



ELKHART BRASS

OPERATING & MAINTENANCE INSTRUCTIONS

SELECT-O-FLOW® NOZZLES

SFS & SFS-G / SFL, SFL-G & TSFL / SFM, SFM-G & TSFM
SF, DSF & TSF



The **Select-O-Flow** series of handline nozzles is of constant/select gallonage design and achieves its maximum performance at 100 psi. The constant flow feature maintains the same flow rate throughout the stream pattern selection, i.e., straight stream through wide fog. This makes the **Select-O-Flow** series ideal for use with foam eductors and for the application of AFFF or Class A foams. The select feature allows the firefighter to change flow settings (increase or decrease) without shutting down the hose line.

These nozzles are constructed of durable, lightweight Elk-O-Lite and/or rugged, chrome-plated brass, and are designed to give you many years of trouble-free service. All **Select-O-Flow** nozzles comply with the requirements of NFPA 1964, Standard for Spray Nozzles (Shutoff and Tip), 1998 Edition, as applicable to constant/select gallonage spray nozzles.

SHUTOFF

The ball shutoff portion of all **Select-O-Flow** nozzles feature double* handle stops and high-strength, aluminum/bronze cast handles for rugged dependability. The horseshoe handle is large enough to allow operation with a gloved hand, while the tab handle, although smaller, is less bulky, yet easy to grip. Both handles are easy to operate.

A hydraulically balanced ball allows the shutoff to be opened and closed easily under pressure. By allowing water flow over and under the

ball, the cutaway design practically eliminates accidental shutdown. Teflon impregnated neoprene seats give the “self-healing” advantage of soft rubber plus a lubricated surface to prevent the ball from sticking shut. These seats may be adjusted without dismantling the entire shutoff. Refer to the parts drawing and instructions for adjustment or replacement of seats.

TIP

This portion of the **Select-O-Flow** nozzle is protected by a heavy-duty rubber bumper and controls the stream pattern selection, as well as the gallonage control. To change from fog to straight stream, rotate the tip to the right. To change to fog rotate the tip to the left.

The adjustable gallonage feature allows the firefighter to change gallonage settings when dictated by fireground tactics. When accompanied by the appropriate changes in engine pressure, the result is an effective fire stream through a range of flows. Flow ranges depend on individual size and model. The following chart gives you the flow ranges for your model.

The TSFL and TSF tips supplied with break-apart nozzles have a twist shutoff feature within the tip. The tip is shut off by rotating the gallonage ring to the right. This feature allows the firefighter to maintain complete control of the stream when the hose line is extended from the ball shutoff.

A fully machined waterway provides greater flow efficiency. The lower turbulence results in better stream quality. The floating stem is designed to eliminate damage when nozzle is accidentally dropped on the tip.

Most of the **Select-O-Flow** nozzles are designed with rigid metal teeth. However, the SFM, SFM-G and TSFM feature acetal spinning teeth or optional molded urethane teeth which can be easily removed and replaced.

FLUSH

Many water supplies contain rust and debris which can get trapped inside the nozzle. This will cause poor stream quality and reduced water flow capabilities. When this occurs, with water still flowing, the firefighter need only dial the gallonage selector ring to the flush position. This will open the throat of the nozzle to allow foreign material to pass through. By returning the dial ring to the previous gallonage position, normal operations can be resumed. If the debris is too large to pass, the firefighter will have to shut down the hose line and remove the nozzle. The debris can then be removed from the base of the nozzle or from around the stem head.

OPERATIONS

The **Select-O-Flow** series is engineered to produce the rated flow (gpm) for a given gallonage setting when supplied with 100 psi pressure at the nozzle base. Over-pressurization and under-pressurization will affect the quality and reach of the streams. Engine pressure (E.P.) should be set to provide 100 psi nozzle pressure (N.P.), plus the friction loss of the hose (F.L.), plus any appliance loss (A.L.), plus any elevation loss (E.L.)

$$E.P. = N.P. + F.L. + A.L. + E.L.$$

* SF and DSF do not have dual stops at present time, but will have in the near future.

When the firefighter changes the gallonage setting on the **Select-O-Flow** nozzle, a change in engine pressure will have to be made to compensate for the change in hose friction loss and appliance loss. If this adjustment in engine pressure is not made, the gallonage indicated by the nozzle setting will not be produced.

CAUTION

Care should be taken when opening and closing the shutoff. Rapid closure and/or opening may cause pressure surge or "water hammer" which could result in equipment failure, with associated potential injury to firefighters.

MAINTENANCE AND CARE

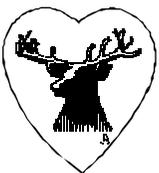
The **Select-O-Flow** series of nozzles is designed and manufactured to give you years of trouble-free service. Since the nozzle is the firefighter's first line of defense against the fire, it should be treated with care. It is not

designed as a battering ram, sledge hammer or forcible entry tool.

Weekly visual inspections and monthly operational checks should ensure excellent reliability. These inspections may be done daily in active companies. All nozzles should be flow tested before entering any hazardous environment to ensure equipment is operating properly.

If the nozzle tip becomes hard to rotate (change patterns), remove tip from nozzle and clean acme threads between the tip and center barrel. Prior to reassembly of nozzle tip to center barrel, apply light coating of silicone grease (Dow-Corning #7 or equivalent) to acme threads. Refer to enclosed parts drawing for assembly and disassembly sequence. Clean excess grease from nozzle after assembly to prevent adhesion of dirt and ash to close clearance parts.

With a minimum amount of care your **Select-O-Flow** will give you years of excellent service. If you have any further questions pertaining to these nozzles, please feel free to call on us at any time. Thank you for choosing Elkhart for your fire suppression needs!



NOTE: Flow data for SFM series available upon request.