

Metering Tip Selection:

The final concentration of the dispensed solution is related to the size of the metering tip orifice, the viscosity of the liquid being siphoned, water pressure, water flow rate, and other factors in the application. The chart below is a **guideline** for selecting a metering tip. If product viscosity is greater than that of water, choose a tip with a larger orifice than shown on the chart. Test the actually achieved ratio using the Measurement of Concentration procedure below. Continue to choose and test tips until the desired dilution is achieved. Use the clear, undrilled tip supplied to drill an orifice size not listed, if necessary.

APPROXIMATE DILUTIONS AT 40 PSI FOR WATER-THIN PRODUCTS (1.0 CP)			
Tip Color	Orifice Size	Std. Drill Number	Ratio
No Tip	.187	(3/16)	10:1
Gray	.128	(30)	10:1
Black	.098	(40)	10:1
Beige	.070	(50)	12:1
Red	.052	(55)	16:1
White	.043	(57)	24:1
Blue	.040	(60)	28:1
Tan	.035	(65)	32:1
Green	.028	(70)	48:1
Orange	.025	(72)	64:1
Brown	.023	(74)	80:1
Yellow	.020	(76)	96:1
Aqua	.018	(77)	128:1
Purple	.014	(79)	256:1
Pink	.010	(87)	384:1
Lt. Purple	.009	(89)	512:1

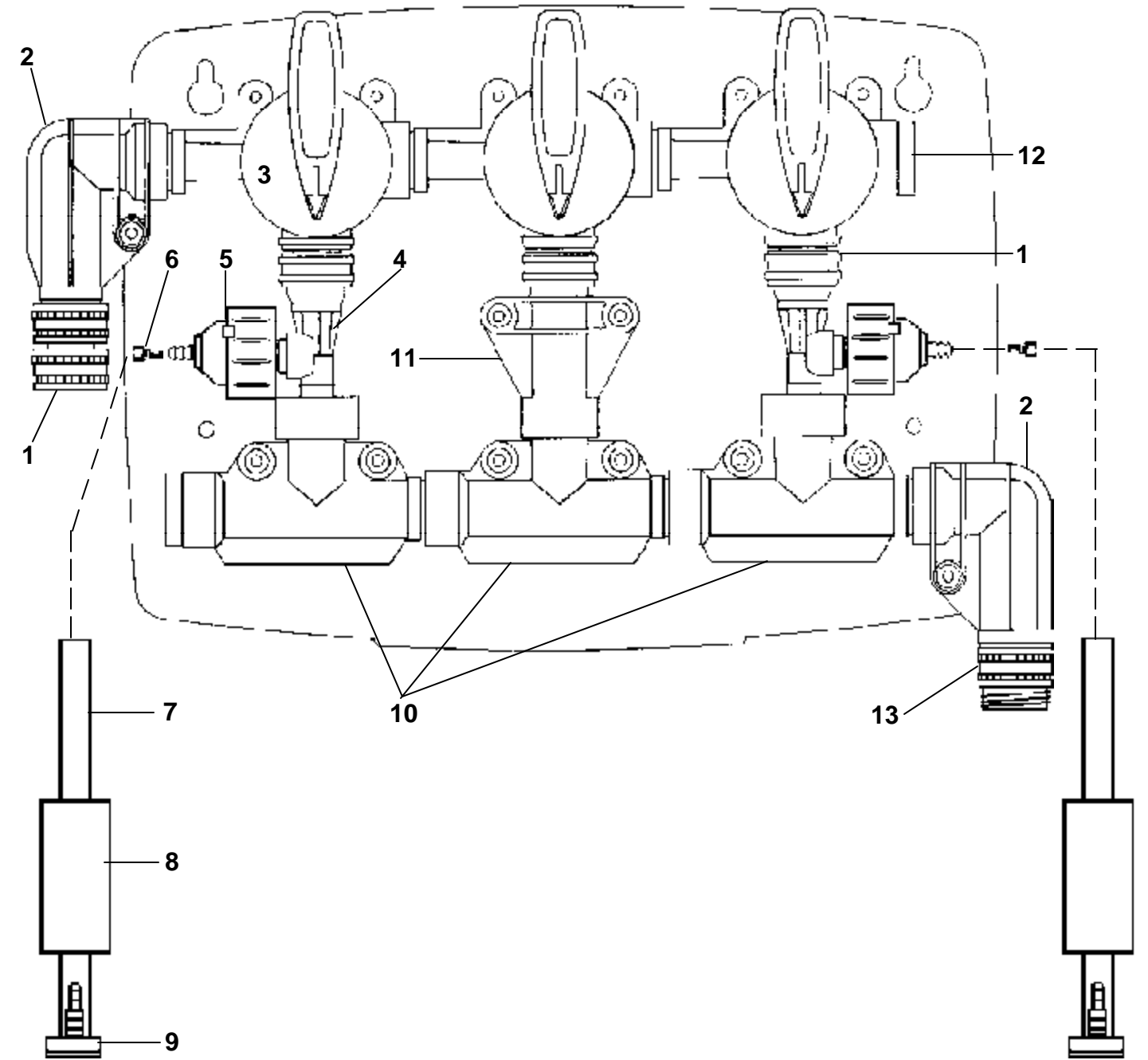
CONVERSION CHART: Ratio Equivalents to Standard Measures		
Oz./Gal.	Ratio	%
128	1:1	50.0
64	2:1	33.3
32	4:1	20.0
21	6:1	14.3
16	8:1	11.1
14	9:1	10.0
8	16:1	5.9
6	24:1	4.0
4	32:1	3.0
3	48:1	2.0
2	64:1	1.5
1	128:1	0.8
1/2	256:1	0.4
1/4	512:1	0.2

Troubleshooting Guide:

Problem	Cause	Solution
1. No discharge	a. No water b. Eductor clogged	a. Open water supply, see that inlet strainer is not clogged b. Clean* or replace
2. No concentrate draw	a. Clogged check valve b. Metering tip clogged c. Eductor clogged d. Clogged water inlet e. Clogged foot strainer f. Low water pressure and/or volume g. Concentrate container empty h. Check valve not screwed into eductor firmly	a. Clean or replace b. Rinse in hot water or replace: DO NOT REAM! c. Clean or replace d. Clean screen e. Clean or replace f. Minimum 25 PSI flowing and 3 GPM flow required to operate unit g. Replace with full container h. Tighten, but DO NOT OVER TIGHTEN!
3. Excess concentrate draw	a. No metering tip (or wrong one)	a. Press correct tip firmly into barb
4. Water won't shut off	a. Valve defective	a. Replace
5. Low or no water flow	a. Inlet screen clogged b. Supply source inadequate c. Scaled eductor or fittings	a. Clean or replace b. 3 GPM flow necessary through unit. Move unit or replumb incoming line. c. Clean* or replace
6. Supply water into concentrate or unit won't hold prime	a. Check valve inoperable	a. Clean or replace check valve

* In hard water areas, scale (mineral deposits) may form at the discharge of the eductor. This scale may be removed by soaking the eductor in a descaling (deliming) solution or by running the descalant through the system. When removing an eductor for soaking, firmly grasp the eductor and unthread the adapters located above and below the eductor. Replace in the same manner.

HydroChem III Parts Diagram (Model 932 shown)



PARTS LIST (Refer to diagram)

Key	Part No.	Description	Key	Part No.	Description
1	607900	Double swivel	11	10048302	Connecting tube
2	10059204	Elbow	12	605201	Plug
3	10071610	Valve assembly, including handle	13	10071500	Adaptor
4	10059301	3.5 GPM Venturi (light brown)	NOT SHOWN:		
5	10069270	Check valve — Viton (standard) {EPDM available: order 10069271}	270700		Hose washer: thin (used in hose swivels, valves and outlet fitting)
6	10027209	Metering tip (kit)	270702		Hose washer: thick
7	500870	Suction tube, 1/4" x 7'	10047875		Cabinet set, Model 931
8	509900	Ceramic weight	10047874		Cabinet set, Model 932
9	609600	Foot strainer	10065310		1/2" hose clamp
10	10048201	Tee	10065311		3/4" hose clamp