

Meet Me at the High-Low Drinking Fountain

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Requirements for drinking fountains are given in Chapter 4 of the 2009 *International Plumbing Code* (IPC) and in Chapters 11 and 29 of the 2009 *International Building Code* (IBC). IPC Table 403.1 requires drinking fountains in all occupancies except Groups R-1 and R-4 and Group R-2 apartments. The total number required is based on the occupant load for the area meant to be served. Dispersion is up to the designer/owner, but they are typically located in public areas throughout the building and somewhere close to bathrooms. A new footnote, f, allows for the omission of a drinking fountain in spaces with fifteen or fewer occupants.

IPC Section 410.1 allows for some additional reductions. For example, restaurants that serve water are not required to provide drinking fountains and 50 percent of required drinking fountains in other occupancies can be switched out for water coolers or bottled water dispensers. The term “water cooler” is not defined in the IPC, but one definition is “a device that dispenses cooled drinking water and often a focal point in a workplace where colleagues meet and gossip.” A drinking fountain that includes a chiller may therefore be considered a water cooler. However, for purposes of this discussion let’s assume a water cooler is not a plumbed fixture but more akin to a bottled water dispenser.

Drinking fountain option requirements in ICC A117.1 Section 602.

Persons Using Wheelchairs	Children	Standing Persons
forward approach with a clear floor space including knee and toe clearances	a clear floor space for a parallel approach	no clearance requirements
operable parts within reach ranges; no tight, pinching, grasping or twisting of the wrist; and 5 pounds maximum force		
spout outlet height of 36 inches maximum	spout outlet height of 30 inches maximum	spout outlet height between 38 and 43 inches
spout location 15 inches minimum from the back wall or support and 5 inches maximum from the front	spout location 3½ inches maximum from the front	spout location 15 inches minimum from the back wall or support and 5 inches maximum from the front (by default)
water flow 4 inches high with the angle depending on spout location		
must be located so that it is not a protruding object		

This leads us to a point of some confusion. IPC Section 404.1 refers to the IBC for accessibility requirements. The minimum requirement given in IBC Section 1109.5.1 is for two drinking fountains: one for persons who use wheelchairs and one for standing persons (of course, short-statured persons and children also benefit from the height of the accessible drinking fountain). When an odd number, three or more, of drinking fountains is provided, the code allows the designer to round the number up for one type and down for the other. This works so as to not require additional drinking fountains for large spaces, but is more restrictive for small buildings and negates the exception for water coolers unless at least three drinking fountains are required. Section 1109.5.1 does have an exception allowing a “high-low” drinking fountain instead of two separate fountains. A high-low fountain can consist of one bowl with two spouts, but is most typically two bowls and two spouts (effectively two drinking fountains).

These requirements are applicable to drinking fountains provided on exterior sites, on different floors and within any secured areas. Examples of secured areas include either side of a security checkpoint, such as at an airport, or security separations between customers and employees, such as at a bank. Another example is a situation where separate tenants have their own drinking fountains, such as in a strip mall or multitenant building. Because IBC Section 1109.5 only deals with provided

rather than required drinking fountains, water coolers are not considered to meet the provisions either for persons using wheelchairs or for standing persons.

An illustration of the requirements is a strip mall containing Group B and Group M tenants, each with separate plumbing facilities. The 2009 edition of the IPC requires the Group B tenants with 16 to 100 occupants and Group M tenants with 16 to 1,000 occupants to have one drinking fountain, and the Group B tenants with 101 to 200 occupants and Group M tenants with 1,001 to 2,000 occupants to have either two drinking fountains or one drinking fountain and one bottled water dispenser. The IBC, however, requires each of these tenants to have either two drinking fountains or a high-low drinking fountain.

Technical criteria for drinking fountains are given in ICC A117.1-2003 *Accessible and Usable Buildings and Facilities*, Section 602. Note that a parallel approach is now only permitted for existing drinking fountains or when designing lower drinking fountains for children—for example, in day care centers or elementary schools.

Although drinking fountains specifically for use by children are not currently addressed in the IBC, A117.1 allows them to be used in place of accessible drinking fountains. The intent is to allow for fountains low enough to serve both children in wheelchairs and standing children. At this time there is not a similar exception for drinking fountains for adult standing persons. While

there will obviously be some adults in any day care center or elementary school, they will not amount to 50 percent or more of the population in most situations. So the question is: does requiring that half of the drinking fountains in the building be standing-height for adults best serve the intended users?

This leads to another question. Some designers are providing “bubblers” on the sinks inside classrooms. While A117.1 allows for lower sink heights when designed for children’s use, should the installation of bubblers be considered as having provided drinking fountains, thereby triggering the scoping requirements for standing persons? (Remember—the IBC deals only with the drinking fountains provided, not the number required.)

Now that we’ve had a chance to “gossip” a little over the drinking fountain, I encourage you to put in your two cents on how best to clarify and coordinate the scoping and technical requirements for water fountains and coolers. The deadline for public proposals for the



next ICC Code Development Cycle has been extended to April 24, and it’s easier than you may think. A downloadable form is available at www.iccsafe.org/cs/codes/2009-10cycle and the ICC Code Development staff is available to assist you, so come on and get involved! ♦



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