

Safety Showers & Eyewash Units

Pratt safety showers and eye/face wash units fully comply with Australian Standard AS4775-2007 and ANSI standard Z358.1-2004. A number of Australian and joint Australian/New Zealand standards require the use of safety showers and eyewash units which comply with these eyewash and shower performance standards, including the following.

AS1940-2004 for flammable liquids
AS3780- 2008for corrosive substances
AS/NZS4452-1997 for toxic substances
AS/NZS2982-1997 for laboratory construction

The following provides an overview of the requirements of AS4552-2007 and ANSI Z358.1-2004:

- The shower head must deliver a minimum of 75.7Lpm (20 US gal/min) at low velocity, and in a pattern 50.8cm (20in) in diameter at a height of 152.4cm (60in) from the floor. The water must be substantially dispersed throughout the pattern
- Units should be in accessible locations, which require no more than 10 seconds to reach. They must be on the same level as the hazard, and the path of travel must be free of obstructions. For strong acids or caustics, an eyewash or eye/face wash should be immediately adjacent to the hazard.
- Each emergency unit must be in a well-lit area and identified with a highly visible sign.
- For chemical contamination, the affected area should be drenched for at least 15 minutes. A doctor or nurse should be notified immediately.
- The supply line for showers, eyewash and eye/face wash units must provide an uninterrupted supply of flushing fluid, at a velocity low enough to be non-injurious to the user.
- Flushing fluid may be potable (drinkable) water, preserved water, preserved buffered saline solution or other medically acceptable solution.
- Activation valves must remain open without the use of the operator's hands, must be simple to use, and must go from "off" to "on" in 1 second or less.
- Eyewash and eye/face wash nozzles must be protected from airborne contaminants, whose removal must not require a separate action by the user.
- Eyewash and eye/face wash units must provide enough room to allow the eyelids to be held open with the hands while the eyes are in the flushing fluid stream.
- Eyewash units must deliver at least 1.5Lpm (0.4 US gal/min), to both eyes simultaneously for at least 15 minutes.
- Eye/face wash units must deliver a minimum of 11.4Lpm (3.0 US gal/min) to both eyes and the face simultaneously, for at least 15 minutes.
- Delivered water temperature must be moderately warm. Temperature in excess of 38C (100F) is harmful to the eyes and can accelerate chemical reactions.
- Prolonged contact with cold water may also be harmful and discourage use of the equipment.

- Where the possibility of freezing conditions exists, equipment must be protected from freezing.
- All employees who may be exposed to hazardous materials must be instructed in the location and proper use of emergency units.

Units must be activated weekly to verify proper operation, maintained in accordance with manufacturer's instructions, and inspected at least annually to assure conformance with standards.