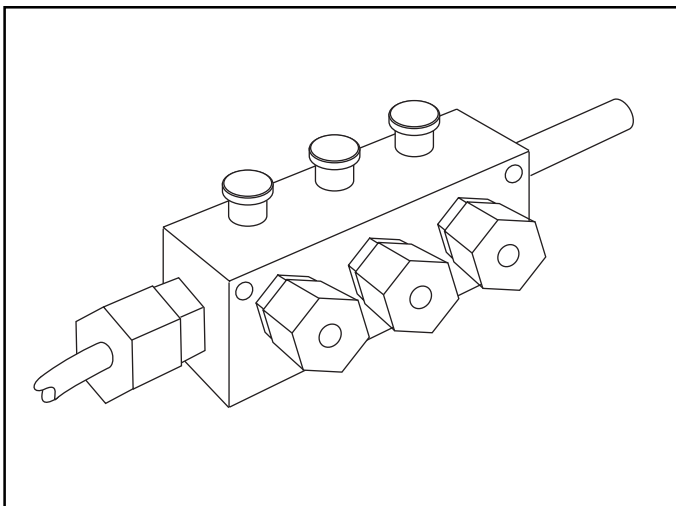




# MODEL MF2

## Push-Button Manifold

*User Guide*



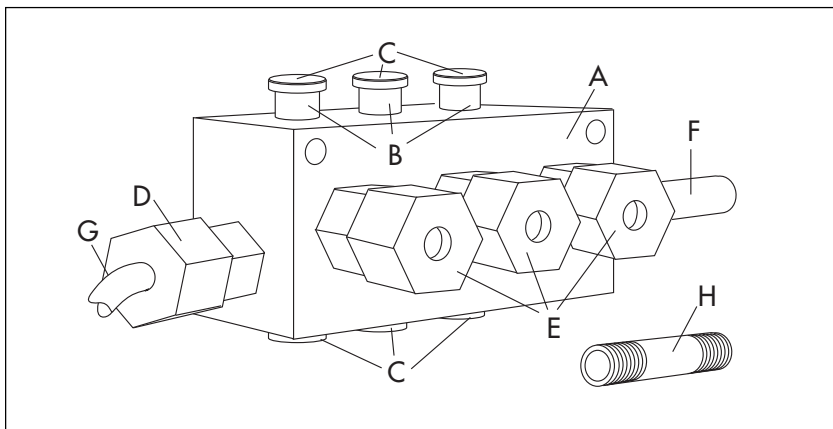
# MILLIPORE

# Introduction

The MF2 Push-Button Manifold (product no. 6015) is designed for use with Millipore ultrafiltration cells and reservoirs. It selectively separates an inlet gas or liquid stream into multiple outlet streams without interrupting operations. With this device, a single feed line can be distributed to three individually valved outlets. If desired, several manifolds may be grouped together to provide additional valved outlet streams.

Two mounting holes allow permanent installation (screws provided). A combination plug/clamping rod also permits ring-stand mounting, if desired.

## MF2 Manifold Components



Letter	Part	Function
A	Manifold Body	Houses manifold components that separate single stream of gas or liquid into multiple outlet streams
B	Spool	Allows flow to outlets to be turned off and on
C	Spool Plug	Unscrews to allow spool to be disassembled for cleaning or maintenance
D	Inlet	Allows flow of gas or liquid into manifold
E	Outlet	Allows gas or liquid to exit manifold
F	Clamping Rod Plug	Permits ring stand mounting and acts as plug to keep flow to outlets
G	Tubing (1/4" polyethylene)	Connects gas or liquid source to manifold
H	MF22 Adapter (1/8 NPT close nipple)	Enables multiple MF2 manifolds to be connected resulting in more outlet streams

## Limitations

- DO NOT use with strong acids or bases (pH<2 or >10), ketones, acetaldehyde, acetic acid, aromatic and chlorinated hydrocarbons, polar aromatics, aniline, Cellosolve®, ethers or esters.
- DO NOT subject the unit to temperatures above 85°C.

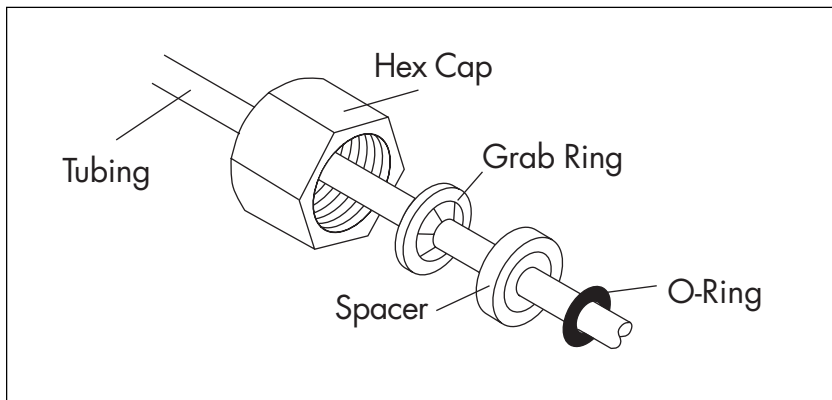
## Setup

This section presents an overview of how to prepare the MF2 Manifold for operation.

### Connecting the Tubing

Connect ¼" OD plastic tubing to inlet pressure fitting on end of manifold body as follows:

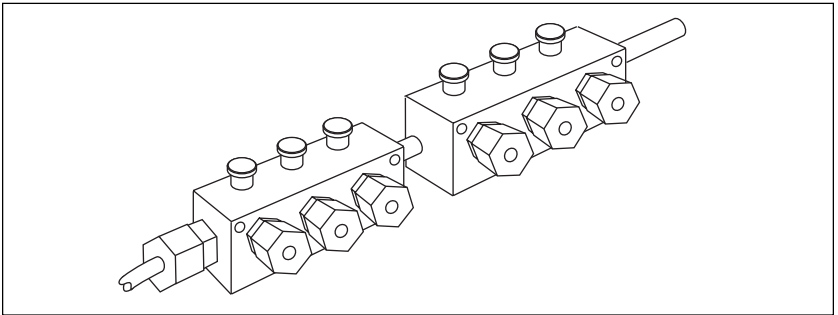
1. Unscrew hexagonal cap and remove O-ring.
2. Slide cap, grab ring, spacer (countersunk side toward grab ring), and O-ring onto tubing, leaving no more than ½" of exposed tubing beyond grab ring.
3. Insert exposed tubing into fitting and hand tighten hexagonal cap.
4. Connect free end of tubing to external gas source fitting.
5. Connect tubing to desired number of outlets on side of manifold body using steps 1–3; then connect free ends of tubing to units to be fed.



## Grouping Multiple MF2 Manifolds

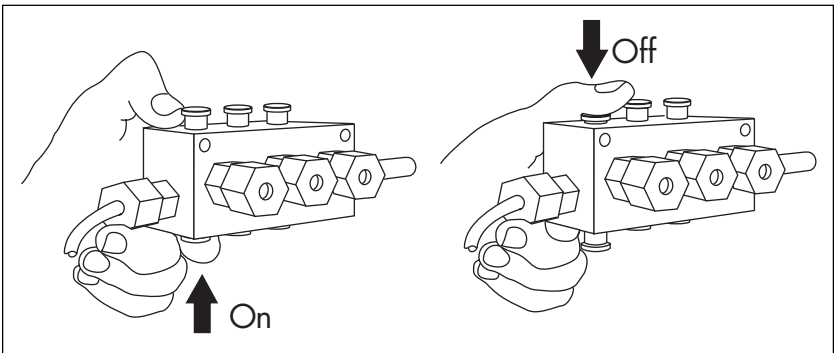
If you need six or more outlets, you can group together two or more MF2 Manifolds using the procedure described below. Repeat the procedure as necessary, grouping manifold valves to provide many controllable outlet streams from a single source.

1. Unscrew clamping rod plug from end of manifold body. Use pliers if necessary.
2. Remove entire inlet fitting from a second Model MF2 manifold.
3. Connect two manifolds with a 1/8 NPT close nipple. Tighten with only moderate force.



## Operation

1. Attach clamping rod plug to a ring stand.
2. Position manifold body with label facing upward. To turn on desired outlet, press upward on corresponding spool until plug seats fully against valve body.
3. To turn off any outlet, press corresponding spool downward until plug seats fully against manifold body.



# Cleaning and Maintenance

When manifolding solutions, be sure to clean the MF2 after each use. Rinse with a suitable solvent, followed by a final water flush.

To remove spools for cleaning, unscrew a plug from one end of each spool and push spools out from manifold body. Spool O-rings may also be removed for cleaning, if desired. All O-rings are interchangeable.

**NOTE:** To prevent excessive wear and/or damage to O-rings and plugs, avoid frequent disassembly of manifold.

To reassemble unit, replace O-rings on spools. Lightly lubricate O-rings with silicone grease (Dow Corning 55M or similar); then push spools into manifold body from either end. Replace plugs on spool ends, making sure each plug is firmly seated. Inspect plugs occasionally, making sure they are fully tightened in ends of spools.

## Sterilizing the MF2 Manifold

The manifold valve is NOT autoclavable! To sterilize unit, use standard sterilizing gas mixtures, a solution of 70% ethanol or isopropanol, or 5% formalin.

## Specifications

Maximum Pressure: 125 psi (8.5 atm)

Weight: 8 oz. (226 g)

Size:  $4 \times 2 \times 1\text{-}3/4$ " ( $10 \times 5 \times 4.5$  cm)

Materials of Construction:

Manifold body, spools: Delrin®

O-rings: buna-N

Tube fittings: nylon

# Technical Assistance

For more information, contact the Millipore office nearest you. In the U.S., call 1-800-Millipore (1-800-645-5476). Outside the U.S., see your Millipore laboratory catalogue for the phone number of the office nearest you. Or, look us up on the Internet at our World Wide Web site: <http://www.millipore.com>. Our e-mail address is [tech\\_service@millipore.com](mailto:tech_service@millipore.com).

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99105, Rev. O, 01/99

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