

# SPACEMAN<sup>USA</sup>

COMMERCIAL ICE CREAM & FROZEN BEVERAGE EQUIPMENT

## PARTS LIST



### MODEL SM-6250

SOFT SERVE - FLOOR STANDING - DOUBLE FLAVOR

**Customer Service**

Sunday – Saturday  
8 AM – 5 PM Mountain

Toll-Free: +1 (888) 610-5520  
Local: +1 (720) 328-1020

[service@spacemanusa.com](mailto:service@spacemanusa.com)

**Spaceman USA, LLC**

226 Commerce Street  
Suite B  
Broomfield, CO 80020

**Sales and Product Information**

Monday – Friday  
8 AM – 5 PM Mountain

Toll-Free: +1 (888) 610-5520  
Local: +1 (720) 328-1020

[sales@spacemanusa.com](mailto:sales@spacemanusa.com)  
[info@spacemanusa.com](mailto:info@spacemanusa.com)

# TROUBLESHOOTING

## PROBLEM: STOP 1 - LOW TEMP PROTECT

### Probable Cause

1. Inadequate mix in hopper
2. Improper mixing of product
3. Air Tube is not installed correctly
4. Viscosity adjustment is set incorrectly
5. Product being drawn too quickly

### Remedy

1. Ensure hopper is at least half full
2. Follow manufacturer instructions for mixing product; ensure correct mix ratios
3. Clean Air Tube, ensure proper orientation
4. Lower viscosity setting as required (Page 17)
5. Ensure Air Tube not clogged, allow machine 2-3 seconds in between servings.

## PROBLEM: STOP 2 - MOTOR OVERLOAD

### Probable Cause

1. Viscosity adjustment is set incorrectly
2. Inadequate mix in hopper
3. Improper mixing of product
4. Air Tube is not installed correctly
5. Product being drawn too quickly

### Remedy

1. Lower viscosity setting as required (Page 17)
2. Ensure hopper is at least half full
3. Follow manufacturer instructions for mixing product; ensure correct mix ratios
4. Clean Air Tube, ensure proper orientation
5. Ensure Air Tube not clogged, allow machine 2-3 seconds in between servings to recover.

## PROBLEM: PRODUCT TOO SOFT

### Probable Cause

1. Machine not cleaned/lubricated adequately
2. Inadequate mix in hopper
3. Improper mixing of product
4. Machine does not have adequate ventilation
5. Viscosity adjustment is set incorrectly

### Remedy

1. Clean and properly lubricate machine daily
2. Ensure hopper is at least half full
3. Follow manufacturer instructions for mixing product; ensure correct mix ratios
4. Ensure at least 6" of clearance on all sides
5. Raise viscosity setting as required (Page 17)

## PROBLEM: HOPPER NOT COLD ENOUGH

### Probable Cause

1. Warm Product Recently Added
2. Hopper Temperature Setting too High
3. Temperature Offsets need adjustment

### Remedy

1. Allow at least 1 hour after adding new mix for hopper temperatures to stabilize
2. Adjust Hopper Temperature down.
3. Call Spaceman Technical Support

## PROBLEM: HOPPER FREEZING

### Probable Cause

1. Inadequate Mix in Hopper
2. Hopper Temperature Setting too Low

### Remedy

1. Ensure hopper is at least half full
2. Adjust Hopper Temperature Up

## PROBLEM: MACHINE MAKING NOISE

### Probable Cause

1. Improper Assembly
2. Wearable Parts Need Replacement
3. Internal Cleaning / Maintenance Required
4. Damaged Internal Parts

### Remedy

1. Stop machine use, drain product with machine powered OFF. Clean and Inspect Parts.
2. Replace wearable parts with new Tune-Up Kit and Scraper Blades at least once every 3 months
3. Contact Spaceman USA Technical Support
4. Inspect parts carefully for damage, ensure proper assembly. Replace as required.

## PROBLEM: STOP 4 - TEMPERATURE

### Probable Cause

1. Malfunctioning Temperature Probe

### Remedy

1. Replace Temperature Probe

## PROBLEM: STOP 6 - MOTOR AMP

### Probable Cause

1. Malfunctioning Power Board

### Remedy

1. Replace Power Board

## PROBLEM: PRODUCT LEAKS EXCESSIVELY INTO INTERNAL DRIP TRAY

### Probable Cause

1. Improper or inadequate lubrication of drive shaft gasket
2. Damaged, missing, or improperly installed drive shaft gasket

### Remedy

1. Use sufficient food-grade lubricant, and add sufficient lubricant inside drive shaft gasket during assembly (Page 11)
2. Replace drive shaft gasket every 1 to 3 months; replace torque assembly guide every 1 to 3 months

## PROBLEM: PRODUCT LEAKS EXCESSIVELY FROM DISPENSING DOOR SPOUT

### Probable Cause

1. Improper or inadequate lubrication of draw valve and draw valve O-rings.
2. Cracked, broken, or worn draw valve O-rings

### Remedy

1. Use sufficient food-grade lubricant when assembling draw valve (Page 12)
2. Replace O-rings every 1 to 3 months

## PROBLEM: MACHINE SHUTS DOWN AUTOMATICALLY

### Probable Cause

1. Cylinders are experiencing freeze-up (usually due to viscosity being set too high for selected product)

### Remedy

1. Reset machine (Page 16), and lower viscosity as required (Page 17)

# MACHINE SPECIFICATIONS

## SM-6250H

SOFT SERVE FREEZER

### PRODUCT INFORMATION

Type	Floor Standing
Flavors	2 + Twist
Cooling	Air Cooled
Freezing Cylinders	2x 1.7 L / 1.8 qt
Product Mix Hoppers	2x 12.0 L / 12.7 qt
Output (4oz Servings)	50.0 qt / hr
	402 servings / hr
Motor	2x 1.2 HP, 900W
Compressor (Main)	1x 6500 BTU, R404A
Compressor (Auxilliary)	1x 480 BTU, R134A

### FEATURES

Machine Controls	Dual, Digital
Refrigerated Hopper	Yes, Digital Control
Hopper Agitator	Yes
Temperature Display	Yes
Standby Mode	Yes
Low Mix Indicator Light	Yes
Low Mix Indicator Alarm	No
Low Temperature Protection	Yes
Motor Amperage Protection	Yes, Mechanical
High Pressure Protection	Yes
Thermal Overload Protection	Yes



### DESCRIPTION

A medium capacity, twin-twist, gravity feed, floor standing soft serve freezer. Capable of producing a variety of products including: Soft Serve, Frozen Yogurt, Ice Cream, Custards, and Sorbets.

Independent digital control systems automatically regulate and maintain consistent product quality on each side. Refrigerated hoppers and Standby Mode keeps product fresh, even overnight.

### CUSTOM OPTIONS

*Air Pump, Water Cooled, Air Chute, Spinner (1 or 2)*

### ELECTRICAL SPECIFICATIONS

	Maximum Fuse Size	Min. Circuit Ampacity	Poles (P) Wires (W)
208-230/60/1	1 x 20A	1 x 15A	2P / 3W

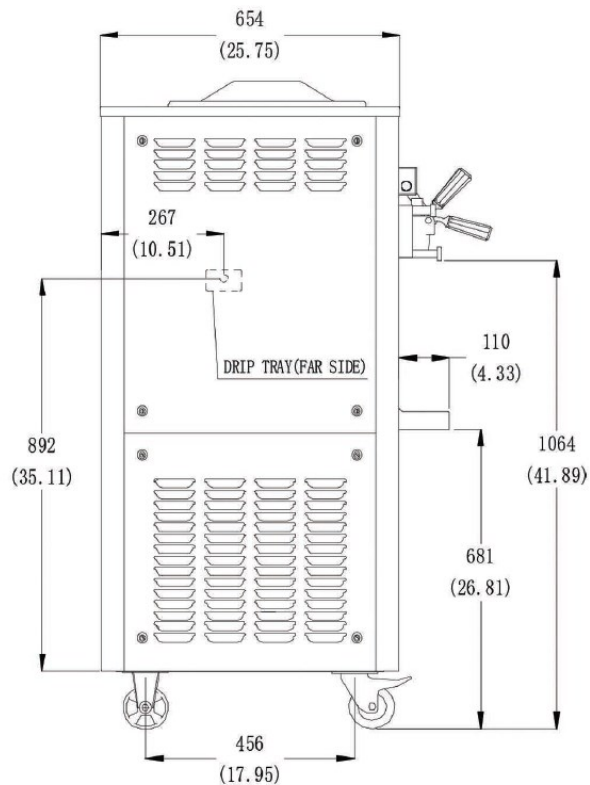
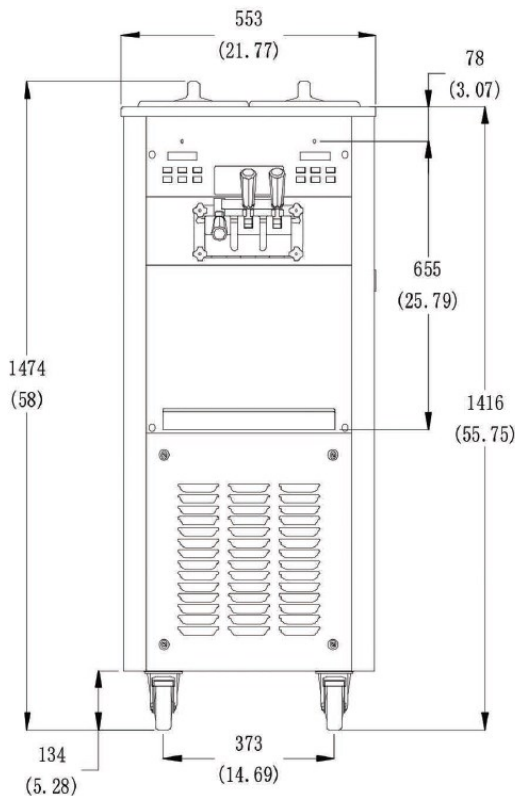
*Electrical Plug: 1x NEMA L6-20*

### SIZE SPECIFICATIONS

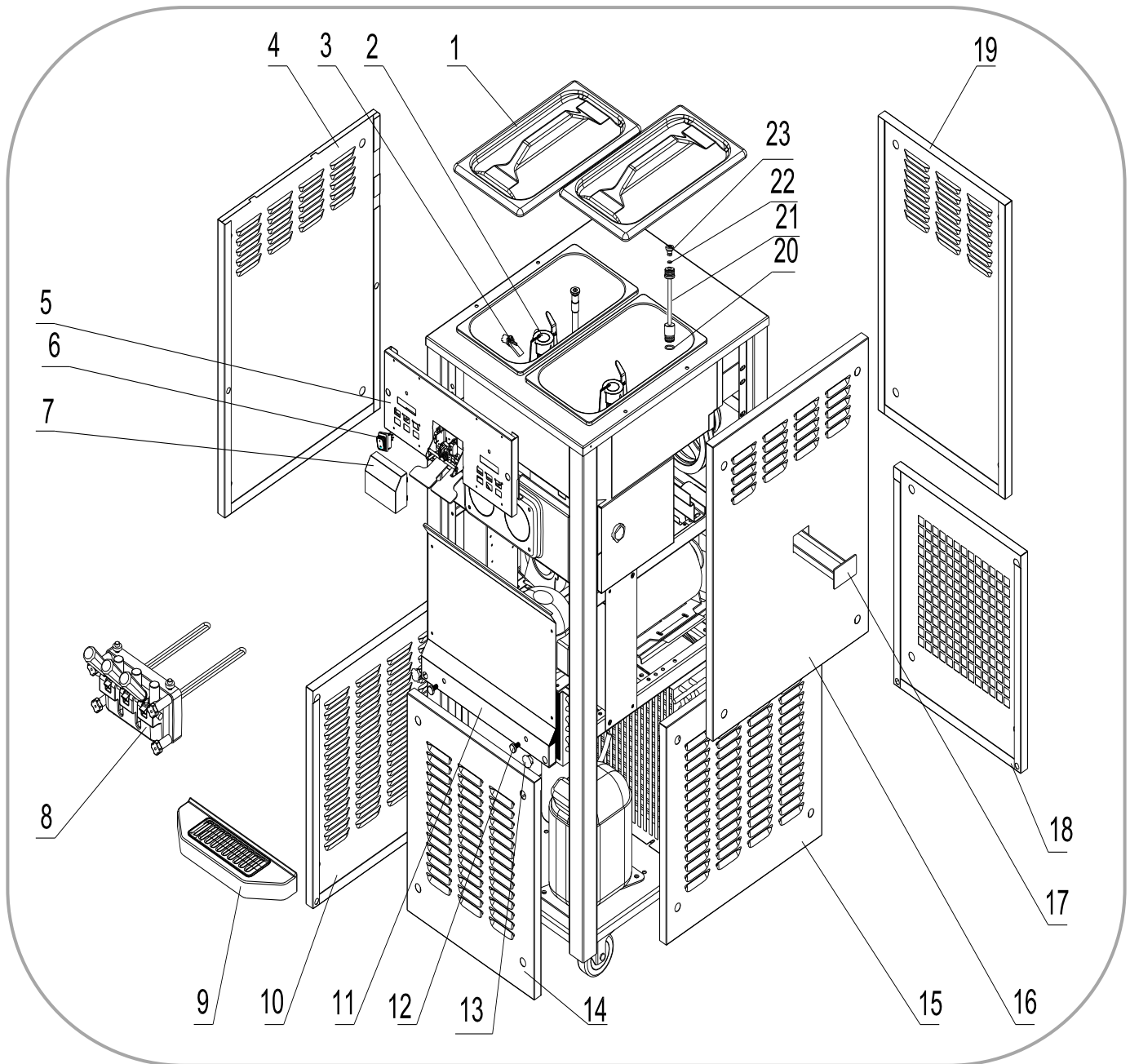
	Machine		Shipping	
Weight	201 kg	441 lbs	221 kg	491 lbs
Depth (mm / in)	654*	25.8*	830	32.7
Width (mm / in)	553*	21.8*	660	26.0
Height (mm / in)	1474	58.1	1640	64.6

*Shipping Volume: 0.90 CBM / 21.37 CBF*

*\* Machine Requires Minimum 6" Clearance on all sides*



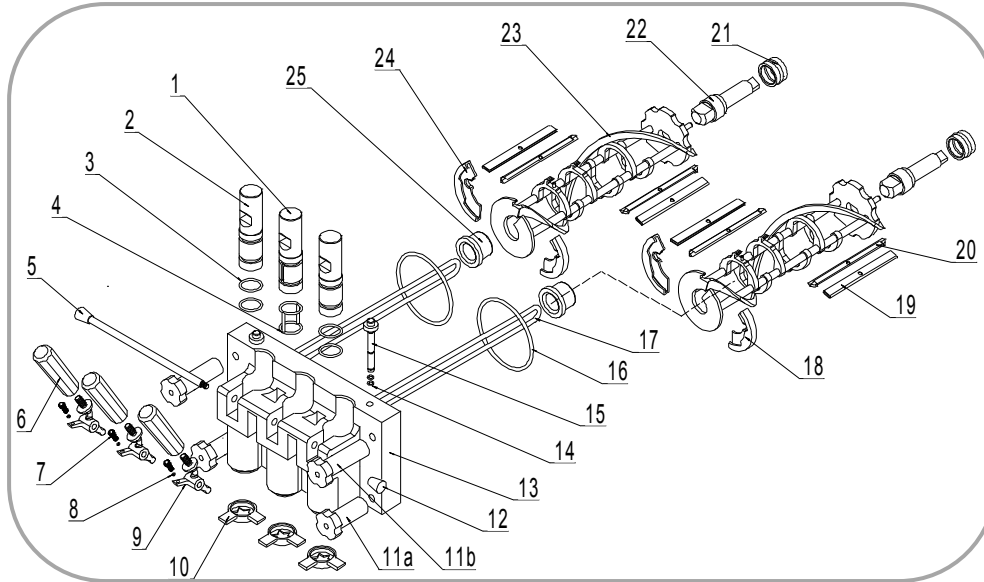
# SPECS—EXTERNAL PARTS



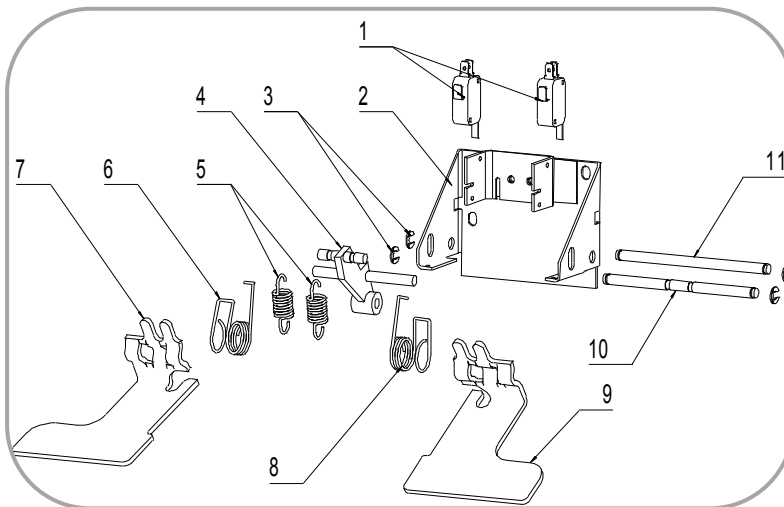
Item	Part #	Description	Item	Part #	Description	Item	Part #	Description
1	3.4.03.01.004	Hopper Lid	9	3.4.04.01.002	Drip Tray	17	3.4.04.02.001	Internal Drip Tray
2	2.1.1.23.0001	Agitator Blade	10	2.3.4.22.001	Panel - Left - L	18	2.3.4.15.001	Panel - Rear - L
3	3.1.03.04.009	Low Mix Sensor	11	2.3.4.16.002	Panel - Front - M	19	2.3.4.14.001	Panel - Rear - U
4	2.3.4.19.001	Panel - Left - U	12	3.6.39.004	Drip Tray Mount	20	3.4.08.01.002	O-Ring - Air Tube
5	2.3.4.08.002	Panel - Front - U	13	3.4.07.01.001	Bolt Cover	21	2.1.1.22.0001	Air Tube
6	3.1.03.03.003	Power Switch	14	2.3.4.17.004	Panel - Front - L	22	3.4.08.01.028	O-Ring - Cap
7	3.4.07.07.003	Switch Cover	15	2.3.4.22.001	Panel - Right - L	23	2.1.3.23.0001	Air Tube Cap
8	2.1.1.15.0007	Dispensing Door	16	2.3.4.21.001	Panel - Right - U			

# SPECS—OPERATING PARTS

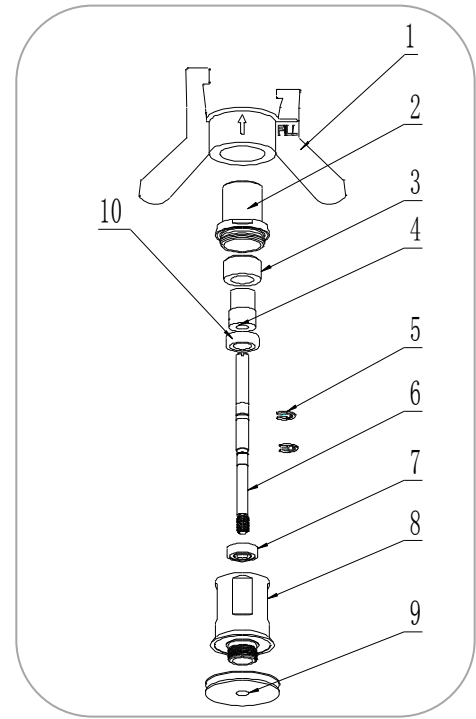
## Dispensing Door and Beater



Item	Part #	Description	Item	Part #	Description
1	2.1.3.02.0003	Draw Valve - Mid	13	2.1.3.14.0003	Dispensing Door
2	2.1.3.01.0009	Draw Valve - Side	14	3.4.08.01.013	O-Ring - Prime
3	3.4.08.01.011	O-Ring - Valve	15	2.1.3.02.0015	Prime Plug
4	3.4.08.01.019	H-Ring - Valve	16	3.4.08.02.007	Door Gasket
5	2.1.3.27.0002	Retention Pin	17	2.1.1.11.0001	Beater Rod
6	3.4.05.01.001	Dispensing Handle	18	3.4.01.02.002	Beater Shoe - R
7	3.6.39.009	Adjustment Screw	19	3.4.02.01.002	Scraper Blade
8	3.4.08.01.012	O-Ring - Screw	20	2.3.4.04.001	Scraper Blade Clip
9	2.1.3.26.0001	Handle Seat	21	3.4.07.05.002	Drive Shaft Gasket
10	3.4.05.03.005	Star Cap	22	2.1.3.25.0001	Drive Shaft
11a	3.4.05.02.001	Hand Screw - Short	23	2.1.1.10.0002	Beater
11b	3.4.05.02.002	Hand Screw - Long	24	3.4.01.01.002	Beater Shoe - L
12	2.1.3.27.0025	Nut - Retention Pin	25	3.4.01.03.001	Beater Guide



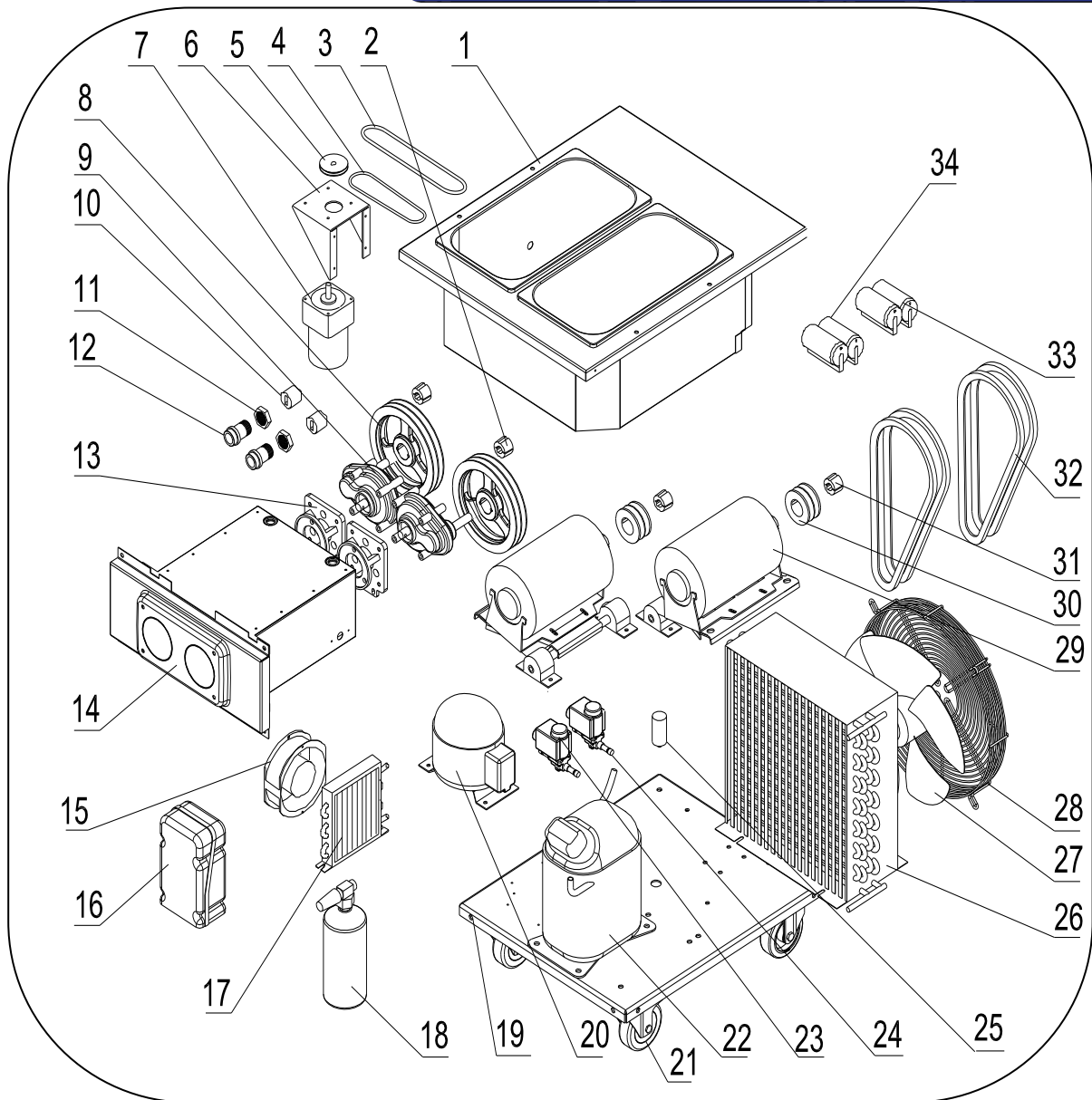
## Hopper Agitator



Item	Part #	Description
1	2.1.1.23.0001	Agitator Blade
2	2.1.4.02.005	HA Housing Cap
3	2.1.4.02.002	HA Main Magnet
4	2.1.4.02.003	HA Shaft Magnet
5	3.6.34.003	C-Clip
6	2.1.3.42.0001	Drive Shaft
7	3.3.02.07.004	HA Bearing - Lower
8	2.1.4.02.001	HA Housing
9	2.1.4.02.015	Pulley - HA
10	3.3.02.07.003	HA Bearing - Upper

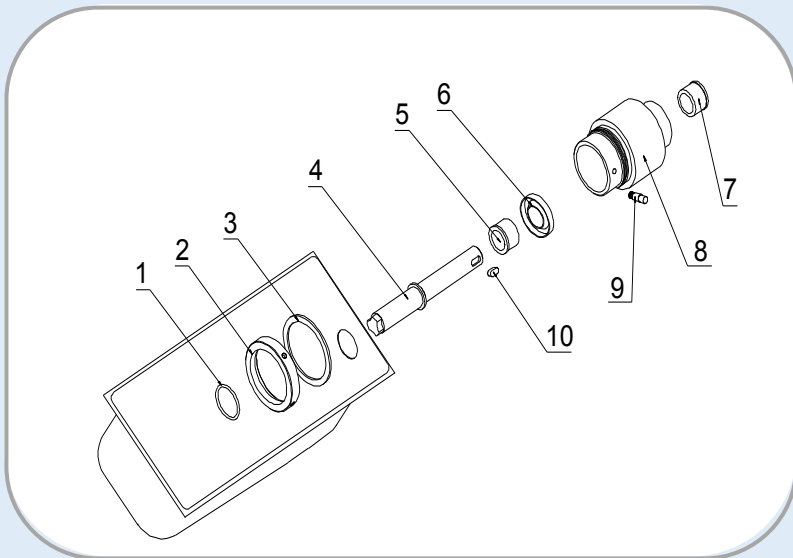
Item	Part #	Description
1	3.1.03.01.004	Switch - Draw
2	2.1.1.19.0010	Switch Mount
3	3.6.34.002	C-Clip - #6
4	2.1.1.19.0006	Draw Switch Lever
5	3.6.02.002	Spring - Draw
6	3.6.01.001	Spring - Return - L
7	2.1.4.05.011	Draw Arm - L
8	3.6.01.011	Spring - Return - R
9	2.1.4.05.012	Draw Arm - R
10	2.1.4.05.001	Retention Pin - F
11	2.1.4.05.002	Retention Pin - R

# SPECS—INTERNAL PARTS

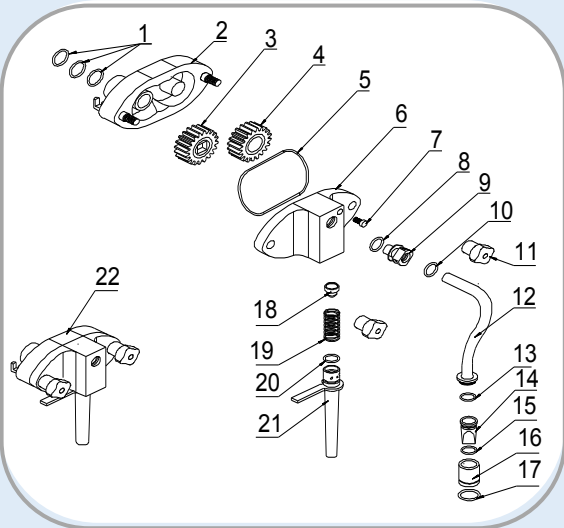


Item	Part #	Description	Item	Part #	Description	Item	Part #	Description
1	2.1.1.03.0055	Hopper Assembly	13	2.1.3.15.0002	Gear Box Mount	25	3.2.03.04.001-2	Capacitor - Fan
2	3.3.04.01.005	Bushing - 1008-16	14	2.1.1.06.0025	Cylinder Assembly	26	3.2.02.01.007	Condenser - Main
3	2.1.4.08.003	Belt - HA - 600mm	15	3.2.03.01.001	Fan Motor - Aux	27	3.2.03.04.001	Fan Motor - Main
4	2.1.4.08.023	Belt - HA - 265mm	16	3.2.01.04.004	Start Component	28	3.2.03.04.001-1	Fan Cover
5	3.3.04.04.008	Pulley - HA - 34mm	17	3.2.02.01.001	Condenser - Aux	29	3.3.01.05.003	Motor - 900W
6	2.3.4.45.007	Mount - HA Motor	18	3.2.04.08.001	Receiver - 76x280	30	3.3.04.02.003	Pulley - 71x2-1108
7	3.3.01.01.001	Motor - Agitator	19	2.2.4.01.0019	Chassis	31	3.3.04.01.006	Bushing - 1108-16
8	3.3.04.02.007	Pulley - 182x2-1008	20	3.2.01.01.002	Compressor - Aux	32	3.3.03.01.014	Belt - XPA1080
9	3.3.02.01.002	Gear Box	21	3.3.05.02.001	Caster - Swivel	33	3.1.02.22.009	Capacitor - Running
10	3.3.02.04.001	Drive Coupling	22	3.2.01.02.005	Compressor - Main	34	3.1.02.22.061	Capacitor - Start
11	3.3.02.02.010	Nut - RS Bearing	23	3.2.04.04.002	Solenoid Body			
12	3.3.02.02.001	Rear Shell Bearing	24	3.2.04.04.015	Solenoid Coil			

# SPECS—AIR PUMP PARTS

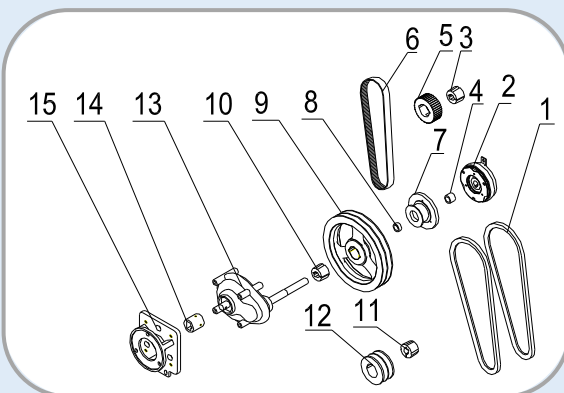


Item	Part #	Description
1	3.4.08.03.010	Nylon Ring - Shaft
2	2.1.4.01.016	Nut - Pump Seat
3	3.4.08.03.012	Nylon - Pump Seat
4	2.1.4.01.018	Drive Shaft - Pump
5	3.3.02.06.001	Bearing - Front
6	3.3.02.09.002	Bearing Gasket
7	3.3.02.06.001	Bearing - Rear
8	2.1.4.01.017	Air Pump Seat
9	3.6.39.010	Lock Pin
10	3.6.33.002	Drive Shaft Key



Item	Part #	Description
1	3.4.08.01.025	O-Ring
2	2.1.4.01.004	Air Pump Shell
3	2.1.4.01.013	Driving Gear
4	2.1.4.01.012	Driven Gear
5	3.4.08.01.004	Air Pump Gasket
6	2.1.4.01.003	Air Pump Cover
7	2.1.4.01.029	Lock Nut
8	3.4.08.01.003	O-Ring - Connector
9	2.1.4.01.023	Connector—Pump
10	3.4.08.01.008	O-Ring - Connector
11	2.1.4.01.002	Hand Screws

Item	Part #	Description
12a	2.1.4.01.042	Air Tube - Right
12b	2.1.4.01.041	Air Tube - Left
13	3.4.08.01.003	O-Ring - Tube
14	2.1.4.01.035	Check Valve
15	3.4.08.01.023	O-Ring - Valve
16	2.1.4.01.039	Connector - Hopper
17	3.4.08.01.037	O-Ring - Connector
18	3.4.07.06.003	Plug
19	3.6.03.003	Spring
20	3.4.08.01.003	O-Ring - Suction
21	2.1.4.01.048	Suction Tube - 180
22	2.1.1.13.0001	AP Assembly



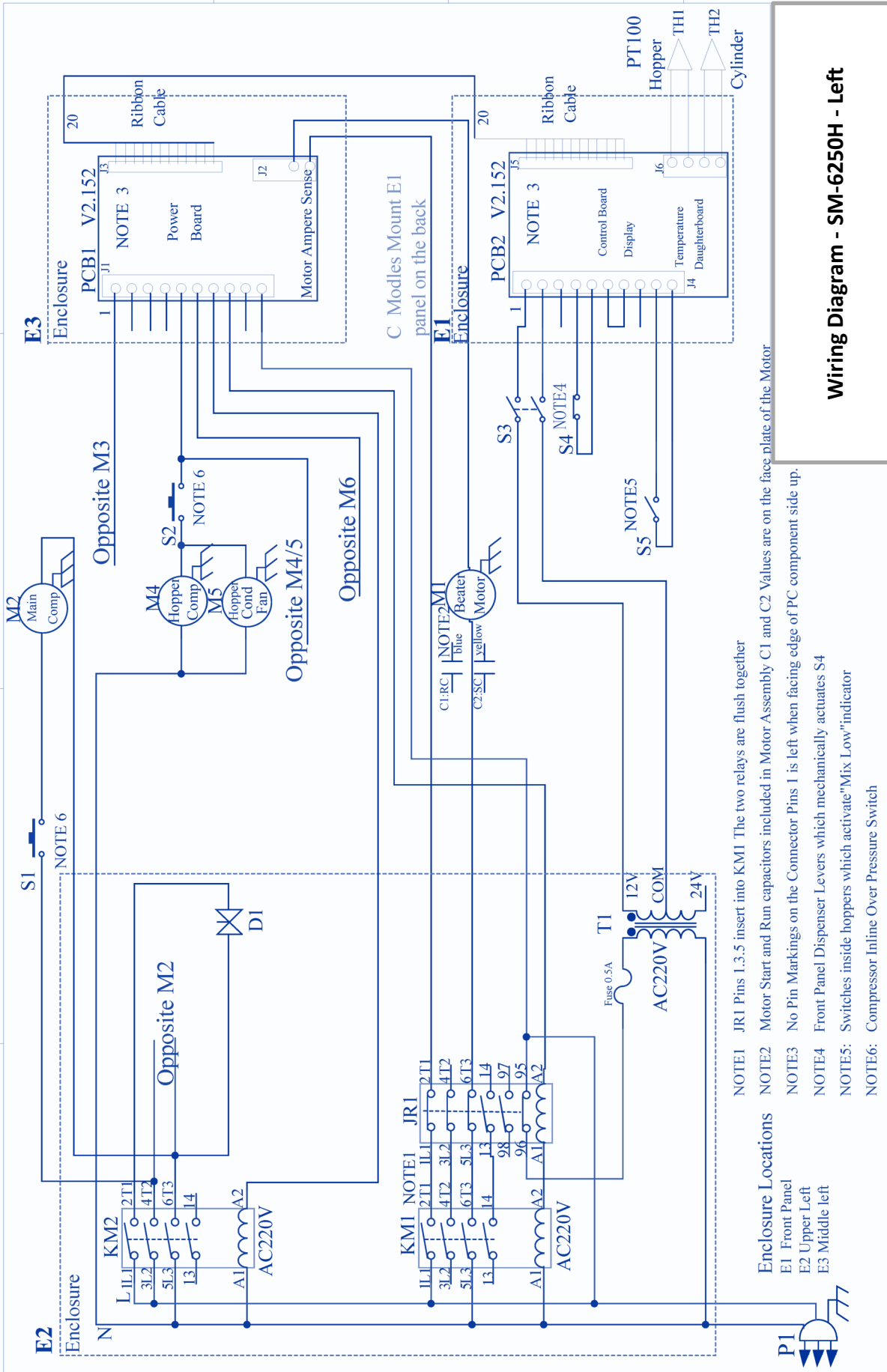
Item	Part #	Description
1	3.3.03.01.013	Belt - XPA1060
2	3.1.01.06.001	Micro Clutch
3	3.3.04.01.005	Bushing - 1008
4	3.3.04.06.001	Bushing - Clutch
5	3.3.04.03.001	Pulley - 63-5-1008
6	3.3.03.02.001	Belt - 5M665
7	3.3.04.03.002	Pulley - 50-5M
8	3.3.04.06.002	Bushing - Clutch

Item	Part #	Description
9	3.3.04.02.007	Pulley - 182x2-1008
10	3.3.04.01.005	Bushing - 1008
11	3.3.04.01.005	Bushing-1008
12	3.3.04.02.001	Pulley - 63x2-1008
13	3.3.02.01.007	Gear Box - Long
14	3.3.02.04.001	Drive Coupling
15	2.1.3.15.0002	Gear Box Mount





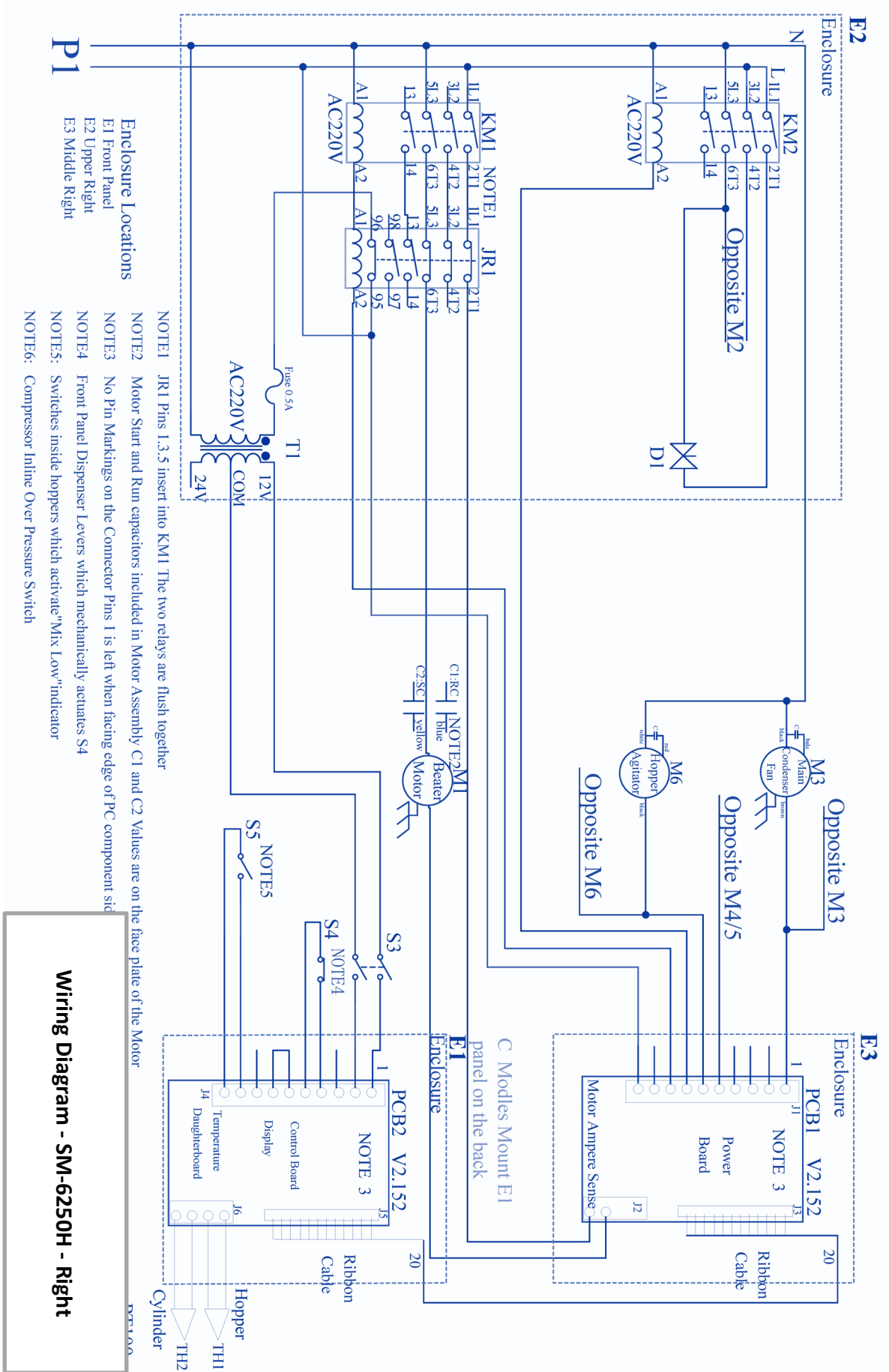
# SPECS—WIRING - LEFT



**Wiring Diagram - SM-6250H - Left**

- NOTE1: JRI Pins 1,3,5 insert into KMI. The two relays are flush together.
- NOTE2: Motor Start and Run capacitors included in Motor Assembly C1 and C2. Values are on the face plate of the Motor.
- NOTE3: No Pin Markings on the Connector Pins 1 is left when facing edge of PC component side up.
- NOTE4: Front Panel Dispenser Levers which mechanically actuates S4
- NOTE5: Switches inside hoppers which activate "Mix Low" indicator
- NOTE6: Compressor Inline Over Pressure Switch

Item	Part #	Description	Item	Part #	Description	Item	Part #	Description
M1	3.3.01.05.003	Motor - 900W	M6	3.3.01.01.001	Agitator Motor	PC1	2.2.1.01.0007	Power Board
M2	3.2.01.02.005	Compressor - Main	JR	3.1.01.02.011	Thermal Relay	PC2	2.2.1.01.0004	Control Board
M3	3.2.03.04.001	Fan Motor - Main	KM	3.1.01.01.010	Contactors	D	3.2.04.04.015	Solenoid Coil
M4	3.2.01.01.002	Compressor - Aux	T	3.1.01.04.007	Transformer	S1/2	3.2.04.06.004	Pressure Switch
M5	3.2.03.01.001	Fan Motor - Aux	TH	3.1.02.13.020	Thermostat	S3	3.1.03.03.003	Power Switch
						S4	3.1.03.01.004	Draw Switch
						S5	3.1.03.04.009	Low Mix Sensor
						F	3.1.02.08.002	Fuse - 0.5A



Item	Part #	Description	Item	Part #	Description	Item	Part #	Description
M1	3.3.01.05.003	Motor - 900W	M6	3.3.01.01.001	Agitator Motor	PC1	2.2.1.01.0007	Power Board
M2	3.2.01.02.005	Compressor - Main	JR	3.1.01.02.011	Thermal Relay	PC2	2.2.1.01.0004	Control Board
M3	3.2.03.04.001	Fan Motor - Main	KM	3.1.01.01.010	Contactors	D	3.2.04.04.015	Solenoid Coil
M4	3.2.01.01.002	Compressor - Aux	T	3.1.01.04.007	Transformer	S1/2	3.2.04.06.004	Pressure Switch
M5	3.2.03.01.001	Fan Motor - Aux	TH	3.1.02.13.020	Thermostat	S3	3.1.03.03.003	Power Switch

