

SPACEMAN^{USA}

COMMERCIAL ICE CREAM & FROZEN BEVERAGE EQUIPMENT

PARTS LIST



MODEL SM-6228H

SOFT SERVE - COUNTER TOP - SINGLE FLAVOR

Customer Service

Sunday – Saturday
8 AM – 5 PM Mountain

Toll-Free: +1 (888) 610-5520

Local: +1 (720) 328-1020

service@spacemanusa.com

Spaceman USA, LLC

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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

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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-6228H

SOFT SERVE FREEZER

PRODUCT INFORMATION

Type	Counter Top
Flavors	1
Cooling	Air Cooled
Freezing Cylinders	1x 1.7 L / 1.8 qt
Product Mix Hoppers	1x 12.0 L / 12.7 qt
Output (4 oz Servings)	30.0 qt / hr
	241 servings / hr
Motor	1x 1.2 HP, 900W
Compressor (Main)	1x 4400 BTU, R404A
Compressor (Auxilliary)	1x 480 BTU, R134A

FEATURES

Machine Controls	Single, 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 single flavor, gravity feed, countertop soft serve freezer. Capable of producing a variety of products including: Soft Serve, Frozen Yogurt, Ice Cream, Custards, and Sorbets. Digital control system automatically regulates and maintains consistent product quality. Refrigerated hopper and Standby Mode keeps product fresh, even overnight. Great Medium capacity machine for any application.

CUSTOM OPTIONS

Air Pump, Water Cooled, Air Chute, Spinner (1)

ELECTRICAL SPECIFICATIONS

	Maximum Fuse Size	Min. Circuit Ampacity	Poles (P) Wires (W)
208-230/60/1	1 x 20A	1 x 13A	2P / 3W

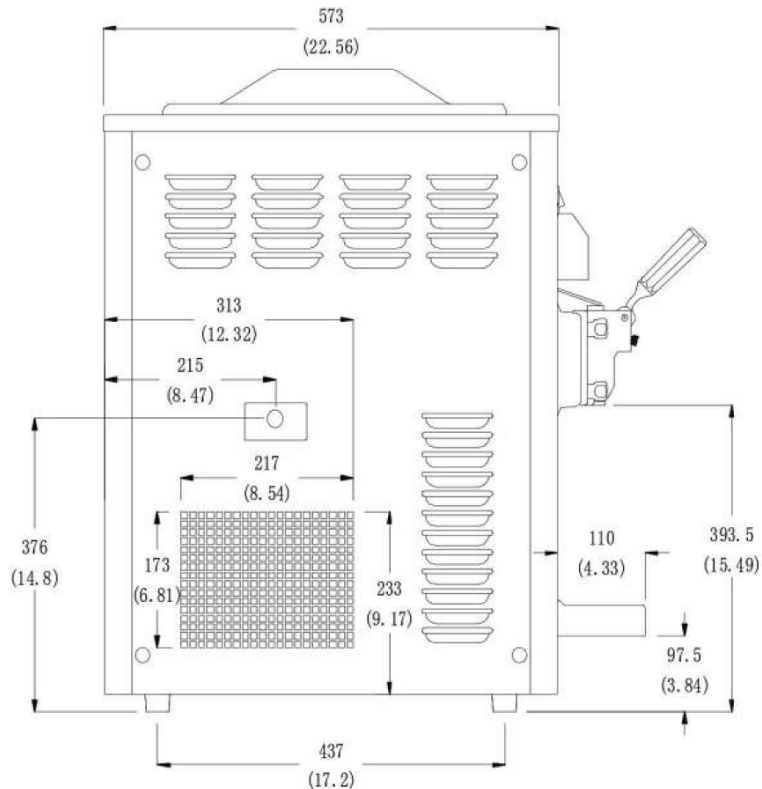
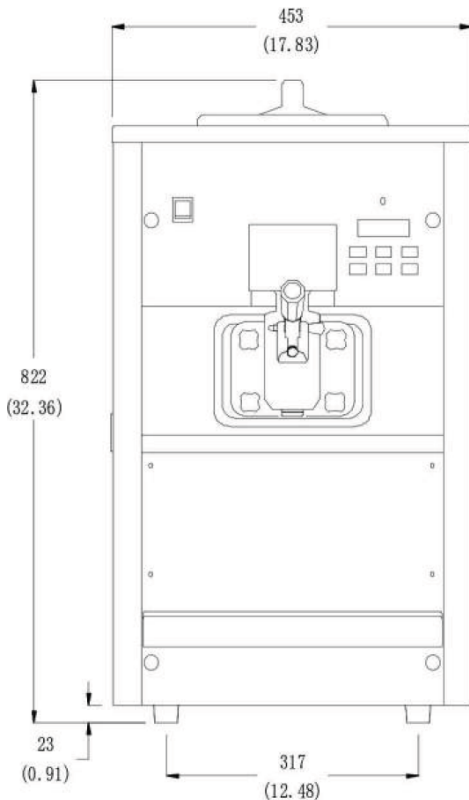
Electrical Plug: 1x NEMA L6-20

SIZE SPECIFICATIONS

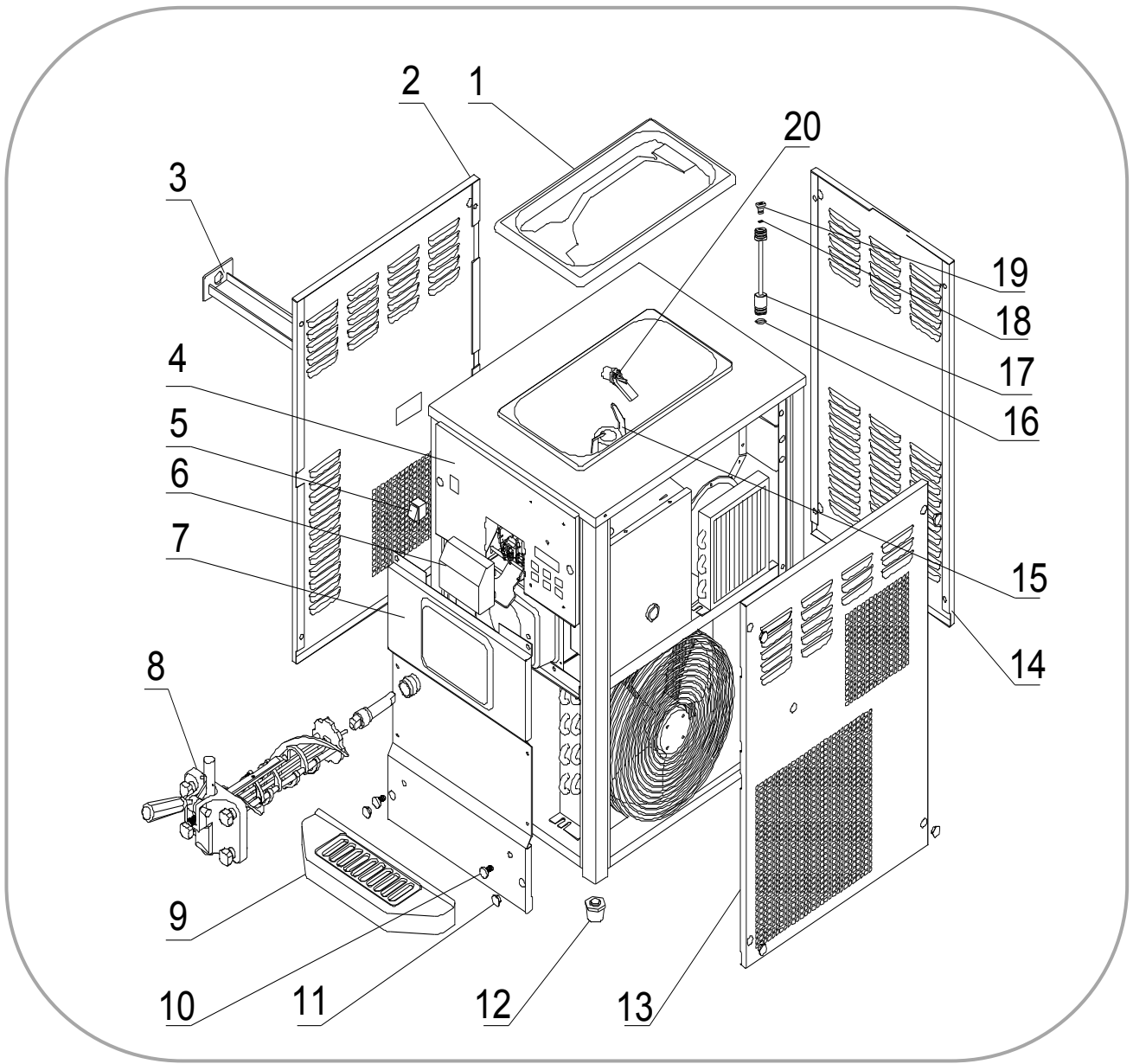
	Machine		Shipping	
Weight	115 kg	245 lbs	120 kg	267 lbs
Depth (mm / in)	573*	22.6*	785	31.0
Width (mm / in)	453*	17.9*	520	20.5
Height (mm / in)	822	32.4	1010	39.8

Shipping Volume: 0.41 CBM / 14.56 CBF

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



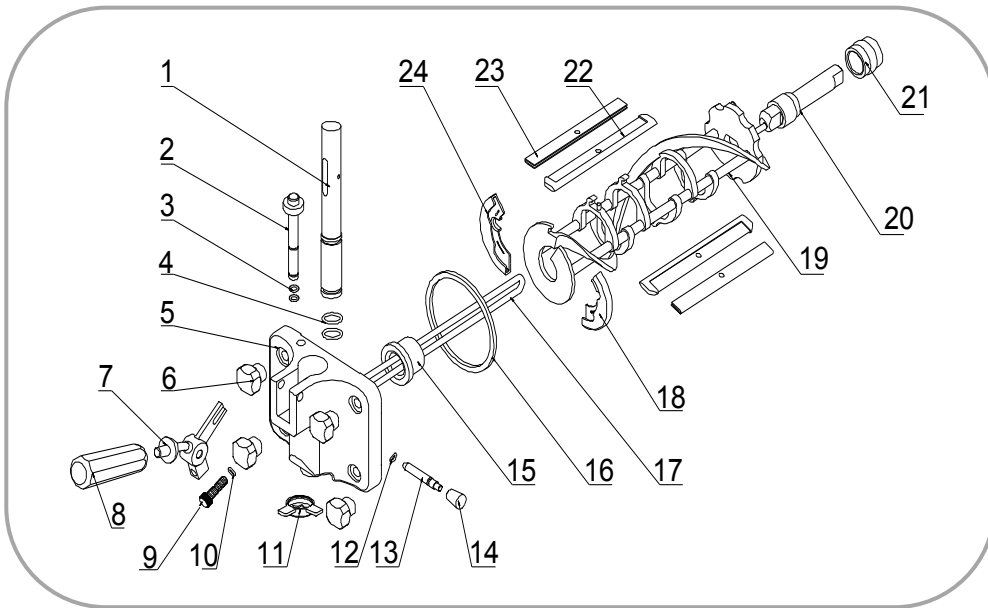
SPECS—EXTERNAL PARTS



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	2.1.1.22.0002	Air Tube
2	2.3.4.18.007	Panel - Left	10	3.6.39.004	Drip Tray Mount	18	3.4.08.01.028	O-Ring - Cap
3	3.4.04.02.003	Internal Drip Tray	11	3.4.07.01.001	Bolt Cover	19	2.1.3.23.0001	Air Tube Cap
4	2.3.4.07.002	Panel - Front - U	12	3.3.05.03.001	Leg	20	3.1.03.04.009	Low Mix Sensor
5	3.1.03.03.003	Power Switch	13	2.3.4.20.006	Panel - Right			
6	3.4.07.07.004	Switch Cover	14	2.3.4.13.003	Panel - Rear			
7	2.3.4.17.007	Panel - Front - L	15	2.1.1.23.0001	Agitator Blade			
8	2.1.1.15.0003	Dispensing Door	16	3.4.08.01.002	O-Ring - Air Tube			

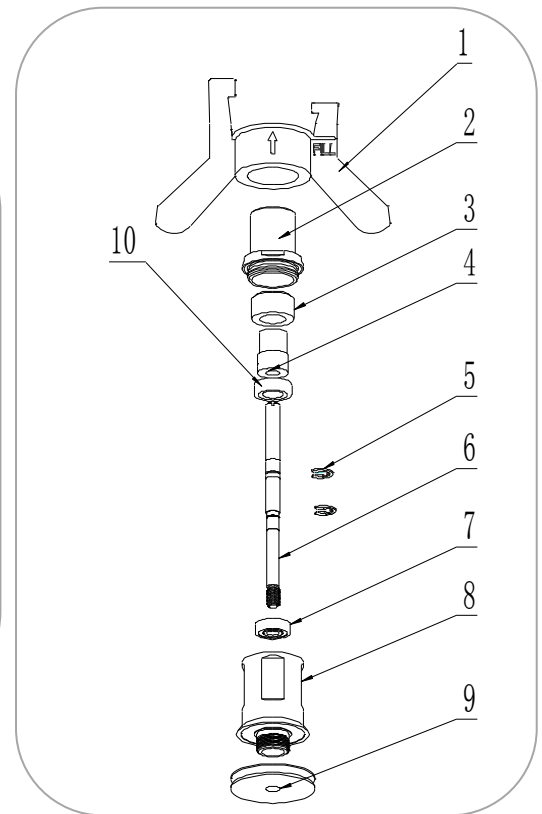
SPECS—OPERATING PARTS

Dispensing Door and Beater

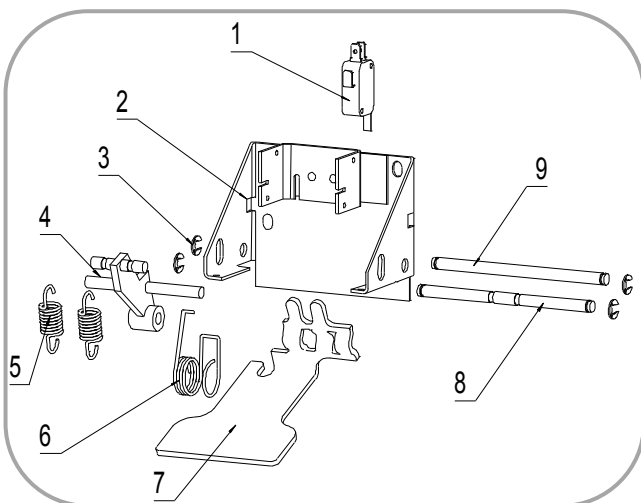


Item	Part #	Description	Item	Part #	Description
1	2.1.3.01.0002	Draw Valve	13	2.1.3.27.0001	Retention Pin
2	2.1.3.02.0015	Prime Plug	14	2.1.3.27.0025	Nut - Retention Pin
3	3.4.08.01.013	O-Ring - Plug	15	3.4.01.03.001	Beater Guide
4	3.4.08.01.006	O-Ring - Valve	16	3.4.08.01.029	Door Gasket
5	2.1.3.14.0002	Dispensing Door	17	2.1.1.11.0001	Beater Rod
6	2.1.3.32.0001	Hand Screws	18	3.4.01.02.002	Beater Shoe - R
7	2.1.3.26.0004	Handle Seat	19	2.1.1.10.0002	Beater
8	3.4.05.01.001	Dispensing Handle	20	2.1.3.25.0001	Drive Shaft
9	3.6.39.009	Adjustment Screw	21	3.4.07.05.002	Drive Shaft Gasket
10	3.4.08.01.012	O-Ring - Screw	22	3.4.02.01.002	Scraper Blade
11	3.4.05.03.004	Star Cap	23	2.3.4.04.001	Scraper Blade Clip
12	3.4.08.01.013	O-Ring - Pin	24	3.4.01.01.002	Beater Shoe - L

Hopper Agitator

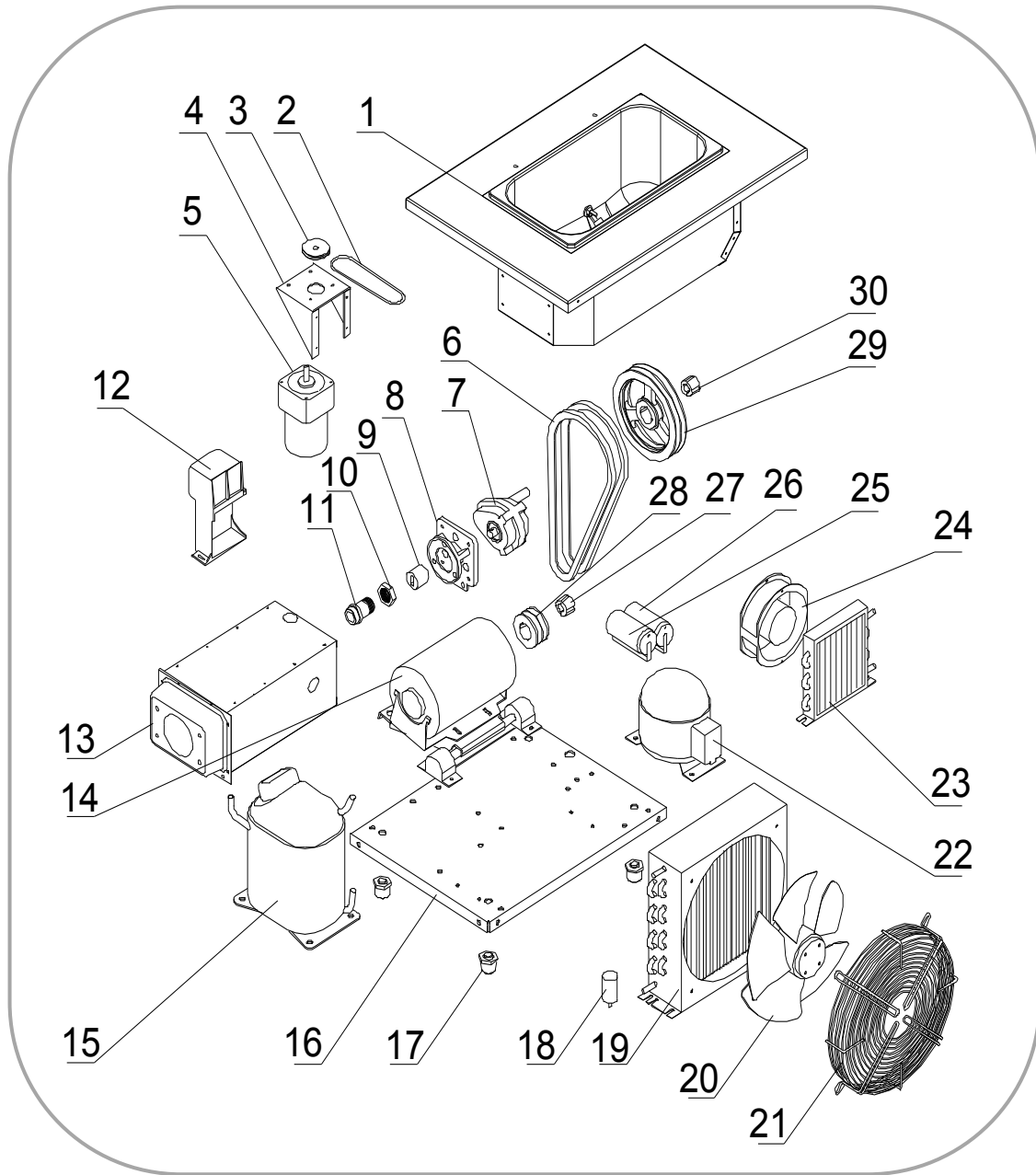


Item	Part #	Description
1	2.1.1.23.0001	Agitator Blade
2	2.1.4.02.005	HA Housing Cap
3	2.1.4.02.002	HA Main Magnet
4	2.1.4.02.003	HA Shaft Magnet
5	3.6.34.003	C-Clip
6	2.1.3.42.0003	Drive Shaft
7	3.3.02.07.004	HA Bearing - Lower
8	2.1.4.02.001	HA Housing
9	2.1.4.02.015	Pulley - HA
10	3.3.02.07.003	HA Bearing - Upper



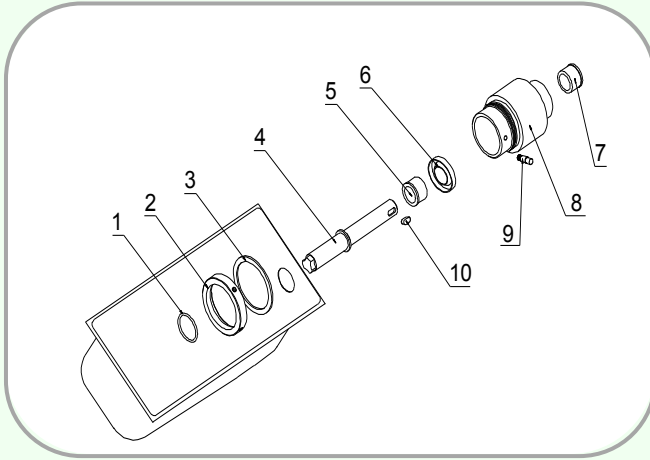
Item	Part #	Description
1	3.1.03.01.004	Switch - Draw
2	2.1.1.19.0010	Switch Mount
3	3.6.34.002	C-Clip - #6
4	2.1.1.19.0006	Draw Switch Lever
5	3.6.02.002	Spring - Draw
6	3.6.01.001	Spring - Return
7	2.1.4.05.017	Draw Arm
8	2.1.4.05.001	Retention Pin - F
9	2.1.4.05.002	Retention Pin - R

SPECS—INTERNAL PARTS

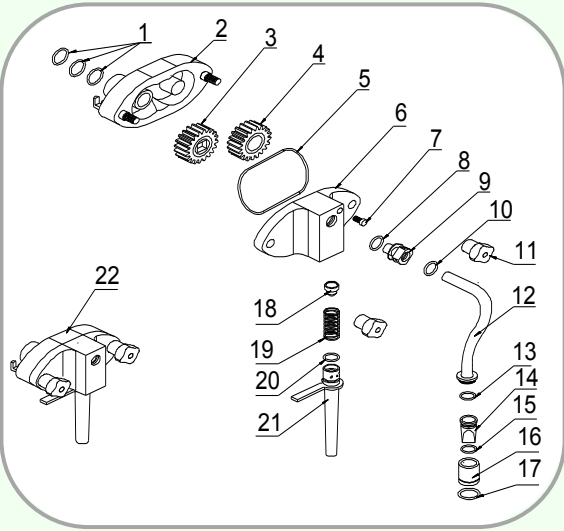


Item	Part #	Description	Item	Part #	Description	Item	Part #	Description
1	2.1.1.03.0015	Hopper	11	3.3.02.02.001	Rear Shell Bearing	21	3.2.03.04.002-1	Fan Cover
2	2.1.4.08.045	Belt - Agitator	12	3.2.01.04.011	Start Component	22	3.2.01.01.002	Compressor - Aux
3	3.3.04.04.008	Pulley - 34mm	13	2.1.1.06.0026	Cylinder	23	3.2.02.01.001	Condenser - Aux
4	2.3.4.45.007	HA Mount	14	3.3.01.05.003	Motor - 900W	24	3.2.03.01.001	Fan Motor - Aux
5	3.3.01.01.001	HA Motor	15	3.2.01.02.033	Compressor - Main	25	3.1.02.22.009	Capacitor - Running
6	3.3.03.01.018	Belt - XPA982	16	2.2.4.01.0003	Chassis	26	3.1.02.22.061	Capacitor - Start
7	3.3.02.01.002	Gear Box	17	3.3.05.03.001	Leg	27	3.3.04.01.005	Bushing - 1008
8	2.1.3.15.0002	Gear Box Mount	18	3.2.03.04.002-2	Capacitor - Fan	28	3.3.04.02.001	Pulley - 63x2-1008
9	3.3.02.04.001	Drive Coupling	19	3.2.02.01.003	Condenser - Main	29	3.3.04.02.007	Pulley - 182x2-1008
10	3.3.02.02.010	Nut - RS Bearing	20	3.2.03.04.002	Fan Motor - Main	30	3.3.04.01.005	Bushing - 1008

SPECS—AIR PUMP PARTS

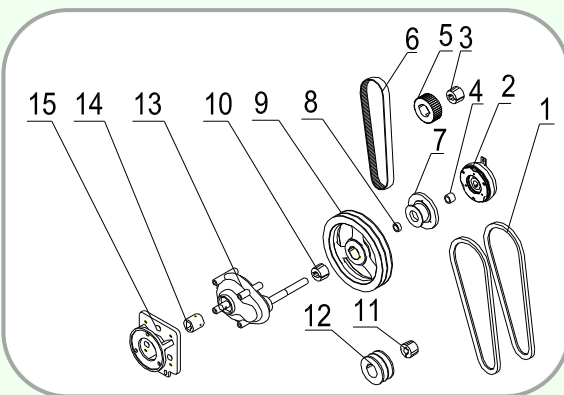


Item	Part #	Description
1	3.4.08.03.010	Nylon Ring - Shaft
2	2.1.4.01.016	Nut - Pump Seat
3	3.4.08.03.012	Nylon - Pump Seat
4	2.1.4.01.018	Drive Shaft - Pump
5	3.3.02.06.001	Bearing - Front
6	3.3.02.09.002	Bearing Gasket
7	3.3.02.06.001	Bearing - Rear
8	2.1.4.01.017	Air Pump Seat
9	3.6.39.010	Lock Pin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



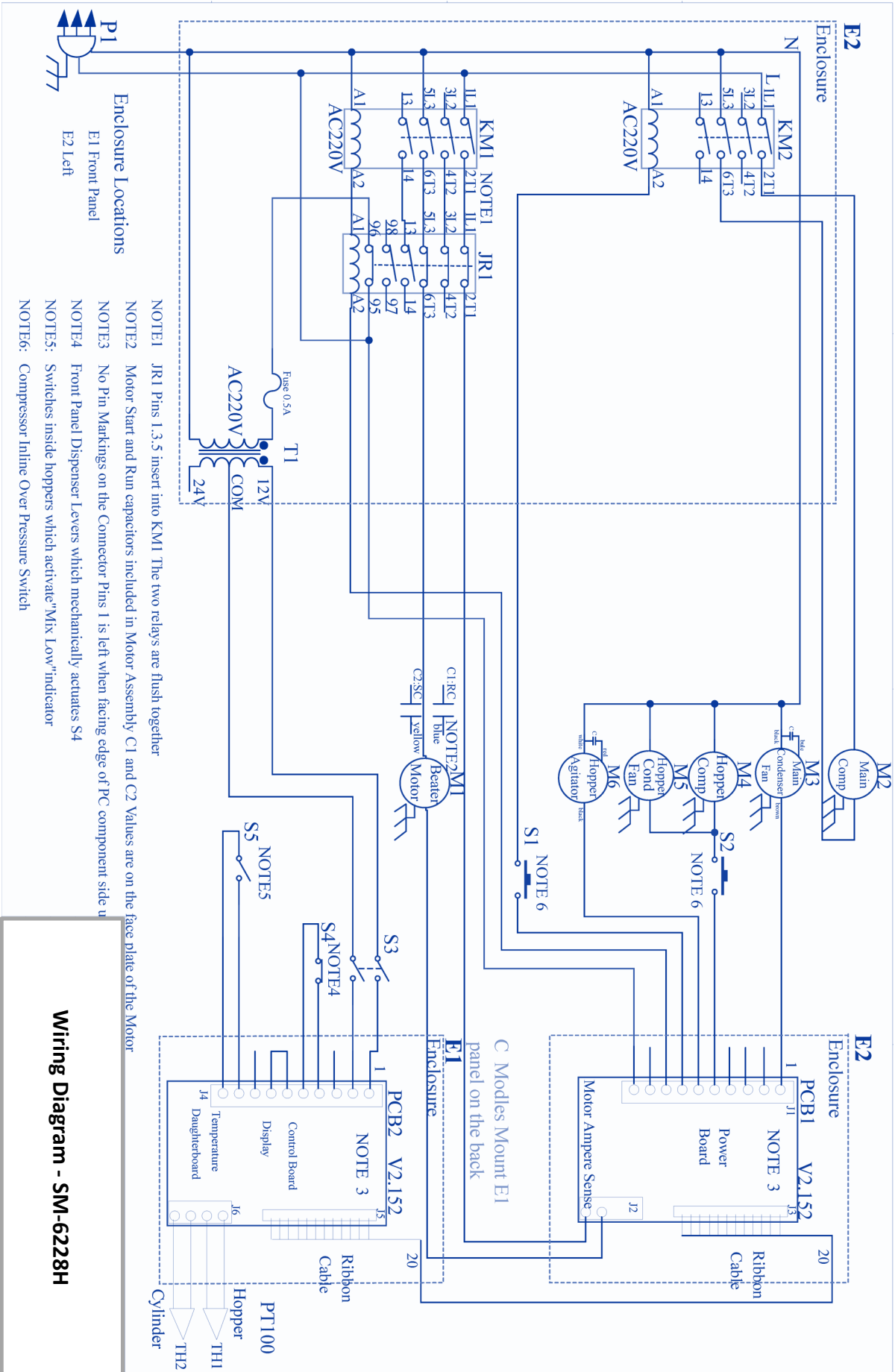
Item	Part #	Description
1	3.4.08.01.025	O-Ring
2	2.1.4.01.004	Air Pump Shell
3	2.1.4.01.013	Driving Gear
4	2.1.4.01.012	Driven Gear
5	3.4.08.01.004	Air Pump Gasket
6	2.1.4.01.003	Air Pump Cover
7	2.1.4.01.029	Lock Nut
8	3.4.08.01.003	O-Ring - Connector
9	2.1.4.01.023	Connector—Pump
10	3.4.08.01.008	O-Ring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

Item	Part #	Description
12	2.1.4.01.043	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	2.1.4.01.049	Suction Tube - 200
22	2.1.1.13.0001	AP Assembly



Item	Part #	Description
1	3.3.03.01.002	Belt - XPA950
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	3.3.03.02.013	Belt - 5M740
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



Enclosure Locations

E1 Front Panel
 E2 Left

- NOTE1: JRM1 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	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	S4	3.1.03.01.004	Draw Switch
M2	3.2.01.02.033	Compressor - Main	JR	3.1.01.02.011	Thermal Relay	PC2	2.2.1.01.0004	Control Board	S5	3.1.03.04.009	Low Mix Sensor
M3	3.2.03.04.001	Fan Motor - Main	KM	3.1.01.01.010	Contactator	DC	3.1.01.05.004	Power - Clutch	F	3.1.02.08.002	Fuse - 0.5A
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			

