housing	
SM120T021	14M370-12T	Main Shaft	
SM120T022	15LZL5	5" Rear Wheel	
SM120T023	15PDL1280	Belt	7M-1280 (6pcs)
SM120T024	14M600-02	Lock Nut	
SM120T025	15PDL1280	Belt	7M-1280 (3pcs)
SM120T026	14M840-03	Guide Roller	
SM120T027	14M850-02	Guide Roller Shaft	
SM120T028	15ZCL6202VV	Bearing	6202VV
SM120T029	15ZCL6002VV	Bearing	60022RS
SM120T030	15LZLH3	3" Front Castor	
SM120T031	15ZCL6202VV	Bearing	6202VV
SM120T032	16KGL0T63ET3	Power Switch	
SM120T033	16KGLZA2-BS54	Emergency-Stop Switch	
SM120T034	11M870-12S	Machine Rear Cover	1.5T*486*824 SPCC
SM120T035	16MBLOMX-019-01	Control Panel	
SM120T036	16KGLAR22PR-322B	Selector Switch	

PARTS LIST

SM120T037	16KGLBE101	Manual Switch	
	16KGLZA-BD3	Manual Switch Seat	
SM120T038	13M444-12T-01	Machine Top Cover	
SM120T039	11M750-12TT	Safety Grids	
SM120T040	11M620-12T	Bowl	
SM120T041	15BSLHY01	Outrigger Screw	
SM120T042	14D9016150-01	Foot Pad	
SM120T043	13M802-12T	Safety Cover	
SM120T044	16MDL120TS-1	Top Motor	380V-50HZ-3PH 10KW 4/8P
SM120T045	16MDL120AX-12	Bottom Motor	230/400V-50/60H Z-3PH 0.55KW 10P
SM120T046	13M640-12T	Clamping Block	
SM120T047	14M630-12TS	Hook	
SM120T048	13M650-12T	Central Pillar	
SM120T049	14M540-12TT-01	Bearing Housing	
SM120T050	15ZCL3311VV	Bearing	3311VV
SM120T051	15ZCL3211VV	Bearing	3211VV
SM120T052	14M320-12TT-02	Top Motor Pulley	For 50HZ
SM120T053	11M270-12TT	Adjust Plate for Motor	
SM120T054	14M330-09-02	Bottom Motor Pulley	
SM120T055	11M290-06	Adjust Plate for Motor	
SM120T056	12M492-12T	Fixing Piece	
SM120T057	12M472-12T	Fixing Piece	
SM120T058	12M492-50	Fixing Piece	
SM120T059	11M880-02	Machine Side Cover	SPCC 2T*340*150
SM120T060	14M461-01	Fixing Piece for Top Cover	
SM120T061	14M471-01	Fixing Piece for Top Cover	
SM120T062	14M780-12T	Safety Grids Stopper	
SM120T063	14M380-12TT-02	Pulley	
SM120T064	15ZCL6210VV	Bearing	6210VV
SM120T065	14M371-02	Gasket	
SM120T066	14M360-01	Bottom Bearing Housing	
SM120T067	14M810-12TT	Bowl Cover Supporter	
SM120T068	14M810-12TT	Bowl Cover Supporter	
SM120T069	14M675-12T	Mount Clip	Left
SM120T070	14M685-12T	Mount Clip	Right

PARTS LIST

SM120T071	14M710-01	Adjusting Wheel for Microswitch	
SM120T072	16KGLMEA9112G	Microswitch	
SM120T073	13M801-12T	Safety Cover	
SM120T074	13M770-03	Safety Cover	
SM120T075	14M250-12T-03	Pulley	
SM120T076	14M190-12T-03	Top Transmission Shaft	
SM120T077	14M240-12T-02	Bush	
SM120T078	15ZCL3209VV	Bearing	3209VV
SM120T079	15ZCL51104	Bearing	51104
SM120T080	14M170-02	Shaft for Front Castor	
SM120T081	14M150-03	Bracket for Front Castor	
SM120T082	14M160-03	Seat for Front Castor	
SM120T083	14M180-12TT	Shaft for Rear Wheel	
SM120T084	15ZCL6203VV	Bearing	6203VV
SM120T085	14M400-04-02	Pulley	
SM120T086	14M410-12TT-02	Transmission Shaft	
SM120T087	15ZCL6210VV	Bearing	6210VV
SM120T088	11M430-03	Fixing Piece	10T*30*100
SM120T089	14M420-12TT	Bearing Housing	
SM120T090	11M430-03	Fixing Piece	10T*30*100
SM120T091	15ZCL6209VV	Bearing	6209VV
SM120T092	14M845-02	Waterproofer Cover	
SM120T093	12M860-01	Fixing Piece for Bowl Roller	SUS304 2t*25*55
SM120T094	14M830-12T	Bowl Roller Cover	
SM120T095	14M560-12TT-01	Rotating Plate	
SM120T096	14M590-12T-03	Pulley	
SM120T097	14M550-02-01	Protect Cover for Rotating Plate	
SM120T098	15YFL12*100*120	Oil Seal	12*100*120
SM120T099	14M540-12TT-01	Bush	
SM120T100	15YFL10*75*100	Oil Seal	10*75*100
SM120T101	14D9016150-04	Outrigger Bolt	
SM120T102	14M140-06	Support Strut	
SM120T103	14D9016150-03	Bushing	
SM120T104	2PDS20	Stainless Steel Gasket	
SM120T105	16DZP280101	Connector	

WIRING DIAGRAM

