COORDINATING ADA GUIDELINES 
and THE ANSI Z358.1 STANDARD
Proximity to volatile and hazardous chemicals can create dangerous environments. That consideration, together with the necessity of OSHA compliance to ensure safe working conditions, makes appropriate emergency response equipment essential. But the mere presence of this equipment isn’t enough – it must also be instantly accessible and easy to use to be of any value in the event of an accident. And that accessibility and simplicity must extend to all workplace employees, including the disabled.

Ensuring that emergency safety equipment complies not only with the ANSI Z358.1 standard, but also with the accessible buildings provisions of the Americans with Disabilities Act (ADA) requires a different approach to site selection and installation. There are no conflicts between the ADA code and the ANSI standard, so complete compliance is easily attainable.

ANSI Z358.1 includes provisions requiring, among other things, clear access and well-lighted emergency response areas that can be reached in no more than ten seconds of transit time by an injured worker. That requirement affects the number, location, and installation of a variety of different emergency response products. The same application will require further consideration to fully comply with both the ANSI standard and ADA guidelines, which leave ample room for interpretation.

But one thing is clear – Section 4.1.3 of the ADA Accessibility Guidelines states, “Where there are individual work stations (e.g., laboratories, service counters, ticket booths), 5%, but not less than one, of each type of work station should be constructed so that an individual with disabilities can maneuver within the work stations.” Consider suitable product designs for laboratory settings to meet this guideline. These include swing-down, sink-mounted eyewashes; wall-mounted, recessed eye/face washes and drench showers; and floor-mounted combination shower and eye/face washes.

**SWING-DOWN, SINK-MOUNTED EYE AND EYE/FACE WASHES**

Available for years, this category of products provides easy access to an eyewash that is mounted at the back or side of a laboratory sink. In its “off” position, the eyewash is rotated up and out of the way of other sink use operations. When needed, the eyewash swings down so the spray, which typically turns on automatically when the head is swung down into position, is directly over the sink and drains into it.

While ADA has no specific guidelines for eyewashes or eye/face washes, it does outline other guidelines that can be helpful, such as maximum sink and/or counter height. ADA requires a maximum sink and/or counter height of 34 inches (86.4 cm) above the floor. Traditional swing-down eyewash or eye/face wash products extend the spray heads up at least five inches above the sink when in the down, or active position, meaning the spray outlets typically measure 39 inches (99.1 cm) above the floor.

The same ADA guidelines mandate that the bubbler outlet of a drinking fountain cannot exceed 36 inches (91.4 cm) above the floor for disabled use. Assuming that a disabled person using either an eye/face wash or a drinking fountain must move to the same degree and will encounter identical limitations, it’s reasonable to determine that traditional swing-down eyewashes or eye/face washes will exceed this maximum range. To comply with ADA guidelines, advancements in product designs lowered the height of the swinging heads so that they sit lower in the sink and below the 36-inch (91.4 cm) maximum.

This new configuration is also within the appropriate height range established by ANSI, making it compliant to both ANSI and ADA when the sink is properly installed.

**WALL-MOUNTED, RECESSED EYE/FACE WASHES AND DRENCH SHOWERS**

Recessed and wall-mounted safety equipment is very appropriate in laboratory specifications. It’s both highly visible and completely out of the way. To satisfy both ANSI Z358.1 compliance and ADA guidelines, installation at a certain height and location must be taken into consideration.

These products feature a recessed cabinet design that allows for installation in hallways and other confined spaces – locations where disabled access to the area itself might preclude installation. ADA specifies hallway dimensions and the availability of turning space for wheelchair access, and limits the allowance of “protruding objects.” The design of recessed eye/face washes often allow for more flexible use of available space, which can be at a premium in laboratories. What’s more, these products can also materially assist with the placement of safety response equipment that allows for the ANSI-mandated ten seconds of transit time.
Another factor is the activation handle for lowering the eye/face wash and activation of the overhead showers. ADA Section 4.27, “Controls and Operating Mechanisms,” outlines criteria for maximum and minimum heights for control location and the force required to operate any device. Per this guideline, operation of activation handles for lowering the eye/face wash tray and activation of the overhead shower should not exceed five pounds of force.

When mounted properly, today’s state-of-the-art recessed eye/face washes (both with and without drench showers) can easily comply with both ANSI Z358.1 and ADA guidelines.

FLOOR-MOUNTED COMBINATION SHOWER AND EYE/FACE WASHES

The clear access and turning radius requirements of ADA will also impact equipment placement in those laboratory settings requiring a free-standing combination shower and eye/face wash. Additionally, the same interpreted application of the ADA’s guideline for drinking fountain bubbler height can be used to evaluate ADA compatibility of an eyewash or eye/face wash. These measurements should be as follows:

- Eye/face wash sprayer height: 36 inches (91.4 cm) above the floor
- Knee clearance: 27 inches (68.6 cm) above the floor, with the shower actuator pull rod at or below the maximum reach distance when seated of 48 inches (121.9 cm)

Seated use of this equipment, and the resulting increase in access distance, is a factor in depth difference for these products and those that are non-ADA compatible. An ADA-compliant unit will typically measure 37 inches (94 cm) from the wall to the centerline of the showerhead and about 14 inches (35.6 cm) from the wall to the centerline of the eye/face wash bowl. The difference between the measurements allows for seated, simultaneous use of both the shower and the eye/face wash. Compare these dimensions to that of a non-ADA-compatible product measuring 31 inches (78.7 cm) from the wall to the centerline of the showerhead and about 10 inches (25.4 cm) from the wall to the centerline of the eye/face wash bowl. To ensure barrier-free use for disabled employees, more depth is necessary. It’s an example of using appropriate forethought and planning to ensure that every employee in a laboratory enjoys the same safety considerations.

A wheelchair should not be factor for a possible treatment delay in the event of an emergency. Ensuring ADA guideline compliance must be as routine as meeting ANSI Z358.1 standards for installation, use, maintenance and overall operation.

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For more than 100 years, Haws has been committed to inventing, designing and manufacturing drinking fountains as well as standardized and customized emergency response products. With more than 8,000 distribution locations and 250 employees worldwide, we continually focus on quality, service, reliability and complete solution support. Headquartered in Sparks, Nevada, USA, Haws is globally represented with locations in Switzerland, Singapore and Brazil.

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