



MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL

Single Foam Dilution Stations

FOAMDULTNSTN001



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- 1 -

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MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL

TABLE OF CONTENTS:

Introduction and Overview.....	3
Specifications.....	4
Installation Procedures.....	5
Suggested Initial Start up.....	8
Motor City Wash Works Limited Warranty.....	9
Additional Notes.....	11



MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL

Introduction and Overview

Thank you for purchasing a Single Foam Dilution Station from **Motor City Wash Works, Inc.**



MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL

Equipment Specifications

Water Supply 1/2" @ 40 PSI (min)

The Minimum water pressure required to properly operate the ®Hydrominder proportioner is 25 PSI when flowing. The maximum pressure allowed is 85 PSI when proportioners are at rest. Install a water pressure regulator on the incoming line if pressure exceeds 85 PSI.

Electrical 120 Vac, 15 Watts @ 60 Hz

This unit may also be powered at 24 Vdc. The power consumption remains 15 watts. One channel (function) from the car wash controller will be required to control the unit.

Pneumatic 150 PSI (max) Main Pressure
100 PSI (max) Pump Pressure

Supply this unit with clean dry air. **DO NOT GO** below 20 PSI for pump pressure. The flow rate will vary from about 1 GPM @ 20 PSI to a maximum of 5 GPM @ 100 PSI.

Temperature 120°F (max) Liquid

The temperature of the incoming water must not fall below 40°F. Continuous operation beyond temperature specifications will **REDUCE PUMP LIFE**.


Material Handling: The dilution stations pumps are constructed of **Santoprene®** material suitable for handling a broad range of solutions, however some chemicals may significantly **REDUCE THE PUMP LIFE**. Please **DO NOT USE** solution that may contain these chemicals:

- Oils
- Soap or Wax with Solvents
- D-Limonenes
- Aromatic Hydrocarbons



MOTOR CITY WASH WORKS, INC. EQUIPMENT MANUAL

Dilution Station Installation Instructions

 **Open** the box and verify that you have all the required components. The “SINGLE FOAM DILUTION STATION” from Motor City Wash Works is consists of:

- 1- Master dilution station with Solution Tank (see Pic #1 & 2)



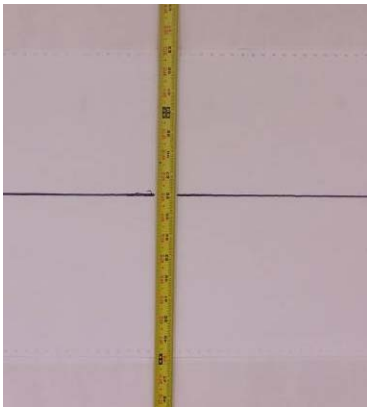
Pic #1: Dilution Station Front View



Pic #2: Solution Tank and Accessory Box

- Using** a measuring tape and a level, draw a horizontal line on the wall, 56” from the floor (see Pic# 2). This will ensure that enough height is left in order to slide a 55 gallon drum under the dilution station unit.

- Secure** the dilution station unit to the wall using the two slotted openings located in the back of the station's frame. Use the line on the wall as a guide through the openings (see Pic # 4).



Pic #2: Line at 56” AFF

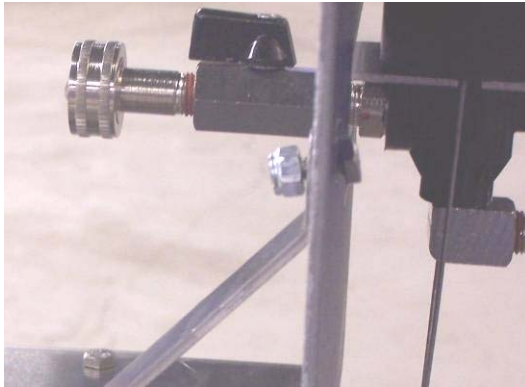


Pic #3: Line through screw openings



MOTOR CITY WASH WORKS, INC. EQUIPMENT MANUAL

- Connect** the city water supply to the 3/4" hose adaptor at the Hydrominder® valve assembly (see Pic #4). Open the water supply to the unit and check for leaks.
- Install the** air supply from the main air compressor to the air solenoid valve inlet (see Pic #5). Open the air supply to the unit and check for air leaks. Fix as required.



Pic #4: Hydrominder® Valve Water Inlet



Pic #5: Solenoid valve Air Inlet

- Connect** the valve cord to the electrical line coming from the applicator's car wash controller function.
- Using** table #1, select the proper Hydrominder® "TIP" for the dilution ratio. Drop the suction line into the chemical drum and open the Hydrominders® water shut off valve, let the tanks fill and adjust the position of the float to avoid any overspill when the Hydrominder® valve is shut off.

TIP COLOR	DILUTION RATIO	TIP COLOR	DILUTION RATIO
NO TIP	4:1	TAN	36:1
GRAY	5:1	GREEN	48:1
BLACK	6:1	ORANGE	64:1
BEIGE	8:1	BROWN	75:1
RED	17:1	YELLOW	90:1
WHITE	23:1	PURPLE	120:1
BLUE	25:1	PINK	240:1


Table #1: Dilution Ratio @ 40 PSI

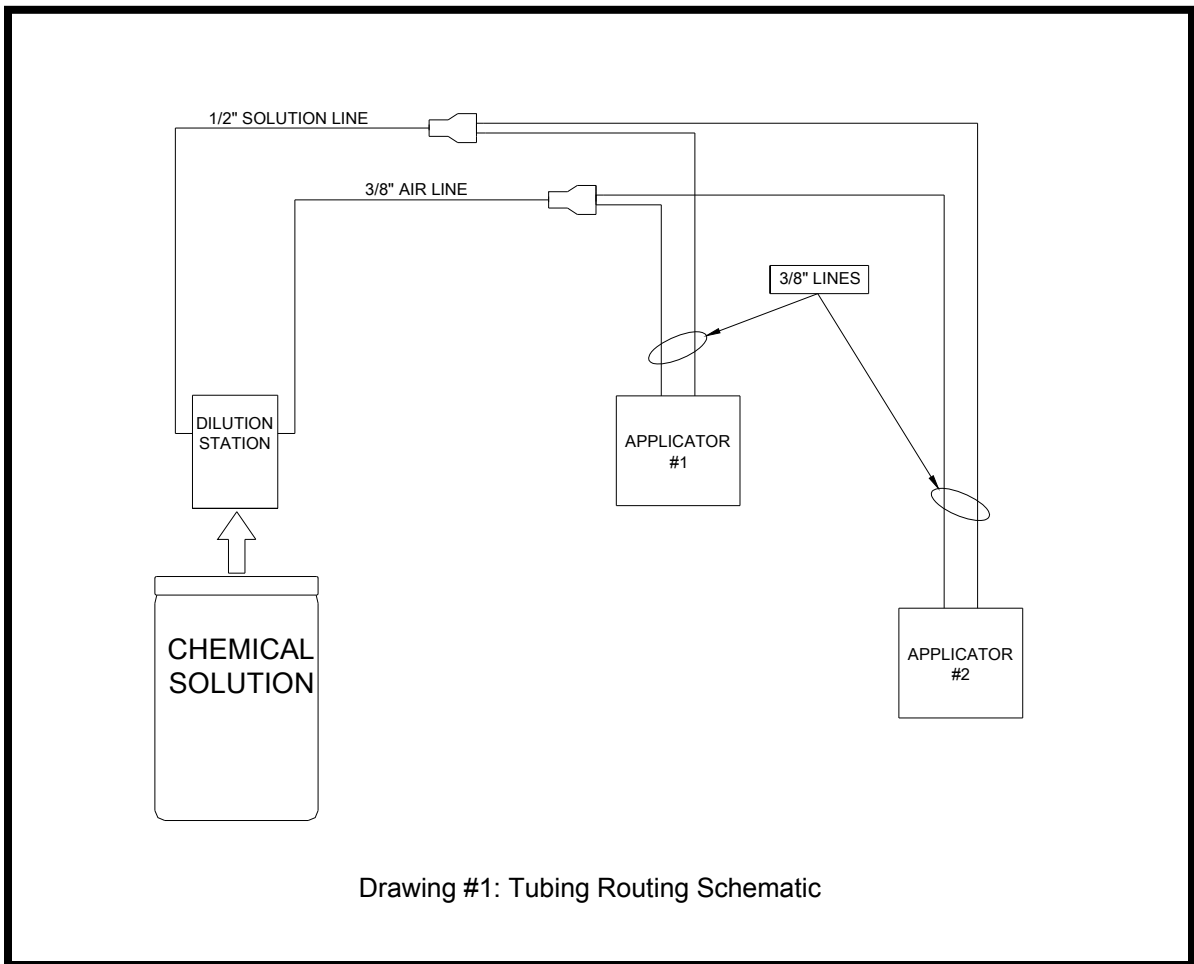
- Collect** a sample of the diluted solution and titrate if required. Change the colored Hydrominder® "TIP" for a different concentration if needed and repeat the same process.



MOTOR CITY WASH WORKS, INC. EQUIPMENT MANUAL

Applicator Installation Instructions


-  **Using a** polyethylene tube 3/8" O.D. (black) for air and 1/2" O.D. (natural) for solution, pull both lines from the dilution station to the applicator area in the wash bay. Terminate the air line (3/8" O.D) with a 3/8"X3/8"X3/8" tee and the solution line (1/2" O.D.) with a 1/2"X3/8"X3/8" fitting. Run an additional 3/8" air line from both tees to each applicator (see Drawing #1).
- Connect** the air line tubing to the bottom valve and the solution line tubing on the top valve assembly on each applicator (for WTA only).

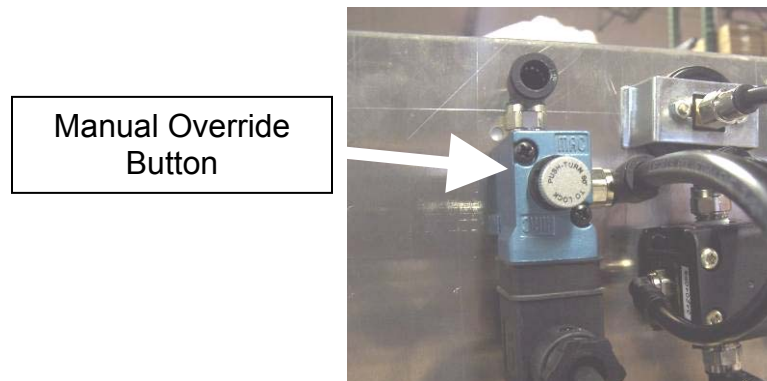




MOTOR CITY WASH WORKS, INC. EQUIPMENT MANUAL

Suggested Initial Start Up

-  **Push** and rotate 1/4 turn the air solenoid manual override button. The button will now be “locked” in and the valve will now be open (see Pic #6).



Pic #6: Solenoid Valve Button

- Adjust** the pump air regulator to about **30 PSI** and let it pump the solution to the applicator until the proportioner’s float valve opens to refill the tank. Ensure that the level of diluted solution never drops below the pump suction line strainer. Readjust the float level as needed.
- While** the pump is still running, set the foam air regulator to about **20 PSI** and visually confirm that foam is produced at the applicator. **Note: increasing the pump air pressure will increase the amount of solution delivered to the applicators, therefore making the foam “wetter”. Increasing the foam air pressure may increase the foaming effect of the solution and also spray the foam further from the applicator.** Adjust foam to desired consistency.
- While** the unit is running, go to the applicators and “balance” the flow of solution and air from the driver’s side applicator to the passenger’s side by slowly closing or opening the air and/or the solution ball valves on each applicator.
- When** the proper adjustments are reached, release the air solenoid manual override button by turning another 1/4 of a turn. The valve should now be shut off.
- Test** the system by overriding **ON** the function switch at the car wash controller output unit.
- Finally** test the system with a car being washed through the tunnel and fine tune the position and the coverage on the car of each applicator.



MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL

Replacement Parts

8FTNGAIRSRT0001
Straight Fitting 1/8" FPT X 1/4" Tube

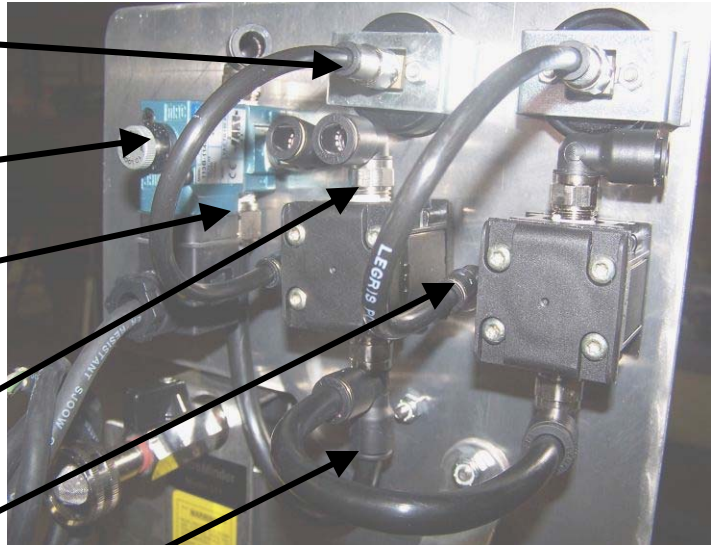
8VALVAIRSOL0002
3 Way Solenoid Air Valve

8FTNGAIRSRT0002
Straight Fitting 1/4" MPT X 3/8" Tube

8FTNGAIRELB0001
Elbow Fitting 1/4" MPT X 3/8" Tube

8FTNGAIRELB0002
Elbow Fitting 1/8" MPT X 1/4" Tube

8FTNGAIRTEE0002
Tee Fitting 1/4" MPT X 3/8" Tube



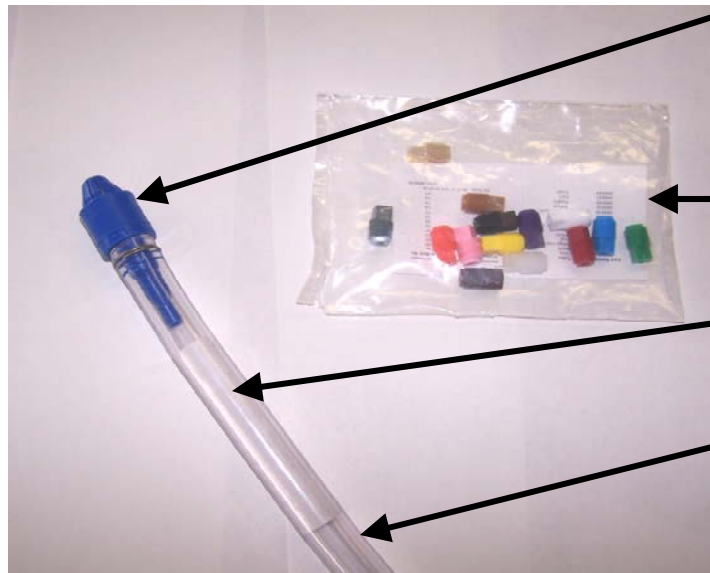
8VALVHYMFOT0001
Gray Push-on EPDM Foot Valve

8VALVHYMFOT0002
Blue Push-on VITON® Foot Valve

8VALVHYMTIP0001
Hydrominder® Metering Tips Kit

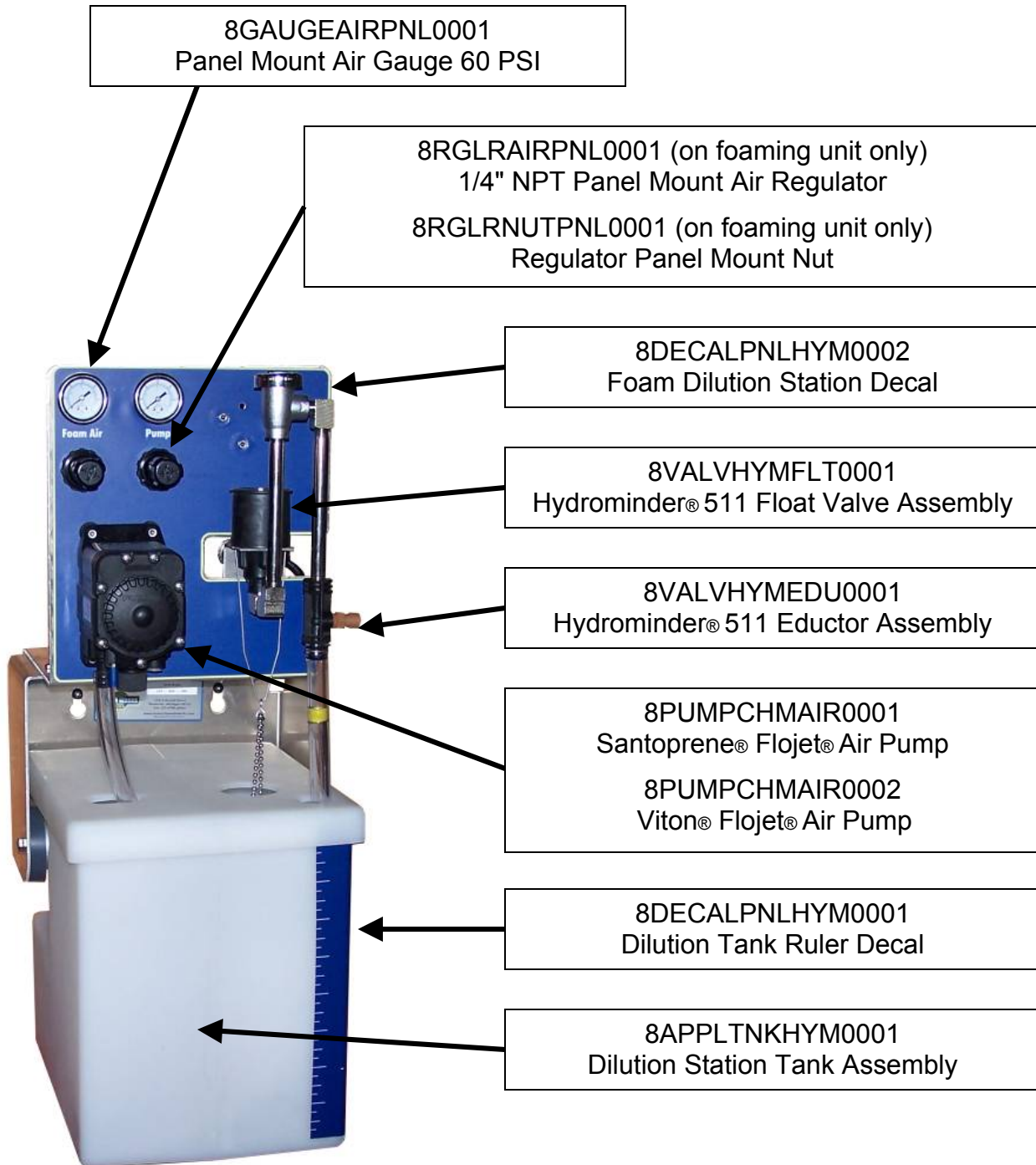
8VALVHYMWGT0001
Ceramic Weight

8TUBECHMCLR0004
100' Roll 3/4" Vinyl Clear Tube





MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL





MOTOR CITY WASH WORKS, INC. EQUIPMENT MANUAL

Motor City Wash Works Limited Warranty

A) Equipment: Seller warrants to the original purchaser that the goods sold hereunder, which are fabricated by Seller, shall be free from defects in workmanship and material under normal use and service for a period of 1 year plus 30 days from the date of invoice. All warranties, express, implied, or statutory, pertaining to Seller's machinery, parts, and equipment are fully set forth herein. This limited warranty applies to the original purchaser only and is not transferable. No addition to or modification of any of the provisions of this stated Limited Warranty shall be binding upon the Seller, unless made in writing and signed by a duly authorized employee of Seller. This warranty is subject to the following limitations: (1) This warranty shall be void if the factory specifications for operation and maintenance, found in original equipment manuals, and component manuals, are not followed, or if other than factory authorized erection, alterations or modifications are made to any parts or equipment; (2) Defective parts are warranted to the Purchaser for repair or replacement through an authorized distributor of Seller, or direct with Seller for a period of 13 months from the date of invoice. Parts warranty excludes all claims for failure resulting from normal wear and tear to the depreciable parts, improper installation, omission of factory specified preventative maintenance, misuse, abuse, negligence, third party damages, or acts of God. Purchaser agrees to submit to and assist Seller or its authorized distributor in conducting in-warranty inspections of the machinery and equipment including inspection of any part claimed to be defective by the Purchaser; (3) Labor to repair or replace parts is warranted to Purchaser during normal business hours through an authorized distributor of Seller, or direct with Seller, for 120 days from date of invoice. Labor warranty excludes all claims for failure resulting from normal wear and tear to the depreciable parts, improper installation, and omission of factory specified preventative maintenance, misuse, abuse, negligence, third party damages, or acts of God. Seller reserves the sole right to make determinations on the above stated limitation. All labor and service provided beyond the labor warranty period shall be subject to labor charges at the rates established by the local authorized distributor or direct with Seller; (4) this warranty shall be void for all equipment failures and premature component wear caused by the use of corrosive chemicals in the wash process. The following list includes some, but not all, of the particularly corrosive chemicals that if used in conjunction with Motor City Wash Works equipment will void the warranty: Hydrofluoric Acid, Ammonium Bi-fluoride, Bromic Acid, Muriatic Acid, Sulfuric Acid, Phosphoric Acid, Hydrogen Cyanide, Hydrochloric Acid, Sodium Hydroxide and Chlorinated Solvents. (5) Seller makes no warranty, express or implied, with respect to the design or operation of any entire system, in which Seller's goods sold hereunder are mere components. (6) In no event shall Seller be liable for any incidental, special, consequential or exemplary damages resulting from the furnishing, performance or use of any goods or services sold pursuant hereto, whether due to a breach of contract, breach of warranty, the negligence of Seller or to otherwise; not for loss of business; inconvenience, or property damage of any kind; not for any damages of whatever nature resulting in any way from the purchaser's selection and use of any chemicals not manufactured exclusively by seller but used with the purchased goods; or for any service not expressly provided herein related to or arising from the equipment or goods sold. This limitation of liability extends to purchaser's use of any engineering recommendations, sales representations, technical assistance, advice or data supplied by seller to purchaser in connection with the goods or services supplied, other than that information contained in Motor City Wash Works manuals.



MOTOR CITY WASH WORKS, INC.
EQUIPMENT MANUAL

B) Parts: Seller warrants to the original purchaser that the Replacement Parts sold hereunder, shall be free from defects in workmanship and material under normal use and service for a period of 30 days from the date of invoice. This limited warranty applies to the original purchaser only and is not transferable. (1) This warranty shall be void if the factory specifications for operation and maintenance are not followed; (2) Parts warranty excludes all claims for failure resulting from normal wear and tear to the depreciable parts, improper installation, omission of factory specified preventative maintenance, misuse, abuse, negligence, third party damages, or acts of God. (3) This warranty shall be void for all replacements parts failures and premature component wear caused by the use of corrosive chemicals in the wash process. The following list includes some, but not all, of the particularly corrosive chemicals that if used in conjunction with Motor City Wash Works replacement parts will void the warranty: Hydrofluoric Acid, Ammonium Bi-fluoride, Bromic Acid, Muriatic Acid, Sulfuric Acid, Phosphoric Acid, Hydrogen Cyanide, Hydrochloric Acid, Sodium Hydroxide and Chlorinated Solvents.

THIS LIMITED WARRANTY FOR EQUIPMENT AND REPLACEMENT PARTS IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER STATUTORY OR OTHERWISE, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

