

# **DURAMIX 7000 INSTALLATION**

## **AND**

# **MAINTENANCE INSTRUCTIONS**

**\*\*DO NOT THROW AWAY AFTER INSTALLATION\*\***

**\*\*KEEP FOR MAINTENANCE REFERENCE\*\***

**CAUTION:** THIS UNIT IS DESIGNED TO HANDLE HIGH PRESSURE & TEMPERATURE SATURATED STEAM. IMPROPER USE, INSTALLATION OR MAINTENANCE CAN RESULT IN SERIOUS INJURY.

INSTALLATION AND MAINTENANCE SHOULD ONLY BE DONE BY A QUALIFIED PROFESSIONAL. SUPERKLEAN IS NOT LIABLE FOR ANY INJURY THAT IS A RESULT OF IMPROPER USE, INSTALLATION OR MAINTENANCE.

### **PRE-INSTALLATION:**

- 1.** Unit requires minimum steam pressure of 80 PSI and a maximum steam pressure of 150 PSI. Pressure gauge installation (upstream, prior to steam inlet) is recommended to determine proper and constant steam pressure during all operation of mixing unit.
- 2.** Unit requires minimum water pressure of 50 PSI, a recommended water pressure of 80 PSI, and a maximum water pressure of 150 PSI. Pressure gauge installation (upstream, prior to water inlet) is recommended to determine proper and constant water pressure during all operation of mixing unit.
- 3.** Steam trap is highly recommended (upstream, prior to steam inlet) to relieve unit of any condensate.
- 4.** Remove steam check valve nut.
- 5.** Remove steam check valve poppet and spring.
- 6.** Make sure that there is no water in steam chamber by turning mixing unit upside down and letting it drain.
- 7.** Reinstall steam check valve spring, poppet and nut.
- 8.** Check to make sure that cold water flow regulator is fully open by turning it counter-clockwise.
- 9.** Check to make sure that the temperature control hand wheel is fully closed by turning it clockwise.
- 10.** If unit supplied includes globe style valves, check to make sure that they are fully closed by turning them clockwise.
- 11.** Mixing unit is ready to install.

### **INSTALLATION:**

1. Place the mounting plate on the wall and mark the 3 holes to be used to mount the plate to the wall.
2. Drill holes on wall and install anchor bolts (1/2" diameter recommended but not supplied). Make sure that holes are deep enough to accommodate anchor bolts so that they do not stick out too much and interfere with the mounting of the mixing unit.
3. Mount plate to wall and secure using anchor bolt nuts (not supplied).
4. Mount mixing unit to plate and "loosely" secure with top middle bolt (supplied).
5. Mount hose rack to mixing unit and "loosely" secure with 2 bottom bolts (supplied).
6. If unit was supplied without globe style valves, loosen mixing body connection nuts.
7. If unit was supplied with globe style valves, loosen connection nuts on globe style valves as well as mixing body connection nuts.
8. The mixing unit is now ready for piping.
9. Install water and steam supply lines to mixing unit inlets.
10. Once water and steam supply lines are securely connected, tighten both connection nuts to globe valves and/or mixing body connection nuts.
11. Secure unit to mounting plate by tightening the 3 supporting bolts.
12. If temperature gauge was supplied, remove front plug and install temperature gauge.
13. Attach hose to outlet of mixing unit and secure.
14. Attach spray nozzle to outlet of hose and secure.
15. Check and make sure that steam & cold water supply globe valves are turned off.
16. Gradually open both valves to pressurize mixing station and check for leaks. If there are visible leaks, immediately turn globe valves off, depressurize mixing unit by spraying nozzle, allow mixing unit to cool down prior to disassembly, and reseal leakage points.
17. If there are no leaks, unit is ready.

## **OPERATIVE INSTRUCTIONS:**

1. If unit supplied included globe style valves, fully open by turning hand wheels counter-clockwise.
2. Begin spray of water by pressing on lever of nozzle. Make sure to maintain spray during the course of adjustment of unit.
3. Begin to open temperature control hand wheel by turning it counter-clockwise. Note that this temperature control hand wheel regulates steam entry into mixing chamber and should be used solely to make adjustments on water temperature output. Once you reach your desired water temperature output, you may leave the temperature control hand wheel at its current position and use globe style valves above mixing unit to shut down operation. To resume operation, simply open globe style valves.
4. If you do not achieve desired water temperature output by using the temperature control hand wheel, begin to choke down water flow by slowly closing the cold water flow regulator.
5. If your water pressure is border line to minimum recommended above, water temperature output will be sporadic (hose will jerk and you will notice vibration of unit) and you will need to use the cold water flow regulator located on the right hand side of the unit.
6. Using a flat tip screwdriver, slowly begin to close the cold water flow regulator until you reach desired water temperature output.

7. If you close the cold water flow regulator and water temperature output is still sporadic, please check to see if you meet and maintain required water pressure.

## **MAINTENANCE INSTRUCTIONS:**

**CAUTION:** Check and make sure that steam & cold water supply globe valves are turned off prior to disassembly. Depressurize mixing unit by spraying nozzle and allow mixing unit to cool down prior to disassembly. Unit is now ready for maintenance.

Check Valve Spring & Poppet Replacement:

1. Remove check valve connection nut.
2. Slide check valve poppet off.
3. Remove spring from base of check valve poppet guide.
4. Reverse instructions to install new check valve.

Steam Chamber Cover Plate Gaskets:

1. Remove hand wheel nut, lock washer, and name plate.
2. Gently tap hand wheel outward and then wiggle off by hand.
3. Remove stem plug.
4. Unscrew 6 bolts to remove steam chamber cover plate.
5. Using a small flat tip screwdriver, remove stem guide Teflon filling and steam chamber cover plate Teflon gasket.
6. Replace filling.
7. Replace steam chamber cover plate Teflon gasket.
8. Reverse instructions to reassemble.

Water Chamber Cover Plate Gaskets:

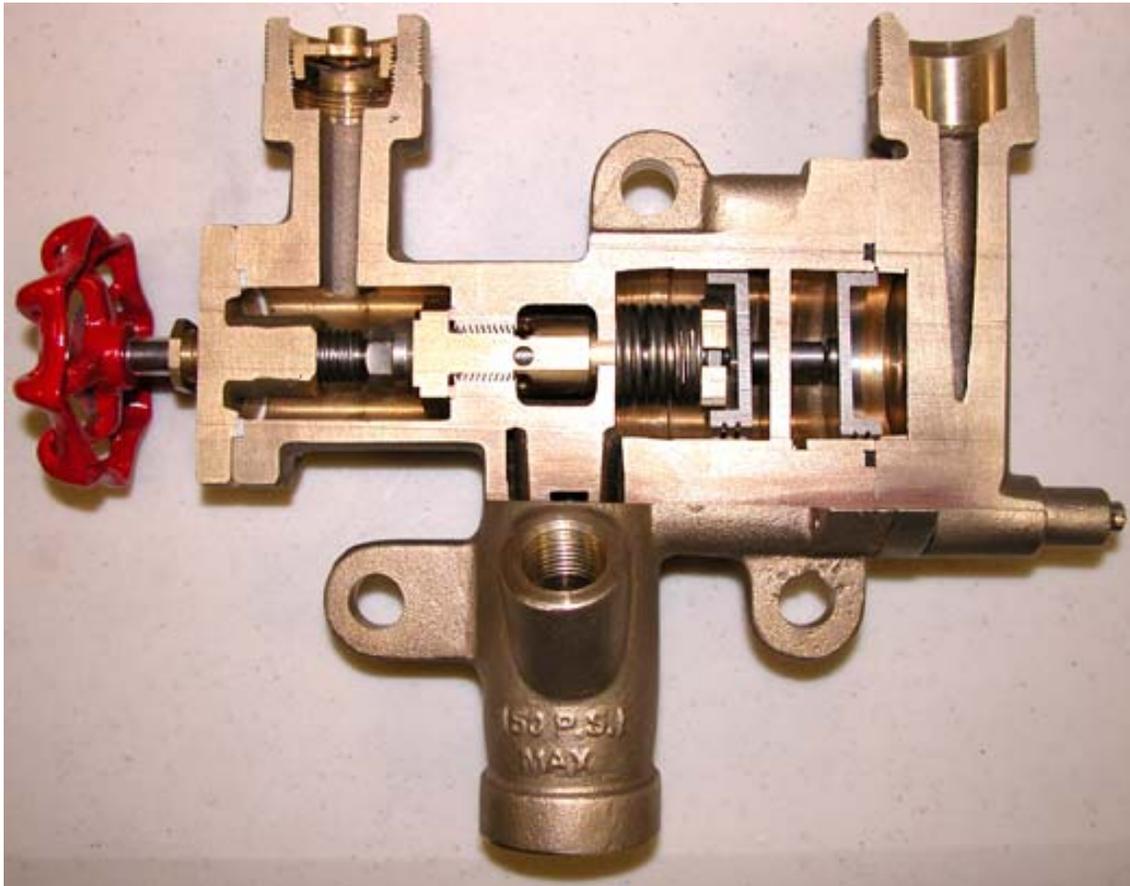
1. Unscrew 8 bolts to remove water chamber cover plate.
2. Remove all 3 cold water chamber cover plate o-rings.
3. Remove brass stopper from cold water flow regulator stem by pulling it off with pliers.
4. Screw cold water flow regulator stem inwards to remove.
5. Replace 3 cold water chamber cover plate o-rings.
6. Replace 2 cold water flow regulator stem o-rings.
7. Reverse instructions to reassemble.

Steam Poppet Replacement:

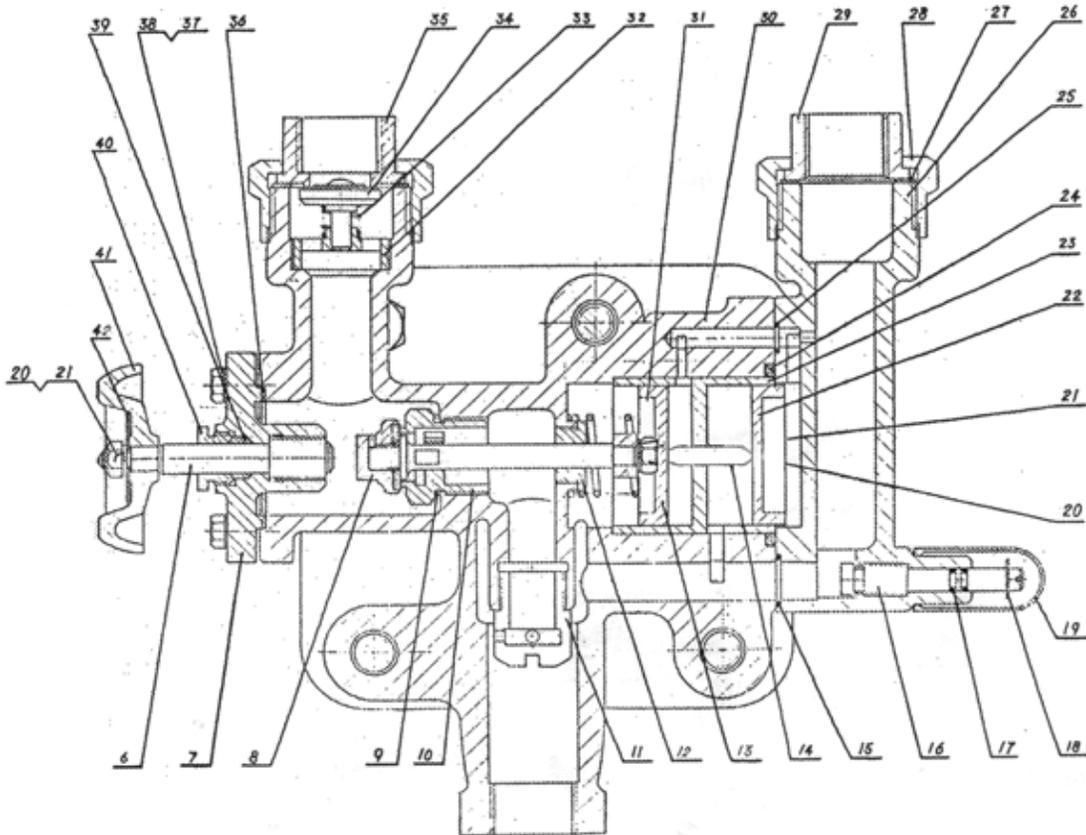
1. To replace steam poppet, both the steam & cold water chamber plates must be removed. Please follow instructions above for this procedure.
2. With the cold water chamber cover plate removed, remove the first stainless free floating piston off of its sleeve.
3. Remove the free floating rod from its guide.

4. Remove the brass piston sleeve off. It is recommended that you use WD-40 to loosen the sleeve. It is also recommended that you try not to scratch or damage the piston sleeve when removing. Note that secondary piston will also be removed along with sleeve.
5. Using a socket, extensions, and ratchet through both the steam and cold water chamber, loosen the nut off of the steam poppet stem. CAUTION: Steam poppet stem is spring loaded. Apply and maintain pressure when removing.
6. Remove steam poppet.
7. Reverse instructions to reassemble.

### **DURAMIX INTERNALS PICTURE**



## **DURAMIX SPARE PARTS LIST**



### **DURAMIX 7000 AVAILABLE PARTS LIST**

<b>Part No.:</b>	<b>Description:</b>
SUP-8	Steam Poppet
SUP-15	Cold Water Chamber Cover Plate "O" Ring 1 (Rubber)
SUP-16	Cold Water Flow Regulator
SUP-17	Cold Water Flow Regulator Stem "O" Rings (Rubber)
SUP-24	Cold Water Chamber Cover Plate "O" Ring 2 (Rubber)
SUP-25	Cold Water Chamber Cover Plate "O" Ring 3 (Rubber)
SUP-27	Connection Nut Teflon Gasket
SUP-32	Steam Check Valve Stem Guide

SUP-33 Steam Check Valve Poppet Spring  
SUP-34 Steam Check Valve Poppet  
SUP-36 Steam Chamber Cover Plate Teflon Gasket  
SUP-39 Temperature Control Stem Guide Teflon Filling