

# EMERGENCY MIXING VALVES

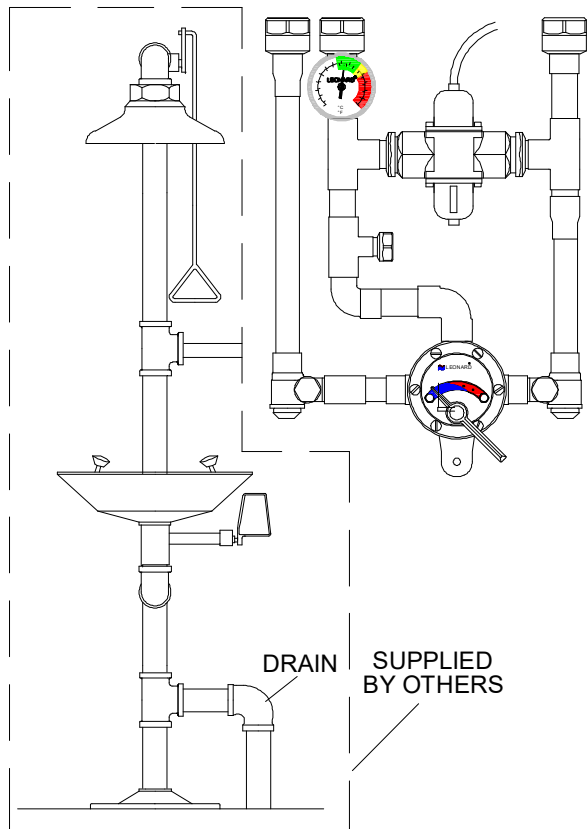
## ECO-MIX™

### Mixing Valve for Drench or Combination Emergency Shower

3 - 56 GPM (11 -212 l/min) flow rate  
up to 45 PSI (3.1 bar) system pressure drop

## TM-850-LF

### PRIMARY EMERGENCY WATER MIXING VALVE



- DURA-trol® solid bimetal thermostat directly linked to valve porting to control the intake of hot and cold water and compensate for supply temperature and pressure fluctuations. DURA-trol is highly responsive and cannot be damaged by extremes in temperature
- Primary Valve can be set to the correct temperature for the application
- Locking type temperature regulator to prevent accidental movement set for 85°F (29°C)
- Mixing valve will close down on failure of cold water supply
- Mixing Valve with special internal cold water bypass capable of a minimum of 20 GPM (76 l/min) @ 30 PSI (2.1 Bar) upon failure of hot water supply
- Adjustable high temperature limit stop \* set for 90°F (32°C)
- 1-1/4" top inlets and outlet, NPT Female
- Integral wall support
- Dial thermometer (range 0 to 140°F, -10 to 60°C)
- Rough bronze finish
- Angle checkstops on inlets
- Compliance.....ANSI Z358.1
- Maximum supply temperature 180 °F (82°C)
- Maximum supply pressure 125 PSI (8.6 Bar)

### REDUNDANT THERMOSTATIC MIXING VALVE

- Stainless steel bellows thermostat is factory set @ 90°F, 32°C (adjustable from 40°F to 100°F, 4°C to 32°C) to allow cold water to enter the outlet side of the primary mixing valve
- Remains fully closed until outlet temperature reaches 90°F (32°C)
- Will keep maximum temperature at or below 90°F should primary valve allow water in excess of 90°F (32°C)
- Maximum supply pressure 125 PSI (8.6 Bar)

**NOTE:** Performance specifications above applicable when valve is tested to conditions specified per ASSE 1071

### OPTIONS:

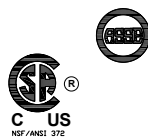
\_\_ IT- Inlet thermometers (range 0 to 140°F, -10 to 60°C)

**CABINET OPTIONS – SEE PAGE 3**

### Certifications:

ASSE 1071 Certified

CSA Certified



This product is certified to meet Low Lead requirements of wetted surface area containing less than 0.25% lead by weight

**Buy American Act**  
COMPLIANT

**BUILD AMERICA BUY AMERICA**  
COMPLIANT



**WARNING:** Risk of cancer and reproductive harm from exposure to lead – See

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

|                            |                  |
|----------------------------|------------------|
| <b>Engineer's Approval</b> | Job # _____      |
|                            | Arch/Eng. _____  |
|                            | Contractor _____ |



1360 Elmwood Avenue, Cranston, RI 02910 USA

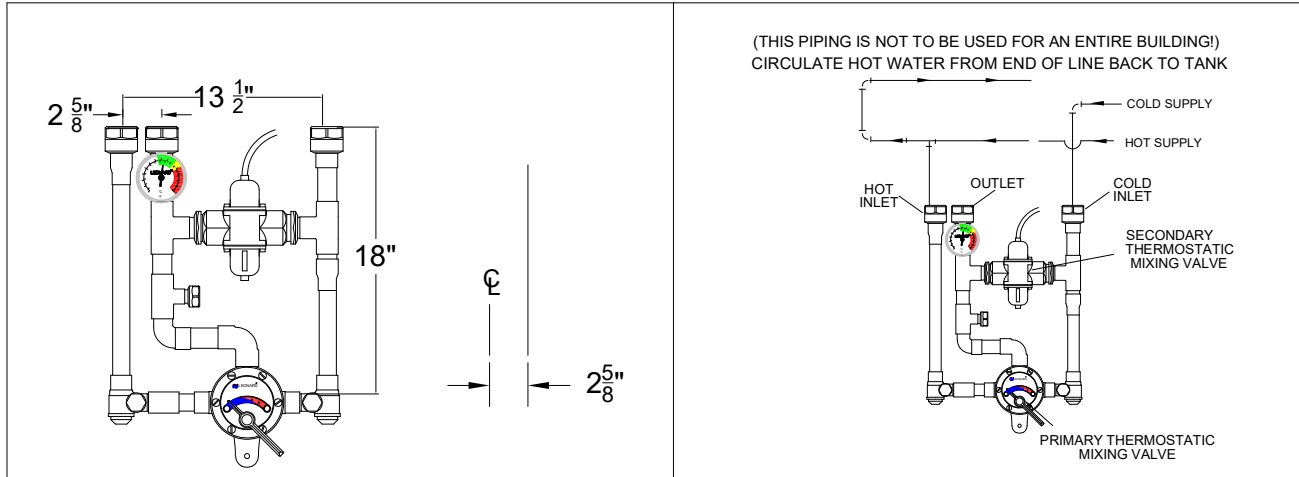
Phone: 401.461.1200 Fax: 401.941.5310

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Web Site: <http://www.leonardvalve.com>

\*NOTE: A limit stop, set for 90°F (32°C), is simply a mechanical setting to prevent excessive handle rotation. If incoming water is hotter than 135°F (57°C), the temperature of the factory test, the valve when turned to full HOT may deliver water in excess of 90°F and the limit stop MUST BE RESET BY THE INSTALLER

# EMERGENCY WATER MIXING VALVE FOR DRENCH OR COMBINATION EMERGENCY SHOWER



**CAUTION!** It may be necessary to recirculate the tempered water to the emergency shower should the piping be exposed to excessive hot or cold conditions. Consult factory for proper piping.

## FLOW CAPACITIES

| MODEL                        | IN     | OUT    | MINIMUM FLOW (GPM) | INTERNAL COLD WATER BY-PASS MINIMUM | PRESSURE DROP |     |     |     |     |     |     |     |     |      |
|------------------------------|--------|--------|--------------------|-------------------------------------|---------------|-----|-----|-----|-----|-----|-----|-----|-----|------|
|                              |        |        |                    |                                     | 5             | 10  | 15  | 20  | 25  | 30  | 35  | 40  | 45  | PSI  |
|                              |        |        |                    |                                     | 0.3           | 0.7 | 1.0 | 1.4 | 1.7 | 2.1 | 2.4 | 2.8 | 3.1 |      |
| TM-850-LF                    | 1-1/4" | 1-1/4" | 3                  | 20                                  | 20            | 25  | 30  | 33  | 35  | 38  | 43  | 50  | 56  | GPM  |
|                              |        |        | 11                 | 76                                  | 76            | 95  | 114 | 125 | 132 | 144 | 163 | 189 | 212 | LMIN |
| <b>MAXIMUM FLOW CAPACITY</b> |        |        |                    |                                     |               |     |     |     |     |     |     |     |     |      |

The Emergency eye/face wash Mixing Valve shall control and maintain the temperature of the water to the station. Unit shall be self contained and include a thermostatic water mixing valve, a dial thermometer on the outlet, angle checkstops, wall mounting bracket, piping and fittings factory assembled and tested, top or bottom inlets and top outlet, unit set for 85°F (29°C) and a maximum temperature of 90°F (32°C). The redundant valve remains fully closed until outlet temperature reaches 90°F (32°C), and will keep the maximum temperature at 90°F should the primary valve allow water in excess of this temperature. Unit must be able to be set to the correct temperature for the specific contaminant but must be locked in place to prevent changing of the temperature by accident. Unit must be checked weekly for performance in conjunction with the requirements of ANSI Z358.1. Unit shall be able to flow a minimum flow of 20 GPM (76 l/min) at 30 PSI (2.1 Bar).

**WARNING! IT IS THE RESPONSIBILITY OF THE SPECIFIER TO DETERMINE THE DELIVERED WATER TEMPERATURE TO EACH SAFETY FIXTURE. A COMFORTABLE RANGE IS 60°F TO 90°F (15° TO 32°C). IN CIRCUMSTANCES WHERE A CHEMICAL REACTION IS ACCELERATED BY WATER TEMPERATURE, A MEDICAL ADVISOR SHOULD BE CONSULTED FOR THE OPTIMUM TEMPERATURE FOR EACH APPLICATION.**

Specifications are subject to change without notice!

**CAUTION! All thermostatic water mixing valves have limitations. They will NOT provide the desired accuracy outside of their flow capacity range. Consult the Flow Capacity Chart and DO NOT OVERSIZE. Minimum flow must be no less than indicated.**



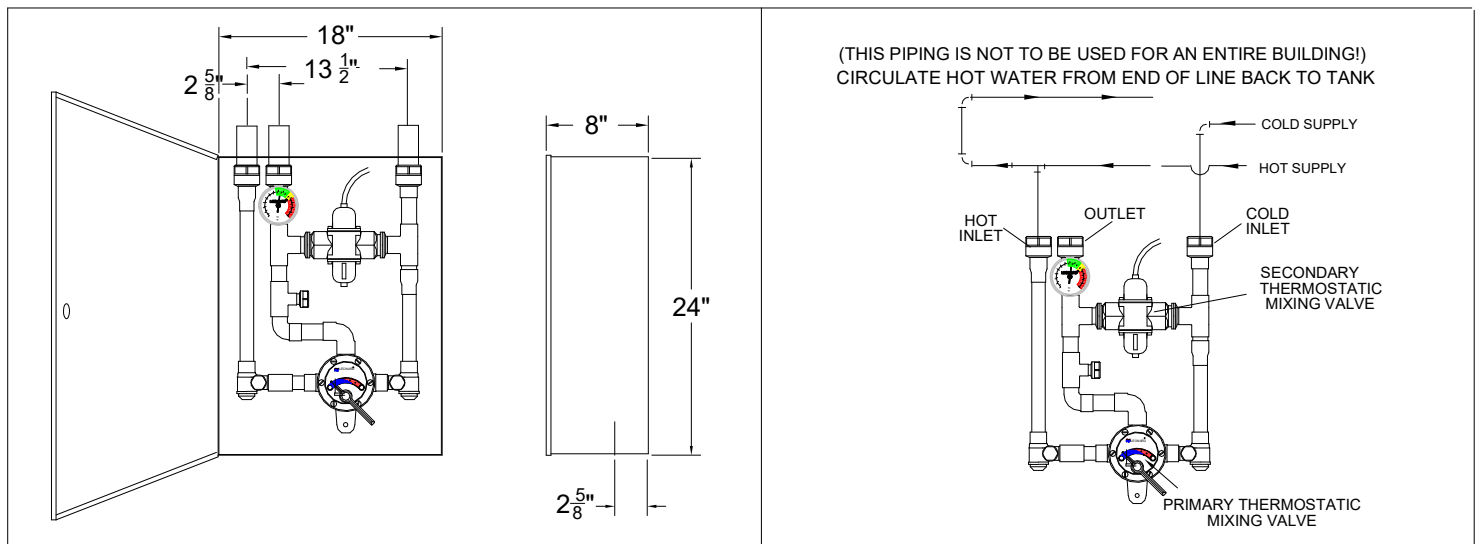
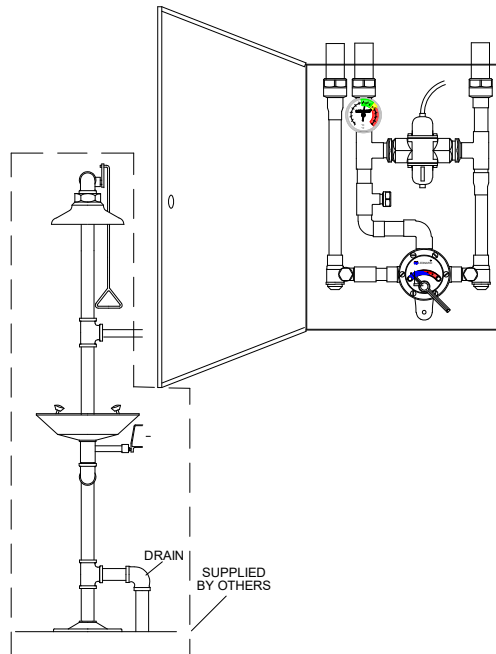
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# TM-850-LF CABINET OPTIONS



## OPTIONS:

- \_\_\_\_\_ SUFFIX BWE REC- Steel cabinet, baked white enamel recessed
- \_\_\_\_\_ SUFFIX STSTL REC- Stainless Steel recessed cabinet
- \_\_\_\_\_ SUFFIX BWE EXP- Exposed cabinet, baked white enamel
- \_\_\_\_\_ SUFFIX STSTL EXP- Exposed cabinet, Stainless steel
- \_\_\_\_\_ SUFFIX SEMI- Semi-recessed frame 4" deep
- \_\_\_\_\_ SUFFIX IT- Inlet thermometers
- \_\_\_\_\_ SUFFIX VIEW- View port in door



NOTE: Leonard Valve Company reserves the right of product or design modification without notice or obligation

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