HydroMinders

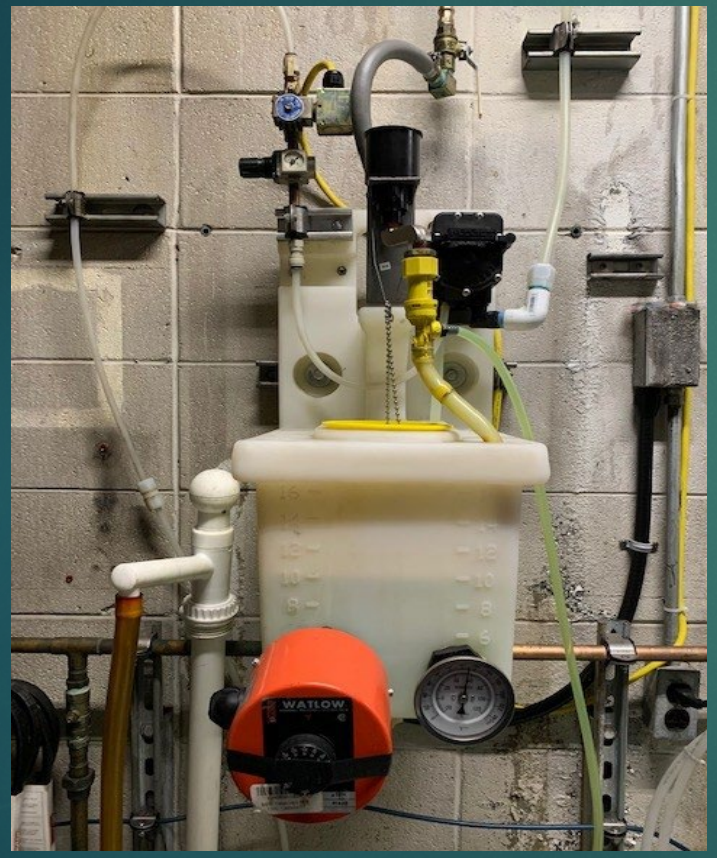
BASIC OVERVIEW AND OPERATION

Hydrominders are used throughout the car wash process in different applications. They are primarily used to dilute concentrated car wash soaps and waxes to ready to use, or RTU, solutions.

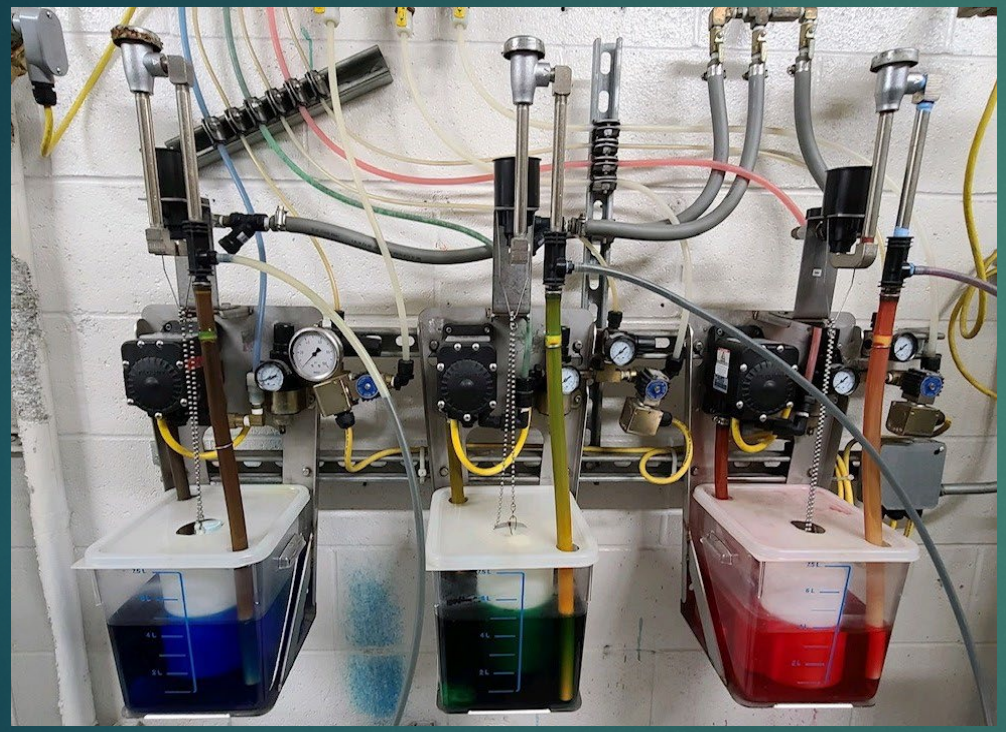
The next three slides are examples of spray arches utilizing a Hydrominder.

Presoak application.

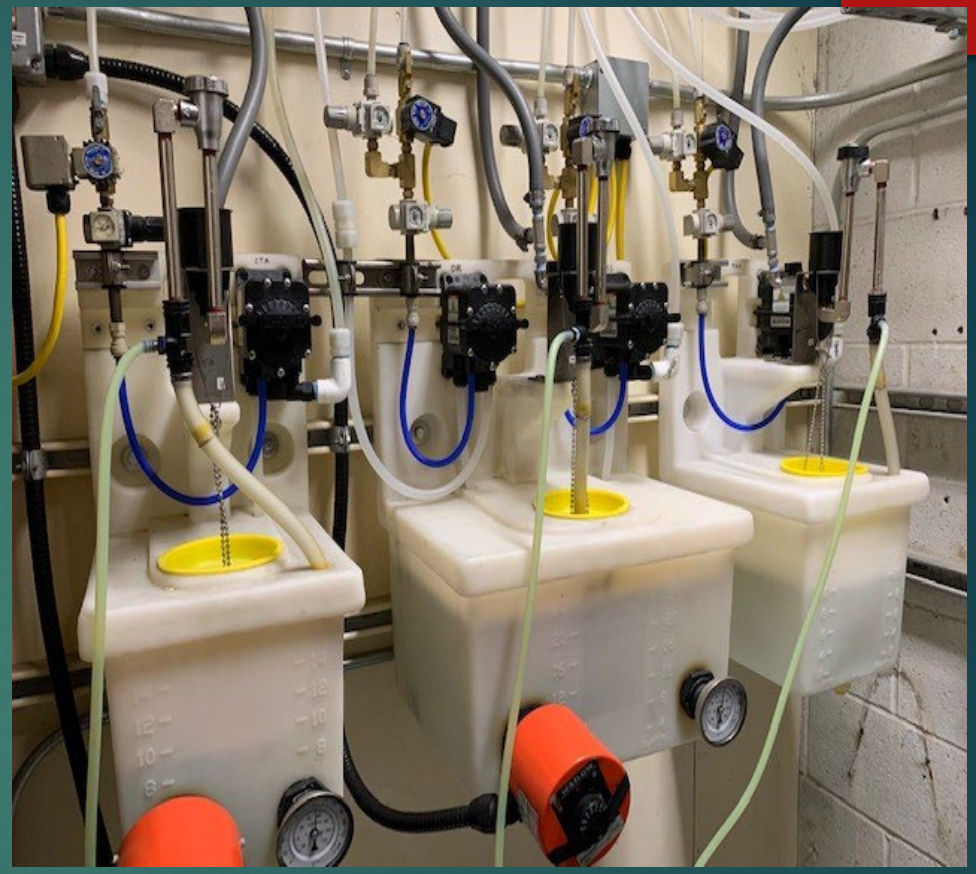
CTA system



Colorshine system



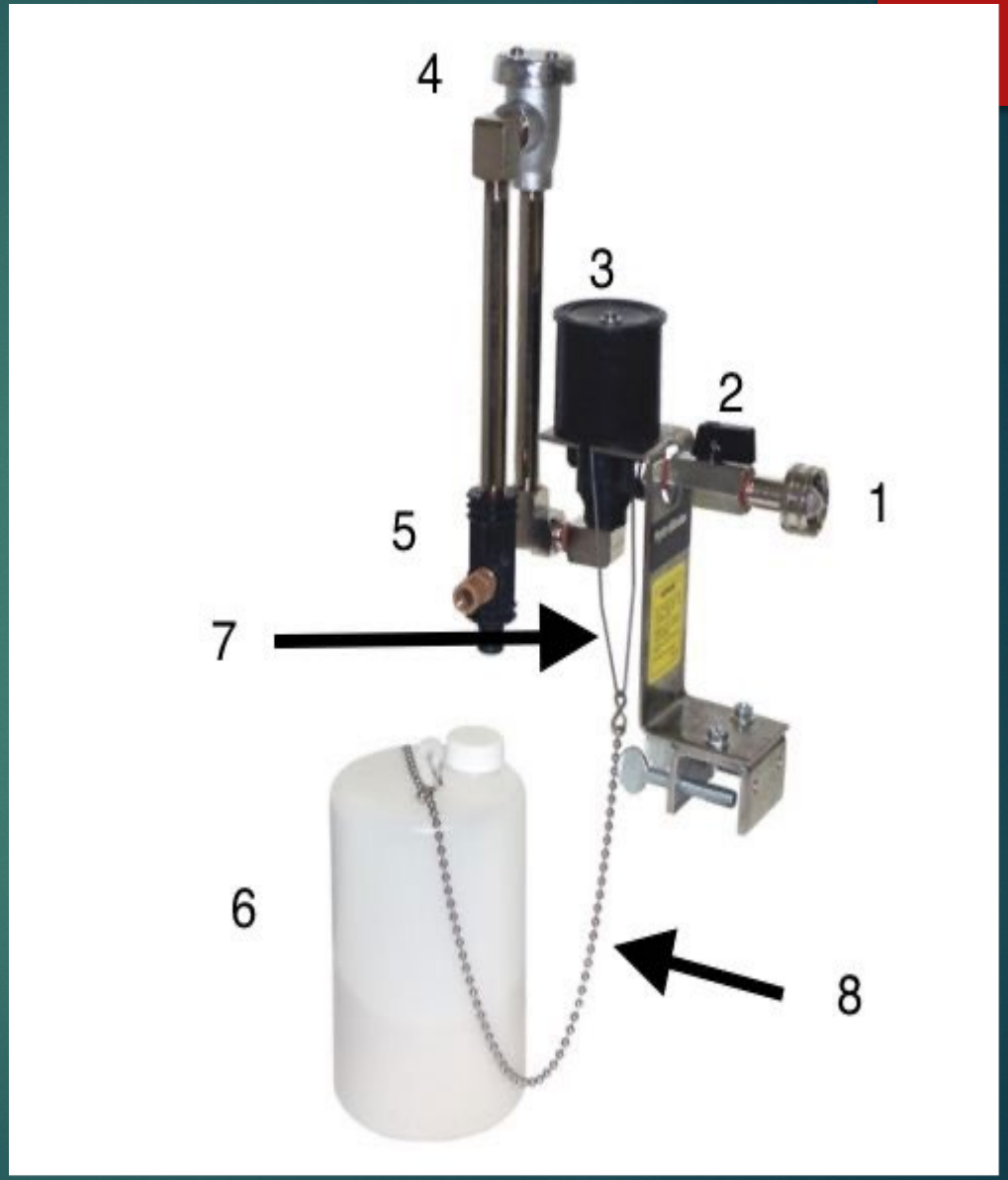
Although there are many parts that make up the Hydrominder setup, the Hydrominder is a simple piece of equipment.



This is the actual HydroMinder. A Hydrominder needs a water supply, concentrated chemical supply and a holding tank for the final solution.

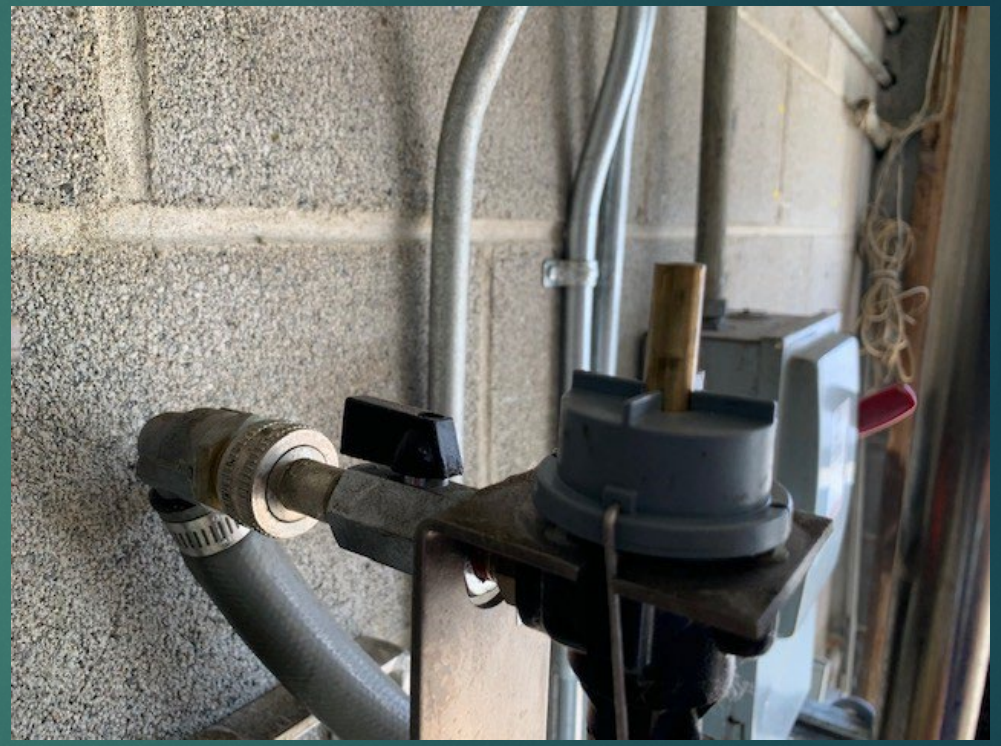
In the next slide, we will list the different components to the Hydrominder…

1. Inlet strainer
2. Ball valve – Water flow on/off
3. Valve body and cap
4. Siphon breaker – (allows water flow in one direction only)
5. Eductor and suction stub
6. Float
7. Yoke
8. Float adjustment chain



Removing the valve body cap, we can see the magnet in different positions as the solution tank fills or is full. Magnet up, solution tank is full. Magnet down, solution tank is filling.

Unit is off. Solution tank is full.



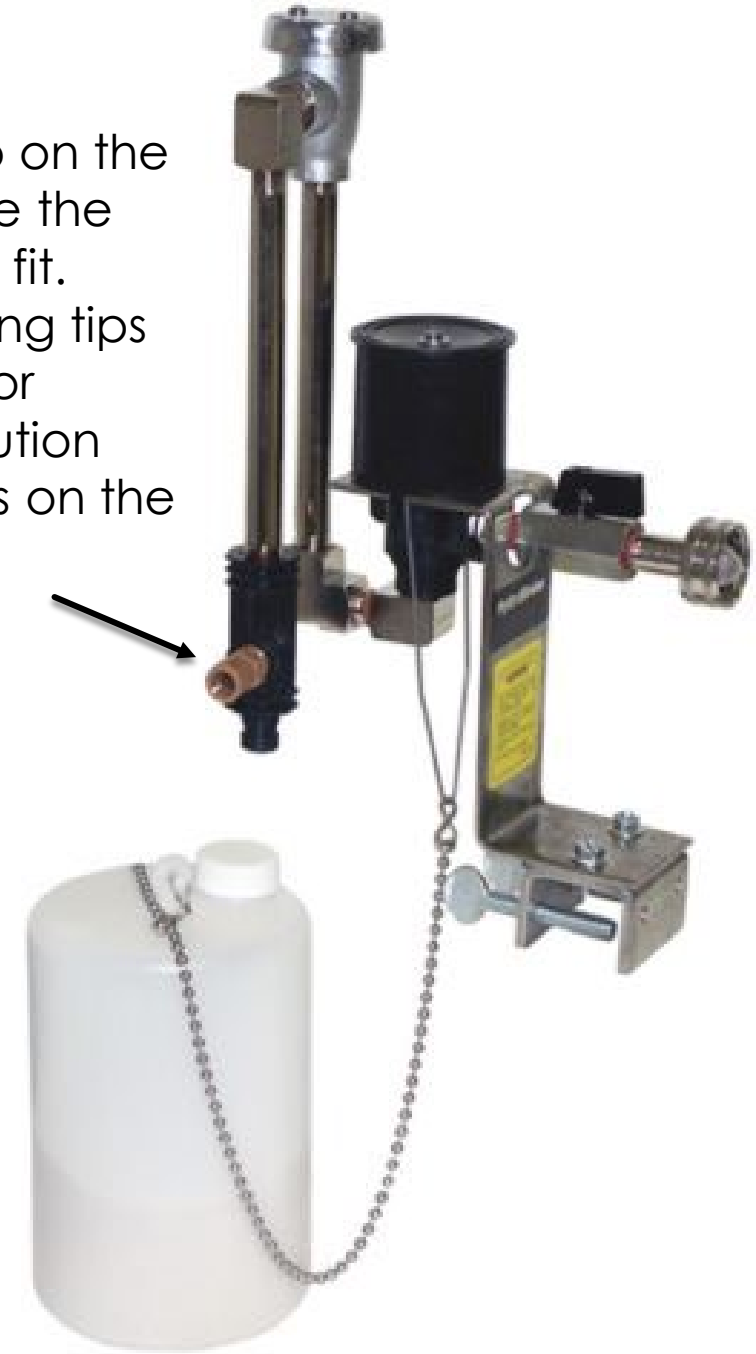
Unit is on. Solution tank filling.

Internal components of the valve guide:

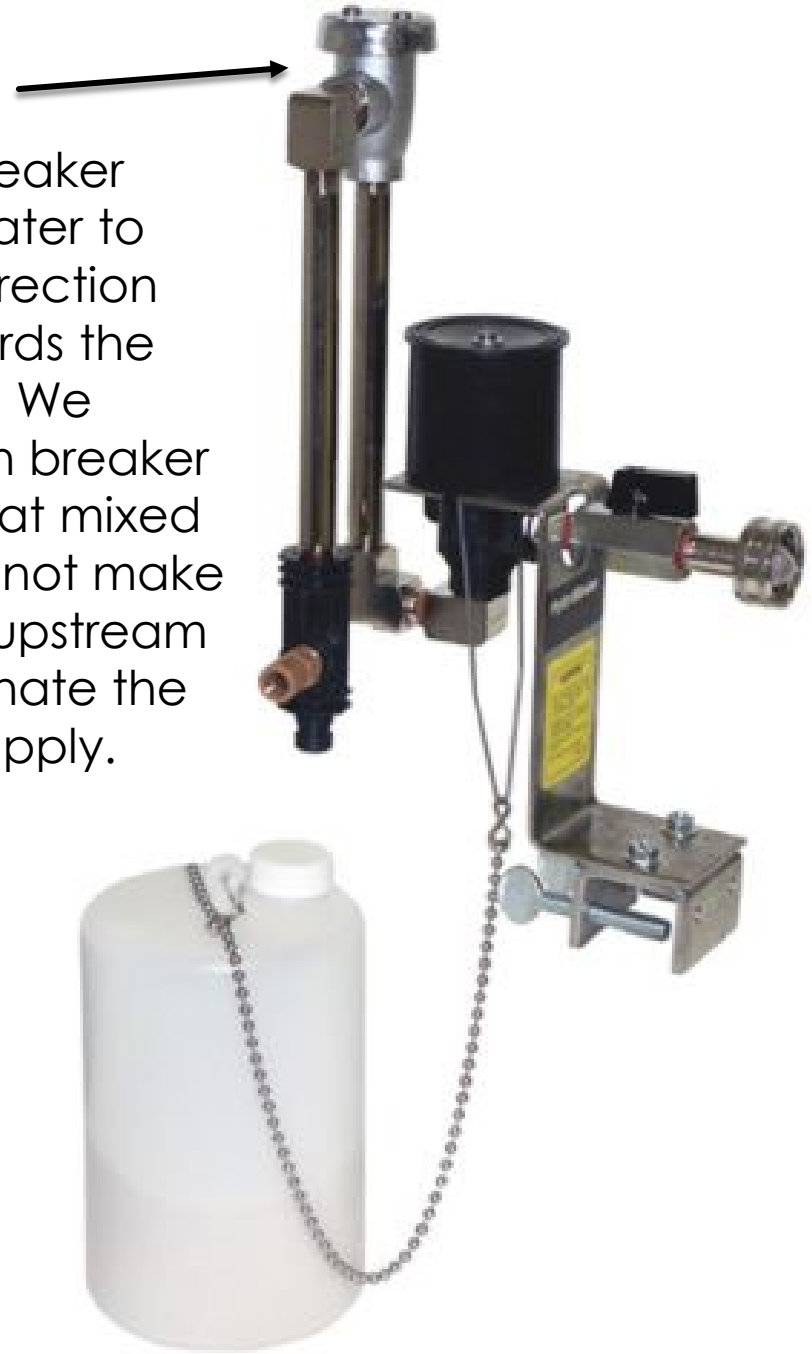
- Valve guide
- Spring
- Armature
- Rubber diaphragm

When a Hydrominder fails, it will go into a "slow flow" condition. Usually, a rebuild kit with these four items will get the Hydrominder back up and running.

The suction stub on the eductor is where the metering tip will fit. Different metering tips mean stronger or weaker final dilution ratios. (depends on the tip color/hole diameter)



The siphon breaker only allows water to flow in one direction which is towards the solution tank. We have a siphon breaker in place so that mixed solution does not make its way back upstream and contaminate the fresh water supply.



- Metering tips are differentiated by color and hole diameter. Common sizes and dilution ratios that we use in our applications are:

  - Pink (240:1)
  - Purple (120:1)
  - Yellow (90:1)
  - No tip (4:1 CTA only)

The final Hydrominder component is the discharge tubing. The discharge tubing directs the mixed solution down to the solution tank. The discharge tubing has a yellow collar inside the tubing. This is a flow restrictor to quickly create the backpressure needed to have the needed suction pressure through the eductor. Without the flow restrictor, the water would flow out as a thin stream until it hit the solution level in the tank. At this point, the solution level will act as the flow restrictor and create the needed backpressure.

Questions? Please ask.