



## OPERATING INSTRUCTIONS AKROMATIC ELECTRIC STYLE 5075 NOZZLES WITH FLAT FOG PATTERN

The following is intended to provide the basic instructions for operating an Akromatic nozzle. Read and understand these operating instructions before use.

### PRODUCT RATINGS

Flow: 250 - 750 GPM at 80 psi or 250 - 1000 GPM at 80 psi.  
Maximum Pressure: 200 psi/14 bar  
Minimum Voltage at motor: 11.5 volt  
Maximum Motor Current Draw: 3 amps  
Noise Emissions: 84dB(A)@ 1 Meter Maximum Flow in Wide Fog

### PRODUCT WARNINGS

- ⚠ WARNING:** The Akromatic Electric Style 5075 nozzle can produce large reaction forces. The supporting structure must be strong enough to safely withstand a reaction force of up to 500 lbs.
- ⚠ WARNING:** Charge slowly to facilitate a controlled water pressure build-up during start up. Rapid charging can cause water hammer.
- ⚠ WARNING:** At pressures below that indicated on the label, the nozzle will have reduced flow and reach. Be sure you have enough flow and pressure for the situation (see IFSTA and NFPA manuals for guidelines).
- ⚠ WARNING:** Do not use on electrical fires. May result in electrocution.
- ⚠ WARNING:** Ensure the nozzle is aimed in a direction that is safe, prior to charging.
- ⚠ WARNING:** Do not use the nozzle as a forcible entry tool. Doing so may damage it or make it inoperable.
- ⚠ WARNING:** Ensure the thread on the nozzle swivel is matched to the thread on the monitor connection. Mismatched threads may allow the nozzle to suddenly come off under pressure possibly causing property damage and/or serious bodily injury.

### PRODUCT CAUTIONS

- ⚠ CAUTION:** If any tags or bands on the nozzle are worn or damaged and cannot be easily read, they should be replaced.
- ⚠ CAUTION:** For use with fresh water or standard fire fighting foams only. Not recommended for use with salt water. After use with foam or salt water, flush with fresh water.
- ⚠ CAUTION:** For fire fighting use only.
- ⚠ CAUTION:** Do not over tighten the nozzle onto the monitor hose connection.
- ⚠ CAUTION:** The nozzle is configured for optimum performance. Do not alter in any manner.
- ⚠ CAUTION:** Your nozzle should be inspected prior and after each use, to ensure it is in good operating conditions. Periodically, an unanticipated incident may occur where the nozzle is used in a manner that is inconsistent with standard operating practices and those listed in IFSTA. A partial list of potential misuses follows:
  - Operating above maximum rated pressure and flow.
  - Not draining, and allowing water to freeze inside the nozzle.
  - Dropping the nozzle from a height where damage is incurred.
  - Prolonged exposure to temperatures above +130 degrees F, or below -25 degrees F.
  - Operating in a corrosive environment.
  - Other misuse that might be unique to your specific fire fighting environment.

There are many “tell tale” signs that indicate nozzle repair is in order, such as:

- Controls that are either in operable or difficult to operate.
- Excessive wear.
- Poor discharge performance.
- Water leaks.

If any of the above situations are encountered, the nozzle should be taken out of service and repaired, plus tested by qualified nozzle technicians, prior to placing back in service.

## OPERATING INSTRUCTIONS

### DETERMINING FLOW

In determining flows or attempting to achieve specific flows with an automatic nozzle, it is important to understand that:

1. Nozzle pressure is as much a factor in flow as friction loss. Different nozzle pressures result in different flows at the same pump pressure.
2. Different baffle mechanisms react to water differently and thus operate at greater nozzle pressures.
3. Nozzle reaction is mainly a result of flow. The greater the nozzle reaction, the greater the flow.

Due to the Akroflow Modulated Flow Mechanism, the Akromatic Nozzle will more closely maintain approximately 80 PSI nozzle pressure over the nozzle's operating range. Consequently, you can use the following formula to determine given flows:

$EP = FL + NP (+)$  loss or  $(-)$  gain due to elevation

EP = Engine pressure

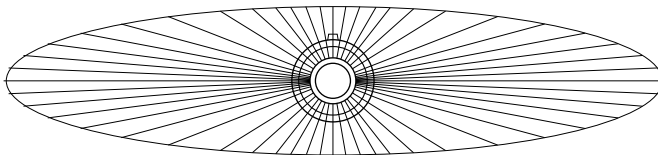
FL = Friction loss for hose size, length and desired GPM

NP = Nozzle Pressure

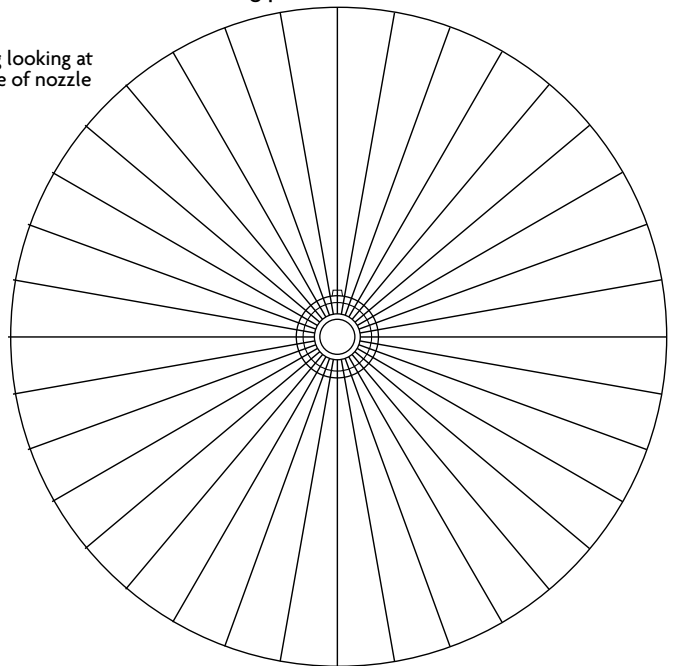
Note: Loss or gain due to elevation = approximately  $\frac{1}{2}$  PSI per foot of height difference between the nozzle and the pump. With an Akromatic Style 5075 nozzle, assign 80 PSI nozzle pressure at all times.

The 5075 produces a flat fog pattern as shown below in Figure 1. Figure 2 shows a standard fog pattern.

**FIGURE 1**  
Flat fog looking at the discharge of nozzle



Standard fog looking at the discharge of nozzle



## MAINTENANCE

- Under normal conditions, periodically flushing the nozzle with clean water and cleaning grit and dirt from around exterior moving parts will allow the nozzle to operate as designed.
- Over time, the seals may need to be replaced. This can be accomplished by purchasing the appropriate Akron repair parts. Use qualified maintenance mechanics or return the nozzle to Akron Brass for repair.



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