



**Proportioner
Model 3576AG
with HydroGap™ Air Gap Educators
(ASSE 1055 Approved)**

- Package Should Contain:**
1. Proportioner unit.
 2. Supply tubing 21' total.
 3. Foot valve assemblies & weights (5).
 4. Discharge tubing for each educator.
 5. Metering tip kits.
 6. Mounting anchor kit.
 7. Hose hook for 3.5 GPM educator.
 8. Instruction sheet.

Troubleshooting Chart:

| Problem | Cause | Solution |
|--------------------------------|---|--|
| 1. No discharge | a. No water b. Magnetic valve not functioning c. Educator clogged d. Clogged water inlet strainer | a. Open water supply b. Install valve parts kit c. Clean* or replace d. Disconnect inlet water line and clean s strainer |
| 2. No concentrate draw | a. Clogged foot valve b. Metering tip or educator has scale build-up c. Low water pressure d. Discharge tube and/or flooding ring not in place e. Concentrate container empty f. Inlet hose barb not screwed into educator tightly g. Clogged water inlet strainer h. Air leak in chemical pick-up tube i. Selector out of position | a. Clean or replace b. Clean (descale)* or replace c. Minimum 25 PSI (with water running) required to operate unit properly d. Push tube firmly onto educator discharge hose barb, or replace tube if it doesn't have a flooding ring. e. Replace with full container f. Tighten, but do not overtighten g. Disconnect inlet water line and clean strainer h. Put clamp on tube or replace tube if brittle i. Assure selector is in position desired |
| 3. Excess concentrate draw | a. Metering tip not in place b. Chemical above educator | a. Press correct tip firmly into barb on educator b. Place concentrate below the educator |
| 4. Failure of unit to turn off | a. Water valve parts dirty or defective b. Magnet doesn't fully return c. Push button stuck | a. Clean* or replace with valve parts kit b. Make sure magnet moves freely. c. Remove button and clean cabinet/button to remove any dirt lodged in slide recess |
| 5. Excess foaming in discharge | a. Air leak in pick-up tube | a. Put clamp on tube or replace tube if brittle |

* In hard water areas, scale may form inside the discharge end of the educator, as well as in other areas of the unit that are exposed to water. This scale may be removed by soaking the educator in a descaling solution (deliming solution). To remove an educator located in the cabinet, firmly grasp water valve and unthread educator. Replace in same manner. Alternatively, a scaled educator can be cleaned (or kept from scaling) by drawing the descaling solution through the unit. Operate the unit with the suction tube in the descaling solution. Operate the unit until solution is drawn consistently, then flush the unit by drawing clear water through it for a minute. Replace concentrate container and put suction tube into concentrate.

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 or when working in the vicinity of all chemicals, filling or emptying equipment, or changing metering tips. |
| ALWAYS | observe safety and handling instructions of the chemical manufacturer. direct discharge away from you or other persons or into approved containers. dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise CAUTION when maintaining your equipment. reassemble equipment according to instruction procedures. Be sure all components are firmly screwed or latched into position. |
| KEEP | equipment clean to maintain proper operation. |
| ATTACH | only to water tap 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 cabinet cover. Install the short, whitish inner discharge tube on the outlet of the educator. It goes over the smaller barbed part on the bottom of the educator. This tube must be in place for the educator to function. The inner discharge tube for a 3.5 GPM (yellow) educator has a yellow flooding ring inside it. The inner discharge tube for a 1.0 GPM (grey) educator has a grey flooding ring inside of it. Install the end of the tube nearest the flooding ring on the educator's inner discharge barb. **To ensure the IDT is on correctly, see that the metal ring gets positioned above the small barb.** (Repeat for all educators).
2. Find suitable place close to water source for unit. Mounting bracket should be installed approx. 5' from the floor. Level bracket and mark holes. Drill 9/32" holes and install mounting anchors and screws in bracket.
3. Hang cabinet on bracket. Mark hole for lower cabinet screw. Remove cabinet and drill 9/32" hole. Install anchor and screw in lower cabinet hole. When mounting unit, do not mount more than 5 feet from the floor. Also, never mount your concentrate container higher than the unit. Keyhole slots are also provided in the cabinet back if the mounting bracket won't be used.
4. Select metering tips (up to 4) for the selector valve. (see next two sections) Push each tip firmly into a separate hose barb extending from the selector valve. A tip with no hole (clear plastic) can be used to block any valve port being used. (This may be used for dispensing water only). Select and install a metering tip for the single product educator (right side) in the same manner.
5. Cut tubing provided into separate supply tubes for each product to be dispensed (tubing allows 7 feet of tube per product). Supply tubes should reach from hose barbs on the selector valve body and educator to bottom of concentrate containers. Slide ceramic weights over one end of each tube and slide foot valves into the same ends of the tubes.
6. Slip other end of supply tube through an opening in either side of the cabinet and push over the hose barb/metering tip on the educator. (Repeat for all educators.)
7. Place foot valve ends of supply tubes into concentrate containers. **REMEMBER TO CHECK FOOT VALVE STRAINERS REGULARLY FOR CLOGGING: CLEAN IF NECESSARY.**
8. A short discharge tube is used with the 1GPM educator; minimum tube length is 8 inches (20cm) for proper operation. Longer tubes (4 feet) are used with a 3.5 GPM educator. Do not remove the flooding rings from inside the tubes. Slide end of tube with flooding ring over educator discharge outlet. (Repeat for all educators.) Hooks may be installed on longer tubes to allow discharge tube to conveniently hang from dispenser when not in use.
9. Replace cabinet cover. Push the sides in, behind the latch holes, to snap the cover in place. The two screws provided may be installed in the holes in the cabinet sides to prevent easy removal of cover.
10. Connect water supply hose of at least 3/8" ID to water inlet swivel. (Minimum 25 PSI pressure, with water running, is required for proper operation.) Connect opposite end of hose to water supply. Turn water supply on.
11. Purge air from the system by depressing the buttons briefly. There may be some water discharge from the educator vents until the air is purged.
12. Push button to start flow of desired water/concentrate solution, and hold until supply tube is primed (filled). Then push the button whenever dispensing is desired, and release button to stop flow of solution. **If you wish to be able to lock the button in the "on" position:** Depress button and slide button lock up. **To unlock, depress button and release.**
13. **It is essential that the discharge hose not be obstructed. If discharge is restricted, water will flow out the educator vents. Do not start to operate the dispenser with liquid in the discharge tube.**



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: A 1 GPM eductor is grey; a 3.5 GPM eductor is yellow. Refer to parts diagram if unfamiliar with names of system components.

Measurement of Concentration:

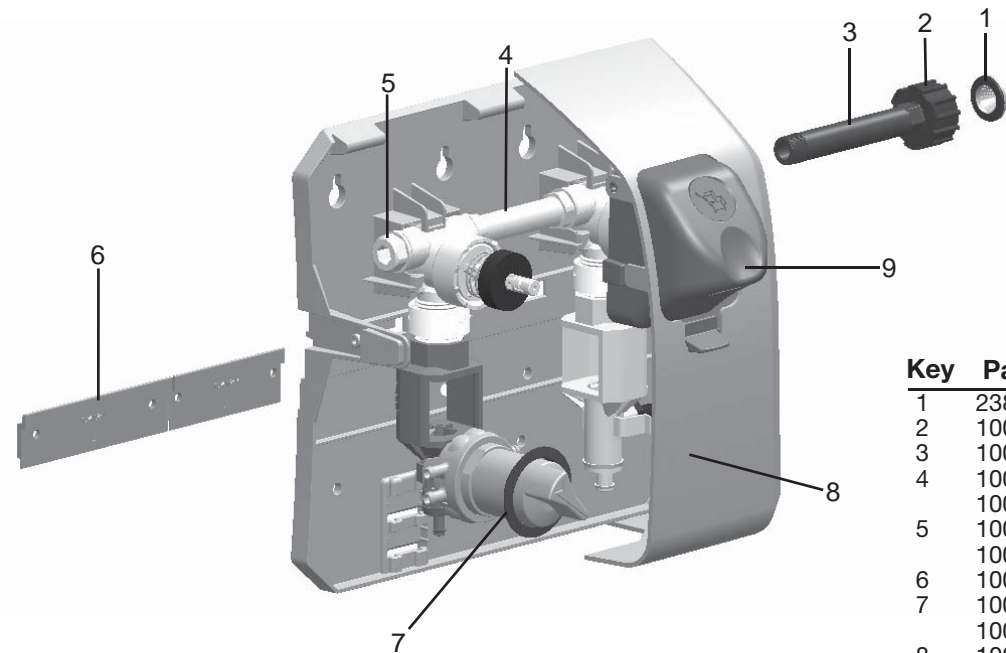
You can determine the dispensed water-to-product ratio for any metering tip size and product viscosity. All that is required is to operate the primed dispenser for a minute or so and note two things: the amount of dispensed solution, and the amount of concentrate used in preparation of the solution dispensed. The water-to-product ratio is then calculated as follows:

| APPROXIMATE DILUTIONS AT 40 PSI FOR WATER-THIN PRODUCTS (1.0 CP) | | | |
|---|--------------|--------------------------|---------|
| Tip Color | Orifice Size | Ratio (per Eductor Flow) | |
| | | 1 GPM | 3.5 GPM |
| No Tip | .187 | 2.6:1 | 4:1 |
| Grey | .128 | 2.6:1 | 4:1 |
| Black | .098 | 2.5:1 | 5:1 |
| Beige | .070 | 3:1 | 8:1 |
| Red | .052 | 5:1 | 13:1 |
| White | .043 | 7:1 | 22:1 |
| Blue | .040 | 9:1 | 26:1 |
| Tan | .035 | 11:1 | 34:1 |
| Green | .028 | 17:1 | 52:1 |
| Orange | .025 | 19:1 | 64:1 |
| Brown | .023 | 22:1 | 71:1 |
| Yellow | .020 | 32:1 | 102:1 |
| Aqua | .018 | 39:1 | 128:1 |
| Purple | .014 | 64:1 | 213:1 |
| Pink | .010 | 128:1 | 447:1 |

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

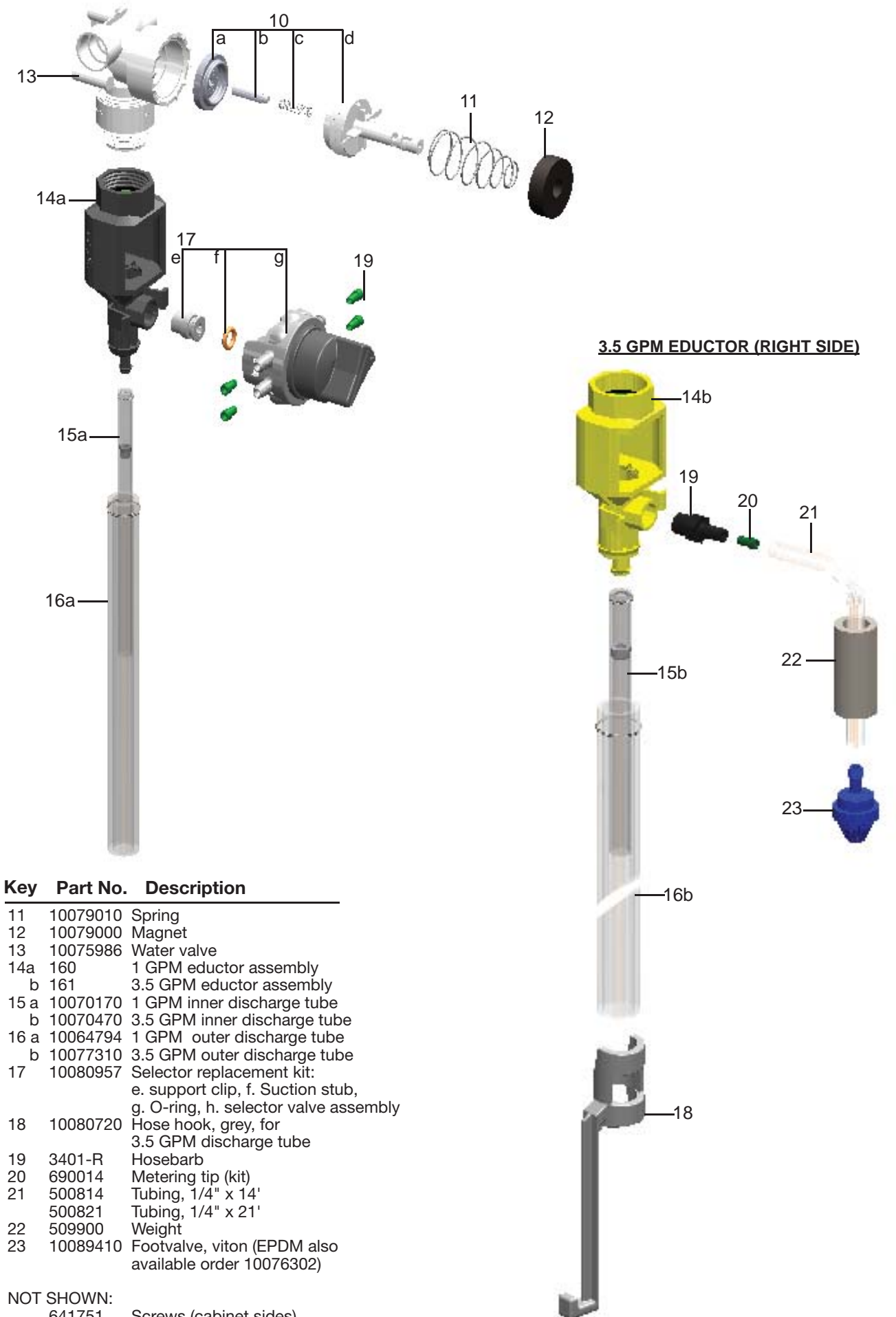
Dilution Ratio, then, equals X parts water to one part concentrate (X:1). If the test does not yield the desired ratio, choose a different tip and repeat the test. Alternative methods to this test are 1) pH (using litmus paper), and 2) titration. Contact your concentrate supplier for further information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

AccuMax Select Parts Diagram List:



| Key | Part No. | Description |
|-----|----------|--------------------------|
| 1 | 238100 | Strainer washer |
| 2 | 10082830 | Swivel collar (molded) |
| 3 | 10082811 | Swivel stem (molded) |
| 4 | 10075902 | Hex nipple |
| | 10075950 | O-ring (two per nipple) |
| 5 | 10075926 | Pipe plug |
| | 10075950 | O-ring |
| 6 | 10091035 | Wall bracket |
| 7 | 10020700 | Selector valve grommet |
| | 10020900 | Back up ring for grommet |
| 8 | 1009xxxx | Cabinet |
| 9 | 10098215 | Button, Bottle fill |
| | 10098216 | Button, Bucket fill |
| 10 | 10075980 | Valve parts kit |
| | a. | diaphragm, b. armature, |
| | c. | spring, d. valve bonnet |

AccuMax Select Parts Diagram:



| Key | Part No. | Description |
|------|----------|---|
| 11 | 10079010 | Spring |
| 12 | 10079000 | Magnet |
| 13 | 10075986 | Water valve |
| 14a | 160 | 1 GPM eductor assembly |
| | b | 161 3.5 GPM eductor assembly |
| 15 a | 10070170 | 1 GPM inner discharge tube |
| | b | 10070470 3.5 GPM inner discharge tube |
| 16 a | 10064794 | 1 GPM outer discharge tube |
| | b | 10077310 3.5 GPM outer discharge tube |
| 17 | 10080957 | Selector replacement kit: |
| | e. | support clip, f. Suction stub, |
| | g. | O-ring, h. selector valve assembly |
| 18 | 10080720 | Hose hook, grey, for 3.5 GPM discharge tube |
| 19 | 3401-R | Hosebarb |
| 20 | 690014 | Metering tip (kit) |
| 21 | 500814 | Tubing, 1/4" x 14' |
| | 500821 | Tubing, 1/4" x 21' |
| 22 | 509900 | Weight |
| 23 | 10089410 | Footvalve, viton (EPDM also available order 10076302) |

NOT SHOWN:
641751 Screws (cabinet sides)