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EconoMixer_™100

Installation

Package Contents:

- 1. Drum Proportioner Assembly
- 2. Suction Tube w/Foot Valve (4ft.)
- 3. Discharge Tube (4ft.)
- 4. Metering Tip Kit (14 tips)
- 5. Product Information Sheet

Please use this equipment carefully and observe all warnings and cautions: **WEAR** protective clothing and eyewear when: dispensing chemicals or other materials; working in the vicinity of chemicals; filling or emptying equipment; changing metering tips.

<u>ALWAYS</u> observe safety and handling instructions from the chemical manufacturers.

<u>ALWAYS</u> direct discharge away from you and other persons into approved containers.

<u>ALWAYS</u> dispense cleaners and chemicals in accordance with manufacturer's instructions. Exercise CAUTION when maintaining your equipment.

<u>ALWAYS</u> re-assemble equipment according to instructions. Be sure all components are firmly screwed into position.

ATTACH only to tap water outlets (85 PSI maximum).

INSTALLATION:

- 1. Select a metering tip (see "Metering Tip Selection" in next section), and insert into the Eductor Suction Stub. (See Fig. 1) Slide the open end of the suction tube through the bung adapter, then over the vertical suction stub. (See Fig. 2)
- Slide end of discharge tube over the Horizontal Eductor Discharge Outlet. (See Fig. 3)









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- 3. Remove either the 3/4" or 2" bung from upright drum.
- 4. Insert the foot valve end of the suction tube into the drum.
- 5. Swivel the drum adapter several turns in the bung opening until the bracket is secure.
- Install a minimum 1/2" ID water hose between the inlet swivel on the eductor assembly and a water supply spigot (minimum 25PSI flowing water pressure is required to operate this unit).
- 7. Turn on water supply. To begin dispensing solution, open ball valve at inlet to unit.



Metering Tip Selection:

The final concentration of the dispensed liquid is related to both the size of the metering tip opening (orifice) and the viscosity of the liquid being siphoned. If product viscosity is noticeably greater than that of water, consult the procedure for <u>"Measurement of Concentration"</u> section, on next page, to achieve your desired water-to-product ratio. For water-thin products, use the chart below as a guideline. Because such factors as inlet water pressure and temperature can affect dilution ratios, the figures listed below are only approximate. Test the actual dilution you are achieving using the "Measurement of Concentration" procedure for best results. An undrilled, clear tip is supplied for drilling sizes not listed.

| Tip Color | Drill Size | Approximate Dilution Ratio at 40 PSI, water-thin viscosity (1.0cp) | |
|-----------|------------|---|--|
| No Tip | | 4.5:1 | |
| Gray | 30 | 5:1 | |
| Black | 40 | 6:1 | |
| Beige | 50 | 9:1 | |
| Red | 55 | 20:1 | |
| White | 57 | 24:1 | |
| Blue | 60 | 26:1 | |
| Tan | 65 | 31:1 | |
| Green | 70 | 50:1 | |
| Orange | 72 | 70:1 | |
| Brown | 74 | 90:1 | |
| Yellow | 76 | 100:1 | |
| Purple | 80 | 200:1 | |
| Pink | 87 | 400:1 | |



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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.

- 1. The amount of dispensed water/product mixture and
- 2. The amount of concentrate used in preparation of the solution dispensed.

The water-to-product ratio is then calculated as follows:

Dilution (X) = Amount of Mixed Solution - Amount of Concentration Drawn

Dilution ratio, then equals X parts water to one part concentration (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 Problem: | Cause | Remedy | |
|---|--|---|--|
| | a. Clogged foot valve strainer b. Metering tip orifice obstructed | a. Clean or replace b. Rinse orifice or replace | |
| 1. Unit does not draw concentrate | c. water pressure too low | c. Minimum 25PSI required. Re-plumb line or use different source | |
| | e. Flooding ring not in place | e. Replace discharge tube | |
| 2 Water gets into concentrate container | a. Heavy mineral deposits in eductor | a. Descale or replace eductor | |
| | Faulty or missing foot valve | b. Repair or replace foot valve | |
| 2. Unit continuously draws from unit | | a. Always hang discharge tube using hook | |
| 5. Onit continuously draws from unit | a. End of discharge tube lower than foot valve. | provided on end so that it is above foot valve | |
| concentrate | | level. | |

** Mineral deposits, known as scale, may form at the discharge of the eductor, particularly in hard water areas. To remove scale, soak the eductor in a descaling or deliming solution. Alternately, the descaling solution can be siphoned into the eductor by operating the unit with the foot valve in the descaling solution. After operating the unit in this manner for a minute, put foot valve in clear water and operate for another minute to flush the unit. Return the foot valve to the concentrate for normal use.



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| ITEM | QTY | PART NAME | PART NUMBER | ITEM | QTY | PART NAME | PART NUMBER |
|------|-----|----------------------------|-------------|------|-----|------------------------|-------------|
| 1 | 1 | Complete Base (Parts 2-8) | PEMIX-01 | 9 | 1 | Tube Set (Parts 10-17) | PEMIX-10 |
| 2 | 1 | Strainer Washer | PEMIX-01A | 10 | 1 | Foot Valve | PEMIX-01G |
| 3 | 1 | Hose Swivel | PEMIX-01B | 11 | 4 | Wire Clamp | PEMIX-01H |
| 4 | 1 | Ball Valve w/Nipple | PEMIX-01C | 12 | 1 | Flooding Ring | PEMIX-01I |
| 5 | 1 | Eductor Assembly | PEMIX-01D | 13 | 1 | Discharge Tube Hook | PEMIX-01J |
| 6 | 1 | Metering Tip Kit (14 tips) | PEMIX-02 | 14 | 1 | Ceramic Weight | PEMIX-01K |
| 7 | 1 | Mounting Bracket | PEMIX-01E | 15 | 1 | 1/4" Restrictor Tube | PEMIX-01L |
| 8 | 1 | Bung Assembly | PEMIX-01F | 16 | 1 | Discharge Tube | PEMIX-01M |
| | | | | 17 | 1 | Suction Tube | PEMIX-01N |

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