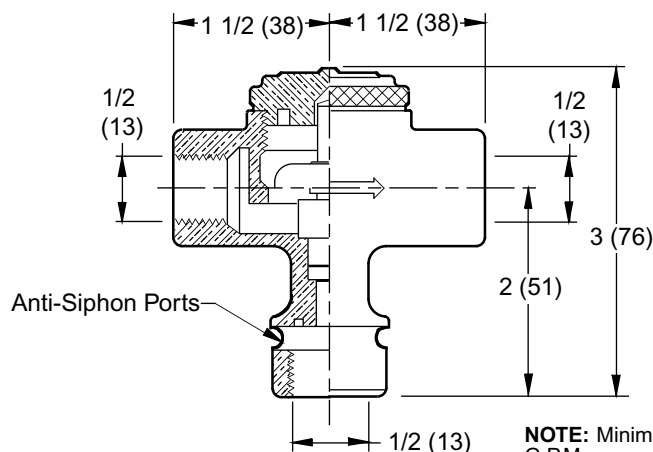



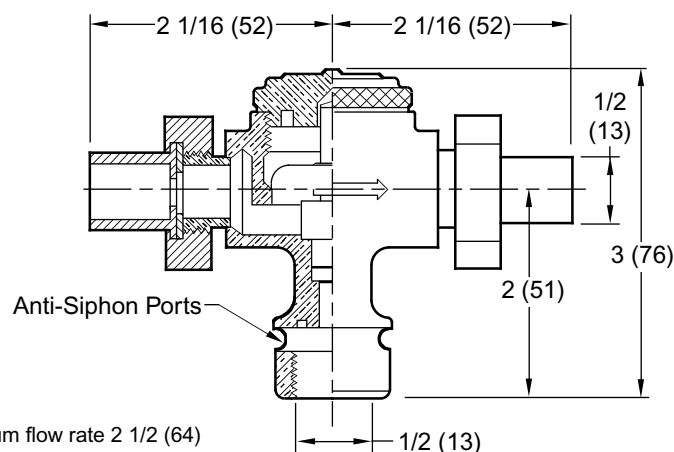
## TRAP PRIMERS


## AUTOMATIC TRAP PRIMER

**FUNCTION:** Used where trapped drains are installed in locations used infrequently or other conditions might permit water seal to evaporate, allowing sewer gas or objectionable and contaminating odors to escape through drain. A trap primer is recommended to compensate for evaporation while providing a water seal in the trap at all times.



 **Fig. 2699**  
1/2" (13) NPT Female



 **Fig. 2699-1**  
1/2" (13) Copper Sweat

**NOTE:** Minimum flow rate 2 1/2 (64) G.P.M.

**NOTE:** Dimensions shown in parenthesis are in millimeters.

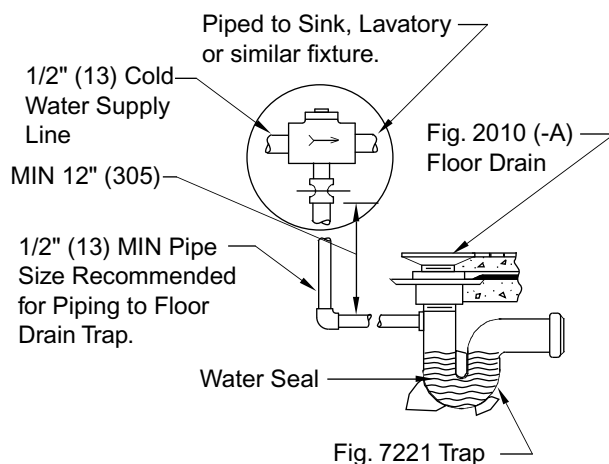
**REGULARLY FURNISHED:**

Cast Bronze with 1/2" (13)  
Connection as indicated by Figure  
Number Selected.

### OPTIONAL MATERIALS:

☐ Satin Finish Chrome Plated -CP

**NOTE: MUST BE LOCATED IN AN ACCESSIBLE LOCATION.**



## APPLICATION, INSTALLATION AND OPERATING PRINCIPLE

The Smith Trap Seal Primer Valve, when properly installed in a cold water supply line, running to a frequently used fixture and connected to a floor drain trap, provides a constant seal of fresh water in the drain trap.

When water is drawn at the plumbing fixture the resulting flow activates the Trap Primer valve mechanism. A pulse of water is dispensed into the trap at the beginning and end of flow in the fixture supply line.

Air ports in the primer body prevent siphonage of trap water and backflow into the potable water supply line.

If the trap water seal is not constantly maintained, the water will evaporate from the trap, allowing sewer gas to escape into building from the sewer lines.



Listed to  
STD.1018

L K J	04/17/03 3-18-03 3-30-01	Changed Text Removed Variations Revised Variations	JJ TBW RN	CL AM BS	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
REV.	DATE	DESCRIPTION	BY	CKD. BY			2699,2699-1

<b>2699 INST</b> FIGURE NUMBER	DRAWING NUMBER <b>S2699 INST</b>	SIZE <b>A</b>	SCALE: <b>NONE</b>	DATE: <b>3-27-95</b>	APPROVED BY: <b>BS</b>	CHECKED BY: <b>WMS</b>	DRAWN BY: <b>EMB</b>	DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE	SMITH® JAY R. SMITH MFG. CO.® DIVISION OF SMITH INDUSTRIES, INC. POST OFFICE BOX 3237 MONTGOMERY, ALABAMA 36109-0237 (USA) TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com	ASPE MEMBER OF:	LOCATION <b>ATTENTION INSTALLER: After Installation, Please Leave This Instruction Sheet For Occupant's Information.</b>									
	<h1>INSTRUCTIONS FOR INSTALLING 2699 WATER SAVING TRAP PRIMER</h1>																			
	<h2>INSTALLATION</h2> <p>The 2699 Trap Primer should be connected to the cold line only. <u>For effective priming it should never be connected to a dual hot and cold combination faucet unless the minimum flow on the cold demand exceeds the amount listed on the chart at various operating pressures. See Chart A. Do not install on a cold line serving a drinking fountain only.</u></p> <p>These devices should be installed in the horizontal position, as shown, on the supply line leading to a frequently used fixture. Before installing 2699, be sure to flush out the line to remove dirt and scale which might lodge on the valve seat and disc. Device should be installed a minimum of 12" (305) above the trap and should be accessible for servicing. Maximum supply pressure 125 psi.</p> <p><b>Note:</b> For supply pressures below 20 psi consult factory.</p> <p><b>Note:</b> The Data &amp; Instruction on this sheet is also appliable to fig. nos. 2699-NYC &amp; 2699-1-NYC.</p>																			
	<h2>... HOW IT WORKS</h2> <p>Smith Fig. No. 2699 is a unique design which assures delivery of water to the trap to assure against evaporation of the water seal. Fig. No. 2699 operates by the water flow acting against the main reaction disc (1), which forces the reaction disc in the upward position and removes the trap disc (2) from the plastic trap seat (3). A spurt of water is then delivered to the trap. However, with increased flow, the main reaction disc continues to lift and seals off the closing ring (4) to stop flow to the trap. When the flow through the valve is stopped, the trap disc (2) is returned to the closed position, and in the process, delivers a spurt of water to the trap before closing off.</p> <p>The importance of this design is that a complete flow cycle through the valve from open to close will actuate the primer twice with two definite pulses; once on opening and once on closing, thus providing a tremendous water savings over competitive modes.</p> <p>Fig. No. 2699 is furnished with 1/2"(13) NPT female inlet and outlet connections. Fig. No. 2699-1 is furnished with 1/2" (13) union sweat connections.</p>																			
	<h2>CHART A</h2> <table border="1"> <thead> <tr> <th>Inlet Pressure</th> <th>25</th> <th>50</th> <th>75</th> <th>100</th> <th>125</th> </tr> </thead> <tbody> <tr> <td>*GPM</td> <td>1.1</td> <td>1.6</td> <td>2.0</td> <td>2.3</td> <td>2.4</td> </tr> </tbody> </table> <p>*Minimum cold flow required for proper trap priming.</p>									Inlet Pressure	25	50	75	100	125	*GPM	1.1	1.6	2.0	2.3
Inlet Pressure	25	50	75	100	125															
*GPM	1.1	1.6	2.0	2.3	2.4															
<h2>TYPICAL INSTALLATIONS</h2>																				
D C B REV.	04-17-03 07-19-01 01-01-01	Modified Text Added Notes & Dimension Added Note	JJ RN RN	CL SJM McD	WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER <h1>2699 INST</h1>													