### M-159TG/750TG Hot and Cold Water Mixing Unit

### **Installation, Operating and Maintenance Instructions**

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#### **Maintenance of Model**

## M-159 and 750 (All Stainless Steel)

## Wall Mounted Series Both Available in TG Models

Strahman mixing units/hose stations for hot and cold water are designed to thoroughly mix hot and cold water in any desired proportion. They are available in both standard models (M-159) and models made completely of stainless steel (M-750). All exposed parts are either bronze chrome-plated or stainless steel depending on the unit selected.

Strahman mixing units are also available in the TG models, which come with a dial-type gauge that accurately indicates the wash waters temperature.

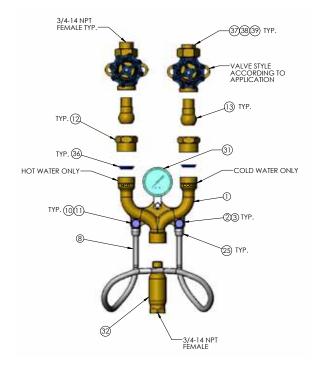
#### **WALL-MOUNTED SERIES FOR HOT & COLD WATER**

The wall-mounted unit is designed to mount one inch away from the walls.

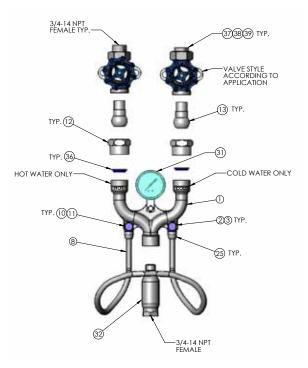
- Maximum recommended operating temperature: 200°F/93°C
- Maximum working pressure: 150 psi
- Operable on normal city water pressure.

#### INSTALLATION

- 1. Mount MP-88 wall plate (11) or use the template attached to drill mounting holes for the wall spacers (10).
- 2. If mounting directly to wall, use three 3/8" studs U.S.S. or N.C. and leave protruding from wall 5/8" to 1."
- 3. Mount via the center hole on the temperature gauge's bracket (31) (thermostat gauge bracket position on TG models only). Thread loosely, to allow for ease of mounting the other studs.
- 4. Install other studs and pull up tight.
- 5. Using Pipe dope or PTFE tape on threads, thread pipe unions (21) onto pipe. Thread the globe valves into pipe unions equally. Thread ball check valves (13) into globe valves and make sure that balls on check valves are parallel to piping.



M-159 Wall Mounted Series



M-750 Wall Mounted Series

#### **Maintenance of Model**

## M-159 and 750 (All Stainless Steel)

# Wall Mounted Series Both Available in TG Models

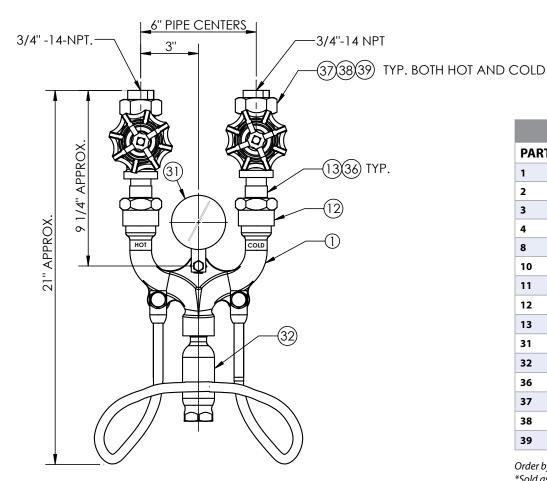


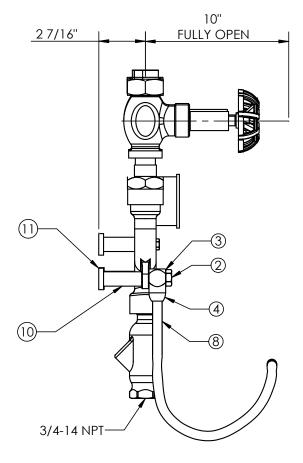
FIGURE 4. M-159 TM AND M-750 TM FRONT VIEW

HOT AND COLD WATER USE ONLY

PARTS			
PART NO.	PART		
1	BODY		
2	CAP SCREW		
3	LOCK WASHER		
4	HOSE RACK CONNECTOR		
8	HOSE RACK		
10	SPACER		
11	WALL PLATE		
12	UNION NUT		
13	CHECK VALVE		
31	TEMPERATURE GAUGE		
32	BLENDING CHAMBER		
36	CHECK VALVE GASKET		
37	INLET UNION NUT		
38	UNION TAIL PIECE		
39	UNION GASKET		

Order by name and number. \*Sold as a complete unit.

UNIT CAN BE SUPPLIED (WETTED PARTS ONLY) IN STAINLESS STEEL.



M-159 TM AND M-750 TM FRONT VIEW

HOT AND COLD WATER USE ONLY

# OPERATION OF THE M-159 AND M-750 HOT WATER MIXING UNITS (INCLUDES TG MODELS)

- After completing installation and having checked for and corrected any leaks, turn on hot and cold water lines by turning valves counter clockwise and adjust to get the temperature water desired.
- 2. If using one of the TG models, adjust hot and cold water valves while spraying and check the temperature gauge to get the desired temperature output.
- 3. After the wash down operation is complete, shut water flow off completely by turning valves clockwise.

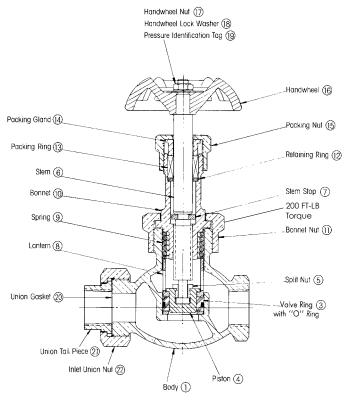
# MAINTENANCE OF THE M-159 AND THE M-750 HOT WATER MIXING UNITS (INCLUDES TG MODELS)

- 1. If water flow from the unit seems to be inhibited or the temperature cannot be regulated, remove unit and check to see if the water valves are functioning properly. If this is the case, refer to the Strahman Soft Seal Piston Valve maintenance instructions on page 4.
- 2. If the valves are functioning properly, check to see if the check valves are stuck in the closed position or clogged with debris. If the check valves are malfunctioning, refer to the parts list and replace.
- 3. If flow is still restricted, compressed air can be used to remove any loose blockage that may have collected in the body and mixing chamber of the unit.

#### STRAHMAN SOFT SEAL PISTON VALVE

NOTE: When installing new spring, splitnut (5) and piston (4) must be disassembled from stem (6). Install new spring over stem against bonnet. Reassemble splitnut and piston. Hold spring against bonnet. Spring to be installed in back of piston (See below).

#### 3/4" Soft Seal Piston Valve

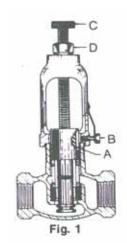


**Model Shown:** V-14-U ¾" Globe Type (Union Connection) **Available:** V-14-S ¾" Globe Type (Screwed Ends),

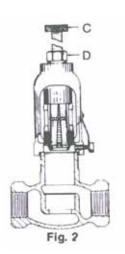
## INSTRUCTIONS FOR USE OF TOOLS WITH SOFT SEAL PISTON VALVE

#### **Extracting Valve Ring**

- Remove bonnet and stem assembly by opening valve to wide open position and removing bonnet nut and working assembly free of body.
- 2. Insert pulling tool into ring pocket making sure that puller housing is located evenly on the neck of valve body. Slotted cap 'A' should rest on lantern as sown in Fig. 1. Rotate until pin 'B' can be pressed into slot and hold while turning knurled nut 'C' counter clockwise until refusal.



3. With an adjustable wrench, turn hex nut 'D' in a clockwise direction until internal parts are fully extracted, as shown in figure 2.



4. Spin hex nut all the way back on stem so that withdrawn parts can be fully extended from puller housing, then turn knurled nut 'C' clockwise, which will release parts from puller.

#### To Insert New Valve Ring

1. Place valve ring on seating tool as shown in fig. 3 and drive into valve body as far as it will go keeping seating tool as straight as possible.



- Drop lantern into body with large I.D. and wider band facing up (lantern is marked for ease of installation) making sure lantern sits evenly on bottom of pocked in body.
- 3. Before installing bonnet assembly into body, fully retract stem making sure spring is located between back of piston and bonnet. Install into body. Tighten down bonnet nut until refusal.

PRECAUTIONS: Make sure ring pocket is free of scale, rust of other obstruction before replacing valve ring. Make sure parts are replaced in same order as removed.

#### **ADDENDUM TO INSTALLATION INSTRUCTIONS**

Caution should be taken to ensure continued safe operation of the Strahman Soft Seal Piston. When and where applicable, particular care should be exercised in the following areas: Earthquake, external piping loads, unstable fluids, wear and erosion, surface temperature and over/under pressure and temperature during operation. Additionally, only bolting and gaskets as permitted by B16.5 are to be used.

#### The Strahman Family of Products Includes:

#### Sampling Valves

Strahman has a full line of sampling valves that produce live samples without exception. Our sampling valves' unique design prevents failure caused by sediment or clogging.

#### **Drain Valves**

Strahman Drain Valves are designed to prevent clogging. They are ideal for use in liquid and gas service or with slurries, polymers, and high viscosity fluids that tend to solidify at room temperature.

#### Wash Down Equipment

Strahman offers a full line of mixing units, hose stations, hoses, nozzles, and wash down accessories.

Our wash down line is designed for industrial use and is used in a wide variety of industries including food, beverage, pharmaceutical, chemical and other applications.

#### **Line Blinds**

Strahman Line Blinds provide zero leakage down stream and total isolation on process pipelines, vessels, and maritime applications. No pipeline movement is required when blind position is changed.



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