# HydroCap

**Package Should Contain:**

1. HydroCap unit.
2. Chemical inlet tubing, 1/4" x 2'.
3. Discharge tube assembly, 1/2" x 4'.
4. Molded right-angle bracket for discharge tube.
5. On/Off valve.
6. Male and female quick connect.
7. Ceramic weight.
8. Footvalve (model 5801) or strainer (model 5804 and 5809).
9. Instruction sheet.

## THANK YOU FOR YOUR INTEREST IN OUR PRODUCTS

Please use this equipment carefully and observe all warnings and cautions.

**********NOTE **********

| | |
|---|---|
| **WEAR** | protective clothing and eyewear when dispensing chemicals or other materials. |
| **ALWAYS** | observe safety and handling instructions of the chemical manufacturers. |
| **ALWAYS** | direct discharge away from you or other persons or into approved containers. |
| **ALWAYS** | dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise **CAUTION** when maintaining your equipment. |
| **KEEP** | equipment clean to maintain proper operation. |
| **WEAR** | protective clothing and eyewear when working in the vicinity of all chemicals, filling or emptying equipment or changing metering tips. |
| **ALWAYS** | re-assemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position. |
| **ATTACH** | only to tap water outlets (85 PSI maximum). |
| **NOTE** | If the unit is used to fill a sink or the discharge hose can be placed into a sink, the unit must be mounted so that the bottom of the cabinet is above the overflow rim of the sink. |

**Installation and Operation:**

1. Remove unit from box.
2. Cut the long, flexible discharge tube to desired length, and connect to the outlet of the HydroCap. The discharge tube goes over the smaller barbed part which is inside the outlet end of the eductor. This tube must be in place for the eductor to function. NOTE: Models 5801 and 5804 have a flooding ring inside the discharge tube. Install the end of the tube nearest the flooding ring to the eductor outlet to ensure proper use.
3. Connect male and female quick-connects. Turn water on. Turn on/off valve to "on" position for use.
4. To disconnect, turn off water source. Make sure on/off valve is in OFF position. Release the quick-connect to separate the HydroCap from the hose.

Hydro®

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## Metering Tip Selection:

The final concentration of the dispensed solution is related to both the size of the metering tip opening and the viscosity of the liquid being siphoned. For water-thin products, the chart at right can be used as a guideline. If product is noticeably thicker than water, consult the Measurement of Concentration Procedure below to achieve your desired water-to-product ratio. Because dilution can vary with water temperature and pressure, actual dilution achieved can only be ascertained by using the Measurement of Concentration Procedure. The clear, undrilled tip is provided to permit drilling to size not listed should you need a dilution ratio that falls between standard tip sizes.

**NOTE:** Refer to parts diagram if unfamiliar with names of system components.

**APPROXIMATE DILUTIONS AT 40 PSI FOR WATER-THIN PRODUCTS (1.0 CP)**

| Tip Color | Orifice Size / Std. Drill Number) | Ratio (per Eductor Flow) 1 GPM | 4 GPM | 9GPM |
|---|---|---|---|---|
| No Tip | .187 (3/16) | 1.6:1 | 6:1 | 8:1 |
| Grey | .128 (30) | 2:1 | 7:1 | 10:1 |
| Black | .098 (40) | 2:1 | 8:1 | 12:1 |
| Beige | .070 (50) | 3:1 | 12:1 | 20:1 |
| Red | .052 (55) | 5:1 | 24:1 | 32:1 |
| White | .043 (57) | 8:1 | 28:1 | 48:1 |
| Blue | .040 (60) | 10:1 | 32:1 | 64:1 |
| Tan | .035 (65) | 12:1 | 44:1 | 76:1 |
| Green | .028 (70) | 18:1 | 64:1 | 100:1 |
| Orange | .025 (72) | 21:1 | 76:1 | 128:1 |
| Brown | .023 (74) | 24:1 | 96:1 | 160:1 |
| Yellow | .020 (76) | 32:1 | 128:1 | 220:1 |
| Aqua | .018 (77) | 40:1 | 160:1 | 256:1 |
| Purple | .014 (79) | 64:1 | 256:1 | 440:1 |
| Pink | .010 (87) | 128:1 | 512:1 | 768:1 |

## Measurement of Concentration:

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 solution, and the amount of concentrate used in preparation of the solution dispensed. The water-to-product ratio is then calculated as follows:

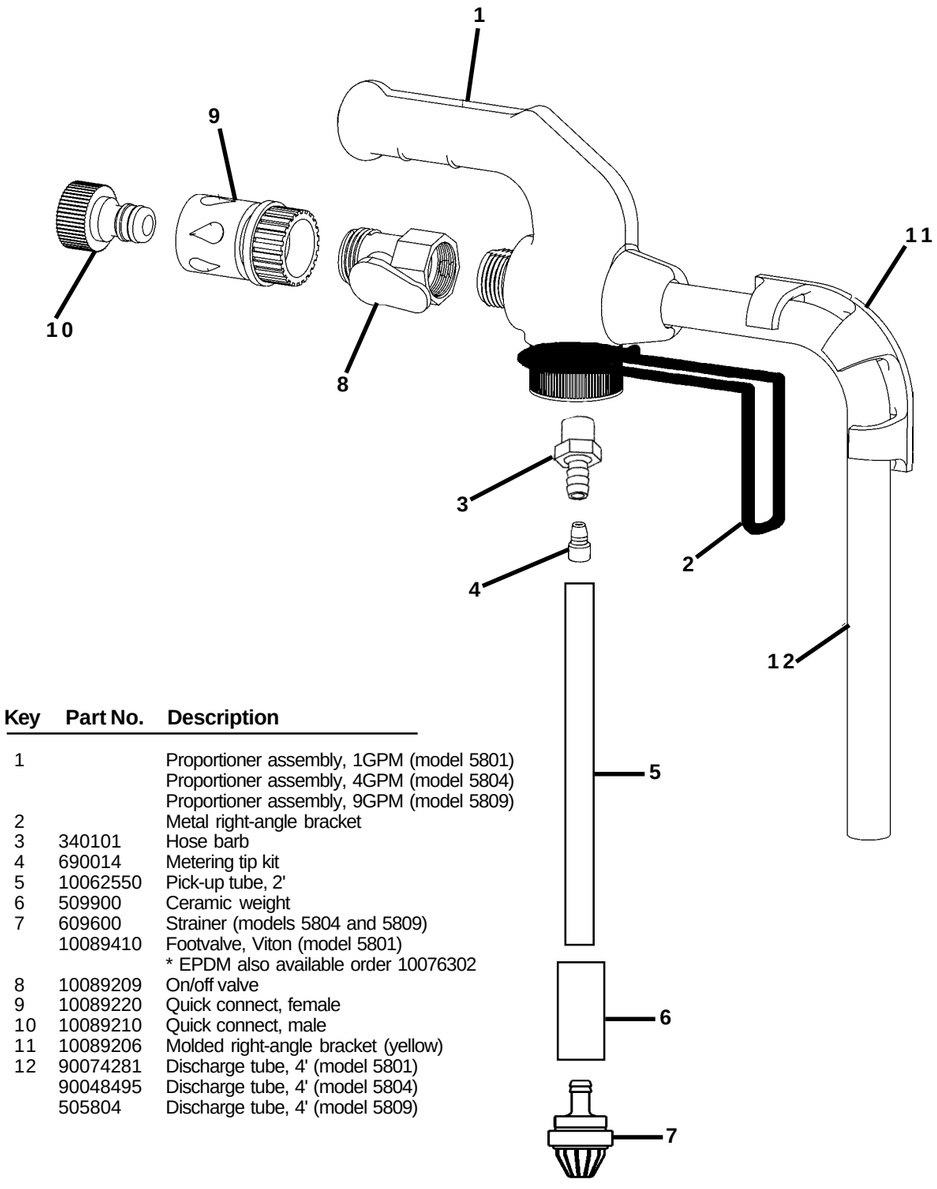
**Dilution Ratio** (X:1) where X = $\frac{\text{Amount of Mixed Solution — Amount of Concentrate Drawn}}{\text{Amount of Concentrate Drawn}}$

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.

## TROUBLESHOOTING CHART:

| Problem | Cause | Solution |
|---|---|---|
| 1. No discharge | a. No water<br>b. Ball valve not open<br>c. Eductor clogged | a. Open water supply<br>b. Open ball valve<br>c. Clean or replace |
| 2. No concentrate draw | a. Clogged foot strainer<br>b. Metering tip or eductor has scale build-up<br>c. Low water pressure<br>d. Discharge tube and/or flooding ring not in place (high flow only)<br>e. Air leak in chemical pick-up tube<br>f. Clear plastic tip installed in inlet pick-up stem | a. Clean or replace<br>b. Clean (descale)* or replace<br>c. Minimum 25 PSI (with water running) required to operate unit properly<br>d. Push tube firmly onto eductor discharge hose barb, or replace tube if it doesn't have a flooding ring<br>e. Put clamp on tube or replace tube if brittle<br>f. Replace with colored metering tip |
| 3. Excess concentrate draw | a. Metering tip not in place | a. Press correct tip firmly into barb on pick-up stem |
| 4. Failure of unit to turn off | a. Faulty ball valve<br>b. Excessive water pressure | a. Clean* or replace ball valve<br>b. Install regulator if pressure (with water flowing) exceeds 60 PSI |
| 5. Excess foaming in discharge | a. Air leak in chemical pick-up tube | a. Put clamp on tube or replace tube if brittle |

## HydroCap Parts Diagram List:




| Key | Part No. | Description |
|---|---|---|
| 1 | | Proportioner assembly, 1GPM (model 5801) |
| | | Proportioner assembly, 4GPM (model 5804) |
| | | Proportioner assembly, 9GPM (model 5809) |
| 2 | | Metal right-angle bracket |
| 3 | 340101 | Hose barb |
| 4 | 690014 | Metering tip kit |
| 5 | 10062550 | Pick-up tube, 2' |
| 6 | 509900 | Ceramic weight |
| 7 | 609600 | Strainer (models 5804 and 5809) |
| | 10089410 | Footvalve, Viton (model 5801) |
| | | * EPDM also available order 10076302 |
| 8 | 10089209 | On/off valve |
| 9 | 10089220 | Quick connect, female |
| 10 | 10089210 | Quick connect, male |
| 11 | 10089206 | Molded right-angle bracket (yellow) |
| 12 | 90074281 | Discharge tube, 4' (model 5801) |
| | 90048495 | Discharge tube, 4' (model 5804) |
| | 505804 | Discharge tube, 4' (model 5809) |