

# PEDESTAL MOUNTED EMERGENCY EYE & EYE/FACE WASH

## Installation, Operating & Maintenance Instructions

EEE180

EEE210

EFE360

EFE390



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ENBE180

ENBE210

ENBE360

ENBE390



# product descriptions



**EEE180**  
FREE STANDING EYE WASH  
HAND OPERATED STAINLESS STEEL



**EEE210**  
FREE STANDING EYE WASH  
HAND/FOOT OPERATED  
STAINLESS STEEL



**EFE360**  
FREE STANDING EYE FACE WASH  
HAND OPERATED STAINLESS STEEL



**EFE390**  
FREE STANDING EYE FACE WASH  
HAND/FOOT OPERATED  
STAINLESS STEEL



**ENBE180**  
PEDESTAL MOUNTED HAND OPERATED  
EYE WASH - NO BOWL



**ENBE210**  
PEDESTAL MOUNTED HAND/FOOT  
OPERATED EYE WASH - NO BOWL



**ENBE360**  
PEDESTAL MOUNTED EMERGENCY HAND  
OPERATED EYE/FACE WASH - NO BOWL



**ENBE390**  
PEDESTAL MOUNTED EMERGENCY  
HAND/FOOT OPERATED EYE/FACE WASH  
NO BOWL

## technical information

Inlet Connection	15mm (½") BSP	
Water Supply Line Size	Supply piping shall be adequately sized to meet flow requirements	
Minimum Requirements to achieve ANSI Z358.1-2009 and AS/NZS 4775 2007 compliance	Min Working Pressure: 210 kPa (30 psi) Caution should be taken when pressure exceeds 550 kPa (80 psi)	
	Eye Wash Minimum Flow	1.5 lpm (0.4 US gpm)
	Eye/Face Wash Minimum Flow	11.4 lpm (3 US gpm)
Enware Performance	Minimum Working Pressure: 210 kPa (30 psi)	
	Eye Wash Minimum Flow	17 lpm (4.5 US gpm)
	Eye/Face Wash Minimum Flow	26 lpm (6.9 US gpm)
Waste Water Outlet Size	38.1 mm (1½") OD	
Mounting Base Plate Size	150 x 150 mm (5 9/10 " x 5 9/10") with 4 bolts 11 mm (7/16")	
Shipping	Approximate Weight: 7 - 8 kilograms	
	Dimensions: 1150 x 287.5 x 200 mm	

# installation compliance

Installation of emergency showers, eye and eye/face wash equipment shall be in accordance with AS/NZS4775-2007 or ANSI Standard Z358.1-2009 - whichever is applicable to the installation. REFER to checksheet on pages 9 and 10.

## Supply Lines

Installation procedures shall be in accordance with proper plumbing practices. Supply piping shall be adequately sized to meet flow requirements. If shut off valves are installed for maintenance purposes, provisions shall be made to prevent unauthorised shut off.

## Placement of Emergency Equipment

Emergency eyewash and shower equipment shall be available for immediate use. It shall take no longer than 10 seconds for an individual to reach the nearest facility. Factors that influence the location of emergency facilities include workplace lighting, obstructions to the path of travel and the work environment. It should be noted that some situations may warrant the placement of equipment significantly closer to the hazard. In these situations, such as exposure to highly corrosive chemicals, the proper distances should be selected based on the advice from appropriate consultants. For situations such as exposure to strong acids or alkalis, due consideration needs to be given to possible reaction between the flushing fluid and the chemical if the flushing fluid enters a bulk container of the chemical.

## Flushing Fluid Temperature

Continuous and timely irrigation of affected tissues for the recommended irrigation period are the principal factors in providing first aid treatment. Providing flushing fluid at temperatures conducive to use for the recommended irrigation period is considered an integral part of providing suitable facilities. Medical recommendations suggest a flushing fluid at tepid temperature be delivered to affected chemically-injured tissue. Temperatures in excess of 38°C have proven to be harmful to the eyes and can enhance chemical interaction with the eyes and skin. During design and installation, the effects of exposure of pipe to sun, radiant heat or other heat sources should be considered, and suitable control measures should be introduced to avoid any risk of scalding. While cold flushing fluid temperature provide immediate cooling after chemical contact, prolonged exposure to cold fluids affects the ability to maintain adequate body temperature and can result in the premature cessation of first aid treatment. Before emergency eyewash and shower equipment is selected, a risk assessment shall be carried out to determine the most appropriate delivery temperature for the application. Means to ensure a constantly suitable delivery temperature shall also be identified during selection, so that equipment can perform as desired once installed.



**Australian  
Standard**

ANSI Z358.1:2014  
Lic. SMKPK20545  
SAI Global



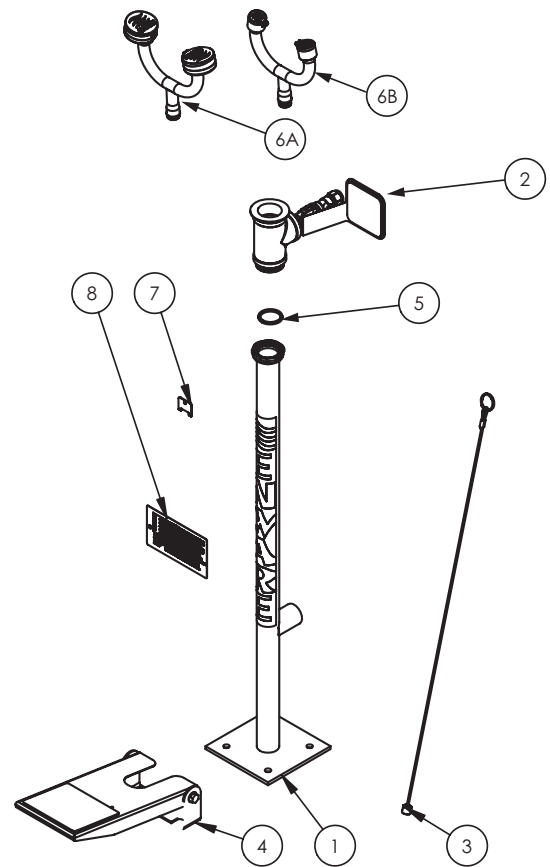
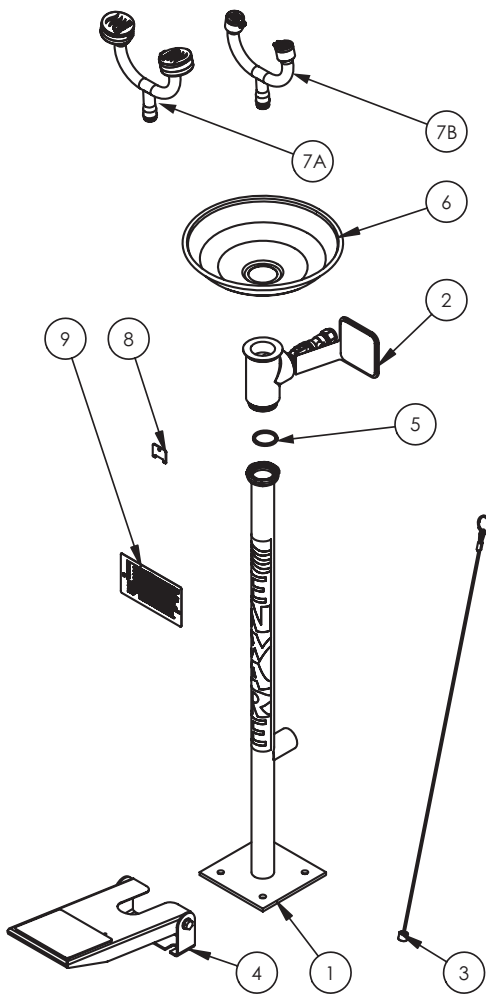
**Australian  
Standard**

AS4775-2007  
Lic. SMKPK21998  
SAI Global

# components

EEE210 EEE180 EFE390 EFE360

ENBE180 ENBE390



#	Description
1	EEE Base Frame Assembly Base
2	Eyewash Inlet & Waste
3	Assembly Cable*
4	Foot Pedal*
5	Washer
6	Bowl - new style
7A	Eyewash Outlet
7B	Eye/Face Wash Outlet
8	Anti-vandal Aerator Key
9	Inspection tag

\* EEE210 and EFE390 only

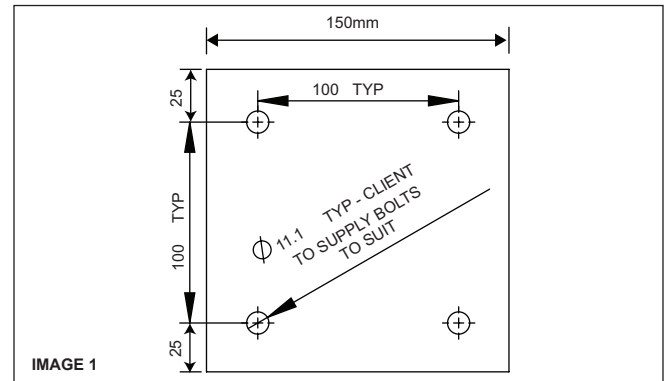
#	Description
1	EEE Base Frame Assembly
2	Eyewash Inlet & Waste
3	Assembly Cable *
4	Foot Pedal *
5	Washer
6A	Eye Face Wash Outlet
6B	Eye Wash Outlet
7	Anti-vandal Aerator Key
8	Inspection tag

\* ENBE390 only

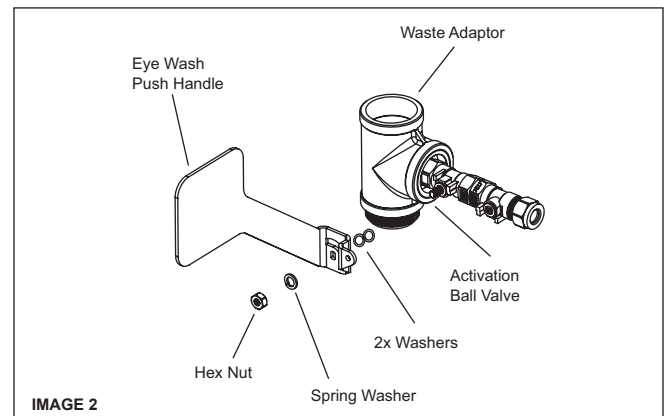
# installation procedure

1. Place the unit so there is enough space for any additional plumbing fixtures being used (drain, taps, strainers, shut-off valves. Bolt base of Lower Shower Assembly to a level floor using 4 corrosion resistant anchors (refer to AS/NZS 2982.1, ANSI Z358.1-2009 and AS/NZS4775-2007).

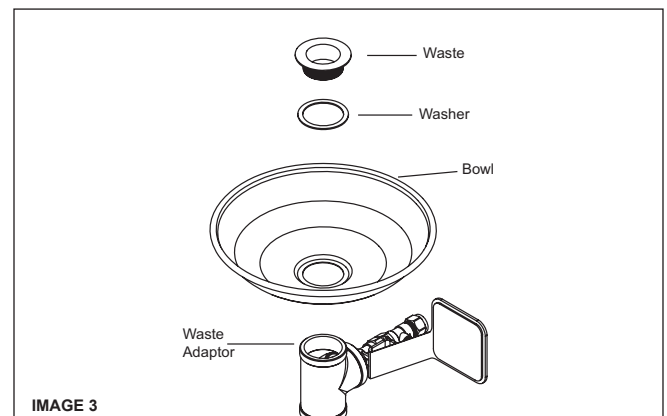
Base Plate is 150mm<sup>2</sup> with mounting holes at 100mm centres. SEE IMAGE 1.



2. Attach the Eye (Eye/Face) wash push handle to the Activation Ball Valve using the spring washer and hexagonal nut already on the ball valve. SEE IMAGE 2



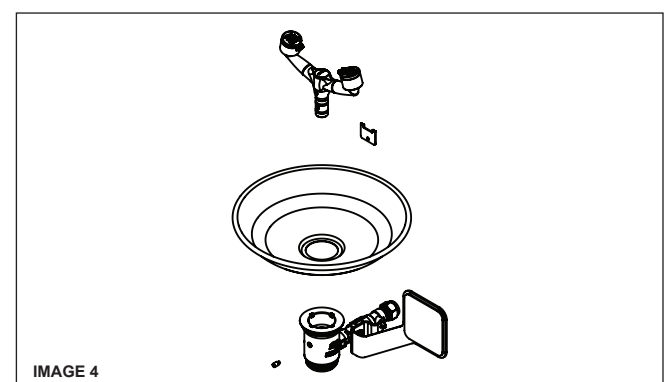
3. If a bowl is to be included with the Eye (Eye/Face) wash, place the Bowl on top of the Waste Adaptor. Using the Washer and the Waste – screw in to the Waste Adaptor to secure the bowl. Turn as tight as you can with fingers, then turn Waste and Bowl together using the outside edge of the bowl for extra leverage. SEE IMAGE 3



4. Remove the grub screw from the front of the waste adaptor.

Push the eye (eye/face) wash assembly into the centre of the waste adaptor making sure the directional arrow is facing the front.

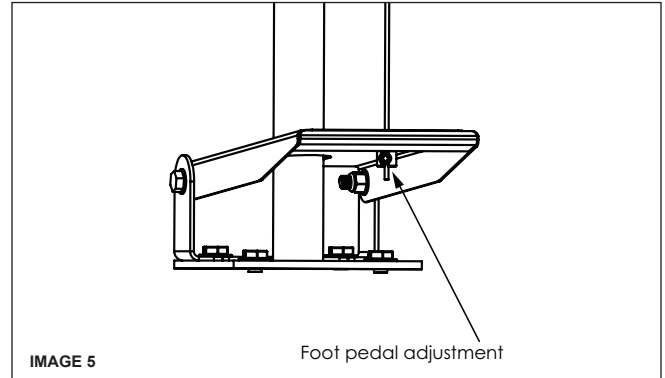
Re-fit the grub screw and tighten until it locates within the eye wash frame. SEE IMAGE 4



5. Connect the ½" water supply line to the ½" nipple located on the eye wash inlet. Use thread tape or Loctite 577 on all threads.
6. Connect the drain line (if applicable) for the Eye (Eye/Face) Wash Sink using the 1½" OD outlet located on the Base Frame Assembly. There should be sufficient clearance for the addition of a drain trap if required.

- (For Foot-Operated Models Only) Back off the two rear shower mounting bolts. Slide the bracket under the washers of the shower mounting bolts and retighten. Reattach foot pedal plate to bracket using bolts supplied. Do not over tighten. SEE IMAGE 5

Attach cable to push handle and set the cable length. To do this, turn the push handle to the full on position and lower the foot pedal to approximately 3mm from the ground. Loosen the locking nut using the 4mm Allen key, pull excess cable through and re-tighten nut. Return push handle to the off position. SEE IMAGE 6



- Before turning on the water supply to the unit make sure both the shower and Eye (Eye/Face) wash valves are closed.

Push up the shower pull rod so the valve arm is pointing back up and pull forward the Eye (Eye/Face) wash "PUSH" handle back up to ensure the valves are in the closed position.

- Turn water supply on. Check for leaks before proceeding.
- Slowly push the Eye (Eye/Face) wash valve handle forward to start the water flow.

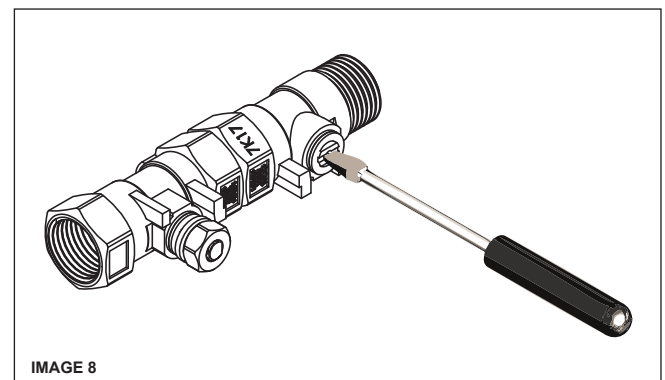
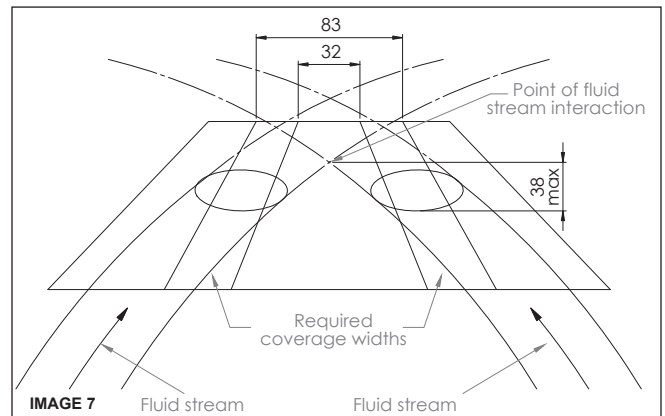
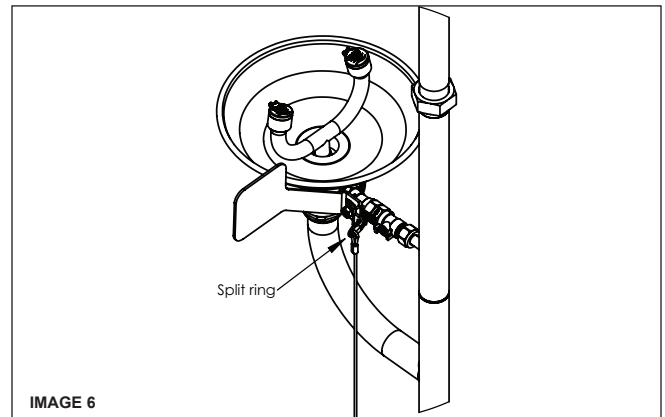
Flush until the water runs clean then pull back on the push handle to stop flow. Replace aerator assemblies.

Remove internal strainer by unscrewing the strainer cap with a flat head screw driver. Clean strainer and re fit.

- With the aerators reinstalled, use a flat screwdriver to turn off the Ball Valve before Eye (Eye/Face) Wash Activation Ball Valve. Turn the push handle to the full open position and adjust the second ball valve with screwdriver until the correct flow is achieved. SEE IMAGE 7 and 8.
- To activate the shower, pull down on the triangular pull rod. A large amount of water will flow from the showerhead on to the floor. The spray pattern should be 508mm in diameter at a height of 1524mm from the floor. The shower should also deliver at a minimum flow rate of 75.7 lpm.
- Once correct operation has been checked, turn off the valves by positioning the handles to the fully off position.

**Note: Water will drain through the 2mm hole near the shower head/ball valve connection. This is a self-draining feature designed to drain water remaining in shower head to reduce Legionella risk.**

Place dust covers over Eye (Eye/Face) wash outlets. Mount appropriate Shower and Eye (Eye/Face) wash signage as required - refer to Enware's Product guide or call Enware Customer Service on 1300 369 279.



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## operating and training instructions

Instructions for all emergency equipment shall be readily accessible to maintenance and training personnel. Employees who may be exposed to hazardous materials shall be instructed in the location and proper use of emergency shower equipment. Refer to AS/NZS 4775 or ANSI Z358.1 where applicable.

### EYE, EYE/FACE WASH OPERATION

The Eye, Eye/Face wash is activated by pushing forward (away from the user) the flat push handle. This opens the ½" ball valve allowing water to flow to the Eye, Eye/Face wash outlets. To close the valve and stop flow gently pull the "PUSH" handle back (towards the user).

### FOOT PEDAL OPERATION

(EEE210, EFE390, ENBE390, ENBE210)

The Eye, Eye/Face wash can be activated by pushing down the foot pedal where marked. This opens the ½" ball valve allowing water to flow to the Eye, Eye/Face wash outlets. To close the valve and stop flow gently pull the "PUSH" handle back (towards the user). Releasing the foot pedal will not stop the flow.



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## maintenance

The unit should be activated every week for a period long enough to verify operation and ensure the flushing fluid is available. Note: the intent is to ensure that there is a flushing fluid supply at the head of the device and to clear the supply line of any sediment buildup that could prevent fluid from being delivered to the head of the device and to minimise microbial contamination due to sitting water.

All eye, eye/face washes shall be inspected annually by a qualified technician to assure conformance with ANSI Z358.1-2009 or AS/NZS 4775- 2007 whichever is applicable to the installation.



# AS4775 – 2007 Safety Equipment Minimum Performance Checklist

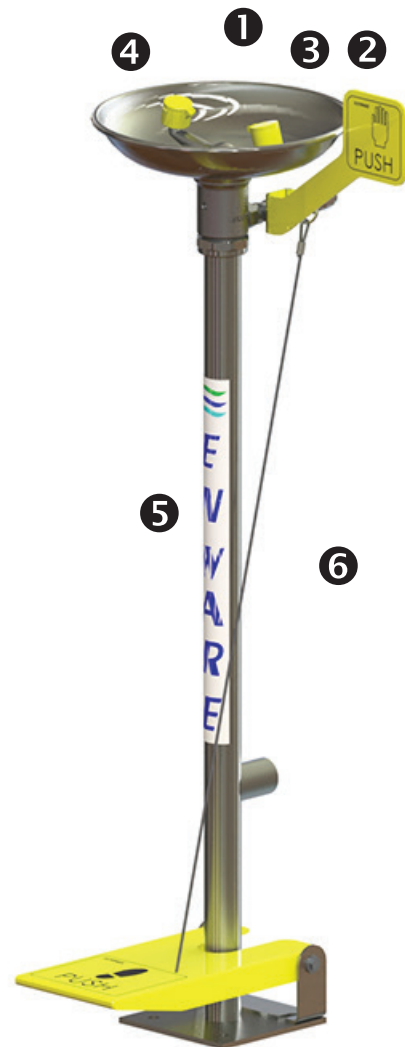
- Installation shall be in accordance with proper plumbing practices. Supply piping shall be adequately sized to meet flow requirements. (Sec D1)
- All plumbed emergency equipment shall be connected to a continuous source of flushing fluid supply which may be drinking water, preserved water, preserved buffered saline solution or other medically acceptable solution manufactured acceptable solution manufactured and labelled in accordance with applicable government regulations. (Sec 4.4, 4.10, 6.7 (c), 7.5 (b), 8.5 (b), 9.5 (b), 11.3.3 (c))
- All equipment shall be constructed of corrosion-resistant materials (Sec 4.2, 5.1) Note: The Plumbing Code of Australia does not allow the use of galvanised pipes or fittings on drinking water supply lines. AS/NZS3500.1 Sec 2.4.2(c)
- Safety equipment shall be accessible within 10 seconds of hazard. (Sec 6.6, 7.4, 8.4, 9.4)
- Safety equipment shall be located on the same level as the hazard and the path of travel shall be free of obstructions. (Sec 6.6, 7.4, 8.4, 9.4)
- Emergency equipment location shall be well illuminated and be identified by a highly visible sign complying with AS1319 visible throughout the area served by the equipment. (Sec 6.6, 7.4, 8.4, 9.4)
- Employees who may be exposed to hazardous materials shall be trained in the location and proper use of emergency equipment. (6.8, 7.6, 8.6, 9.6)
- Emergency equipment shall be activated weekly to verify operation (6.8, 7.6, 8.6, 9.6)
- Emergency equipment shall be inspected annually to ensure conformance with the requirements of AS4775. (Sec 6.8, 7.6, 8.6, 9.6)
- Drench hoses are considered supplemental equipment to provide immediate flushing to support plumbed and self-contained equipment but shall not replace them. (Sec 11.1)
- Drench hoses shall be simple to operate and shall go from closed to fully open in one second or less. The valve shall be corrosion resistant. (Sec 11.3.2)
- Eye wash equipment shall deliver flushing fluid to both eyes simultaneously at a flow rate not less than 1.5 l/min at 210kPa. The flushing fluid streams should rise to approximately equal heights and should cover the areas between the interior and exterior lines of the test gauge when lowered not more than 38mm below the fluids peak. (Sec 7.1, 9.1 (c), 7.3.1) ①
- Eye / face wash equipment shall deliver flushing fluid to the eyes simultaneously at a flow rate not less than 11.4 l/min at 210kPa. The flushing fluid streams should rise to approximately equal heights and should cover the areas between the interior and exterior lines of the test gauge when lowered not more than 38mm below the fluids peak. (Sec 8.1, 8.3, 9.1 (d)) ②
- The flushing fluid nozzles of eye and eye/face wash units shall be not less than 838mm and no greater than 1143mm from the surface on which the user stands and 153mm from the wall or nearest obstruction. (Sec7.4, 8.4, 9.1 (c), 9.1 (d)) ③
- The eye and eye/face wash operating control valve shall remain open without the use of the operator's hands. The valve shall be simple to operate and go from closed to fully open in one second or less. The valve shall be corrosion resistant. (Sec 7.2, 8.2, 9.1 (c), 9.1 (d)) ④



# ANSI Z358.1-2009 Safety Equipment Minimum Performance Checklist

## RECOMMENDED TESTING FLOW PRESSURE IS 30 psi (+.5 psi -.0 psi)

- Safety equipment shall be accessible within 10 seconds of hazard. (Sec 4.5.2, 5.4.2, 6.4.2, 7.4.2)
- Safety equipment shall be located on the same level as the hazard and the path of travel shall be free of obstructions. (Sec 4.5.2, 5.4.2, 6.4.2, 7.4.2)
- All employees subject to exposure to hazardous material should be instructed in the location and proper use of emergency equipment. (Sec 4.6.4, 5.5.4, 6.5.4, 7.5.4)
- Emergency equipment shall be activated weekly. (Sec. 4.6.2, 5.5.2, 6.5.2, 7.5.2) All shower units shall be inspected annually to assure conformance with ANSI Z358.1. (Sec. 4.6.5, 5.5.5, 6.5.5, 7.5.5)
- Combination unit components shall be capable of operating simultaneously and shall be positioned so that components may be used simultaneously by the same user. (Sec. 7.3, 7.4.4)
- All plumbed emergency equipment shall be connected to a continuous source of flushing fluid supply which may be drinking water, preserved water, preserved buffered saline solution or other medically acceptable solution manufactured acceptable solution manufactured and labelled in accordance with applicable government regulations. (Sec 4.4, 4.10, 6.7 (c)), 7.5 (b), 8.5 (b), 9.5 (b), 11.3.3 (c))
- Drench hose must deliver a controlled flow of flushing fluid at a velocity low enough to be non-injurious. (Sec. 8.2.1)
- A drench hose can only be considered an eyewash – eye/face wash if it meets performance requirements in Sec. 5 and/or 6.
- Delivery of tepid flushing fluid.\* (Sec. 4.5.6, 5.4.6, 6.4.6, 7.4.5). \*Suggested temperature range – above 60°F (16°C) and below 100°F (38°C)
- Valve shall be designed so that the flushing flow remains on without the use of the operator’s hands. The valve shall be simple to operate and go from “off” to “on” in one second or less and actuator can not be more than 69 inches (173.3cm) from surface floor of user. (Sec. 4.2.7.1)
- Emergency equipment location shall be well lit and identified with a highly visible sign. (Sec. 4.5.3, 5.4.3, 6.4.3, 7.4.3)
- Must provide a means of controlled flow to both eyes simultaneously at a velocity low enough to be non-injurious. (Sec. 5.1.1, 6.1.1, 7.1) ①
- Eye/face wash equipment must deliver minimum of 3 gallons (11.4L) per minute of water for 15 minutes. (Sec. 6.1.6, 7.1) Eyewash only must deliver minimum of 0.4 gallon (1.5L) per minute for 15 minutes. (Sec. 5.1.6, 7.1) ②
- The flushing fluid of an eyewash – eye/face wash shall cover the areas between the interior and exterior lines of a gauge at some point less than 8 inches (20.3cm) above the eyewash nozzle. (Sec. 5.1.8, 6.1.8, 7.1) ③
- Outlets shall be protected from airborne contaminants. (Sec. 5.1.3, 6.1.3, 7.1) ④
- Flushing fluid nozzles should be 33 to 45 inches (83.8cm – 114.3cm) from floor and minimum of 6 inches (15.3cm) from wall. (Sec. 5.4.4, 6.4.4, 7.1) ⑤
- Valve shall be designed so that the flushing flow remains on without the use of the operator’s hands. The valve shall be simple to operate and go from “off” to “on” in one second or less. (Sec. 5.2, 6.2, 7.2) ⑥







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