

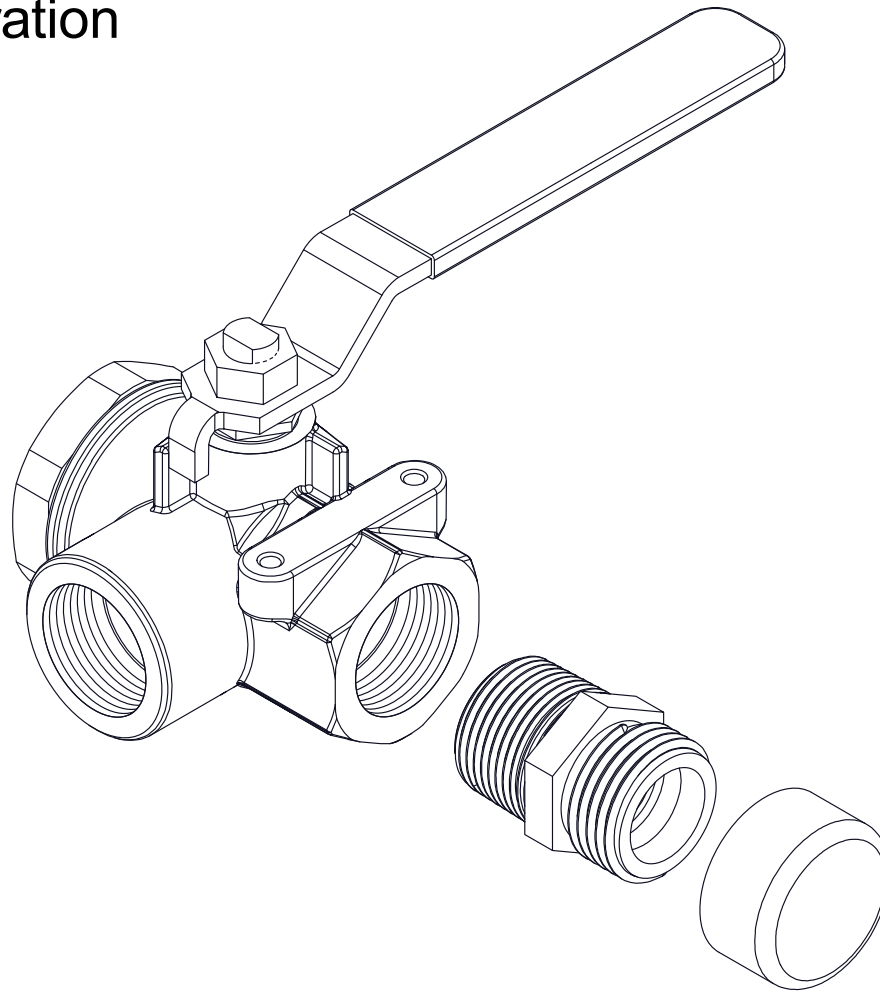
WATEROUS

Form Number: F-2836

Issue Date: Aug 7, 2018

Foam Pump Flush Kit

Installation and Operation



Waterous Company • 125 Hardman Avenue South • South Saint Paul, MN 55075 • (651) 450-5000

www.waterousco.com

Table of Contents

Safety	4
Safety Precautions	4
Introduction	5
Using this Document	5
Viewing the Document Electronically	5
Printing the Document	5
Product Overview	6
Foam Pump Flush Kit Overview	6
Operation Overview	7
Installation	8
Installation Overview	8
Preparing for the Installation	8
Determining the Flush Inlet Location	8
Determining Hose Routing	8
3-Way Valve Dimensions	9
Assembling the 3-Way Valve	10
Installing the Hoses	11
Operation	12
Flushing the System	12
Service Parts	14
Main Components	14

Safety Precautions

- Read and understand all the associated documentation before you begin the installation.
- Read and understand all the notices and safety precautions.
- Be aware that these instructions are only guidelines and are not meant to be definitive. Contact Waterous when you have questions about installing, operating, or maintaining the equipment.
- Do not install the equipment if you are not familiar with the tools and skills needed to safely perform the required procedures—proper installation is the responsibility of the purchaser.
- Do not operate the equipment when safety guards are removed.
- Do not modify the equipment.
- Regularly check for leaks, worn, or deteriorated parts.

NOTICE

Before Operation

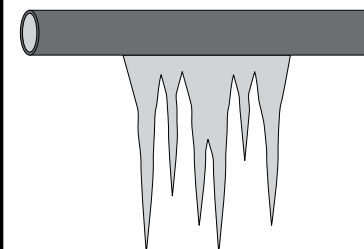
- Read and understand all the instructions provided.
- Check all fluid levels and replenish if necessary.
- Remove the all shipping plugs and install the operation plugs or caps.



NOTICE

Freeze Damage

- Do not allow fluid in the lines to freeze.
- Remove all freezable fluid from the lines before storing the apparatus.



Use this document to install and operate your Waterous equipment. Understand the following conditions before continuing with the document:

- The instructions may refer to options or equipment that you may not have purchased with your system.
- The illustrations in this document are intended to convey concepts. Do not use the illustrations to determine physical attributes, placement, or proportion.
- Understand that your application may require additional steps, that are not described in the illustrations or instructions, to perform the installation.
- Any equipment described in this document is intended to be installed by a person or persons with the necessary skills and knowledge to perform the installation.
- Any equipment described in this document is intended to be operated by a person or persons with the basic knowledge of operating similar equipment.

This document is divided into the following sections:

SAFETY

This section describes general precautions and alert symbols that are in this document.

INTRODUCTION

This section is an overview of the document.

PRODUCT OVERVIEW

This section describes the components that make-up the system.

INSTALLATION

This section describes the installation and initial setup procedures.

OPERATION

This section describes the equipment operation.

SERVICE PARTS

This section describes the service parts.

Using this Document

Use the guidelines below when viewing this document.

Viewing the Document Electronically

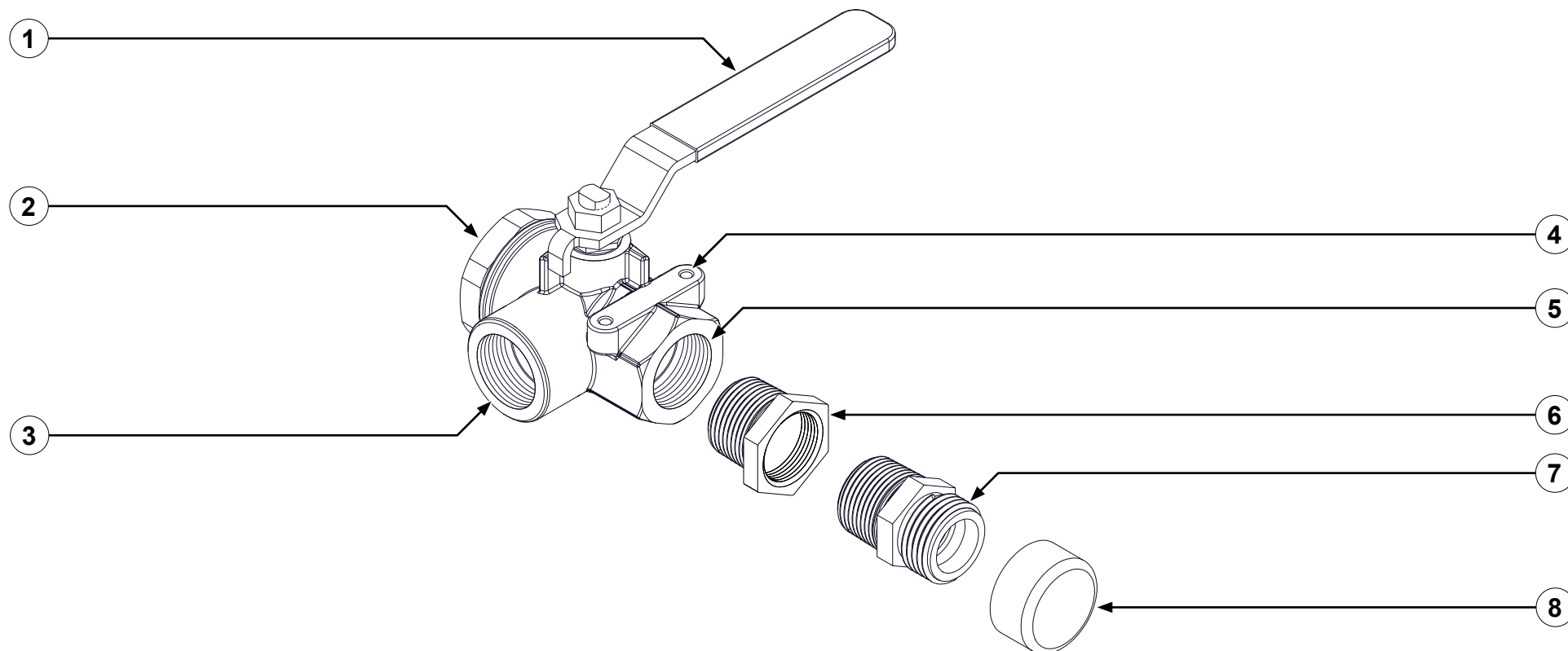
- View this document in landscape orientation.
- Use the table of contents to navigate directly to that section.
- Text **with this appearance** is linked to a reference.

Printing the Document

- The document is viewed the best when printed in color.
- The *print on both sides* and *flip on long edge* features can provide the best results.
- Use a 3-ring binder to store the document.

Foam Pump Flush Kit Overview

The foam pump flush kit includes the basic components needed to isolate and flush the foam pump with a clear-water source. The kit is available in 3/4 inch NPT and 1 inch NPT.

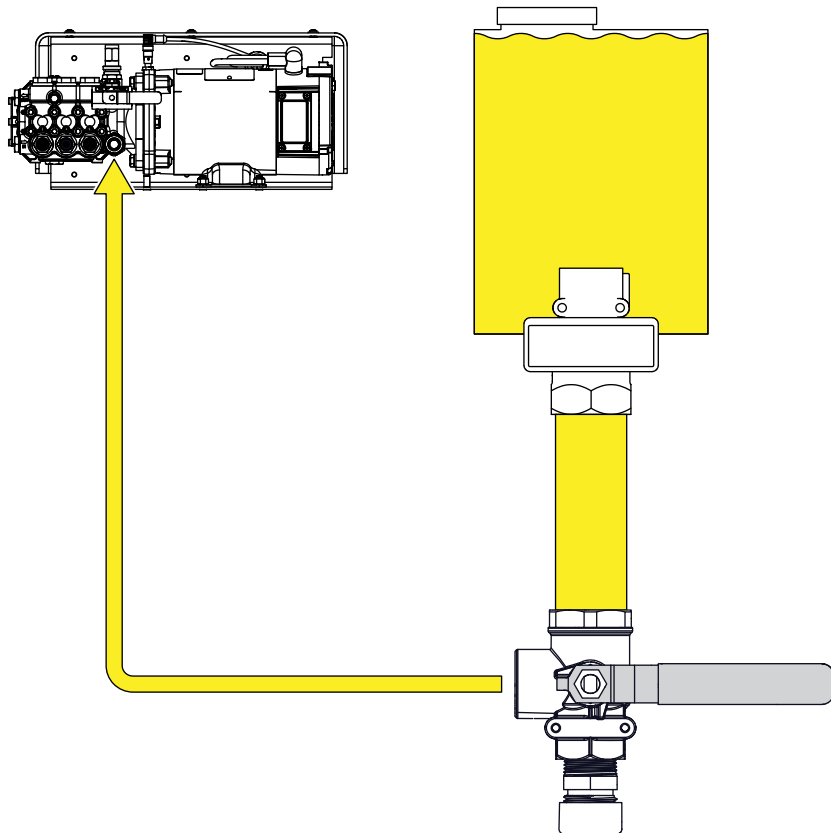


Feature	Description
1 3-Way valve handle	This changes the foam pump source between clear-water and foam concentrate.
2 Foam concentrate inlet	This inlet connects to the foam concentrate supply.
3 Valve outlet	This outlet connects to the foam pump.
4 Mounting holes	This mounts the valve to the apparatus.
5 Clear-water inlet	This inlet connects to the clear-water supply.
6 Reducer bushing	This adapts the 1 inch 3-way valve to 3/4 inch garden hose fitting—only included with 1 inch kit.
7 Garden hose fitting	This allows you to connect a garden hose to the flush system.
8 End cap	This protects garden hose fitting when not in use.

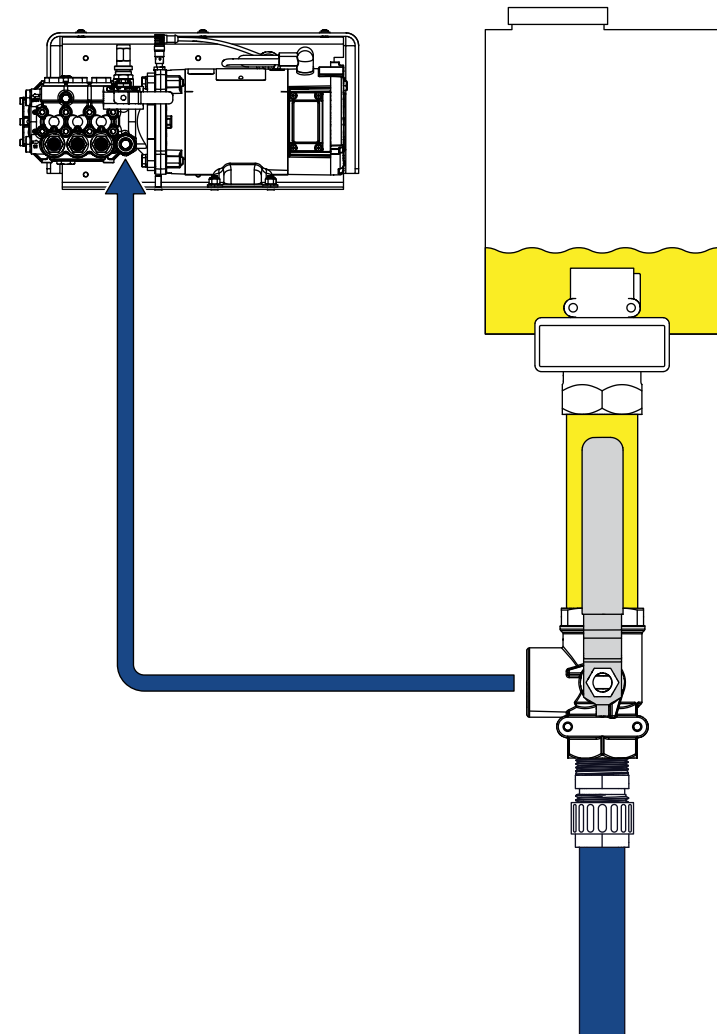
Operation Overview

The flush system operates in two modes that are determined by the handle position. In the concentrate position, the foam concentrate is routed from the supply tank to the foam pump. In the flush position, clear-water is routed from the garden hose connection to the foam pump.

Concentrate Position



Flush Position



Installation Overview

This equipment is intended to be installed by a person or persons with the basic knowledge of installing similar equipment. Contact Waterous with questions about installing the equipment. The installation may require the following tasks and abilities:

- Locating, drilling, and cutting features into the apparatus.
- Connecting hoses and fittings.
- Routing and securing the hoses.
- Final testing.

Preparing for the Installation

Read and understand all the installation instructions before installing the equipment. Prepare a suitable, well-lit area, and gather all the necessary tools before you begin the installation.

NOTICE

Before Operation

- Read and understand all the instructions provided.
- Check all fluid levels and replenish if necessary.
- Remove the all shipping plugs and install the operation plugs or caps.



Determining the Flush Inlet Location

Use the following guidelines to determine a location for the inlet connection:

- Consider the hose routing.
- Consider accessibility for operation and maintenance.

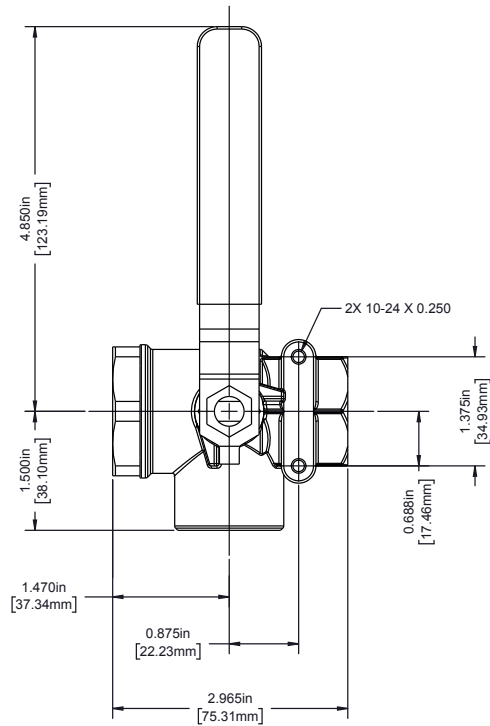
Determining Hose Routing

Use the following guidelines when routing the hoses:

- Route the hose in a straight line whenever possible.
- Do not pinch or kink the hose.
- Do not secure the hose to moving parts.
- Do not secure the hose near excessive heat.

3-Way Valve Dimensions

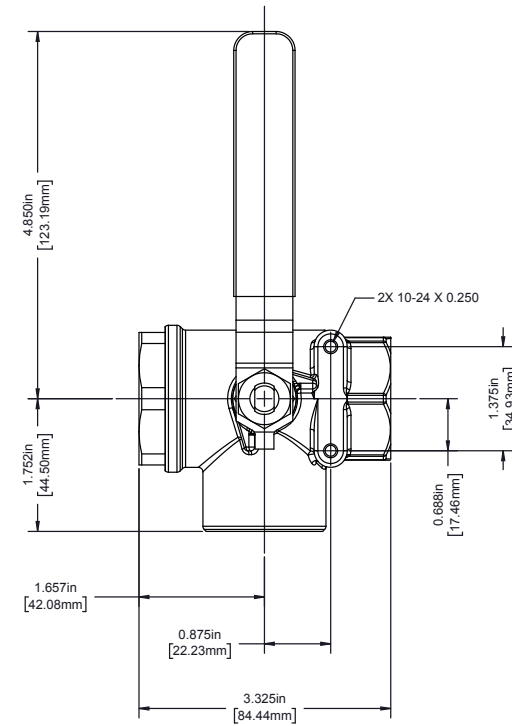
3/4 Inch NPT 3-Way Valve



3X 3/4 FNPT

IL4716

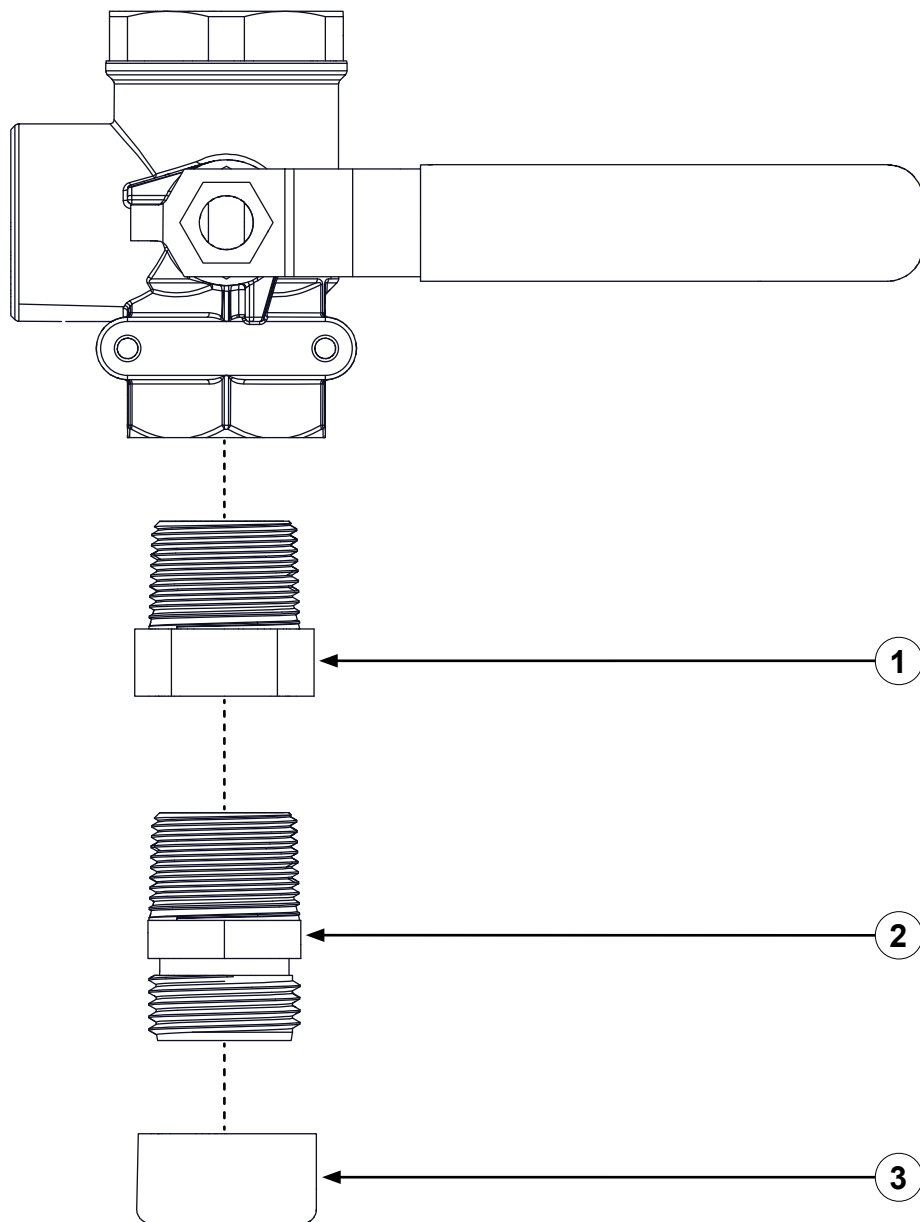
1 Inch NPT 3-Way Valve



3X 1 FNPT

IL4717

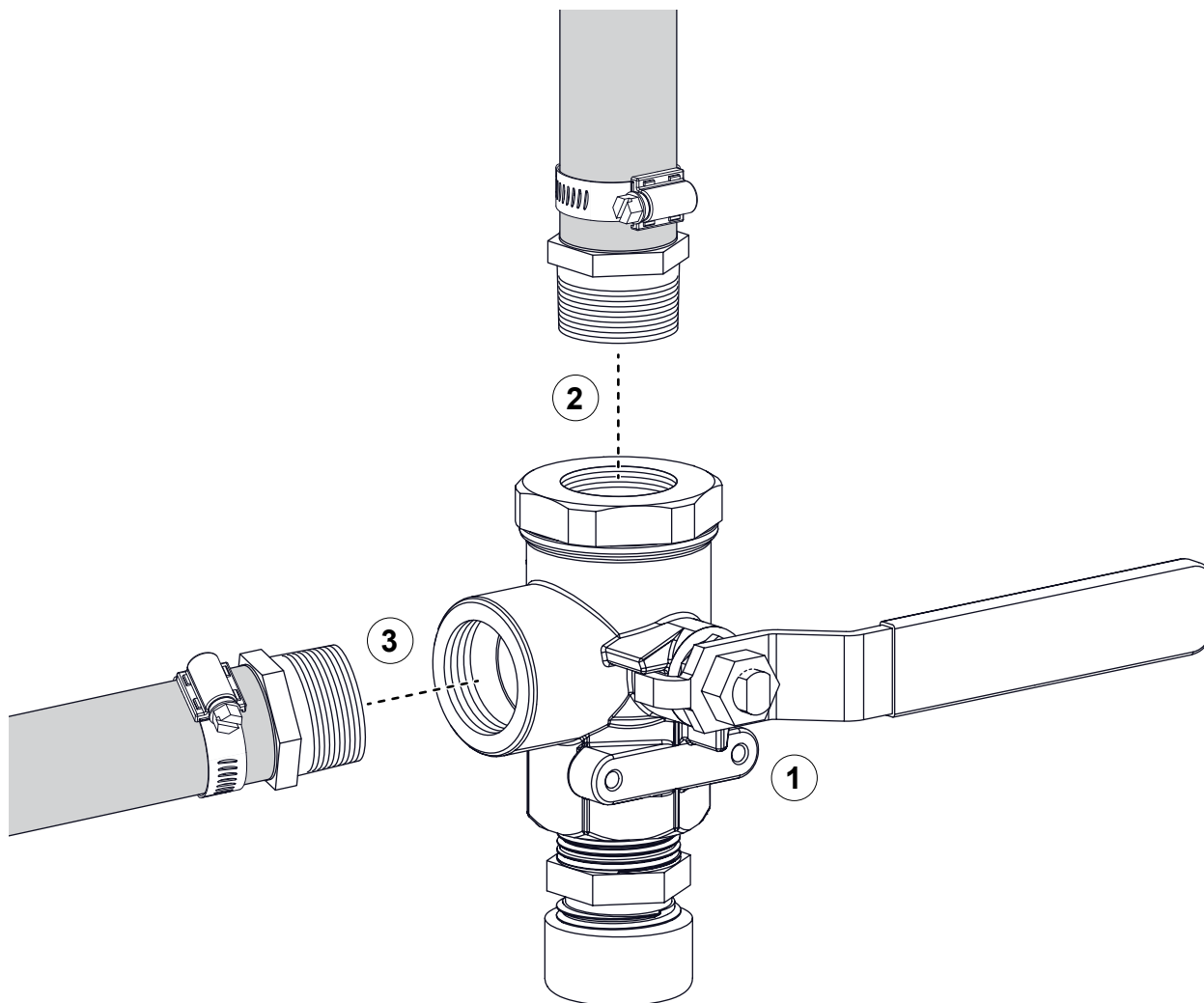
Assembling the 3-Way Valve



Use the illustration and instructions to assemble the flush system components.

- 1 Install the reducer bushing—1 inch 3-way valve only.
- 2 Install the garden hose fitting into the clear-water inlet on the 3-way valve.
- 3 Install the end cap onto the garden hose fitting.

Installing the Hoses

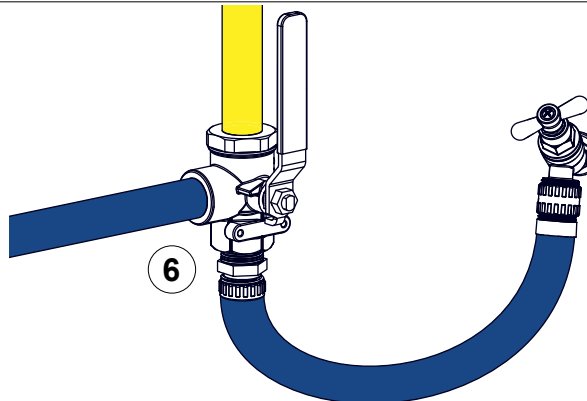
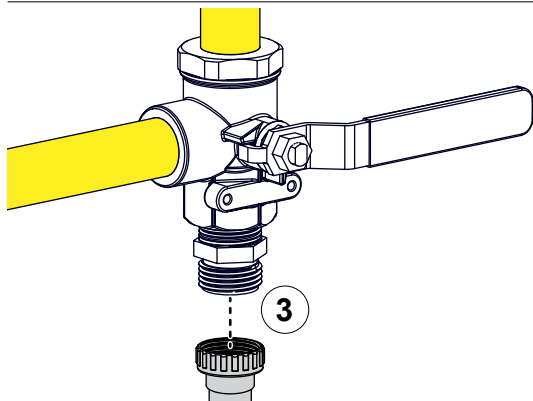
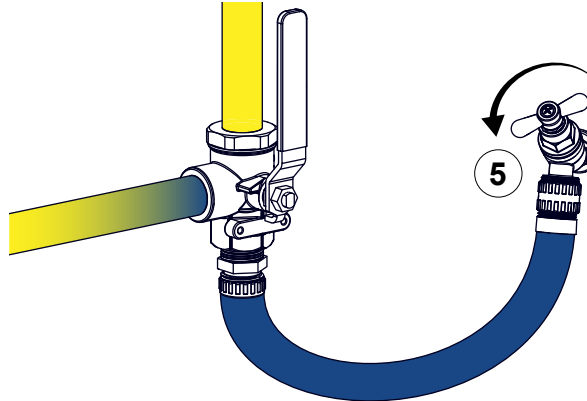
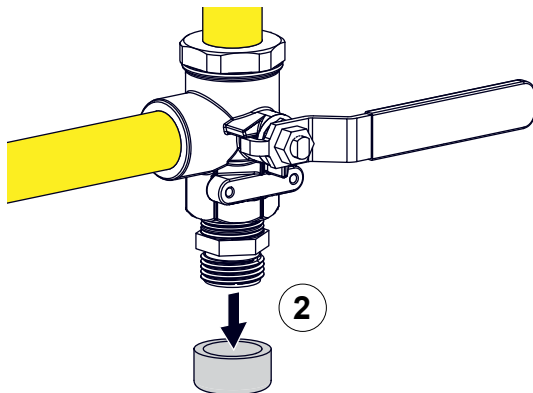
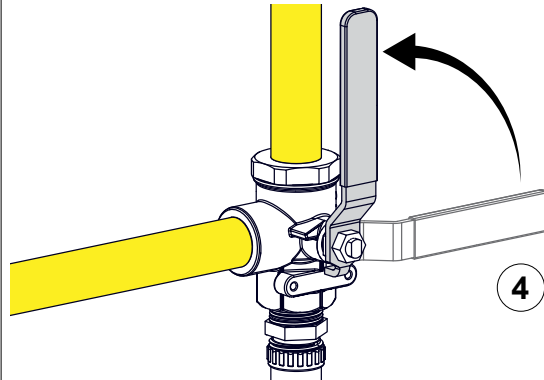
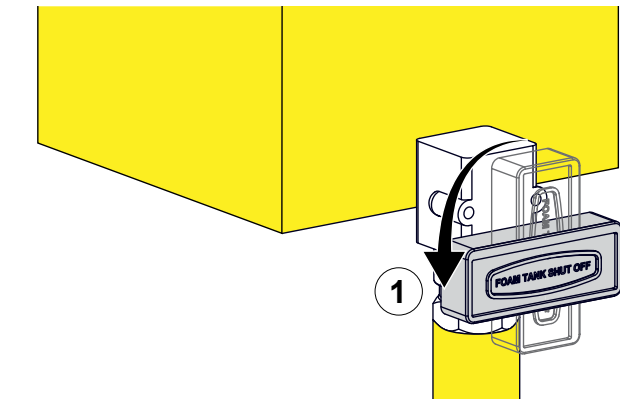


Use the illustration and instructions to install hoses to the 3-way valve. Locally source hoses and fittings that are compatible with the intended use, foam concentrate, and industry standards.

- 1 Use the mounting holes to secure the valve to the apparatus. Refer to: **"3-Way Valve Dimensions" on page 9.**
- 2 Connect a hose between the foam concentrate supply tank shut-off valve and the foam concentrate inlet on the 3-way valve.
- 3 Connect a hose from the 3-way valve outlet to the foam pump inlet.

Note: After installation, test the system for leaks. Proper installation is the responsibility of the purchaser. Contact Waterous for more information.

Flushing the System



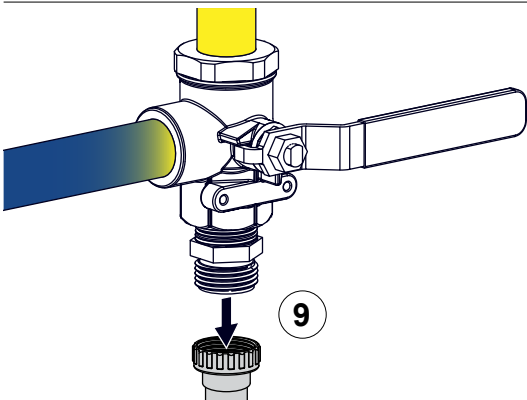
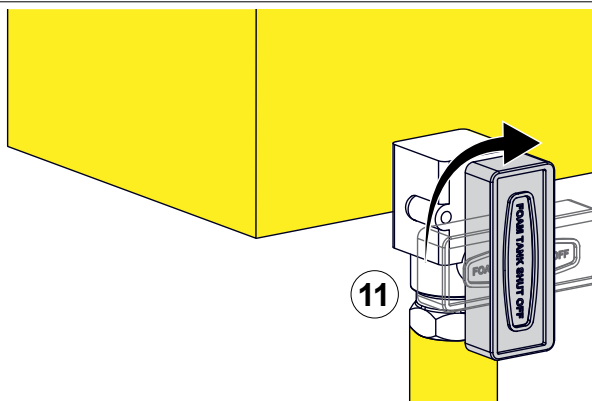
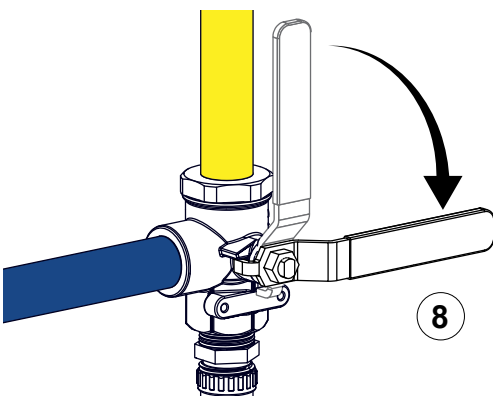
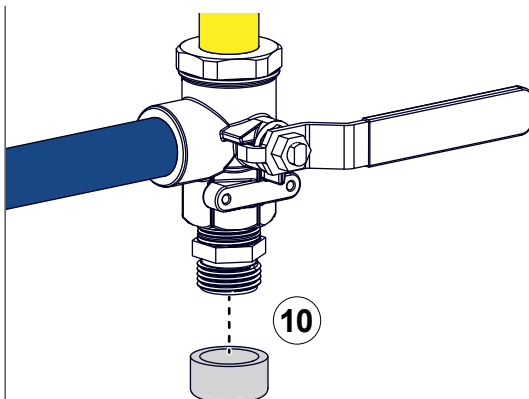
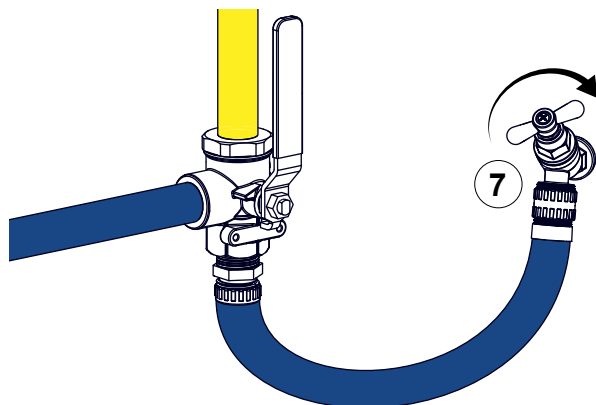
Use the illustrations and instructions as a general overview. Follow the instructions provided by the foam and apparatus manufacturer to operate the components (pumps, valves, drains, etc.) involved in the flush procedure. Follow local regulations to capture and cleanup any overflowed or spilled foam concentrate.

- 1 Rotate the shut-off valve to the closed position.
- 2 Remove the end cap from the garden hose fitting.
- 3 Connect a garden hose to the 3-way valve.
- 4 Quickly and fully rotate the handle to the flush position.

Note: All 3 ports are partially open to each other when the handle is at the 45° position.

- 5 Open the valve to flow clear-water through the garden hose.
- 6 Run the foam pump in manual mode until the concentrate is removed from the system.

Flushing the System—Continued



Use the illustrations and instructions as a general overview. Follow the instructions provided by the foam and apparatus manufacturer to operate the components (pumps, valves, drains, etc.) involved in the flush procedure. Follow local regulations to capture and cleanup any overflowed or spilled foam concentrate.

7 Once the concentrate is flushed from the system, stop the foam pump and close the clear-water valve.

8 Quickly and fully rotate the handle to the concentrate position.

Note: All 3 ports are partially open to each other when the handle is at the 45° position.

9 Remove the garden hose from the 3-way valve.

10 Install the end cap onto the garden hose fitting.

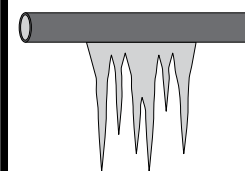
11 Rotate the shut-off valve to the open position.

Note: After flushing the system, prepare the apparatus for service or storage

NOTICE

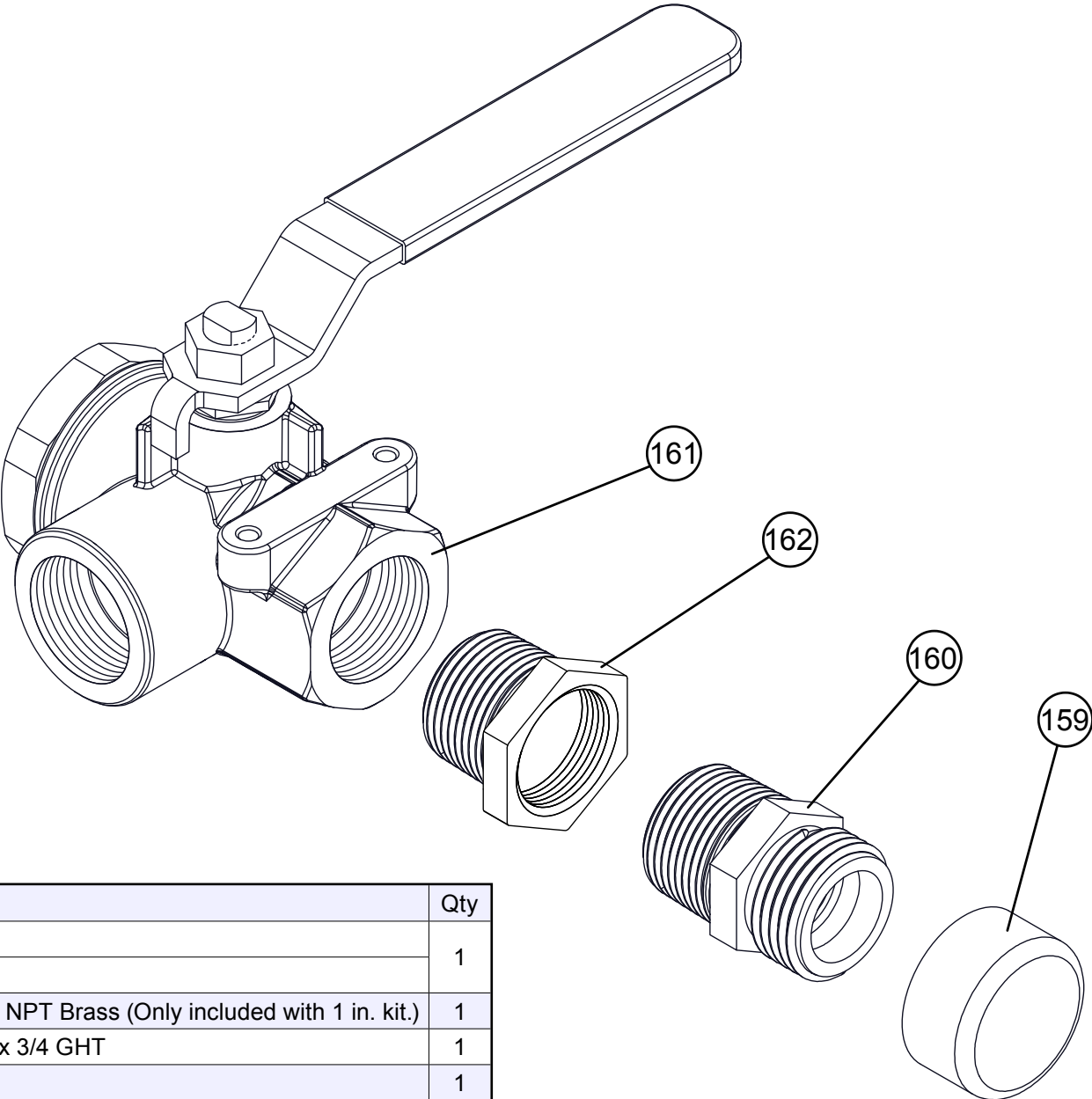
Freeze Damage

- Do not allow fluid in the lines to freeze.
- Remove all freezable fluid from the lines before storing the apparatus.



Leaving fluid in the foam system that can freeze causes damage to the equipment.

Main Components



Ref. No.	Part No.	Description	Qty
161	Q-2410016	Valve, 3-way, 3/4 in. FNPT	1
	V-4122	Valve, 3-way, 1 in. FNPT	
162	Q-8050026	Bushing-Reducing, 1 X 3/4 NPT Brass (Only included with 1 in. kit.)	1
160	V-4120	Fitting-Adapter, 3/4 MNPT x 3/4 GHT	1
159	V-4121	Cap-End, 3/4 in. GHT	1

WATEROUS

Waterous Company
125 Hardman Avenue South
South Saint Paul, MN 55075
(651) 450-5000
www.waterousco.com