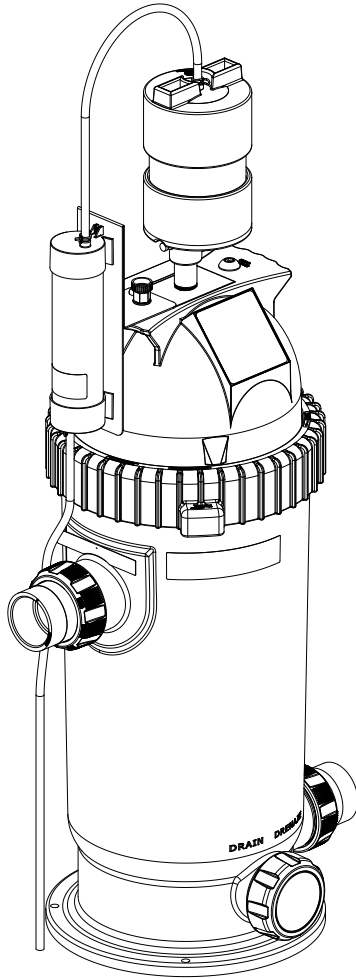




# DEL MDV XL




## INSTALLATION INSTRUCTIONS & PRODUCT MANUAL

MDV-100J



# IMPORTANT INFORMATION

## READ AND FOLLOW ALL INSTRUCTIONS

- Read this manual completely before attempting installation. Failure to install in accordance with the installation instructions could void warranty and result in injury or death.
- This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.
- FOR YOUR SAFETY - This product must be installed and serviced by a contractor who is licensed and qualified in pool equipment by the jurisdiction in which the product will be installed where such state or local requirements exist. The maintainer must be a professional with sufficient experience in pool equipment installation and maintenance so that all of the instructions in this manual can be followed exactly. Before installing this product, read and follow all warning notices and instructions that accompany this product. Failure to follow warning notices and instructions may result in property damage, personal injury, or death. Improper installation and/or operation will void the warranty.
- Improper installation and/or operation can create unwanted electrical hazard which can cause serious injury, property damage, or death.
- Follow all applicable electrical codes.
- ** DANGER** **ELECTRIC SHOCK HAZARD:** Be sure to turn power OFF and disconnect from power source before any routine maintenance is performed. Failure to do so could result in serious injury or death.
- The DEL MDV must be installed in an outdoor location, or indoors in a forced air ventilated room, and installed so that the orientation is exactly as shown in Figure 1. Install to provide water drainage of generator to protect electrical components.
- To reduce the risk of electrical shock, mount the DEL MDV so that it is inaccessible to anyone in the pool. Never attempt any servicing while unit is wet.
- ** WARNING** Do not connect system to an unregulated city water system or other external source of pressurized water producing pressures greater than 35 PSI.
- Pressurized air in system can cause product failure or cause the lid to be blown off which can result in death, serious personal injury, or property damage. Be sure all air is out of system before operating or testing the equipment.
- MAXIMUM OPERATING PRESSURE OF THE VESSEL IS 50 PSI. NEVER SUBJECT THE VESSEL TO ANY OPERATING PRESSURE EXCEEDING 50 PSI.
- To minimize risk of severe injury or death the vessel and/or pump should not be subjected to the piping system pressurization test.
- Local codes may require the pool piping system to be subjected to a pressure test. These requirements are generally not intended to apply to the pool equipment such as vessels or pumps.
- ** WARNING** To reduce the risk of injury, do not permit children to use this product, unless they are closely supervised at all times.

## SAVE THESE INSTRUCTIONS!

# OVERVIEW

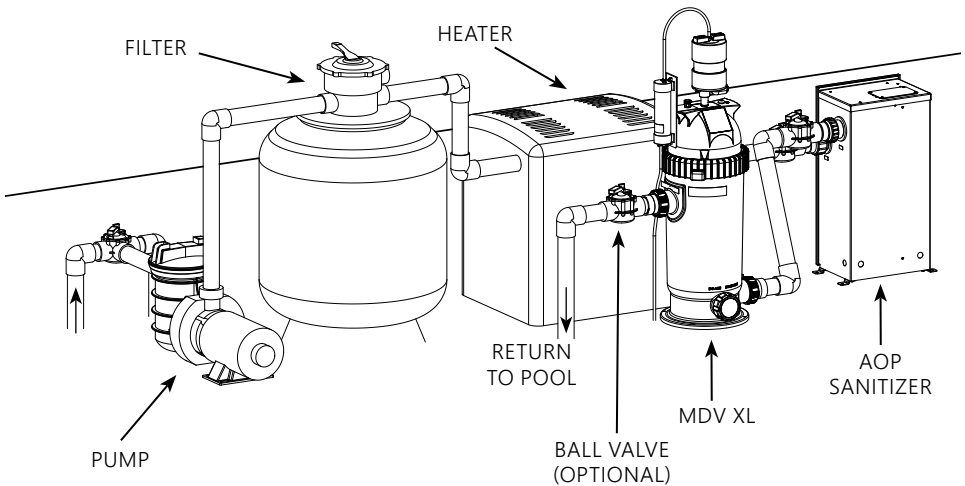
If local codes require a piping system pressure test including this vessel, BE SURE TO COMPLY WITH THE FOLLOWING SAFETY INSTRUCTIONS:

- Check all clamps, bolts, lids, lock rings and system accessories to ensure they are properly installed and secured before testing.
- RELEASE ALL AIR in the system before testing.
- Water pressure for test must NOT EXCEED 35 PSI.
- Water temperature for test must NOT EXCEED 100°F (38°C).
- Limit test to 24 hours. After test, visually check system to be sure it is ready for operation.

## General Information

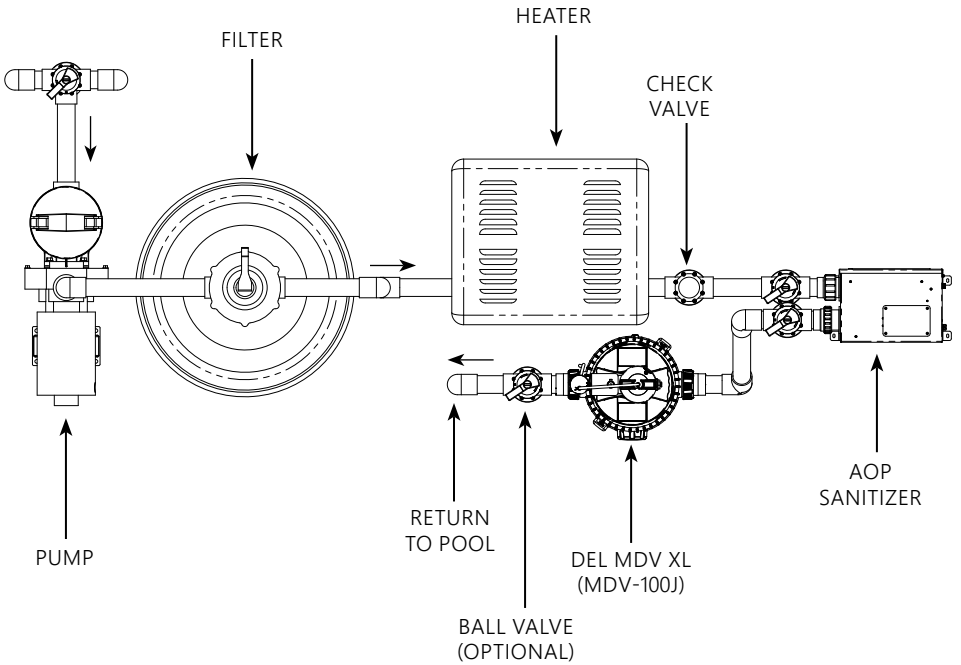
The DEL MDV XL will effectively separate ozone bubbles from the ozonated water produced by the DEL AOP and DEL Ozone. When the flow enters the MDV XL, the ozone bubbles are allowed to float up and accumulate at the top as the water exits out the bottom. The separated ozone passes through a float valve and is sent through a carbon destruct and neutralized to safely vent to the atmosphere.

The MDV XL should be used in all indoor, covered, and vinyl lined pools where there is an AOP installed. It can also be used in outdoor applications to eliminate bubbles in your return flow.



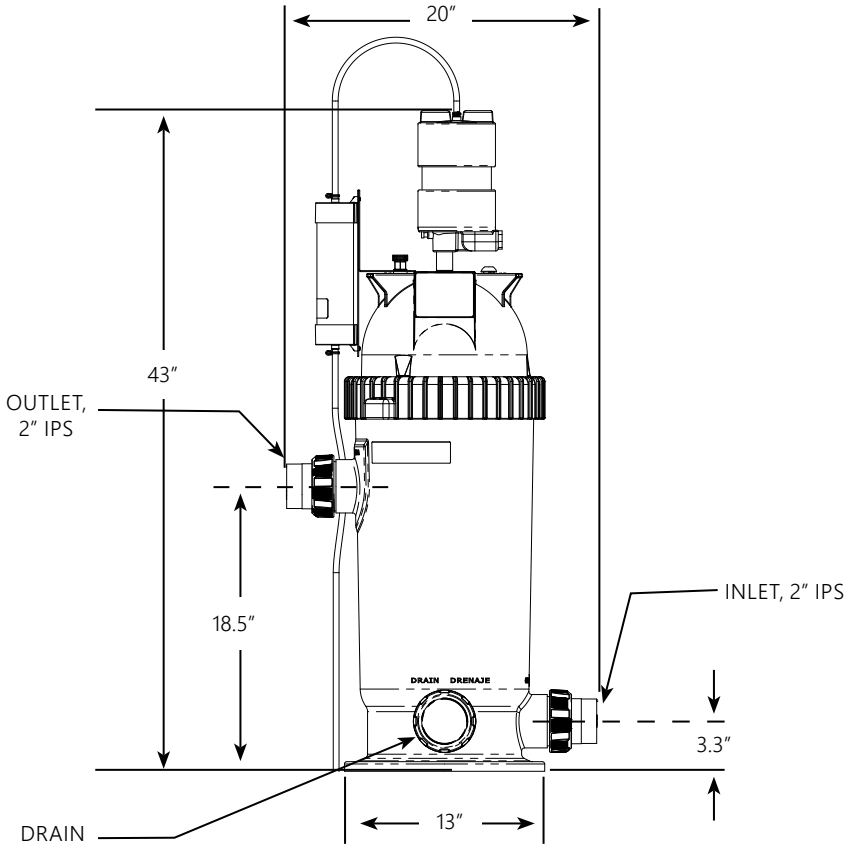
**Figure 1a: System View**

# OVERVIEW



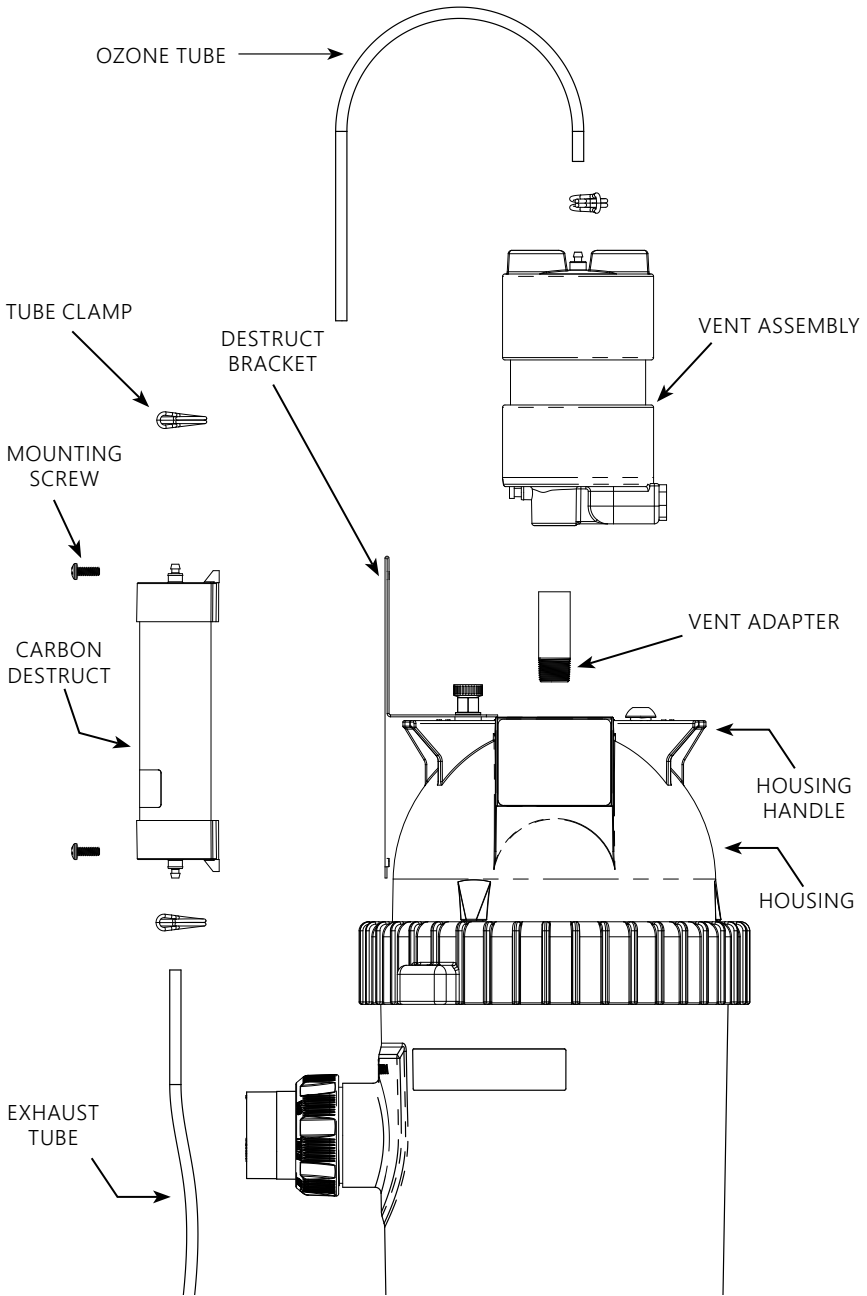
**Figure 1b: System - Aerial View**

# INSTALLATION



**Figure 2: Critical Dimensions**

# INSTALLATION



**Figure 3: Assembly Components**  
(screws and clamps enlarged to show detail)

# INSTALLATION

## Installation

1. Plumb the MDV XL downstream of the AOP (Figure 1).

**Note:** AOP 50 with same side plumbing shown in Figure 1. Some AOP units may also have opposite side plumbing.

Use appropriate NSF approved primer and cement to plumb into the circulation loop. Before placing the MDV XL on your equipment pad, note clearance dimensions of 4" around and 20" above. Refer to Figure 2 for critical dimensions.

2. Remove the threaded plug in the center of the housing. If possible, run the pool system at low flow. Allow the housing to fill and discharge any debris such as PVC shavings. Shut off pool system before proceeding.
3. Apply thread sealant to vent adapter threads. Install vent adapter through the hole in the housing handle and into the housing (Figure 3).
4. Use NSF approved primer and cement to attach the vent assembly to the open pipe end of the vent adapter. Orient the vent assembly (Figure 3).
5. Mount the carbon destruct to the destruct bracket with the two mounting screws provided (Figure 3).
6. Connect the ozone tube and exhaust tube using the tube clamps (Figure 3). Tubing clamps should be tightened behind the hose barb feature for proper attachment.
7. The exhaust tube will release small amounts of condensation and carbon under normal operation. To avoid water or carbon stains, route the exhaust tube to divert the condensation to a suitable location.
8. If the MDV XL does not fill properly, gas bubbles will return to the pool. In this case, an additional ball valve may be needed to maintain an adequate water level in the housing. Install the ball valve just after the MDV XL outlet (Figure 1). Close the valve only enough to prevent bubbles from returning to the pool.

**NOTE:** In cases where the MDV XL is located above the water line, bubbles will exit the return line upon startup. The bubbles will stop once the MDV XL fills with water.



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