



What is the ANSI Z358.1-2014 Eyewash Standard?

The Occupational Safety and Health Administration standard 29 CFR 1910.151 states: “Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.” Because the terminology “suitable facilities” is quite vague, the ANSI Z358.1 standard was adopted in an effort to clearly define “suitable facilities.” The ANSI Z358.1 standard was initially adopted in 1981 and has undergone numerous revisions, with ANSI Z358.1-2014 being the most recent.

Types of Eyewashes

There are two types of eyewashes that are deemed acceptable by the ANSI Z358.1 standard: plumbed eyewashes and self-contained, gravity-fed portable eyewashes. Plumbed eyewash stations are connected to a potable water source while portable eyewash stations have their own flushing fluid. The fluid used by a portable eyewash station can consist of potable water treated with a bacteriostatic solution or a cartridge with sterile saline solution (It is recommended that portable eyewash stations use a buffered, sterile saline solution due to its similarity to human tears and the physiological pH of the eye). Regardless of the type of eyewash station used, the compliance requirements are the same.

Compliance Requirements

A quick overview of the compliance requirements are listed below (they are the same for both plumbed and portable eyewash stations).

- The flowrate of the water/solution must be 0.4 gallons per minute for 15 minutes.
- The pressure of the flow of the water/solution must be 30 pounds per square inch.
- The actuator valve must be hands-free and must remain open until manually closed.
- The peak of the water flow pattern must be 33 to 53 inches from the surface on which the user stands and must be a minimum of 6 inches from the wall or nearest obstruction.
- The eyewash fluid must flush both eyes simultaneously.
- The eyewash fluid must be tepid. This is defined by ANSI as 60 – 100 degrees Fahrenheit.
- Eyewash stations should be within 10 seconds of the hazard. This is defined by ANSI to be approximately 55 feet.
- The eyewash stations should be activated weekly to verify operation and ensure that flushing fluid is available.



Self-Contained, Portable Eyewash Station



Plumbed Eyewash Station