

## FoamMaster Model 894GB

### 2 Product Compressed Air Power Cleaning System

**Package Contains:**

- |                       |                           |   |
|-----------------------|---------------------------|---|
| 1. FoamMaster unit.   | 4. Ceramic weight.        | 7. Instruction sheet.                   |
| 2. Metering tip kit.  | 5. Foot strainer.         | 8. Discharge shut off/nozzle head assy. |
| 3. Suction tube, 2 m. | 6. Mounting hardware kit. | 9. Discharge hose, 20 m                 |

**Installation:**

If unfamiliar with component names, see parts diagram on page 3.

1. Attach the unit to a wall or other structure, using anchors and screws provided.
2. Select a metering tip using the chart below as a **guideline** and push it firmly into the check valve hose barb. Secure the strainer to the 2 m suction tube and slide the ceramic weight over connection. Connect tube to end of check valve. The strainer end of the suction tube can be dropped directly into the concentrate container.
3. Connect the FoamMaster to the water supply through an adjustable pressure regulator to allow best operation and foam quality. Connect the regulated water supply to the water inlet at the bottom of the FoamMaster.
4. Connect a compressed air line to the quick fitting supplied at the bottom left side of the FoamMaster.
5. Connect the discharge hose to the manifold outlet at the top right of the unit.

**Operation:**

1. The FoamMaster has shut-off valves in the water and air supply lines, an air pressure gauge and a selector slider near the centre of the unit. A large hose end shut-off valve and nozzle assembly is supplied to be used at the end of the discharge hose. The larger nozzle opening is typically to be used in the foaming operation, the smaller for the rinse. These controls all play a part in the correct operation of the FoamMaster.
2. Begin with the air supply valve off, move the slider left or right to select the desired chemical. Ensure that the discharge end of the hose is open for flow. Holding the end of the discharge hose, turn the water supply on, and adjust the water supply regulator to bring the water gauge on the FoamMaster to approximately 2.86 Bar **flowing**. Confirm that product is being drawn up the supply tube to the eductor. **Note:** The minimum **flowing** water pressure to operate the unit is 1.76 Bar.
3. Begin by opening the compressed air supply valve and adjust the air regulator so that the air pressure gauge reads approximately 2.86 Bar with air, water and product flowing. Water supply should be regulated to approximately 3.2 Bar. Now adjust air and water to produce desired foam quality.

**4. Foam character adjustment:**

The nature of the foam can be varied by changing the amount of concentrate drawn, water pressure and/or air pressure. Different products will perform differently in the FoamMaster due to viscosity, foaming nature, etc.

- a) A larger diameter metering tip increases concentration, creating a thicker, richer foam. Larger diameter also helps reduce bucking of discharge.
  - b) More air pressure tends to deliver thicker, drier foam and will increase throw of foam. However, it can destroy foam quality if concentration of the product is too low.
  - c) Lower water pressure tends to create drier foam.
5. **Rinsing:**  
Rinsing is accomplished by turning off the air supply and moving the centre slider to the middle of the unit. To change the nozzle position, ensure the valve is turned off and pull back on the quick disconnect below the nozzle, switching to the smaller opening of the nozzle head. This stops the draw of concentrate and offers full water flow for rinsing.

<b>APPROXIMATE DILUTIONS @ 2.86 BAR FOR WATER-THIN PRODUCTS (1.0 CP)</b>			
<b>Tip Color</b>	<b>Orifice Size</b>	<b>Std. Drill Number</b>	<b>Ratio</b>
No Tip	.187	(3/16)	8:1
Gray	.128	(30)	8:1
Black	.098	(40)	8:1
Beige	.070	(50)	9:1
Red	.052	(55)	12:1
White	.043	(57)	16:1
Blue	.040	(60)	20:1
Tan	.035	(65)	24:1
Green	.028	(70)	32:1
Orange	.025	(72)	48:1
Brown	.023	(74)	64:1
Yellow	.020	(76)	78:1
Aqua	.018	(77)	96:1
Purple	.014	(79)	128:1
Pink	.010	(87)	256:1

**Measurement of Concentration:**

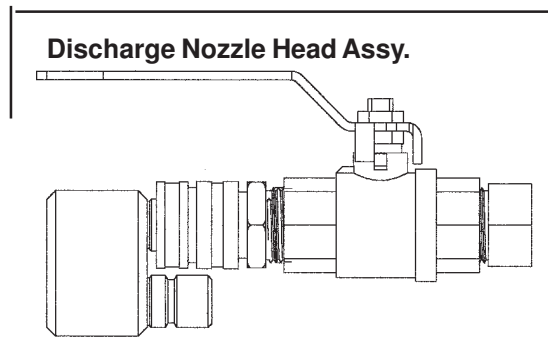
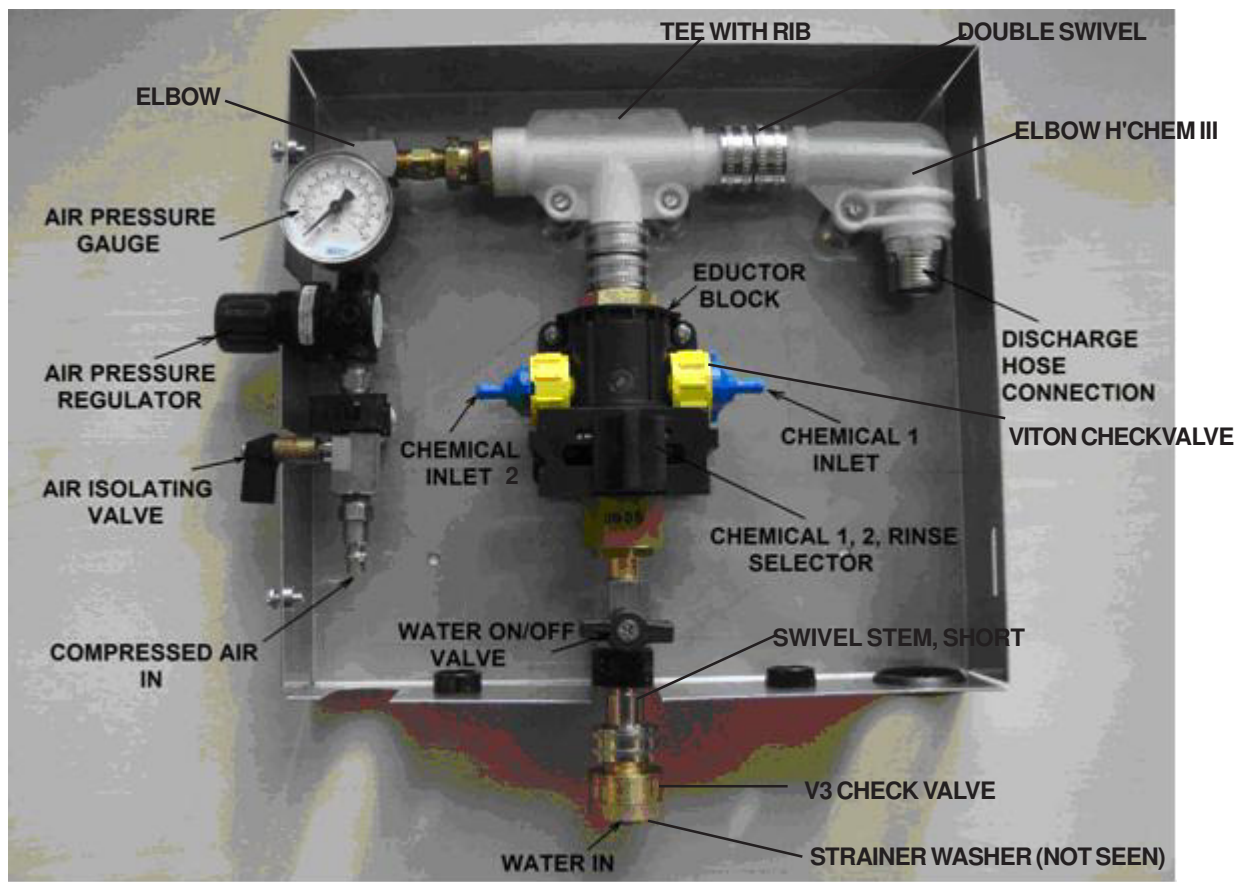
Final dilution is related to the size of the orifice in the metering tip used and product viscosity. The ratio is also affected by water pressure, temperature and flow rate. You can determine the dispensed water-to-product ratio for any metering tip size and product viscosity. All that is required is to operate the primed dispenser for a minute or so and note two things; the amount of dispensed water-to-product solution and the amount of concentrate used in preparation of the solution dispensed. The water-to-product ratio is then calculated as follows:

$$\text{Dilution (X)} = \frac{\text{Amount of Mixed Solution Dispensed} - \text{Amount of Concentrate Drawn}}{\text{Amount of Concentrate Drawn}}$$

Dilution ratio, then, equals X parts water to one part concentrate (X:1). If the test does not yield the desired ratio, choose a different tip and repeat the test. Alternative methods to this test are 1) pH (using litmus paper), and 2) titration. Contact your concentrate supplier for further information on these alternative methods and the materials required to perform them.

<b>PART No</b>	<b>DESCRIPTION</b>
419342	1/4" MPT Air Coupler
503400	Air Regulator
10088312	Air Gauge, WIKA 111.10
505600	Elbow
10088330	Check Valve
10088384	Discharge hose Connection 3/4" BSP x 3/4" FGHT
10048201	Tee with rib
10059204	Elbow-H' Chem III
607900	Double Swivel
10093024	Eductor block
10069263	Check Valve Viton 3/8"
10092105	Chemical/Rinse Selector
10088356	Discharge Nozzle
276800	Swivel Stem short
238100	Strainer washer
10034311	V3 Check Valve
NOT SHOWN:	
690014	Metering Tip Kit
10044300	Tubing 3/8" x 2m
509900	Ceramic Weight
90064415	Foot Strainer
10093021	Cover
128GB	Hose, 19mm x 20 m blue

## FoamMaster Model 894GB Parts Diagram/List



**Troubleshooting Chart:**

<b>Problem</b>	<b>Cause</b>	<b>Remedy</b>
1. No concentrate draw	<ul style="list-style-type: none"> <li>a. Clogged check valve</li> <li>b. Metering tip or eductor clogged</li> <li>c. Low water pressure</li> <li>d. Clogged foot strainer</li> <li>e. Concentrate container empty</li> <li>f. Check valve not screwed into eductor tightly</li> </ul>	<ul style="list-style-type: none"> <li>a. Clean or replace</li> <li>b. Clean (descale) or replace*</li> <li>c. Minimum 1.76 Bar required to operate unit</li> <li>d. Clean or replace</li> <li>e. Replace with full container</li> <li>f. Tighten</li> </ul>
2. Excess concentrate draw	<ul style="list-style-type: none"> <li>a. Metering tip not in place</li> </ul>	<ul style="list-style-type: none"> <li>a. Push tip firmly into eductor suction stub</li> </ul>
3. Low or no water flow	<ul style="list-style-type: none"> <li>a. Water inlet screen clogged</li> <li>b. Supply source inadequate</li> <li>c. Scale build-up on eductor or fittings</li> </ul>	<ul style="list-style-type: none"> <li>a. Clean inlet screen (also check screen inside backflow preventer)</li> <li>b. 70 LPM inlet flow required. Move unit to adequate source or replumb incoming line.</li> <li>c. Clean or replace*</li> </ul>
4. Backflow into concentrate	<ul style="list-style-type: none"> <li>a. Eductor check valve inoperable</li> </ul>	<ul style="list-style-type: none"> <li>a. Replace check valve</li> </ul>

\* In hard water areas, scale may form at the discharge of the eductor or other fittings. This scale may be removed by soaking in a descaling (deliming) solution or by running the descaling solution through the system. If descaling solution is educted through unit, let it run through unit for a minute, then flush the system by educting clear water through it. Then return suction tube strainer to concentrate.



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