



OPERATING INSTRUCTIONS 1" TURBOJET® SOLAS and MarED NOZZLES

The following is intended to provide the basic instructions for operating a 1" Turbojet nozzle.

PRODUCT RATINGS

Maximum hydrostatic pressure 580 psi/40 bar. Maximum operating pressure 230 psi/16bar.

PRODUCT WARNINGS

- ⚠ **WARNING:** Not for use on electrical fires.
- ⚠ **WARNING:** At pressures below 100 psi, the nozzle will have reduced flow and reach. Be sure you have enough flow and pressure for the situation (See ISFTA and NFPA manuals for guidelines).
- ⚠ **WARNING:** Open and close slowly. Rapid opening will produce a sudden thrust. Rapid opening or closing can cause water hammer.
- ⚠ **WARNING:** If any tags or bands on the nozzle are worn or damaged and cannot be easily read, they should be replaced.
- ⚠ **WARNING:** The amount of flow to a nozzle is controlled at the pump, not at the nozzle. Therefore, unanticipated increases and decreases in flow can occur without the knowledge of the nozzle operator. This can cause serious consequences (i.e. too little flow to extinguish the fire, or increased reaction force which the nozzle operator may be unable to handle).
- ⚠ **WARNING:** Pulsing the shutoff can be accomplished with this nozzle. However, you must assure that all equipment used with the nozzles can withstand the resulting peak pressures and that the fire fighter is aware and can effectively support the sudden change in nozzle reaction when pulsing.

GENERAL INSTRUCTIONS

- After use with foam, or salt water, flush with fresh water.
- Have enough firefighters on the line to safely control the reaction force created by the stream.
- Turbojet nozzles are labeled for the flow and pressure at which they are set.
- Charge all lines slowly to facilitate a controlled water pressure build-up during start-up.
- For firefighters use ONLY.
- For use with water or standard fire fighting foams ONLY.
- Do not use a Turbojet tip as a shut-off when testing hose.
- Ensure your Turbojet is properly matched to your eductor.
- Do not use your Turbojet to throttle flow with an eductor in the line. This can cause the eductor to shut down.
- Do not use Turbojet nozzles in portable hose holders.
- Ensure the Turbojet is aimed in a direction that is safe, prior to operating.
- Do not use the Turbojet as a forcible entry tool.
- Ensure that the thread on the nozzle swivel is matched to the thread on the hose connection.
- Do not overtighten the nozzle onto the hose connection.
- The nozzle is configured for optimum performance. Do not alter in any manner.
- Throttling the ball shutoff will adversely affect the stream performance of the nozzle.
- Do not expose pistol grip or shutoff handle to Trichlorethylene or Trichlorethane.

A. OPERATING INSTRUCTIONS

BALL SHUTOFF

- Open and close slowly.
- To open: Pull the handle toward the inlet.
- To close: Push the handle towards the outlet.

TIP WITH TWIST SHUTOFF

- Open and close slowly.
- To Open: Rotate the pattern sleeve / bumper counterclockwise to the desired spray angle. Note: The tip opens in a straight stream pattern.
- To Close: Rotate the pattern sleeve / bumper clockwise until it closes.

NOZZLE & TIP

- To change the spray angle rotate the pattern sleeve/bumper. Rotate it clockwise for straight stream and counterclockwise for wide fog.
- To flush the nozzle, rotate the flow control ring counterclockwise to the FLUSH setting. Rotate slowly back to the required setting when obstruction is flushed.
- Turbojet nozzles have various flow settings indicated on flow control ring. To change the flow rate, slowly rotate the flow control ring to the required setting and adjust your engine to provide the rated pressure at the inlet of the nozzle.
- To determine the required engine pressures to achieve the flow setting, use the following formula: Engine pressure (EP) = Friction Loss (FL) + Nozzle Pressure (NP) + pressure loss or gains due to elevation ($1/2$ psi per foot of height difference).

FOR USE WITH CAFS

- For optimal CAFS Bubble Structure place the Turbojet pattern in straight stream and turn the Selection Ring to FLUSH.

NOTE: Changing the flow control ring without adjusting the pressure will affect your actual flow rate — i.e, If you change to a higher flow setting, your inlet pressure will decrease and your flow will be less than shown on the flow control ring. If you change to a lower flow setting, your inlet pressure will increase and your flow will be more than shown on the flow control ring. Changing the flow changes the reaction force. Pump curves, hose size and length, elevation, etc., will affect actual results.

B. 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 replaced. The turbine teeth should be replaced if more than 30% of the teeth are damaged or if the ring does not spin freely. This can be accomplished by purchasing the appropriate Akron repair kit. Use Qualified maintenance mechanics or return the nozzle to Akron Brass for repair.
- Regularly check the baffle screw to be sure it is tight
- Use low temp Lubriplate on metal parts and Parker O-Ring lubricant on O-Rings.



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