



## Style 3446 MercuryMaster Monitor Operating & Maintenance Instructions

The Akron Style 3446 MercuryMaster Monitor is designed to provide efficient trouble-free operation for many years. The following operating and maintenance instructions are provided to assist in obtaining the best performance for this unit.

### PRODUCT RATING

Maximum Flow:	1000gpm (3800 lpm)
Maximum Pressure:	150psi (1034 kPa, 10.3 bar)
Weight:	24 lbs. less nozzle

### PRODUCT WARNINGS

- Warning: Read and follow the operating instructions before use.
- Warning: Use only for fire fighting by trained operators.
- Warning: Do not exceed the maximum pressure or flow ratings of the monitor.
- Warning: Make sure both legs are fully deployed, all three spikes are in contact with the ground and safety strap is secure before use.
- Warning: Charge the unit slowly. Rapid charging may cause a pressure surge with the potential to cause injury or damage to the unit.
- Warning: Make sure the monitor is pointed in a safe direction before flowing water.
- Warning: The Mercury is supplied with a 2 1/2" ball valve. Open and close the valve slowly. Opening and closing the valve too quickly may result in damage to other equipment, which can result in an injury to the operator or others.
- Warning: Make sure the valve is closed when advancing the monitor. Do not move or lift the monitor while flowing.
- Warning: Read and follow the tip pressure and flows in the operating instructions before use.
- Warning: Inspect spikes after each use, if the flat on any of the spikes exceeds 1/16" (1.5mm) diameter, it must be replaced.
- Warning: Inspect the ball valve for correct operation after each use.
- Warning: Inspect the rotation and elevation range after each use for proper movement.
- Warning: During freezing conditions the monitor must be drained to prevent damage.
- Warning: Make sure the mounting bracket strap is secure when storing the monitor.
- Warning: Replace any tags on the monitor that have become worn or damaged.
- Warning: Do not apply any lubrication to the rotation/elevation outlet ball.

### GENERAL INSTRUCTIONS

The Mercury monitor has a carrying handle for easy handling and a 2 1/2" Ball valve for advancing or extending a line (Figure 2). The outlet has 2 1/2" threads and the spikes are made of carbide for better wear resistance. The Safety strap can be used as a carrying strap by shortening the strap to its smallest length and attaching the hook into the hole at the back of the handle.

The monitor is supplied with three carbide tipped spikes that imbed into the surface on which it is operating. These spikes will not grip on metal, marble, or similar hard surfaces. Do not operate on these surfaces without securing the unit with the safety strap.

## OPERATING INSTRUCTIONS

### A. Set-Up

To deploy the Mercury monitor, remove the unit from the mounting bracket, hose bed or storage compartments and advance the monitor and line to a safe operating position. Fully deploy both legs by rotating both legs down and back into the fully deployed position (Figure 3). Set the monitor down with all three spikes in contact to the ground. For hose lay (Figure 7).

### B. Safety Strap

An adjustable safety strap with hook is mounted on the front leg of the monitor. Adjust the strap by pulling the strap through the D-ring to the required length. Connect the hook to a rigid object that is located in front of the legs, pull the safety strap taut or wrap the strap taut around a fixed object in front of the legs and secure the hook to the strap. **DO NOT OPERATE THE UNIT WITHOUT THE SAFETY STRAP SECURED.**

### C. Valve

With the valve closed, charge the line and then slowly open the valve to avoid any damage. The monitor has a tag that directs the open and closed position of the handle. To open the valve, rotate handwheel counterclockwise. To close the valve rotate handwheel clockwise (Figure 1).

### D. Rotation and Elevation

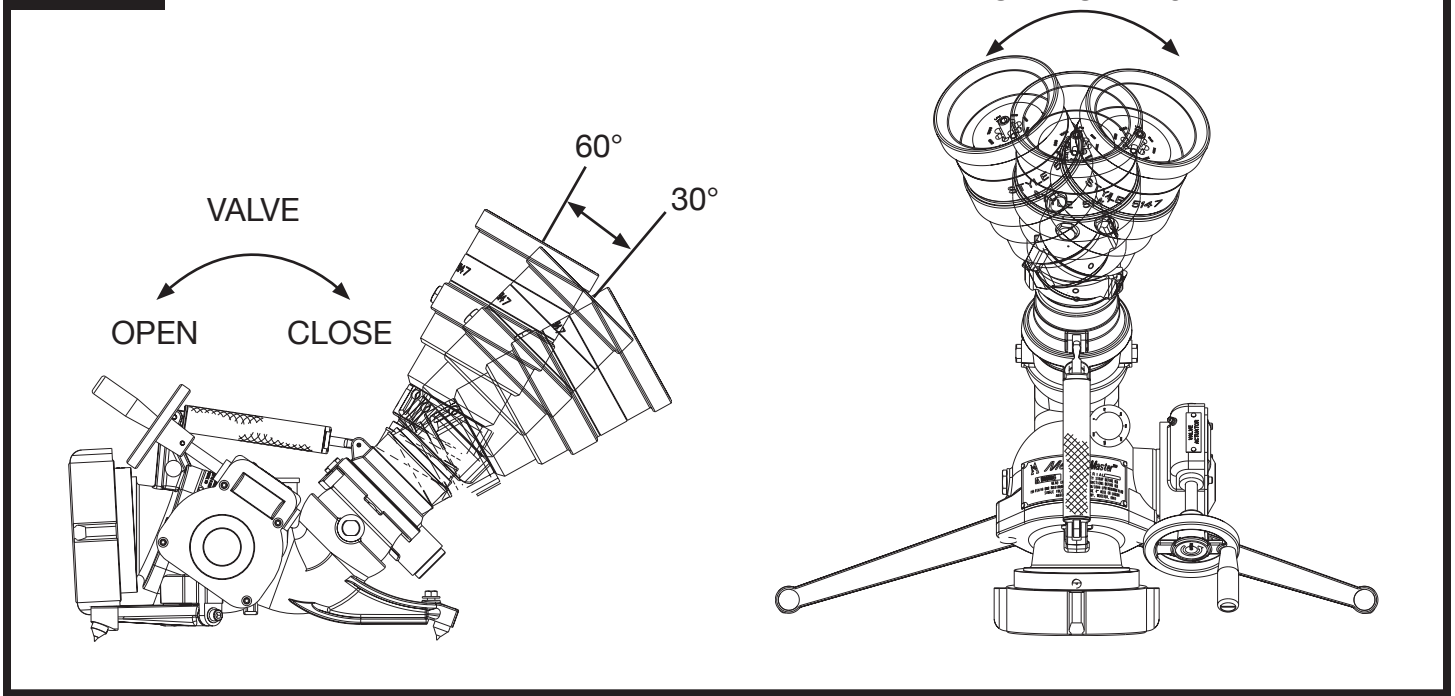
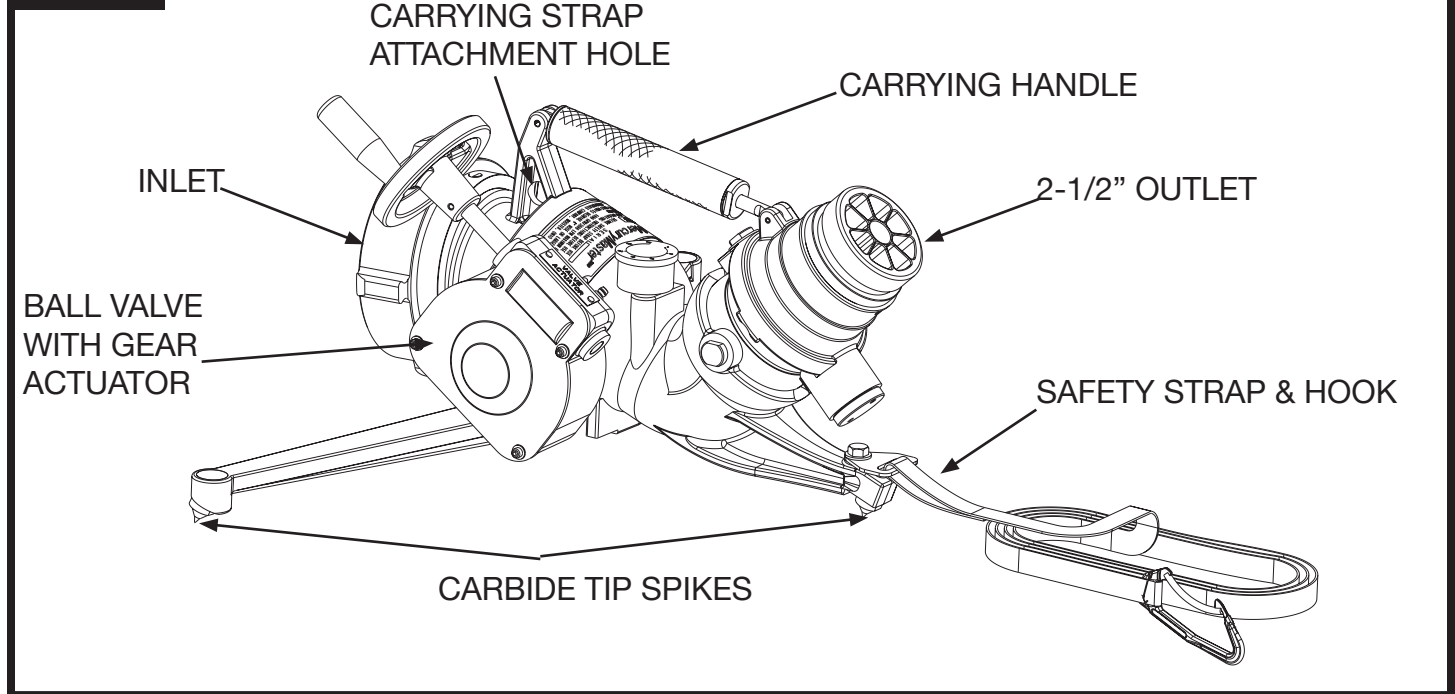
The rotation range is  $\pm 20^\circ$ . The elevation range is from  $60^\circ$  to  $30^\circ$  unmanned.

### E. Flow and Pressure

When used with a fog nozzle do not exceed the maximum rated flow of 1000 gpm. When used with tips, do not exceed the following discharge pressures.

Tip Size (mm)	PSI	kPa	GPM
2" (50 mm)	80	550	1000
1 3/4" (44 mm)	105	725	930
1 1/2" (38 mm)	140	965	790

When finished, drain all water from the line, close the valve, fold the legs and secure the monitor in the mounting bracket, hose bed or storage compartment.

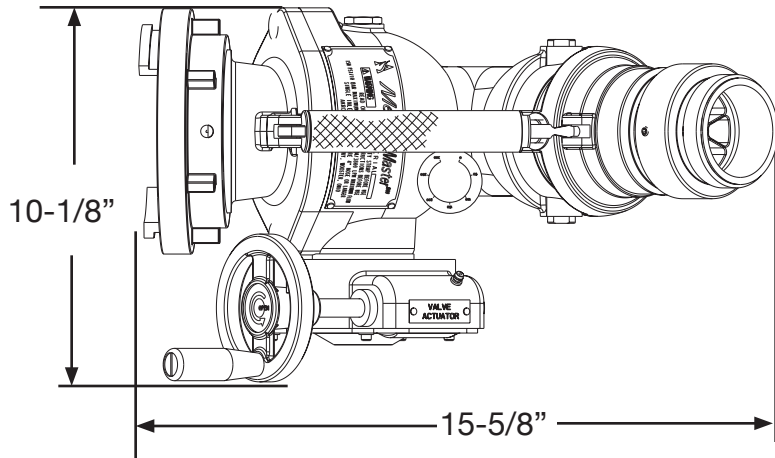
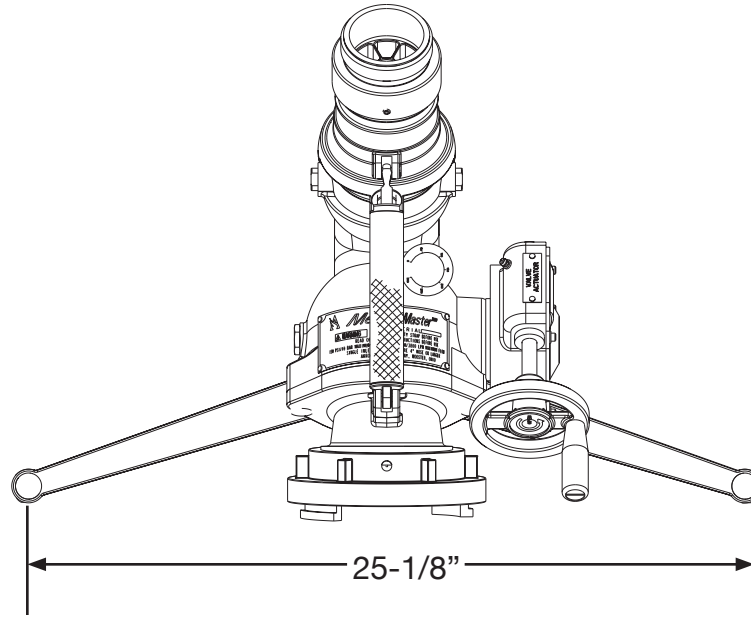
**FIGURE 1****FIGURE 2****ROUTINE MAINTENANCE**

- A. Examine the points of the spikes on all three legs. If the flat of any spike exceeds 1/16" (1.5mm) diameter, it must be replaced. The spikes are assembled with a thread -locking agent, when replacing the spikes, use a thread-locking agent such as Loctite #222, Permabond LM 113 or equivalent.
- B. The shut-off valve may need to be serviced with a new ball and seat if the valve becomes hard to operate. Contact Customer Service for a replacement kit if required.
- C. If the spring loaded elevation mechanism becomes hard to operate, clean internal components with rubbing alcohol. Do NOT use any type of lubrication. This will have an adverse effect.

**FIGURE 3**

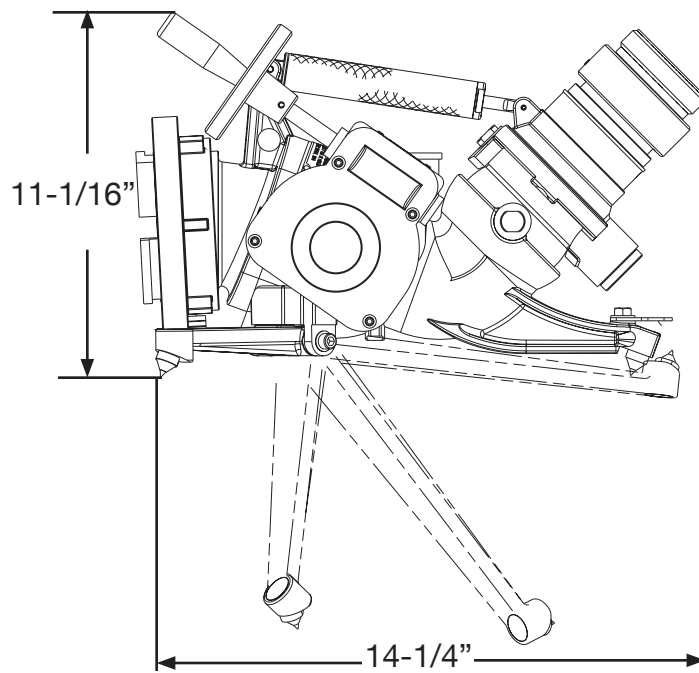
**DIMENSIONAL LAYOUT**

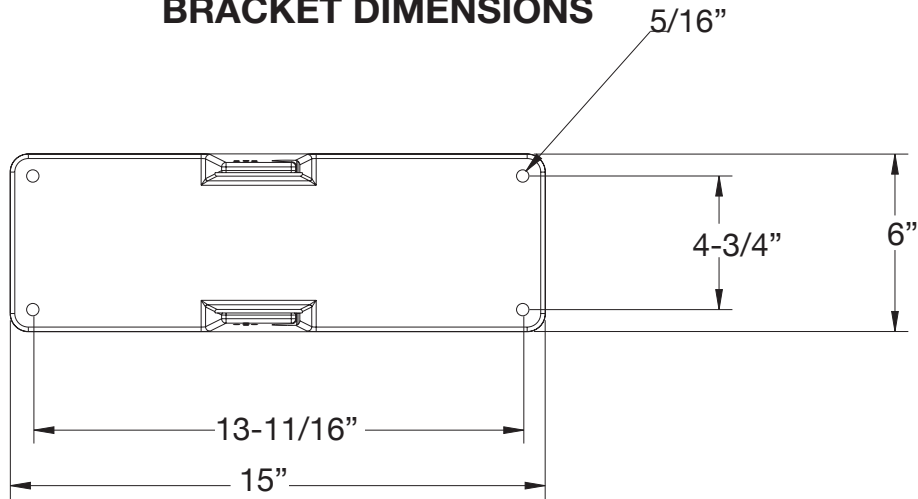
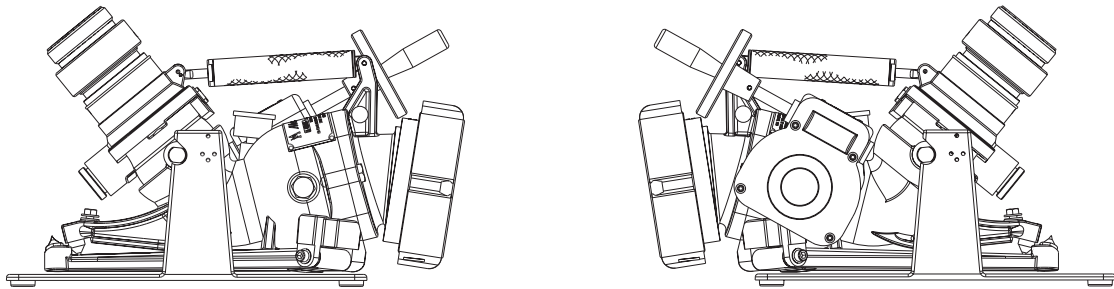
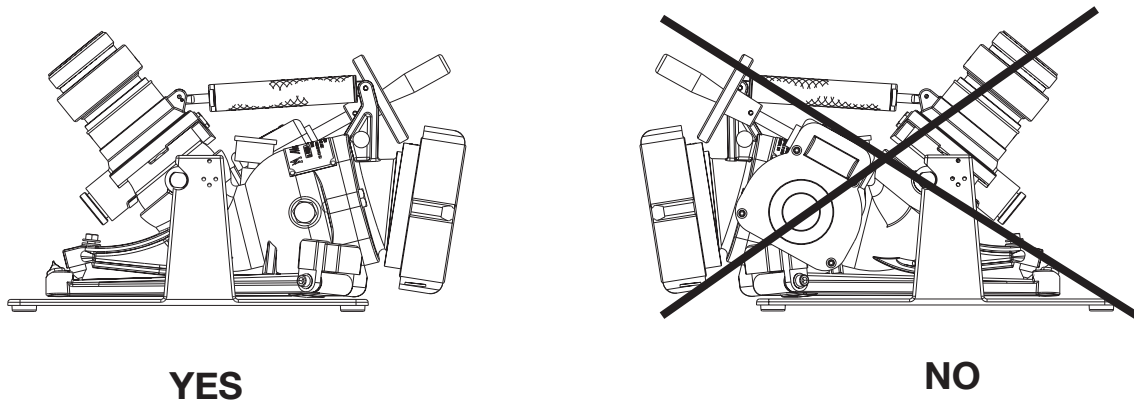
DEPLOYED-TOP VIEW



STOWED-TOP VIEW

DEPLOYED-SIDE VIEW



**FIGURE 4****BRACKET DIMENSIONS****FIGURE 5****STORAGE ORIENTATIONS****FIGURE 6****FLOWING IN BRACKET****MOUNTING BRACKET**

- A. Mounting  
The bracket can be mounted on a vertical or horizontal surface. See Fig. 4 for mounting dimensions.
- B. Storage  
The Mercury can be stored pre-connected in the mounting bracket in two orientations. See Fig. 5 for orientations. For proper storage make sure rubber strap is securely fastened.
- C. Flowing in Bracket  
The monitor can operate at rated flow of 1000 gpm in the mounting bracket if orientated correctly. See Fig. 6 for correct orientation. Make sure rubber strap is securely fastened before flowing.

**FIGURE 7**

