

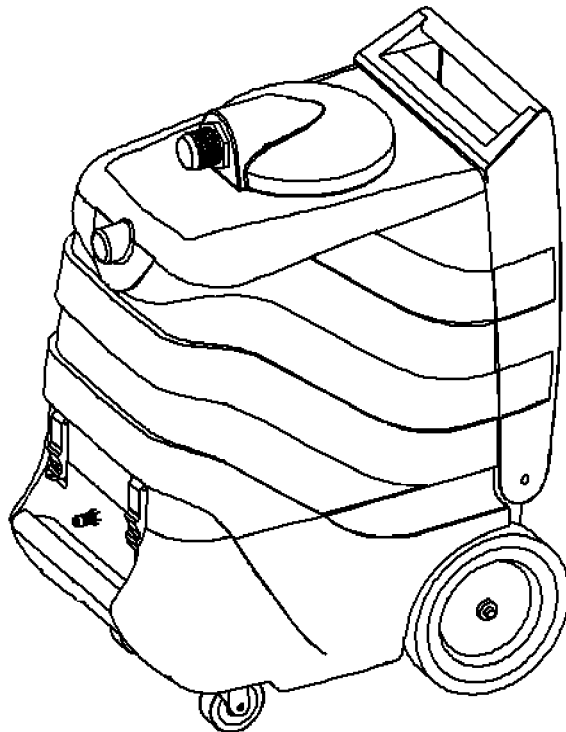


# STEAMATIC®

## Horizon Tile Cleaning Machine

**Model No.:**  
**86XXX-US-120V – 15 gal Tile Cleaner**

**Operator and Parts Manual**



**STEAMATIC**  
303 ARTHUR STREET  
FORT WORTH, TEXAS 76107 U.S.A.

**FAX: 817-820-2914**  
**CUSTOMER SERVICE: 800-544-1303, 817-332-1575**

**MNL3869806ST**  
**Rev. 00 (05-05)**

# OPERATION

This manual is furnished with each new model. It provides necessary operation and maintenance instructions and an illustrated parts list.

**Read this manual completely and understand the machine before operating or servicing it.**

Use the illustrated Parts Lists to order parts. Before ordering parts or supplies, be sure to have your machine model number and serial number handy.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly – per the maintenance instructions provided.
- The machine is maintained with manufacturer supplied or equivalent parts.

## MACHINE DATA

Please fill out at time of installation for future reference.

Model No.- \_\_\_\_\_

Install. Date- \_\_\_\_\_

Serial No.- \_\_\_\_\_

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# OPERATION

## SAFETY PRECAUTIONS

This machine is intended for commercial use. It is designed to clean tile, grout and hard surfaces and then pump recovered solution away from the machine. It is not constructed for any other use.

All operators must read, understand and practice the following safety precautions.

The following safety alert symbols are used throughout this manual as indicated in their description:

**⚠ WARNING:** To warn of hazards or unsafe practices which could result in severe personal injury or death.

**FOR SAFETY:** To identify actions which must be followed for safe operation of equipment.

The following information signals potentially dangerous conditions to the operator or equipment.

### FOR SAFETY:

1. Do not operate machine:
  - Unless trained and authorized.
  - Unless operator manual is read and understood.
  - Around explosive or flammable vapors.
  - To extract flammable or explosive liquids.
  - With damaged cord or plug.
  - If not in proper operating condition.
  - Unless cord is properly grounded.
  - As a dry vacuum.
  - In standing water.
  - With the use of an extension cord.
2. Before operating machine:
  - Make sure all safety devices are in place and operate properly.
3. When using machine:
  - Do not run machine over cord.
  - Do not pull machine by plug or cord.
  - Do not pull cord around sharp edges or corners.
  - Do not unplug by pulling on cord.
  - Do not stretch cord.
  - Do not handle plugs with wet hands.
  - Do not allow water or foam to enter vacuum. Float ball is not activated by foam. Damage not covered by warranty will result.
  - Keep cord away from heated surfaces.
  - Report machine damage or faulty operation immediately.

- Use defoamer to protect vacuums. If foam exits machine turn it off immediately.
  - Be certain submersible pump is secured in bottom of tank.
  - Connect hoses before turning on pump.
4. Before leaving or servicing machine:
    - Turn off machine.
    - Unplug cord from wall outlet.
    - Drain all recovered solution from tank.
  5. When servicing machine:
    - Unplug cord from wall outlet.
    - Avoid moving parts. Do not wear loose jackets, shirts, or sleeves.
    - Use manufacturer supplied or approved replacement parts.
    - Have service performed by authorized service person.

**⚠ WARNING:** Hazardous Voltage. Shock or electrocution can result. Always unplug machine before servicing.

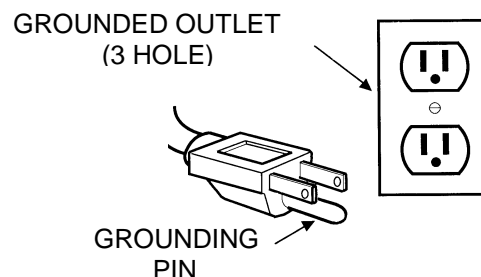
**⚠ WARNING:** Flammable materials can cause an explosion or fire. Do not vacuum into tank.

**⚠ WARNING:** Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.

**⚠ WARNING:** Contents of solution hoses may be under pressure even after pump is off.

## GROUNDING INSTRUCTIONS

Machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock. This machine is equipped with a cord having an equipment-grounding connector and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed in accordance with all local codes and ordinances. Do not remove ground pin; if missing, replace plug before use. International models will have different cord ends.

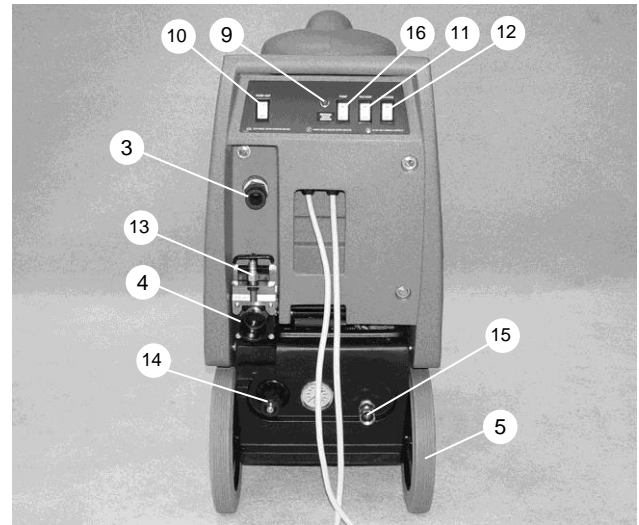


# OPERATION

## MACHINE COMPONENTS



1. Vacuum Inlet
2. Solution Hose Connector
3. Discharge Connector
4. Manual Drain
5. 12" Wheels
6. Vacuum Lid
7. Handle
8. Recovery Tank



9. Separate Circuit Indicator Light
10. Discharge Pump Switch
11. Vacuum #1 Switch
12. Vacuum #2 Switch
13. Freeze Protection Drain Nozzle
14. Pressure Adjustment Valve
15. Water Input Connector
16. Pressure Pump Switch

## MACHINE SETUP

1. Carefully check carton for signs of damage. Report damages at once to carrier. The machine is shipped fully assembled and is ready for use.
2. Connect hoses and tool to be used. Attach a  $\frac{3}{4}$ " garden hose to the discharge connector on the back of the machine. An inline filter is recommended to prevent excessive lint and debris from entering tank and fouling discharge pump. Attach a second garden hose to the input connector (Figure 1).



Fig. 1

3. Look inside recovery tank and be certain that submersible pump is secured properly to bracket on the bottom of the tank (Figure 2). Take note of the space between the case of the flood pump and the attached stainless steel bracket. Lower the pump so this space engages the bracket mounted in the bottom of the recovery tank. Also be certain that nothing is obstructing the free movement of the float switch.

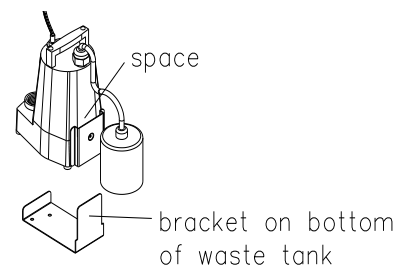


Fig. 2

**⚠ WARNING: Do not vacuum up flammable materials as they could cause an explosion or fire.**

## OPERATION

4. Plug machine's power cords into grounded wall outlets on separate circuits (Figure 3). Green circuit indicator light on switch panel illuminated confirms connection to separate circuits.

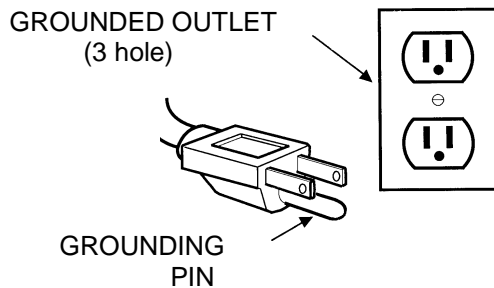


Fig. 3

**FOR SAFETY: Do not operate machine unless cord is properly grounded.**

**FOR SAFETY: Do not operate machine with the use of an extension cord.**

5. Secure recovery tank lid in place.

## MACHINE OPERATION

**FOR SAFETY: Do not operate machine unless entire operator manual is read and understood.**

### PRE-OPERATION

1. Inspect power cord for damage.
2. Turn on empty-out pump (Figure 4). The discharge pump will not come on until the level inside the recovery tank activates the float switch. Note: the "Auto Discharge" switch must be turned on in order for the discharge pump to cycle on and off.
3. Turn on water faucet supplying water to the machine.

### CLEANING TILE

1. Activate the pressure pump and both vacuum switches (Figure 5).



Fig. 4

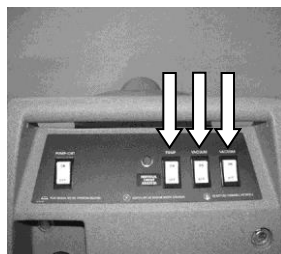


Fig. 5

2. Apply cleaning chemicals to the surface to be cleaned with a separate application sprayer. Follow chemical manufacturers instructions for selection of chemical and dwell time before pressure rinsing with this machine.

**ATTENTION: This machine is designed to deliver high pressure fresh water to the tile surface and extract emulsified soil. This model is not designed to mix chemicals with fresh water. Any attempt to do this could damage fresh water pump.**

3. Take hard surface or tile cleaning tool in hand and move in the direction that compliments tool design intermittently spraying rinsing solution.

### WHILE OPERATING

1. Periodically check for excessive foam buildup in recovery tank. Use a recommended foam control solution to prevent vacuum motor damage.

**Warning:** Flammable materials or reactive metals can cause an explosion or fire. Do not pick up.

**ATTENTION: Excessive foam buildup will not activate the float shut-off screen.**

**ATTENTION: Discharge pump will not pump foam. Use a defoamer.**

### DRAINING RECOVERY TANK

1. Turn off machine after majority of water has been pumped out by discharge pump.
2. Insert supplied 45° elbow in drain valve. Place a bucket below it and slowly pull up on handle (Figure 7).

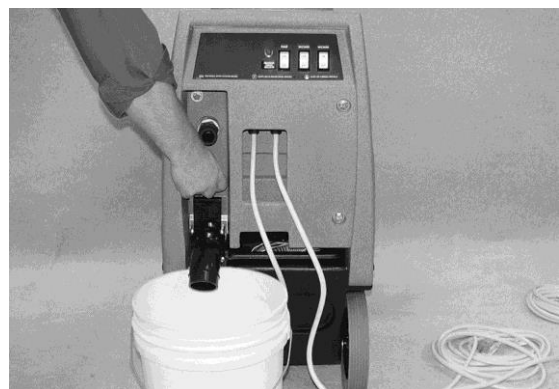
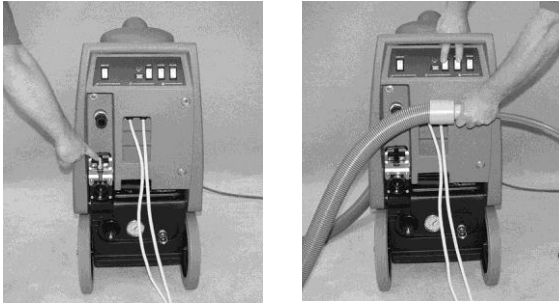


Fig. 7

# OPERATION

## FREEZE PROTECTION

1. Disconnect garden hose from input connector
2. Place freeze protection drain nozzle in end of vacuum hose and seal with hand (Figure 8).



**Fig. 8**

3. Turn on vacuum and pump for 15 seconds. This will fill the pump and hoses with air and prevent freezing
4. Replace freeze protection drain nozzle to its storage place.

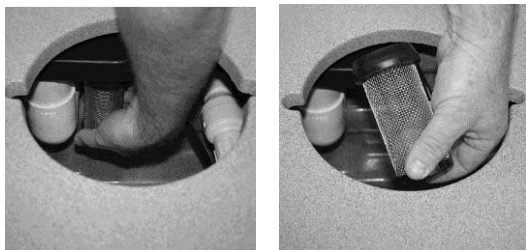
## MACHINE MAINTENANCE

To keep machine in good working condition simply follow machine's daily, weekly, and monthly maintenance procedures.

**For Safety: When servicing machine unplug cords from wall outlet.**

### DAILY MAINTENANCE (Every 4 hours of operation)

1. Empty and rinse out recovery tank thoroughly.
2. Remove float shut off screen from recovery tank and clean (Figure 9).



**Fig. 9**

3. Wipe off power cord and check for damage. Replace if necessary. Coil cord neatly after use.
4. Clean machine with an all purpose cleaner and damp cloth.

5. Unlatch locking arms of bayonet coupler attached to pump (Figure 10).



**Fig. 10**

6. Lift flood pump off mounting bracket located in the bottom of recovery tank. Note its position so it can be returned to this location.
7. Guide float switch and discharge pump through hole in top of waste tank (Figure 11).



**Fig. 11**

8. Remove lint and debris from filter on bottom of pump (Figure 12). Remove base filter if necessary.



**Fig. 12**

## OPERATION

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### WEEKLY MAINTENANCE (Every 20 hours of operation)

1. Inspect vacuum hoses for holes and loose cuffs.
2. Lubricate metal shaft on recovery tank drain

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### MONTHLY MAINTENANCE (Every 80 hours of operation)

1. Lubricate wheels with water resistant oil.
2. Inspect machine for water leaks and loose hardware.
3. Open machine and inspect wiring and replace wiring harness if signs of corrosion or heat.

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### STORING MACHINE

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1. Before storing machine, be certain to drain and rinse tank
2. Store machine in a dry area in an upright position.
3. Open recovery tank lid to promote air circulation.

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### RECOMMENDED STOCK ITEMS

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Refer to Parts List section for recommended stock items. Stock items are clearly identified with a bullet preceding the part number. See example below.



PART #	DESCRIPTION	QTY.
J-30.	LID, DOME	1
• J-38GRANITE	TOP,SOL TANK ROTO GRANITE	1
J-39.5GRANITE	HANDLE,WASTE TANK ROTO GRANI	1
J-39GRANITE	WASTE TANK, ROTO GRANITE	1



## OPERATION

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### TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Machine does not operate.	Faulty switches or wiring.	Contact Service Center.
	Faulty power cord.	Contact Service Center.
	Building circuit breaker tripped.	Reset Breaker.
Vacuum motor does not operate.	Loose or broken wiring.	Contact Service Center.
	Faulty vacuum switch.	Contact Service Center.
	Defective vacuum motor.	Contact Service Center.
	Worn carbon brushes.	Contact Service Center.
Solution pump does not operate.	Faulty switch or wiring.	Contact Service Center.
	Faulty solution pump motor.	Contact Service Center.
	Trigger on wand not pulled.	Pull Solution Trigger.
	Quick couplers not fully engaged.	Connect quick couplers.
	Faulty pump head.	Contact Service Center.
Flood pump does not work	Faulty switch or wiring.	Contact Service Center.
	Float switch tangled in cord.	Untangle cord in vacuum tank.
	Filter screen clogged	Clean filter screen under flood pump.
	Output of flood pump disconnected.	Connect quick coupler in waste tank.
Flood pump does not discharge fast enough	Small diameter garden hose	Use ¾" minimum diameter garden hose.
	Pump filter screen plugged with debris.	Clean filter screen
	Check valve plugged with debris	Clean or replace check valve.
Poor solution pick-up.	Recovery tank drain valve open.	Close valve.
	Defective recovery tank lid gasket.	Replace gasket.
	Clogged float shut-off screen.	Remove recovery tank lid and clean screen.
	Loose vacuum hose connections.	Secure cuffs to hose.
	Defective vacuum hose.	Replace hose.

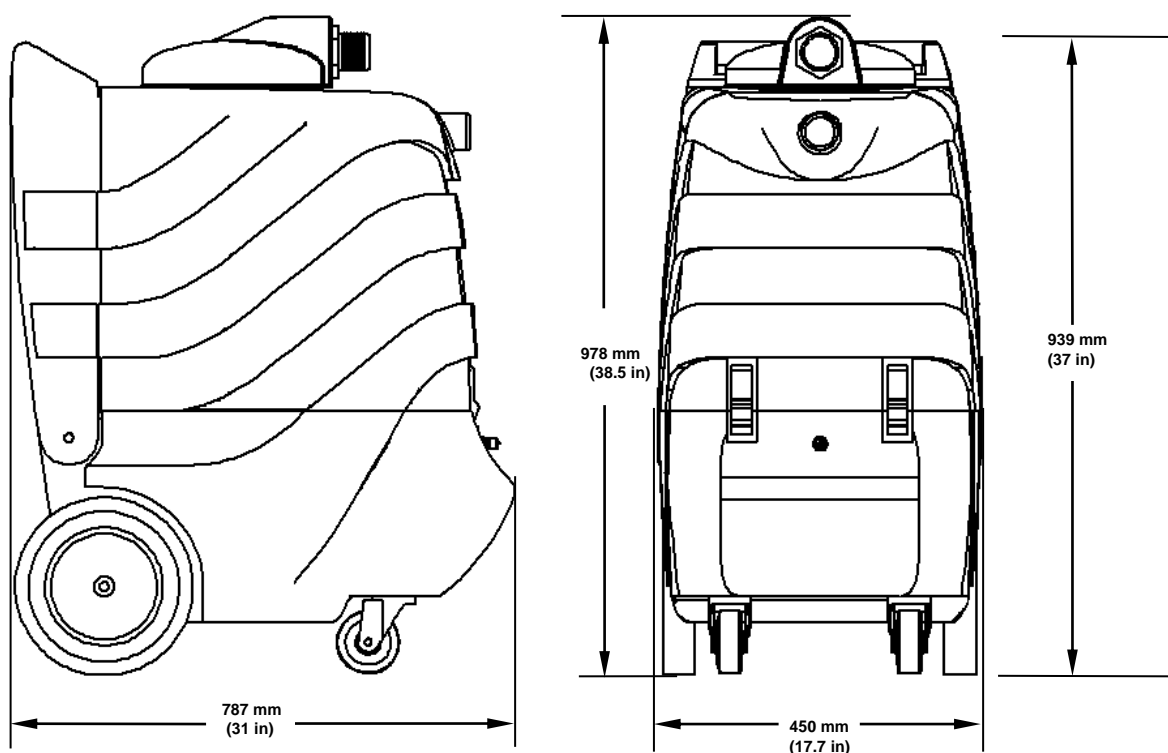


## OPERATION

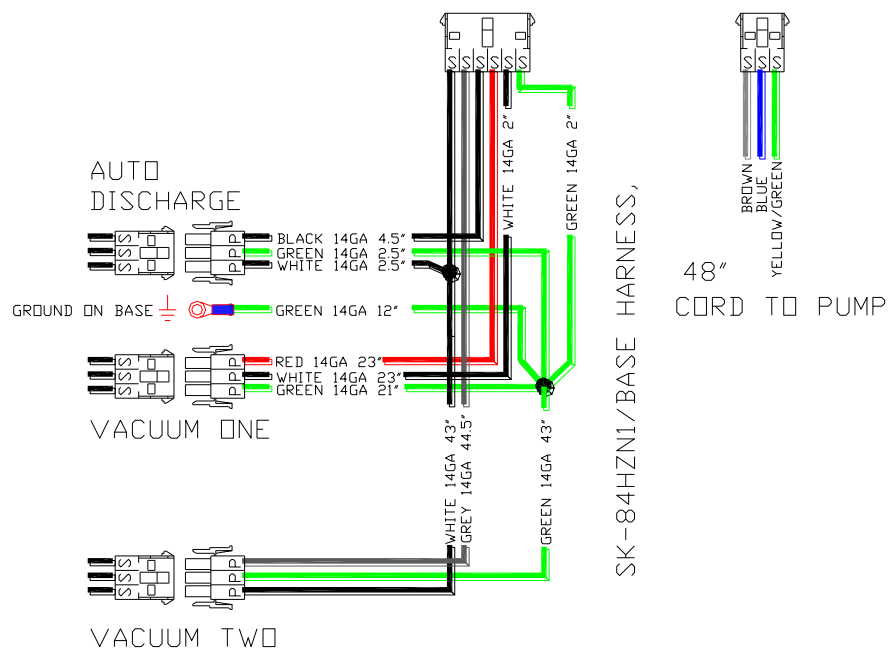
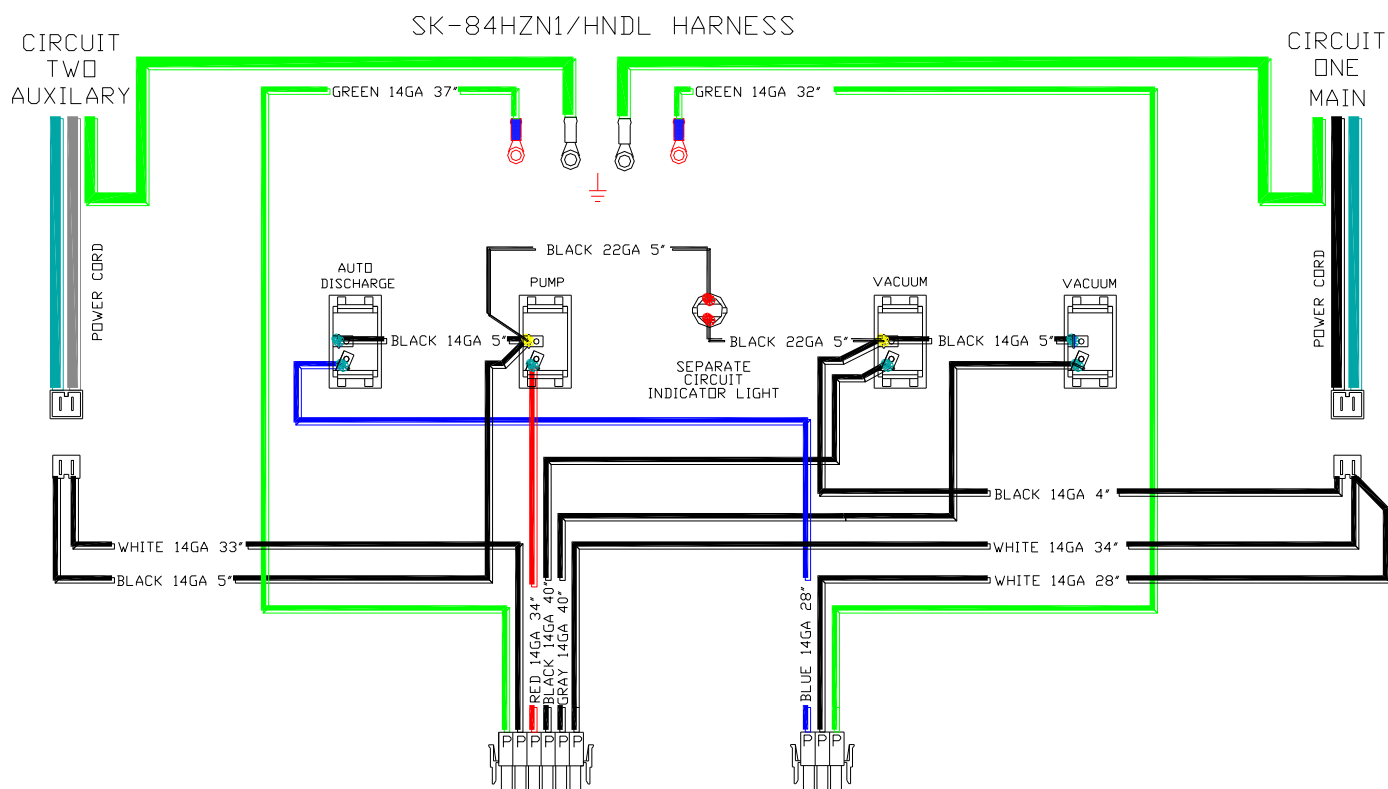
### SPECIFICATIONS

<b>Model</b>	<b>3869806ST</b>
LENGTH	711 mm (28 in)
WIDTH	450 mm (17.7 in)
HEIGHT	965 mm (38 in)
WEIGHT	67 Kg (148lbs)
RECOVERY TANK CAPACITY	56.7 L (15 gal)
SOLUTION PUMP	120V, 82.7 BAR (1200 PSI)
DISCHARGE PUMP	120 V, 94.6 LPM (25 GPM), 5 A
VACUUM MOTOR – 1- 2 STAGE SERIES	1 @ 120V, 8.0 A, 1020W.
VACUUM MOTOR – 1-3 STAGE SERIES	1 @ 120 V, 10.5 A, 1272 W
SEALED WATER LIFT	3454 mm (136 in) 5.66CMM (200 CFM)
TOTAL POWER CONSUMPTION	CIR 1– 120V,19.1A, 2292W CIR 2– 120V, 17.4 A, 2088W
POWER CORDS	2 @ 7.6m (25 ft) 3/12
DECIBEL RATING 3 METERS (10 FT) FROM MACHINE ON CARPET	<68 db(A)

### MACHINE DIMENSIONS

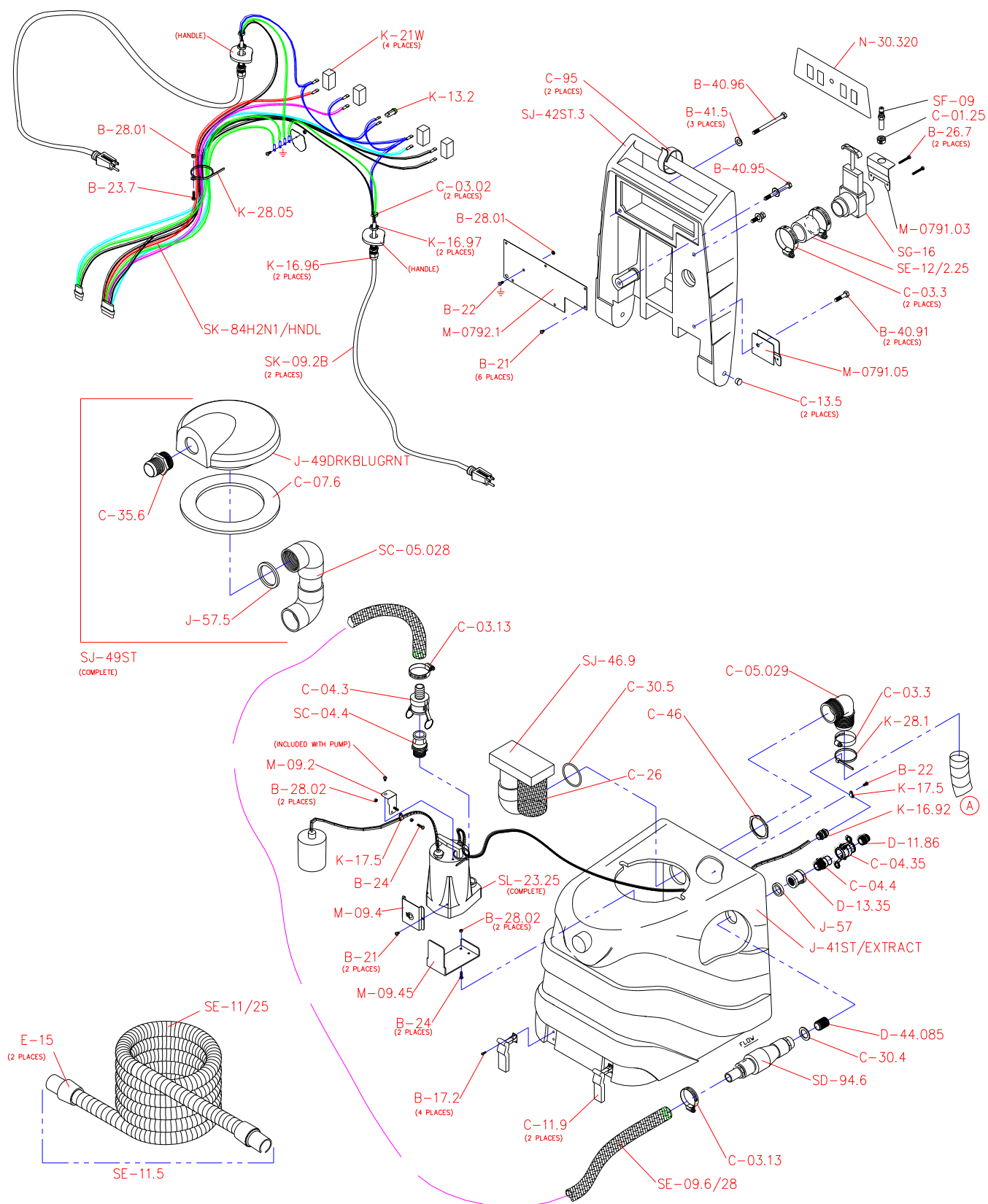


## 120 V WIRING DIAGRAM



WIR3869806

## TANK GROUP



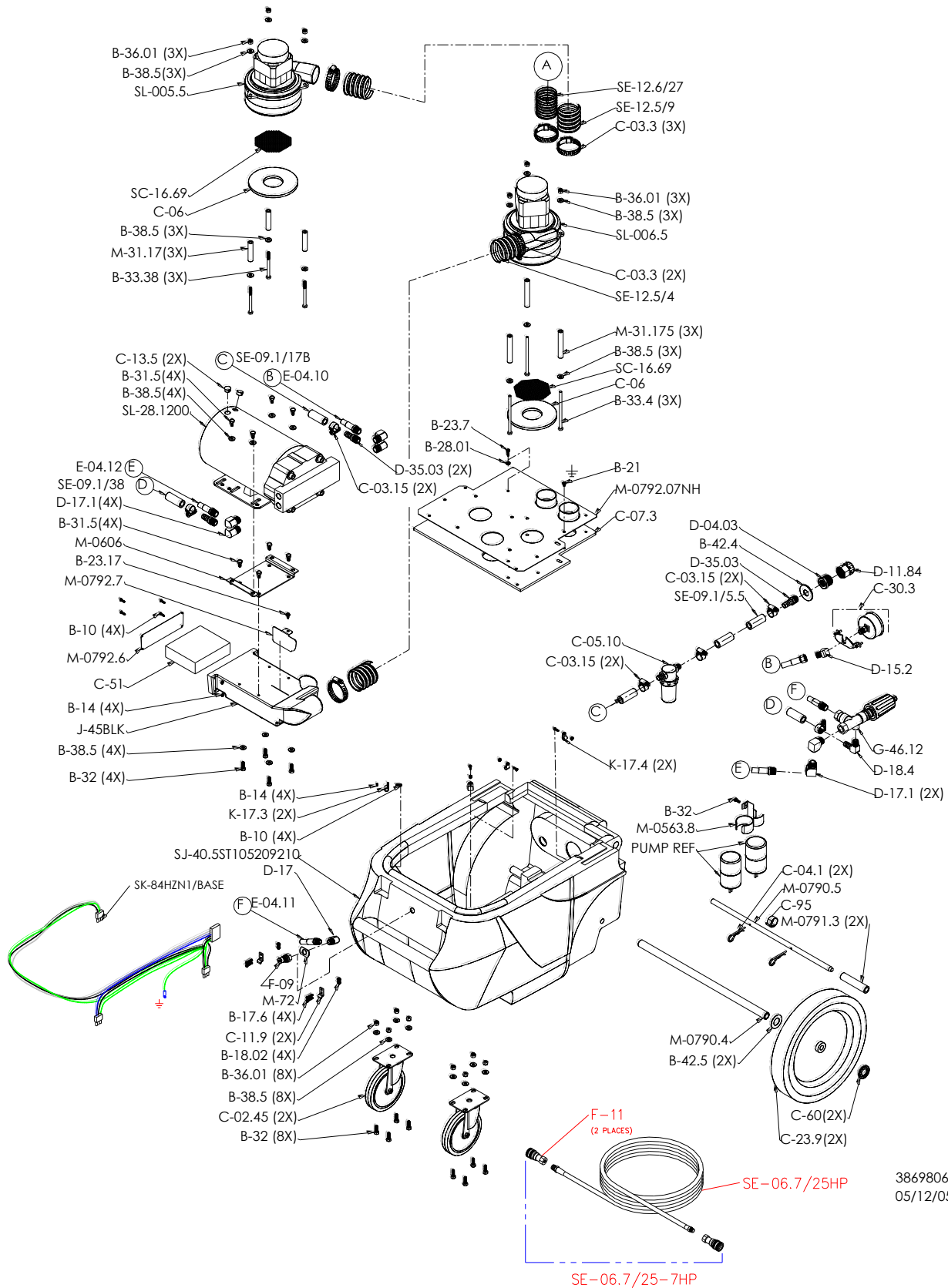
## TANK GROUP

PART #	DESCRIPTION	QTY.
B-17.2	8-32 X 1/2 PHXSS	4
B-21	10-32 X 5/16 PHXSS	8
B-22	10-32 X 7/16 PHXSS	2
B-23.7	10-32 X 5/8 PHXSS	1
B-24	10-32 X 3/4 PHXSS	3
B-26.7	10-32 X 1 1/2 PHXZINC	2
B-28.01	NUT 10-32 HEX ZINC	2
B-28.02	NUT, 10-32 SS NYLOCK	4
B-40.91	3/8-16 X 1 1/2 HEX ZINC	2
B-40.95	3/8-16 X 3 1/2 HEX ZINC	1
B-40.96	3/8-16 X 4 HEX ZINC	1
B-41.5	WASHER, 3/8 FLAT ZINC	3
C-03.02	CLAMP, HOSE 1/4" #4	2
C-03.13	CLAMP, HOSE 1 3/4 #20	2
C-03.3	CLAMP, HOSE 2 1/4 #32	3
C-04.3	COUPLER, QC SHANK 1" HOSE	1
C-04.35	COUPLER, QC SHANK 1" X 1" FPT	1
C-04.4	COUPLER, QC MALE 1" HOSE	1
C-05.029	ELBOW, 90 2" INSERT X 2 MPT PVC	1
C-07.6	GASKET, LID FLD WATER RMVL & EDGE 3	1
C-11.9	LATCH, SOFT DRAW BLACK	2
C-13.5	PLUG, HOLE NYLON .562	2
C-26	FLOAT, VAC SHUT OFF ROTO	1
C-30.4	GASKET, 1" ID FLAT RUBBER	1
C-30.5	GASKET, 2" ID RUBBER	1
C-35.6	HOSE BARB, 2" MPT X 2" BARB	1
C-46	LOCKNUT, 2" METAL	1
D-13.35	COUPLING, 3/4" GALVANIZED	1
D-44.085	NIPPLE 3/4" CLOSE PVC	1
E-15	CUFF, 2" SLIP 2.000" HOSE	2
J-41ST/EXTRACT	TANK, EDGE STMTC ROTO MEGA EXTRACTIO	1

PART #	DESCRIPTION	QTY.
J-49DRKBLUGRNT	LID, MEGA/E3 ROTO DRKBLUGRNT	1
J-57	SPACER, ROTO 1.5" OD X 1.0" ID	1
J-57.5	SPACER, ROTO 3" OD X 2.4" ID	1
K-13.2	LIGHT, GREEN ROUND	1
K-16.92	BUSHING, RELIEF 3/8 NPT	1
K-16.96	BUSHING, RELIEF 1/2 NPT	2
K-16.97	NUT, NYLON BUSHING REL. 1/2	2
K-17.5	CLAMPS, NYLON CABLE 3/8	2
• K-21W	SWITCH, SPST WATER RESIS	4
K-28.05	TIE, WIRE NYLON #10 SCREW	1
K-28.1	TIE WRAP, 8" LONG NATURAL	1
M-0791.05	BRACKET, DUMP VAL MNT EDGE	1
M-0792.1	PLATE, HANDLE SW COVR EDGE	1
M-09.2	BRACKET, SUB PUMP CORD SUPPORT MEGA	1
M-09.4	BRACKET, SIDE PUMPT MOUNT MEGA	1
M-09.45	BRACKET, BASE PUMP MOUNT MEGA	1
N-30.320	PNL, SW HORIZON V V C1 P D	1
SC-04.4	COUPLER, QC MALE 1" 5/64 PRIME HOLE	1
SC-05.028	ELBOW, PVC ASSY MEGA LID COMPLETE	1
• SD-94.6	CHECK VALVE, COMPLETE ASM MEGA	1
SE-09.6/28	HOSE, 1 3/8 TYGON CLR BRD 28" LONG	1
SE-11.5	HOSE, 2" X 25' W/ 2" X 2" CUFF	1
SE-12/2.25	HOSE, 2" VINYL X 2.25"	1
• SG-16	VALVE, DUMP 1.5 W/PVC EXT	1
SJ-42ST.3	HNDL, ED 4 SWT & 1 CI LIGHT STMTC	1
SJ-46.9	MANIFOLD, ASM FILTER SHUT OFF 2"	1
SJ-49ST	LID, VAC MEGA DRK BLUE STMTC	1
SK-09.2B	CORD, 25' 12/3 SJT W/TREM APPL	2
SK-84HZN1/HNDL	HARNESS, HZN HNDL C2VV CI C1PD	1
• SL-23.25	PUMP, SUBMSBLE 115V W/FLT TRMNTD	1

- RECOMMENDED STOCK ITEMS

## BASE GROUP

3869806ST  
05/12/05

## BASE GROUP

PART #	DESCRIPTION	QTY.
B-10	6-32 X 1/2 PHXSS	8
B-14	NUT 6-32 HEX SS	8
B-17.6	8-32 X 3/4PHX ZINC	4
B-18.02	NUT 8-32 NYLOK, ZINC	4
B-21	10-32 X 5/16 PHXSS	1
B-23.17	10 X 1/2 SELF TAP HEX	1
B-23.7	10-32 X 5/8 PHXSS	1
B-28.01	NUT 10-32 HEX ZINC	1
B-31.5	1/4-20 X 1/2 HEX CP	8
B-32	1/4-20 X 3/4 HEX HD CP	13
B-33.38	1/4-20 X 3 HEX HD CP	3
B-33.4	1/4-20 X 3 3/4 HEX CP	3
B-36.01	NUT 1/4-20 NYLOK ZINK	14
B-38.5	WASHER, 1/4 FLAT CP	28
B-42.4	WASHER, 5/8 FLAT BLKHD CP	1
B-42.5	WASHER, 3/4 FLAT CP	2
C-02.45	CASTER, 5" SWIVEL	2
C-03.15	CLAMP, HOSE 25/32"	6
C-03.3	CLAMP, HOSE 2 1/4 #32	5
C-04.1	COTTER, HAIRPIN 7/16-9/16	2
• C-05.10	FILTER, IN-LINE ASM 1/2BRB X 1/2BRD	1
C-06	GASKET, BLOWER/ARLON 1/4"	2
C-07.3	GASKET,VAC SEAL EDGE BASE	1
C-13.5	PLUG, HOLE NYLON .562	2
C-23.9	WHEEL, 12" W/ 3/4 BORE	2
C-30.3	GAUGE, PRESSURE 0-2000 PSI	1
C-51	MUFFLER, FOAM EDGE	1
C-60	RETAINER,PUSH-ON 3/4"ZINC	2
C-95	VELCRO, ONE WRAP STRAP 1/2" X 12"	3
D-04.03	BUSHING 3/4 X 3/8 NPT BR.	1
D-15.2	45 ST ELBOW 1/4 NPT	1
D-17	90 ST ELBOW 1/4" NPT	1
D-17.1	ELBOW,ST 3/8" NPT	6
D-18.4	ELBOW, 90 1/4NPT X 1/2 BARB	1
D-35.03	HOSE BARB 3/8 NPT X 1/2HS	3

PART #	DESCRIPTION	QTY.
E-04.10	HOSE,PLS 34" 3/8MSVX1/4FP	1
E-04.11	HOSE,PLS 34" 1/4MSVX3/8MSV	1
E-04.12	HOSE,PLS 34" 3/8MSVX3/8MSV	1
F-09	Q/C 1/4" PLUG BR SHUT OFF	1
F-11	Q/C 1/4" SOC BR SHUT OFF	2
• G-46.12	VALVE, UNLOADER 1200 PSI	1
J-45BLK	PMP MNT,DRLD 2 VAC SILNCE BLCK ROTO	1
K-17.3	CLAMP,NYLON CABLE 3/16"	2
K-17.4	CLAMP,NYLON CABLE 1/4"	2
M-0563.8	BRACKET, MTR STARTER CAP	1
M-0606	BRACKET, MOTOR MOUNT 1200PSI	1
M-0790.4	AXLE, ROD 3/4 EDGE 18.125"LONG	1
M-0790.5	AXIL, ROD 1/2 EDGE ECONO	1
M-0791.3	PIVOT, TUBE EDGE 3.400"	2
M-0792.07NH	PLATE,VAC MNT SERIES W/QUIT 2"X2"NH	1
M-0792.6	PLATE, MUFFLER/PMP MOUNT COVER	1
M-0792.7	BRACKET, MANIFOLD DIV	1
M-31.17	STANDOFF, 5.7 EDGE 2.260"	3
M-31.175	STAND-OFF 5.7 EDGE 3.190	3
M-72	SPACER, QUICK CONNECT	1
SC-16.69	SCREEN,BLOWER GUARD	2
SE-09.1/17B	SOL HOSE, 1/2" X 17" LONG NO ENDS	1
SE-06.7/25-7HP	HOSE, 1/4 SOL 25"W/QC HIGH PRESSURE	1
SE-06.7/25HP	HOSE,1/4 SOL 25"NPT HP NO/QC	1
SE-09.1/38	SOL HOSE, 1/2" X 38" LONG NO ENDS	1
SE-09.1/5.5	SOL HOSE, 1/2" X 5.5" LONG NO ENDS	1
SE-12.5/4	HOSE,2" FLEX EXH 4"	1
SE-12.5/9	HOSE, 2" FLEX EXH 9"	1
SE-12.6/27	HOSE, 2" CLR WIRE SUPPORT 27"LONG	1
SJ-40.5ST105209210	BASE,DRLD SER W/QT HRZN STMT	1
SK-84HZN1/BASE	HARNESS, HZN BASE C2VV CI C1PD	1
• SL-005.5	BLOWER,2STG 120 5.7W/PLUG	1
• SL-006.5	BLOWER,3STG 120 5.7W/PLUG	1
• SL-28.1200	PUMP, 1200PSI CMP 110V	1

## • RECOMMENDED STOCK ITEMS