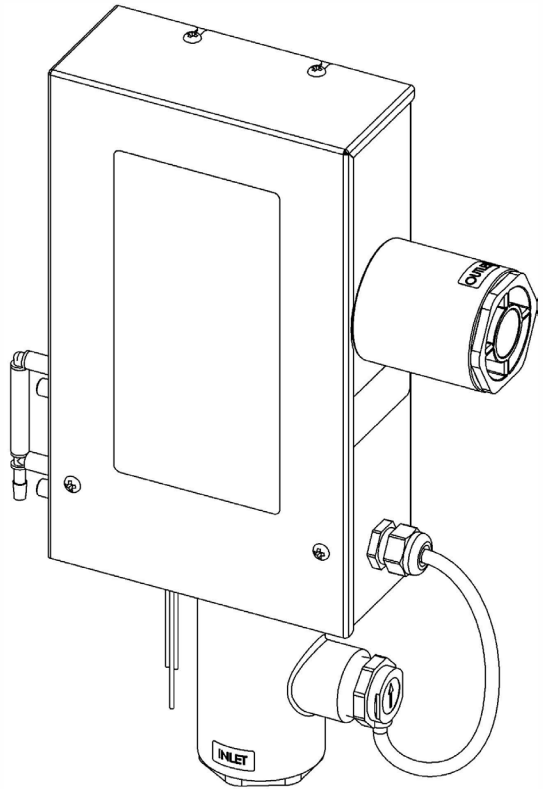
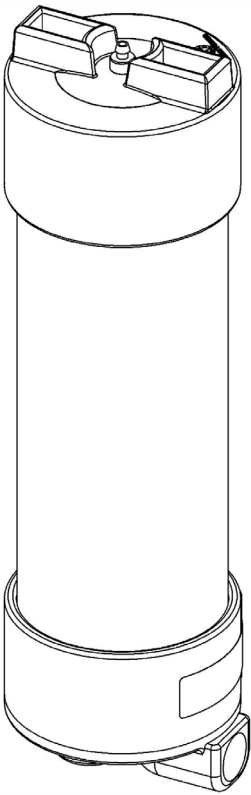




# DEL MDV FOR DEL AOP INSTALLATION INSTRUCTIONS & PRODUCT MANUAL



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# SECTION 1 & 2 | General Information & Installation

## 1A. General Information

The DEL MDV (Mixing Degas Vessel) system:

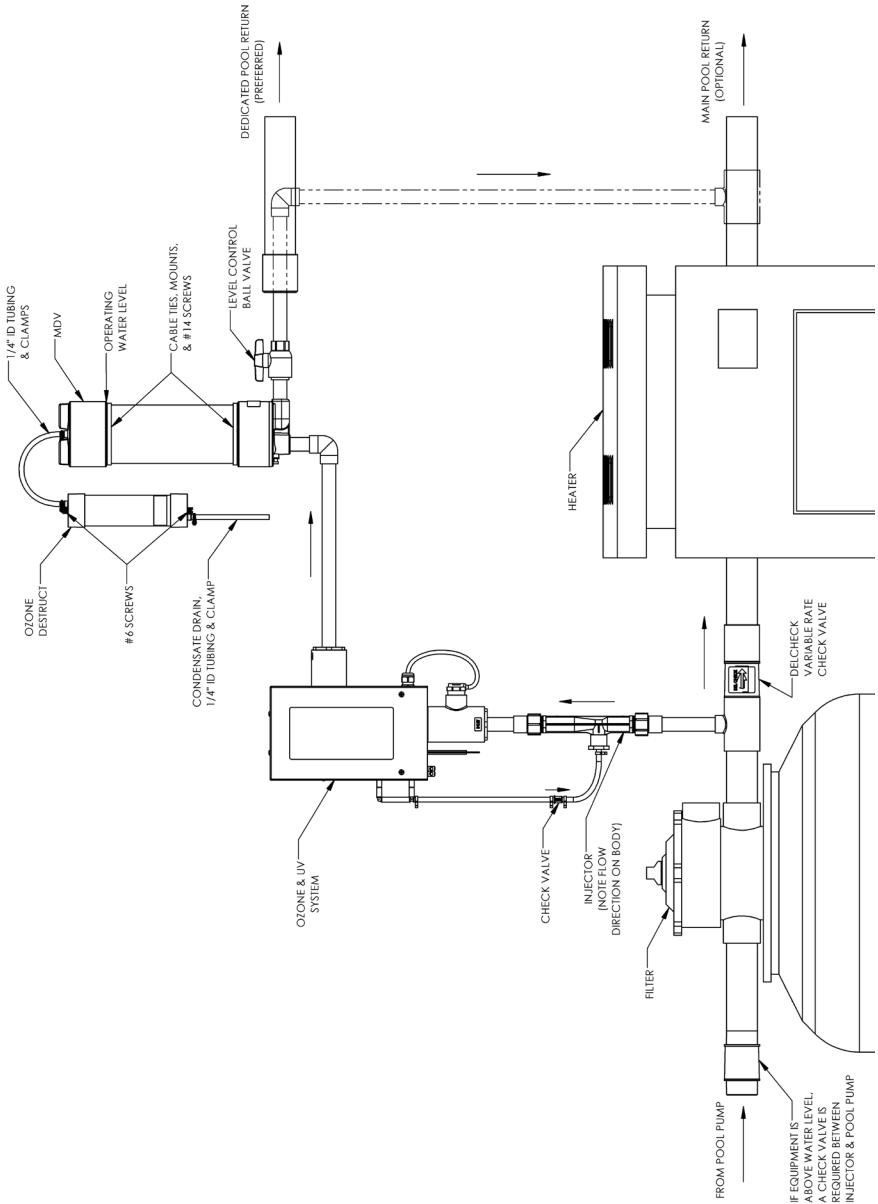
- Prevents virtually all ozone bubbles from returning to the pool, which eliminates bubble noise and visibility.
- Allows application of higher ozone concentrations.
- Protects pool components such as covers, fittings, and surfaces.
- Prevents bubbles from gathering under the cover or inside plumbing.
- Utilizes an ozone destruct cartridge with Granulated Activated Carbon (GAC). This destroys excess ozone gas removed by the MDV.

## 2A. Installation

**NOTE:** The MDV will not be as effective in systems with back pressures in excess of 10 psi. Oversized pumps and small returns should be avoided.

1. Follow **SECTION 2** installation instructions in the AOP 25 manual.  
**NOTE:** There are additional parts for the MDV installation (compare **Figure 2** in the AOP 25 manual with **Figure 1** in this manual). The additional installation steps specific to the MDV parts are described below.
2. Mount the MDV vertically as shown in **Figure 1** to a solid surface (i.e. fence, wall, post) using the (2) cable ties, (4) cable tie mounts, and (4) screws included. Use a pair of pliers to tighten and secure the cable tie. If trimming away excess, fold tab over to avoid the sharp edge. To avoid discoloration, mount in an area out of direct sunlight.
3. Mount the Ozone Destruct vertically to a flat surface using (2) #6 screws.  
**NOTE:** Mount it close enough to the MDV so that the tubing can be connected from the Ozone Destruct to the top of the MDV.
4. Install By-Pass plumbing as shown in **Figure 1**.
5. An additional valve may be installed either before or after the MDV to act as a drain for winterizing or maintenance.

# SECTION 2 Installation



**Figure 1: Typical Plumbing with MDV (pool with heater)**

## SECTION 3 & 4 | Operation & Troubleshooting

6. The drain at the base of the Destruct cartridge will release small amounts of condensation and carbon under normal operation. To avoid water or carbon stains, connect tubing to the bottom of the Destruct and divert the condensation to a suitable location.
7. Allow all PVC glue to dry completely, per manufacturer's instructions, before running water through MDV.

### 3A. Operation

1. The water level inside the MDV should be near the bottom edge of the MDV Top Endcap. Use the Level Control Ball Valve installed at the MDV outlet to adjust the water level (see **SECTION 4A. Troubleshooting**).

**NOTE:** For Variable Speed pumps, the water level in the MDV may drop completely at low speeds. The Level Control Ball Valve may be closed slightly to raise the level. However, this may impair injector performance at higher speeds. Verify proper operation under all conditions.

2. Streams of gas bubbles should be rising to the top of the MDV, and the water returning to the pool should be virtually bubble free.
3. If the pool equipment is mounted above water level, it is normal for water to drain from the MDV when the main circulation pump turns off. The MDV should return to normal operation shortly after the system comes back on.

### 4A. Troubleshooting

**Symptom:** The water level in the tower is only around half full, or steadily dropping.

1. There is not enough backpressure downstream of the MDV to maintain water level in the tower. Plumb in a small ball valve downstream of the MDV. Close it off to the point where the proper water level in the tower is maintained.

# SECTION 5 Maintenance

## 5A. Maintenance

1. The MDV itself is maintenance free. The ozone destruct cartridge must be replaced every 12 months of operation. A new one can be ordered from your dealer/distributor using part number 9-0620.
2. Winterizing, if necessary, can be done by draining water from the MDV.

## 5B. Replacement Parts

- Hose Clamp for 1/4" ID tubing ..... 2-0078
- Cable Tie (for mounting MDV) ..... 8-0668
- Ozone Destruct ..... 9-0620





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