

EZ-TRAP[®] UltraTrap EZT-150 MKIII Waterless Condensate Trap

OPERATING PRINCIPLES

The Model EZT-150 MKIII UltraTrap is different from a conventional P Trap, because it does not rely on water in the bottom of the trap to create an air seal. Instead it uses a spring-assisted plastic float which will allow water to flow out freely, but will not permit airflow in either direction.

Unlike the previous design, one UltraTrap model, EZT-150 MKIII, works for both negative and positive pressure systems.

A waterless trap typically creates an on/off effect so the flow is sporadic, unlike a P trap which is usually a constant trickle.

For close coupled installations UltraTrap can easily be modified to handle higher static pressures by inserting a piece of 1" or 3/4" PVC pipe of appropriate length between the top of the trap and the bottom of the inlet cross. (FIGURE A)

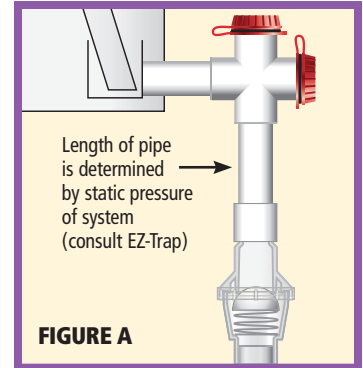


FIGURE A

Positive Pressure Systems

When the AC unit blower comes on, positive pressure is produced in the drainpan which pushes down on the plastic float. This pressure is counteracted by the spring which holds the float up against the sealing edge stopping any flow of air or water from passing through the trap in either direction. (FIGURE 1)

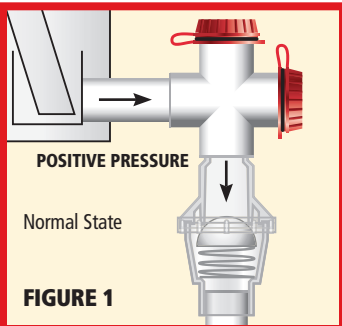


FIGURE 1

Once the unit starts producing condensate, water flows into the trap and collects on top of the float. (FIGURE 2)

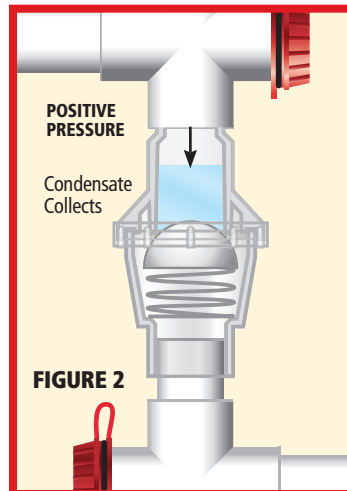


FIGURE 2

As soon as the weight of the water column above the float plus the positive pressure in the unit exceeds the power of the spring, the float will be depressed about 1/16" allowing the water to run out. (FIGURE 3)

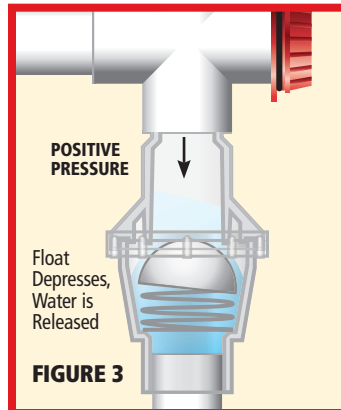


FIGURE 3

Once the weight of the water is gone, the spring will now push the float upwards again, creating a seal so no water or air will run out and the cycle will start all over again. (FIGURE 4)

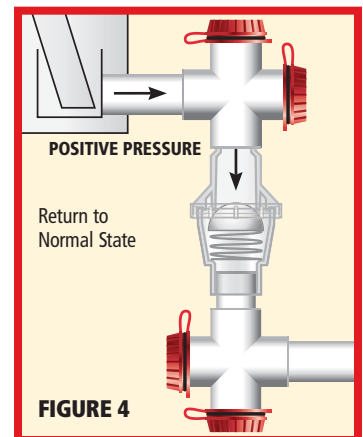


FIGURE 4

Negative Pressure Systems

When the AC Unit blower comes on, negative pressure is produced in the drainpan which holds the float up against the seat so that no air can be sucked into the unit. (FIGURE 5)

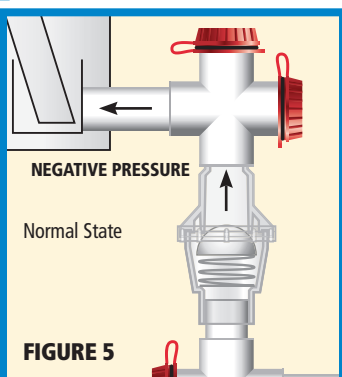


FIGURE 5

Once the unit starts producing condensate, water flows into the trap and collects on top of the float. (FIGURE 6)

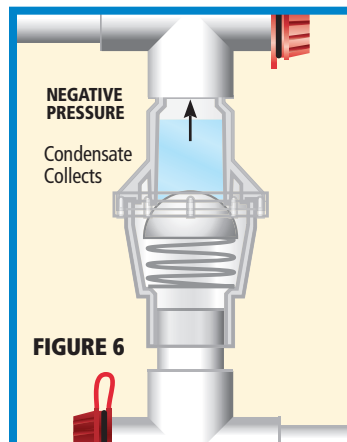


FIGURE 6

As soon as the weight of the water column above the float exceeds the negative air pressure in the drainpan plus the power of the spring, it forces the float down, allowing the water to run out. (FIGURE 7)

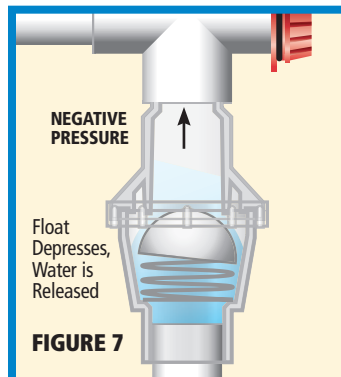


FIGURE 7

Once the weight of the water is gone, the negative air pressure will then suck the float back up onto the seat again creating a seal so no water or air will run out and the cycle will start all over again. (FIGURE 8)

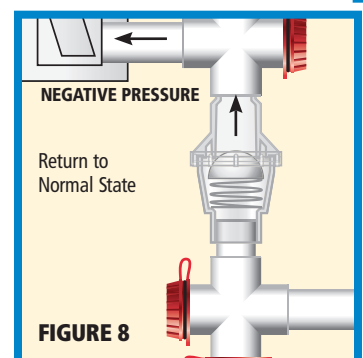


FIGURE 8