

## COOLING WATER TREATMENT WITH THE NU-CALGON DRIP FEEDERS

**No. 215 Drip Feeder—Part Number 4669-W3**

**No. 1075 Drip Feeder—Part Number 4670-W3**

Nu-Calgon Drip Feeders can be used to feed No. 340 Liquid Scale Inhibitor, Cal-Treat® 233, Ty-Ion® C70 and No. 85 Algaecide to recirculating cooling water systems. The Feeder assembly consists of coiled capillary tubing with a probe, a weight, syringe and a clamp (see Figure 1). Each Feeder is calibrated at the factory to assure accurate feeding.

The distance that the weighted end of the capillary tubing is allowed to hang below the middle of the treatment bottle determines the feed rate. This distance is referred to as Feeder Head, (H), and should always be measured from the middle of the installed treatment bottle to the end of the capillary tubing. (See Figure 2).

After the bottle of treatment has been hung at the proper height, the coil of tubing should be placed around the neck of the bottle. Feeders are shipped with “H” set at 40 inches. To establish the proper Feeder Head, as specified in the application charts, simply uncoil the tubing to increase “H” or coil excess tubing to decrease “H”.

**Never cut the capillary tubing** to shorten it; this will destroy the Feeder’s calibration and result in too fast a feed rate.

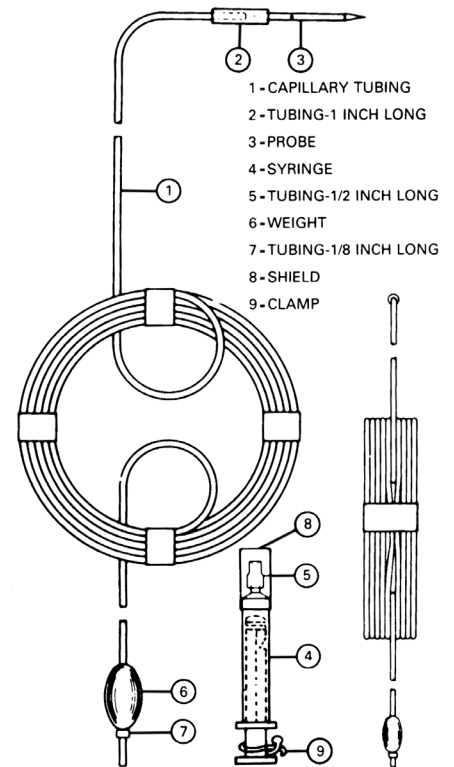
The feed rate is different for each product. Charts on page 2 indicate the required Feeder Head versus monthly feed rates for all four Nu-Calgon liquid products.

### IMPORTANT NOTES

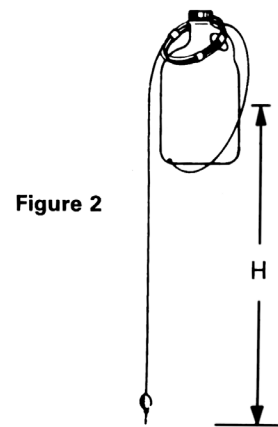
- When feeding the products as listed below, the end of the tubing can be either above or slightly below the level of the sump water.
- All drip-fed products are available in 1 gallon bottles and/or 5 gallon pails.
- The drip-feed products are:
 

	<b>Part Number By Package</b>
No. 85 Algaecide	1 gallon 4108-08
Cal-Treat® 233	5 gallon 4149-05
No. 340 Liquid Scale Inhibitor	1 gallon 4340-08
	5 gallon 4340-05
Ty-Ion® C70	5 gallon 7597-05
- Use appropriate jug holder when installing bottles.  
 1 gallon Jug Holder: C-284-1 (4606-0)  
 5 gallon Jug Holder: C-284-5 (4607-0)

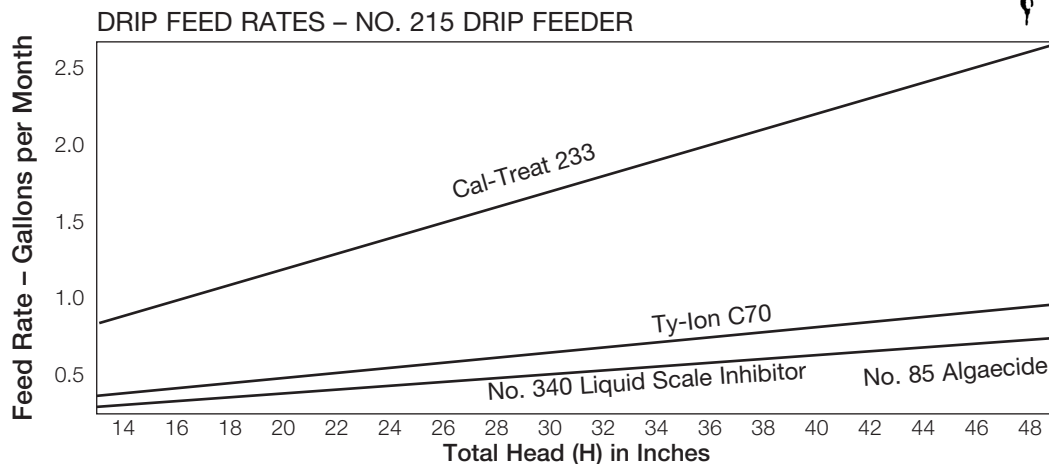
The manufacture and use of this Drip Feeder is protected by U.S. Patent Number 3,212,677.



**Figure 1**



**Figure 2**



## Application

1. Use applicable chart to determine how many bottles of treatment are needed and how high above the sump water the bottles must be placed to get the desired Head.
2. When using a 1 gallon feeding bottle, remove the notched plastic disc attached to the handle. Insert the disc under the bottle cap and tighten. If feeding from a 5 gallon pail, make or punch a small hole in the bottle neck or handle area to allow air to enter (some 5 gallon pails are molded with a capped nipple on the handle—remove cap and discard and puncture the nipple).
3. Utilize the jug holders for installing containers on towers or evaporative condensers. Use the 4606-0 for 1 gallon bottles and 4607-0 for 5 gallon pails. If the jug holders are unavailable, you may make or construct your own bracket; for 1 gallon bottles, you may use the coated wire included.
4. Place coil of capillary tubing over neck of bottle and secure it to the handle. This will prevent the probe from being pulled out of the bottle if an air current moves the Feeder around.
5. Make sure capillary tubing is inserted at least 3/8" into the sleeve attached to the probe so connection will not come apart. Then insert sharp tip of probe into lower part of bottle, about 1 inch above bottom.
6. Use the syringe to prime capillary tubing and start treatment feeding. Insert end of capillary into the small diameter soft tube on syringe. Pull plunger out past the "v" notch cut into the side of one of the plunger fins; this will create a suction on the liquid treatment. Slide purse clamp down the plunger barrel until it snaps into notch, and interlock ball ends of clamp. Maintain until treatment enters syringe. Unsnap purse clamp and remove it along the syringe. You may leave

7. the syringe housing on the capillary tubing if desired for protection of dripping end of tubing. Make sure treatment is dripping from end of tubing. The dripping end may be in the water or out of the water.
7. The bottle of treatment chemical should be refilled before it is completely empty and air enters the Feeder. If air bubbles enter the tubing, it will be difficult to re-prime the Feeder by applying suction with the syringe. To get air out of capillary tubing, refill feeding bottle with chemical, then fill syringe with water, hold upright and push plunger to get air out of syringe. Connect syringe to tubing and force water in syringe through the tubing. Hold syringe and Feeder connection tightly and push plunger slowly. It takes a few minutes to force water through the tubing. Repeat with another syringe of water. Then draw 2 or 3 syringes of chemical out of bottle as described in item number 6. Before leaving job, check end of tubing to be sure treatment is dripping properly.

## Treating Enclosed Units

When the cooling tower or evaporative condenser is enclosed with sheet metal, the following procedure should be used so the Feeder operation can be checked without removing panels from unit.

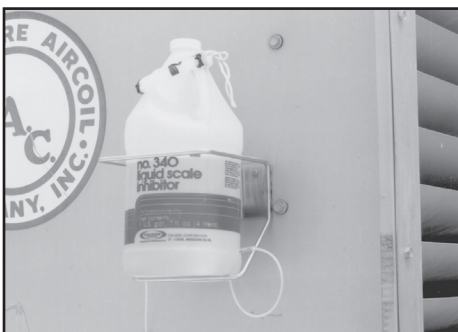
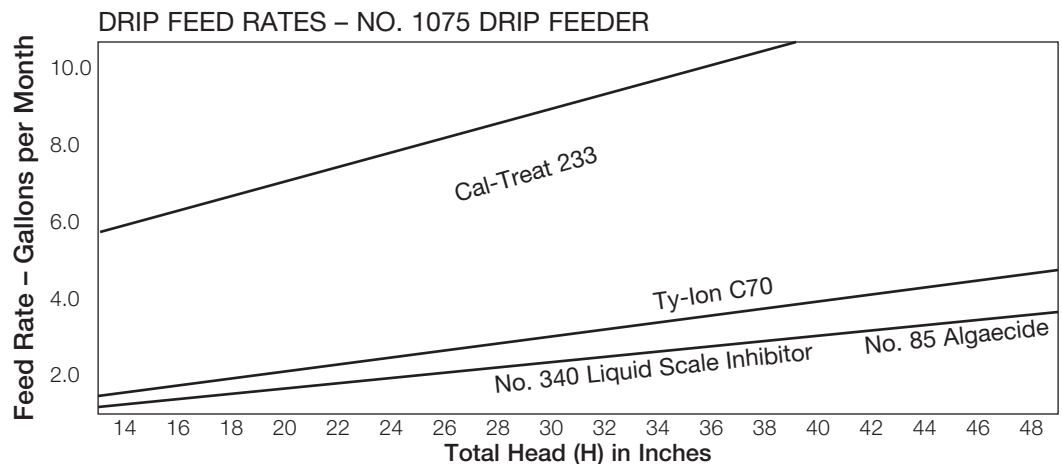
1. Hang bottle of treatment at desired height outside tower or evaporative condenser.
2. Drill a 3/8" hole in side of unit below bottom of treatment bottle and above level of sump water.
3. Insert a piece of 3/8" OD plastic tubing through the hole so that the end is submerged in the sump water.
4. Fasten outside end of 3/8" tubing to side of tower. Feed the capillary tubing into the 3/8" tubing until the proper head for the capillary tubing is achieved.



5 gallon holder  
Part Number 4607-0



1 gallon holder  
Part Number 4606-0



Hang bottle at proper height and insert probe.



Use syringe to charge Drip Feeder.



Arrange Drip Feeder so that weighted end is proper distance above or below surface of sump water.

