

### FREEZE-RESISTANT EMERGENCY SHOWERS MODELS: SUBSURFACE

# PRODUCT DESCRIPTION

Subsurface Freeze-Resistant Emergency Shower/Eyewash units designed for below freeze line inlet water connection.

# **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.

- 1. 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 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

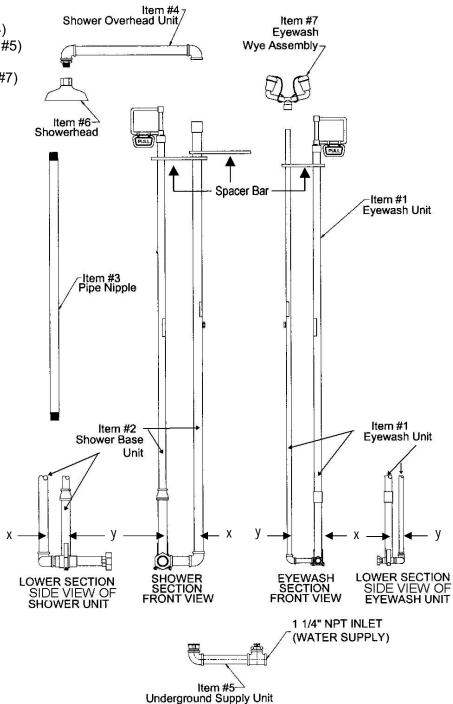
All employees who might be exposed to hazardous material shall be instructed in the location and proper use of emergency shower and eye/facewash units. Experiences have shown that initial first-aid treatment for irritants should be to wash the eyes and face for 15 minutes prior to medical treatment. 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.

### SPARE PARTS LIST

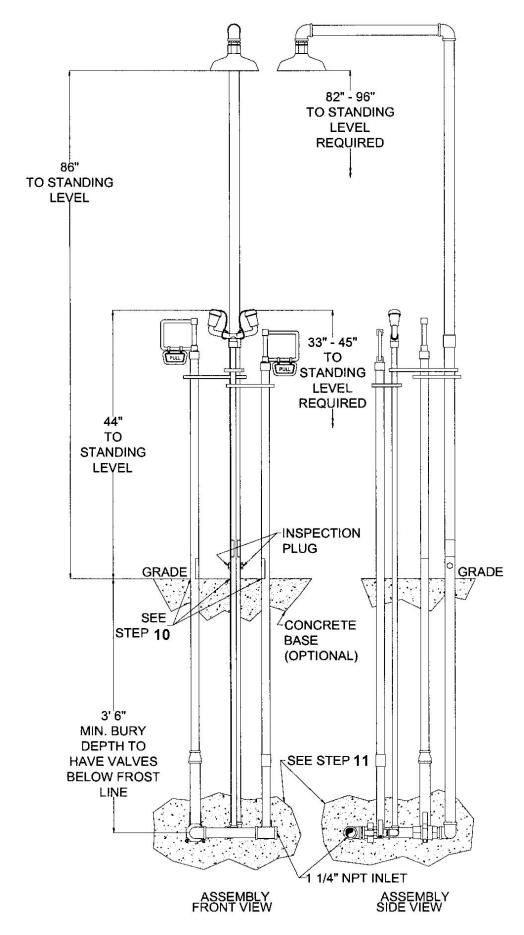
P/N 01052122	ABS Eye/Facewash Dual Stream Head Assy.	P/N 01052133	ABS Eye/Facewash with BCP Wye Assy.
P/N 01052123	ABS Eyewash Dual Stream Head Assy.	P/N 01052040	Replacement ABS Eye/Facewash Head
P/N 01052020	Eye/Facewash Float Off Cover	P/N 01055007	30 GPM Stainless Steel Shower Head
P/N 01052113	Eyewash Float Off Cover	P/N 01054003	30 GPM ABS Plastic Shower Head

#### **COMPONENT LIST**

Eyewash Unit (Item #1) Shower Base Unit (Item #2) Pipe Nipple (Item #3) Shower Overhead Unit (Item #4) Underground Supply Unit (Item #5) Shower Head (Item #6) Eyewash Wye Assembly (Item #7)



#### **FIGURE 1**



# FIGURE 2

# ASSEMBLY AND INSTALLATION INSTRUCTIONS

#### NOTE: Felt (by others) is required to complete the installation of the subsurface freeze-resistant shower unit.

- 1. Determine installation location for Subsurface Freeze-Resistant Combination Shower/Eyewash.
- 2. The standard shower/eyewash unit requires the valves to have a minimum bury depth of 42". Excavate the ground to a depth of approximately 46" or well below 'freeze line'.
- 3. Before assembly, see components view Figure 1 (page 2) as reference. Assemble the shower unit by attaching the pipe nipple (Item #3) to the coupling of the shower assembly (Item #2). Use pipe wrench and appropriate pipe sealant on all connections.
- 4. Attach the shower overhead unit (Item #4) to the pipe nipple assembled in Step 3. Ensure that the overhead unit is installed facing toward the front of the shower unit and is parallel to the valve in the lower part of the unit. Refer to Figure 2 (page 3) for recommended finished installation views.
- 5. Attach the shower head (Item #6) to the shower overhead unit. TIGHTEN HAND TIGHT ONLY. NOTE: DO NOT OVERTIGHTEN. DO NOT USE PIPE SEALANT OR TAPE.
- 6. Assemble the two units together by attaching the underground supply unit (Item #5) to both the shower unit and the eyewash unit. Attach the  $1\frac{1}{4}$ " union for the shower unit and the  $\frac{1}{2}$ " union for the eyewash unit. The supply to item #5 is  $1\frac{1}{4}$ " NPT.
- 7. Locate the spacer bar that is attached to the supply pipe of the shower. Insert the spacer bar into the clamp that is located on the supply pipe of the eyewash. Level the spacer bar and tighten all set screws on the spacer bar to correctly position the eyewash section to the shower section.
- 8. Assemble the eyewash unit by attaching the eyewash wye assembly (Item #7) to the eyewash unit (Item #1). Hand tightened until snug. Once snug, rotate assembly back until eyewash heads are aligned with push plate (when in off position).
- CAUTION: DO NOT OVER TIGHTEN. DO NOT USE PIPE SEALANT OR TAPE. 9. Lower assembled shower/eyewash unit into the excavated hole so that the bottom of the unit (valves) is located
- approximately 42" below the surface. Attach the supply line to the shower/eyewash unit.
  Refer to Figure 2 (page 3) for recommended finished installation views. Measure the eyewash (from top of eyewash wye assembly to the finished ground level) and the shower head (from the bottom of the shower head to the finished ground level) to ensure the installation meets the requirements.
- 11. Test shower unit for proper water flow pattern by activating valves to open position using push plates, simultaneously. (Recommended maximum dynamic water pressure 80 psi / minimum dynamic water pressure 30 psi)
- 12. Inspection plug (see Figure 2) may be removed to ascertain proper function of the automatic drain. Wait a short period after activating the shower and eyewash, remove the inspection plug and visually inspect the piping. The pipe should be clear of water. If not, reinstall the inspection plug and repeat this procedure. Allow enough time for the drains to empty the shower pipe, then re-inspect.
- 13. Wrap pipes with 2 layers of 15 lb. felt (by others) at the base where pipes enter the ground.
- 14. Fill hole with a minimum of 4 cubic feet of course gravel (permeable soil only).
- 15. If desired, concrete base of shower unit and finish to complete the installation. Let concrete set.
  - NOTE: You may concrete the base around the shower for support and access, however, in the event of a leak in the assembly, it will be necessary to dig up this assembly for repair. The depth of the freeze line should be considered when installing this unit. A concrete base is NOT required.

## **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 <u>www.P65Warnings.ca.gov</u>.

#### 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.

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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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6825 W. Sam Houston Pkwy. N Houston, TX 77041 1-800-AT-ENCON / 1-800-283-6266 customerservice@enconsafety.com http://www.enconsafety.com