#### INSTALLATION • OPERATION • MAINTENANCE MANUAL

# FREEZE-RESISTANT SHOWER AND EYEWASH UNITS MODELS: THROUGH - WALL

#### PRODUCT DESCRIPTION

Through-wall Freeze-Resistant Emergency Shower and Eyewash units designed to withstand subfreezing temperatures for brief periods.

# **GENERAL INFORMATION**

Following are requirements of ANSI Z358.1 for Emergency Eyewash and Shower Equipment. A complete copy of this standard may be purchased from the International Safety Equipment Association.

- Unit shall be installed in accordance with the manufacturer's instructions and acceptable plumbing practices.
- The height of the shower head shall be not less than 208.3 cm (82 inches) nor more than 243.8 cm (96 inches) from the surface on which the user stands.
- 3) The eye/facewash shall be positioned with the water nozzles between 83.8 cm (33 inches) and 114.3 cm (45 inches) from the floor and 15.3 cm (6 inches) minimum from the wall or nearest obstruction.
- 4) The unit shall be connected to a system capable of supplying adequate flushing fluid to meet the flow requirements of each component operating simultaneously. The supply line shall provide an uninterruptible supply of potable water at a recommended minimum 0.207 megapascal (30 pounds per square inch) of flow pressure.
- 5) Where the possibility of freezing conditions exists, equipment shall be protected from freezing or freeze-protected equipment shall be installed.
- 6) When a shower is installed, it shall be tested in accordance with the following procedures:
  - a) With the unit correctly connected to the water source and the valve(s) closed, visually check the piping connection for leaks.
  - b) Open the valve to the full open position. The valve shall remain open without requiring further use of the operator's hands
  - c) With the valve in the "full on" position, measure the diameter of the spray pattern. It shall be a minimum of 50.8 cm (20 inches) at 152.4 cm (60 inches) above the standing surface. The center of the spray shall be at least 40.6 cm (16 inches) from any obstructions.
- 7) When the eye/facewash is installed, it shall be tested in accordance with the following procedures:
  - a) With the unit correctly connected to the water source and the valve(s) closed, visually check the piping connection for leaks.
  - b) Open the valve to the full open position. The valve shall remain open without requiring further use of the operator's hands.
  - c) With the valve in the "full on" position, measure the flushing fluid flow pattern with the use of a test gauge to determine a suitable eyewash pattern as required by ANSI standards. Determine that both eyes can be irrigated simultaneously at a velocity low enough not to be injurious to the user.
  - NOTE: Test that all devices on combination units are capable of operating simultaneously to ANSI standard.
- 8) Shower units shall be in accessible locations that require no more than 10 seconds travel time from the farthest hazard.
- 9) Each unit location shall be identified with a highly visible sign. The area around the unit shall be well lit.
- 10) Plumbed units shall be inspected annually for proper operation to ensure compliance to ANSI Z358.1 standard.

#### **OPERATION & MAINTENANCE**

- 1. Plumbed units shall be activated weekly to flush lines and verify proper flow pattern and volume.
- 2. Test records should be maintained verifying compliance with testing procedures.
- 3. Some chemical vapors or liquids may damage or soften plastic materials. Precaution should be taken to determine compatibility prior to installation.

# **TRAINING**

All employees who might be exposed to hazardous material shall be instructed in the location and proper use of emergency shower and eye/facewash units. Experiences have shown that initial first-aid treatment for irritates should be to wash the eyes and face for 15 minutes prior to medical treatment. It is important to hold the eyelids open and roll the eyes so water will flow on all surfaces and in the folds surrounding the eyes.

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#### SPARE PARTS LIST

P/N 01052122 Eye/Facewash Dual Stream Head P/N 01052123 Eyewash Dual Stream Head P/N 01052020 Eye/Facewash Float Off Cover P/N 01052113 Eyewash Float Off Cover P/N 01052018 Push Plate P/N 01054003 30 GPM ABS Plastic Shower Head P/N 01055005 20 GPM ABS Plastic Shower Head

# ASSEMBLY AND INSTALLATION INSTRUCTIONS

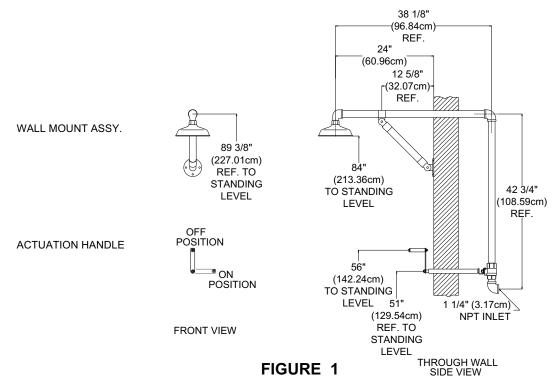
# Through-Wall Freeze-Resistant Shower

NOTES: 1. For shower and eye/facewash layout, see Figure 3 (page 4).

- 2. Mounting fasteners are not included.
- 1. Identify desired target area for shower. NOTE: Center of water column shall be 24 inches away from wall as noted in Figure 1.
- 2. Mark wall for hole locations centered above standing level.
  - A) Overhead shower piping 89-3/8 inches above standing level.
  - B) Shower actuator piping 51 inches above standing level.
- 3. Drill holes through wall of the following diameters:
  - A) Overhead shower piping 1-11/16 inches diameter.
  - B) Shower actuator piping 1-1/16 inches diameter.
- 4. Pass overhead piping through wall from the outside. Thread overhead piping to elbow of vertical piping/valve assembly using pipe wrench and pipe sealant.
- 5. With actuation handle and lock nut removed, pass valve extension through wall from the inside. Secure to ball valve with lock nut. **NOTE: DO NOT OVERTIGHTEN.**
- 6. Attach actuation handle to valve extension and secure with lock nut.
- 7. Secure wall mount assembly to exterior in 45° angle. Use masonry anchors and ¼" diameter screws and washers (supplied by others).
- 8. Connect shower head to 1 inch street elbow.

# NOTE: HAND TIGHTEN ONLY - DO NOT OVERTIGHTEN - DO NOT USE PIPE SEALANT.

- 9. Caulk wall holes with sealant.
- 10. Connect water supply pipe to 11/4" water inlet as shown in Figure 1.
- 11. Test shower unit for leaks and proper water flow pattern by activating valve turning handle in clockwise (L to R) rotation. (Recommended maximum dynamic water pressure 80 psi / minimum dynamic water pressure 30 psi).



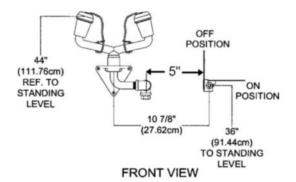
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# Through-Wall Freeze-Resistant Eye/Facewash

CAUTION: When using pipe wrench, do not overtighten.

NOTE: 1. Mounting fasteners are not included.

- 1. Identify desired target area for eye/facewash.
  - NOTE: If shower unit is to be installed also, eyewash piping should be vertically inline with shower piping. Location of eyewash head should be between 33 to 45 inches above standing level allowing adequate clearance to prevent shower actuator from becoming an obstruction.
- 2. Mark wall for hole locations 25 inches to 36 inches above standing level.
- 3. Drill a 1-inch hole through wall for vertical line supply pipe.
- 4. Drill a ¾-inch hole through wall on horizontal line 5 inches to the right from centerline of supply pipe hole for eyewash actuator arm.
- 5. With push plate removed from valve extension, pass valve extension through wall from inside.
- 6. Pass supply pipe through wall until bracket is flush to wall. Thread piping/valve assembly to eyewash supply pipe until tight ensuring valve assembly is positioned horizontally and inline with actuator arm hole. Use pipe wrench and appropriate pipe sealant.
- 7. Secure to ball valve with lock nut.
- 8. Re-attach push plate to valve extension with lock nut.
- 9. Secure wall bracket to wall. Use masonry anchors and ¼ inch diameter screws and washers (supplied by others).
- 10. Attach eye/facewash head assembly to the pipe, taking care not to cross thread. Hand tightened until snug. Once snug, rotate assembly back until eyewash heads are aligned with wall. CAUTION: Do not over tighten. Do not use pipe sealant or tape.
- 11. Caulk wall holes with sealant.
- 12. Connect water supply pipe to ½" inlet as shown in Figure 2.
- 13. Test eyewash unit for leaks and proper water flow pattern by activating valve to open position using push plate. (Recommended maximum dynamic water pressure 80 psi / minimum dynamic water pressure 30 psi)



NOTE: COMPONENTS ARE SHOWN IN VERTICAL ORIENTATION FOR CLARITY. ACTUAL ASSEMBLY/INSTALLATION TO BE HORIZONTAL, AS SHOWN IN FRONT VIEW HERE AND IN FIGURE 3 (PAGE 4).

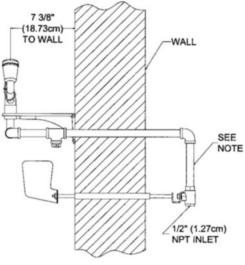


FIGURE 2

THROUGH WALL SIDE VIEW

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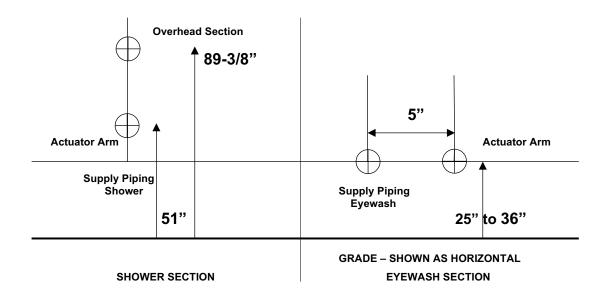


FIGURE 3

Sketch not to scale

#### **PROPOSITION 65**

WARNING: This product can expose you to BPA, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

#### WARRANTY STATEMENT

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Encon Safety Products warrants that for one year from the date of purchase of any Encon products, the product will be free of defects in materials and workmanship if properly used and cared for or cleaned under normal conditions in accordance with Encon's use and care instructions and properly installed, if applicable, in accordance with Encon's installation instructions. With respect to the product, Encon's only obligation and purchaser's exclusive remedy under this warranty is to repair or replace such product; provided that:

- 1. Encon is notified of the defect within one year of shipment, and
- 2. the product is determined by Encon to be defective.

Encon requires proof of original ownership as proof of warranty coverage, and Encon must receive any claim under this Limited Warranty within one year of purchase of the product.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, ENCON SHALL NOT BE LIABLE FOR LOSS, DAMAGE, OR EXPENSE ARISING DIRECTLY OR INDIRECTLY AS A CONSEQUENCE OF USE OF THE EQUIPMENT WITH OTHER PRODUCTS OR FROM ANY OTHER CAUSE, INCLUDING ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR EXEMPLARY DAMAGES, EXCEPT FOR ENCON'S OBLIGATION TO REPAIR OR REPLACE DEFECTIVE PRODUCTS AS EXPRESSLY PROVIDED IN THIS STATEMENT.

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Encon's total liability arising out of this warranty (including, but not limited to, warranty claims) regardless of forum and regardless of whether such action or claim is based on tort, contract or otherwise will not exceed the total purchase price of the product.





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