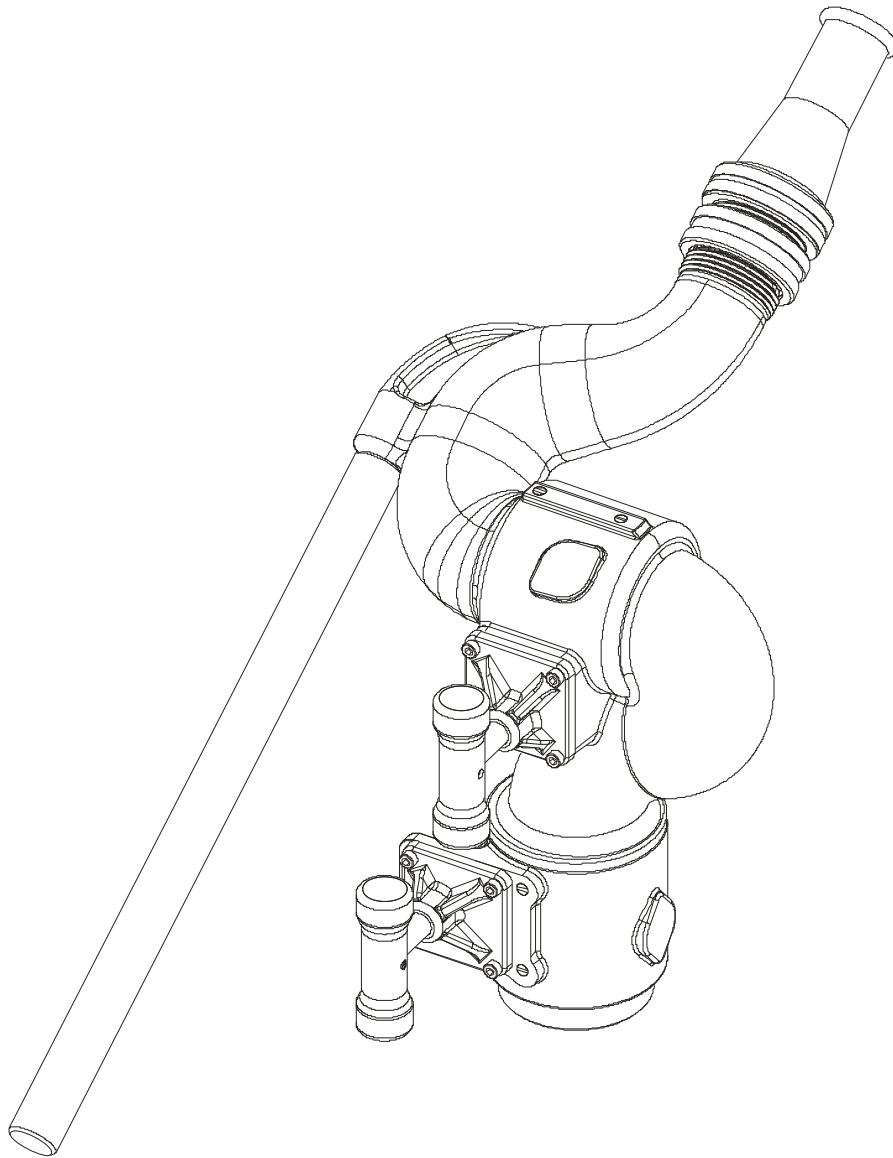




Installation, Operating, & Maintenance Instructions



Model 8392-02 Sidewinder (Brass)

Model 8492-02 Sidewinder (Aluminum)

98323000 (Rev-A)

Table of Contents

<u>I.</u>	<u>PRODUCT SAFETY</u>	1
<u>II.</u>	<u>INSTALLATION INSTRUCTIONS</u>	2
<u>III.</u>	<u>OPERATING INSTRUCTIONS</u>	2
<u>IV.</u>	<u>MAINTENANCE & INSPECTION</u>	2
<u>V.</u>	<u>PARTS DRAWINGS</u>	2
<u>VI.</u>	<u>MONITOR & STREAM SHAPER</u>	3
<u>1.</u>	<u>INTERPRETING FLOW DATA</u>	3
<u>2.</u>	<u>MONITOR AND STREAM SHAPER HYDRAULIC DATA</u>	3

I. PRODUCT SAFETY



Important:

Before installing and operating this equipment, read & study this manual thoroughly. Proper installation is essential to safe operation. In addition, the following points should be adhered to in order to ensure the safety of equipment and personnel:

1. All personnel who may be expected to use this equipment must be thoroughly trained in its safe and proper use.
2. Before flowing water from this device, check that all personnel (fire service and civilian) are out of the stream path. Also, check to make sure stream direction will not cause avoidable property damage.
3. Become thoroughly familiar with the hydraulic characteristics of this equipment, and the pumping system used to supply it. To produce effective fire streams, operating personnel must be properly trained.
4. Open water valve supplying this equipment slowly, so that the piping fills slowly, thus preventing possible water hammer occurrence.
5. After each use, and on a scheduled basis, inspect equipment per instructions in **MAINTENANCE & INSPECTION** on page 3.



Warning: The piping must be able to withstand a horizontal reaction force of at least 500 lbs at the height of the discharge elbow pivot center and from any angle of rotation that the monitor is capable of turning. Serious injury to personnel and equipment can result from improper installation.

II. INSTALLATION INSTRUCTIONS

Apply an appropriate thread sealant to the 2" NPT male thread or nipple. Thread the monitor base onto the male thread or nipple and tighten securely. Install nozzle onto 1.5 NH threads on monitor discharge. (Use of a stream shaper is recommended when using a smooth bore nozzle.)

III. OPERATING INSTRUCTIONS

Turn both left/right and up/down lock handles counterclockwise to disengage locks. Use the tiller handle to direct the monitor discharge. To secure the monitor in a desired left/right and up/down position, turn both lock handles clockwise to engage locks. The monitor must never be left unattended with out engaging both locks.

IV. MAINTENANCE & INSPECTION

The monitor should be inspected regularly. Careful inspection for damage to the monitor or nozzle is especially important after use in emergency operations.

Flow water to check nozzle pattern. If pattern is disrupted, remove nozzle and check for debris lodged between the nozzle stem and body, or in the stream shaper inlet.

During nozzle flow test, inspect monitor swivel joints for leaks.

Note: Although grease fittings are provided for the up-down and left-right rotation joints, routine greasing should not be necessary. If the monitor is exposed to a high level of radiant heat for a prolonged period, it may be possible for the factory grease to thin and run out. In such an event, fresh grease should be applied. Pump fresh grease into each rotation joint until the old grease is purged and fresh grease comes out. Rotate the joint 45 degrees and repeat until the entire range of movement has been covered

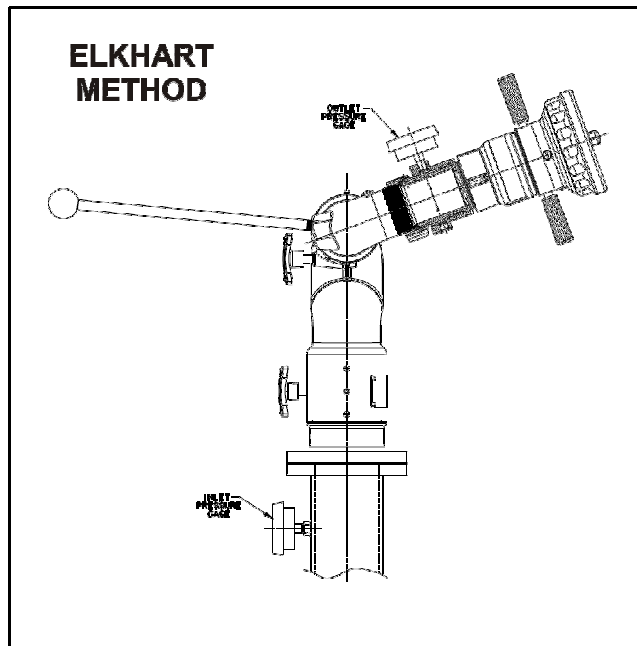
V. PARTS DRAWINGS

Please visit the Elkhart Brass website for parts drawings of both monitors.

VI. MONITOR & STREAM SHAPER

1. Interpreting Flow Data

Pressure loss graphs offer the pressure losses for the monitor (and other devices) in terms of Total Static Pressure Drop. This Total Static Pressure Drop can be found by measuring the difference between the static inlet pressure and the static outlet pressure. The static pressure at either of these points can be found using a simple pressure gauge. An illustration of this method can be seen below.



In mathematical terms, the Total Static Pressure Drop is the change in Velocity Pressure plus Friction Loss. The change in Velocity Pressure results from the change in velocity of water caused by the change in the cross section of a waterway. Friction Loss results from the drag and sidewall interference of the water through a device. A simple equation can be seen below.

$$\Delta P_S = H_F + \Delta P_V$$

ΔP_S = Total Static Pressure Drop
 H_F = Friction Loss
 ΔP_V = Velocity Pressure Loss

In the firefighting industry, the terms Total Static Pressure Drop and Friction Loss tend to be used interchangeably. However, these are significantly different measurements. This misconception could ultimately lead to lower than anticipated performance from equipment. **When designing a system and determining performance, Total Static Pressure Drop is the value that should always be used.** The Friction Loss curve is also supplied in order to make a comparison with competitor products that may only supply Friction Loss curves. If there are any further questions regarding this matter, please contact Elkhart Brass.

2. Monitor and Stream Shaper Hydraulic Data

Please visit the Elkhart Brass website for performance charts for the monitors and stream shapers.

ELKHART BRASS

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