

# Safety Showers for Use in Areas with Hazardous Chemicals

Showers should be in compliance with the requirements of ANSI Z358.1-2004.

- Water from a plumbed emergency shower should be certain to come out at a comfortable temperature. The ANSI standard says flushing fluid temperature should be tepid or lukewarm (i.e., between 15° and 38°C or 60° and 100°F). Temperatures outside this range are likely to discourage use of the equipment. For showers, there is the additional concern that shock may occur.
- Showers should be as close as possible to the hazard and on the same level. They should be located in an area that requires no more than 10 seconds to reach. For highly corrosive chemicals, such as strong acids ( $\text{pH} \leq 1$ ) or bases ( $\text{pH} \geq 12$ ), the eyewash unit should be immediately adjacent to the hazard.
- Shower should be placed in a well-lit area and identified with a sign.
- Plumbed showers should be checked and flushed weekly to ensure proper operation. An inspection card on the shower can be helpful for keeping track of weekly checks.
- Head
  - Should be positioned 82" to 96" from floor.
  - The spray pattern should have a minimum diameter of 20" at 60" above the floor.
  - The flow rate should be 20 gallons per minute at 30 psi.
  - The center of the spray pattern should be located at least 16 inches from any obstruction.
- Valve
  - Should activate quickly.
  - Should stay open without use of hands and should stay open until the user shuts it off.
- All employees who might be exposed to a chemical splash should be trained on how to use the equipment.
- All showers should be inspected annually to make sure they comply with the ANSI requirements.

Refer to the complete text of ANSI Z358.1-2004 if more information is needed for a particular situation.

References:     ANSI Z358.1-2004  
                     Minnesota OSHA Publication: "Emergency Eyewash and Showers".  
                     [www.doli.state.mn.us/pdf/eyewash.pdf](http://www.doli.state.mn.us/pdf/eyewash.pdf)