



AKROMATIC® 1250/2000 GPM NOZZLES OPERATING INSTRUCTIONS

The following is intended to provide the basic instructions for operating an Akromatic 1250/2000 nozzle. Read and understand these operating instructions before use.

PRODUCT RATINGS

Flow: Style 5160 & 5177 Akromatic 1250	250 - 1250 GPM at 80 psi
Flow: 5161 Brass Akromatic 1250	300 - 1250 GPM at 80 psi
Flow: Style 5170 & 5178 Akromatic 2000	500 - 2000 GPM at 80 psi
Maximum Pressure: 200 psi/14 bar	
Style 5177/5178 Minimum Voltage at motor:	12 Volt Motor: 10 Volts at 15 amps 24 Volt Motor: 20 Volts at 7.5 amps
Style 5177/5178 Maximum Motor Current Draw:	12 Volt Motor: 3 amps 24 Volt Motor: 1.5 amps

PRODUCT WARNINGS

- ⚠ WARNING:** Charge all lines slowly to facilitate a controlled water pressure build-up during start-up. Open and close slowly. Rapid opening will produce a sudden thrust. Rapid opening and closing can cause water hammer. Have your monitor properly supported to control the reaction force created by the stream.
- ⚠ 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:** Ensure the Akromatic is aimed in a direction that is safe, prior to flowing.
- ⚠ WARNING:** Do not use the Akromatic 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.

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 firefighting use only.
- ⚠ CAUTION:** Do not over tighten the nozzle onto the hose connection.
- ⚠ CAUTION:** The nozzle is configured for optimum performance. Do not alter in any manner.
- ⚠ CAUTION:** Do not expose the pattern control ring to Trichlorethylene or Trichlorethane. These chemicals can weaken the parts and make the nozzle inoperable over time.

⚠CAUTION: Your nozzle should be inspected prior and after each use, to ensure it is in good operating condition. 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 inoperable 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 it back in service.

OPERATING INSTRUCTIONS

Style 5160/5170: To change the spray angle, rotate the pattern control ring clockwise for straight stream or counterclockwise for fog.

Style 5161: To change the spray angle, rotate the pattern sleeve (using the cast-in handles) clockwise for straight stream or counterclockwise for fog.

Style 5177/5178: Manual Override: Pull manual override knob out. Once out, rotate to the desired stream position. When finished, push and turn the override knob until it goes back into the stored position.

DETERMINING FLOW

In determining flows or attempting to achieve specific flows with an automatic nozzle, it is important to understand that: The Akromatic Nozzle closely maintains 80 P.S.I. 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 or plumbing and appliance loss at the desired GPM

NP=Nozzle Pressure

NOTE: Loss or gain due to elevation = approximately 1/2 P.S.I. per foot of height difference between the nozzle and the pump.

With an Akromatic 1250/2000 nozzle, assign 80 P.S.I. nozzle pressure at all times.

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 and turbine teeth 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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