

## Technical Data

# 3M™ Flow Control System

## Description

3M™ Flow Control System dilutes chemicals from 3M chemical concentrate products. It is a closed loop system that holds up to 4 chemical products and can dispense into a spray bottle or a mop bucket apparatus.

## Safety Information

**CAUTION:** Use appropriate Personal Protective Equipment (PPE). Refer to applicable Safety Data Sheet (SDS) for the 3M Chemical Concentrate and Ready-To-Use solutions being used for additional information and recommendations.

**NOTE:** Dispenser installation must be made in accordance with local plumbing codes. Local and state plumbing codes may require additional or special backflow prevention devices or unique methods of installation. Check local plumbing codes before installation. User shall be responsible for plumbing code compliance, including compliance with any changes made to codes after installation.

## Package Contents

- Dispenser
- Bucket Fill Tube
- Bottle Fill Tube
- Key Set
- Screw and Anchor Kit
- Instruction Sheet and Mounting Template

## Water Supply Requirements

	Minimum	Maximum
Water pressure	20 psi (1.38 bar)	90 psi (5.52 bar)
Water temperature	N/A	140°F (60°C)

## Installation

1. Using the template found with instruction sheet, mark all four anchor locations on the wall where the dispenser will hang. Be careful to select a wall location with enough clearance and support to safely mount dispenser.
  - For accuracy, use a level with the template to ensure the dispenser will be level on the wall.
2. Install all four supplied anchors into pre-drilled hole locations from step 1. Using supplied screws, install top two screws and hang dispenser from them. Install bottom two screws through dispenser holes into the anchors. Tighten screws against dispenser to assure a secure fit.
  - **NOTE:** Consult your building maintenance personnel to ensure the appropriate fastener is used for the wall material.
3. Remove bottle and bucket fill tubing out of dispenser packaging. With warm water ready, soak the dispenser end of the tubing (flat end) in the water for 30 seconds to soften the tube.

4. With tube softened, slide it up over the barb outlet on the bottom of the dispenser.
  - Facing the front of the unit, bottle fill tube barb is on the left and bucket fill tube barb is on the right.
5. With cabinet open, position all four chemical bottles into each compartment and securely connect the connector caps to top of bottles.
  - Remove the seal liner from the bottle to expose the bottle insert for connecting to the connector cap.
  - Do not remove the bottle insert. Doing this will make the bottle inoperable.
6. Close door and lock. Secure key in pre-assigned location.
7. Connect the factory plumbed water hose to your water source. Be sure to follow all applicable plumbing codes.

## Operation

- Turning on water supply to dispenser – with water supply hose connected and fully tightened to water supply outlet, slowly turn on water supply valve until unit is fully pressurized.
  - Turning on water supply quickly will potentially damage internal components of dispenser and could cause accidental activation of water valve.
  - **NOTE:** The 3M™ Flow Control System is intended to be a cold-water dispenser. The use of hot water with the dispenser may soften the hose and cause fittings to loosen, which may cause leaks.

- Chemical Selector Dial – Turn chemical selector dial (upper dial) to the desired chemical position, as indicated by the directional arrows and the chemical container sight windows. When the dial points to the desired chemical position, you are ready to dispense chemical. For rinse water, point the dial straight down at the water symbol.
  - Rinse water is not safe for consumption; do not drink it.
  - Do not turn dial while dispensing chemicals.
- Bucket Fill Activation – Turn dispensing selector dial (lower dial) to the right hand position so that the arrow is pointing at the bucket icon and the “ON” text. Diluted chemical will start dispensing almost immediately after this dial has been turned. To shut off, turn the dispensing selector dial to the left so that the arrow is now pointing down at the “OFF” text. Take care to let remaining chemical drain out of the bucket fill tubing.
  - It is important that the bucket or pail always be in place prior to dispensing chemicals.
- Bottle Fill Activation – Slide the bottle fill tube inside an empty bottle. It is best to have the fill tube inserted as far down into the bottle as possible. This will help minimize foaming. Turn dispensing selector dial to the left hand position so that the arrow is pointing at the sprayer icon and the “ON” text. Diluted chemical will start dispensing almost immediately after the dial has been turned. To shut off, turn the dispensing selector dial to the right so that the arrow is now pointing down at the “OFF” text. Take care to let remaining chemical drain out of the bottle fill tubing.
  - It is important that the empty spray bottle, bucket, or fill tank always be in place prior to dispensing chemicals.
- Changing Chemical Bottles – To change out a chemical bottle, simply unlock and open the dispenser, unscrew the empty chemical bottle and discard via the approved method. Open new bottle by unscrewing the shipping cap, removing the seal liner and placing it into the dispenser while securely screwing on connector cap.
  - Always ensure that the water source to the dispenser is off and the dispensing lines are not pressurized (full of water) to ensure accidental activation does not ensue.
- Priming Chemical Tubes – (Follow this procedure at initial set-up and after changing chemical bottles only.) To prime the chemical pickup tubes, open the dispenser door so you can physically see the four tubes and turn the selector knob to the appropriate chemical to prime. Turn the dispense knob to the right to dispense solution to the long dispense hose. Position this hose so it dispenses to the drain. Watch that the corresponding chemical pickup tube becomes filled with chemical. Once entire tube is completely filled with chemical, the tube is primed and ready to dispense. Repeat this for all four chemical tubes at initial setup or as needed when changing chemical bottles.
  - NOTE: Do not leave dispenser unattended while in use.

NOTE: Dispensing selector dial will turn with slightly more resistance when going from bucket to bottle and vice versa. This is normal.

## Troubleshooting Guide

Symptom	Probable Cause	Possible Remedy
Proportioner fails to draw chemical properly	<ul style="list-style-type: none"> <li>▪ Insufficient water supply pressure.</li> <li>▪ Connector cap has chemical build-up.</li> <li>▪ The outlet tubing might be pinched closed.</li> <li>▪ Chemical metering tip clogged with dried chemical.</li> <li>▪ Tube(s) not connected tightly to proportioner or connector cap.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 20 PSI is the minimum allowable pressure.</li> <li>▪ Soak in hot water to clean.</li> <li>▪ Straighten out the tubing to remove the restriction.</li> <li>▪ Install new chemical bottle.</li> <li>▪ Ensure tube(s) are pushed over barbs securely and not damaged.</li> </ul>
"Air Gap" Proportioner is dripping or spraying a mist	<ul style="list-style-type: none"> <li>▪ Mineral deposits are located on Air Gap nozzle.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contact sales rep.</li> </ul>
Water valve is not shutting off completely.	<ul style="list-style-type: none"> <li>▪ There is debris caught between the Diverter valve activation plate and the Diverter valve plunger pin. Debris is in the water valve diaphragm.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Clean the Diverter plate and plunger pin.</li> <li>▪ Contact sales rep.</li> </ul>
Water valve is leaking	<ul style="list-style-type: none"> <li>▪ Barbed nut is too loose.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Shut water supply off first. Hand-tighten the barbed nut. Do not over tighten with tool.</li> </ul>
Selector valve is not selecting the correct chemical	<ul style="list-style-type: none"> <li>▪ Selector valve detents have worn out.</li> <li>▪ O-Rings in selector valve need attention.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contact sales rep.</li> </ul>
Diverter valve is leaking	<ul style="list-style-type: none"> <li>▪ Screws are too loose on the Diverter assembly.</li> <li>▪ Internal seals need attention.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Contact sales rep.</li> </ul>

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