

## Backflow Protection Requirements

### What is backflow?

Backflow protection prevents any possible connection between potable (drinkable/safe) water and non-potable water (waste water), chemically-treated water, or a sewage system. Backflow can result from reverse pressure that could be due to a loss of pressure in the supply main (back-siphonage), or by the flow from a customer's pressurized system through an unprotected cross-connection (backpressure). A cross-connection occurs when it is possible for non-potable water to come in contact with the potable drinking water system.

### Backflow requirements

A backflow prevention assembly must be installed to prevent backflow from occurring. It is important that the backflow prevention assembly must work with the particular hydraulic conditions, complies with the California Health and Safety Code (CALCode)/Uniform Building and Plumbing Codes.

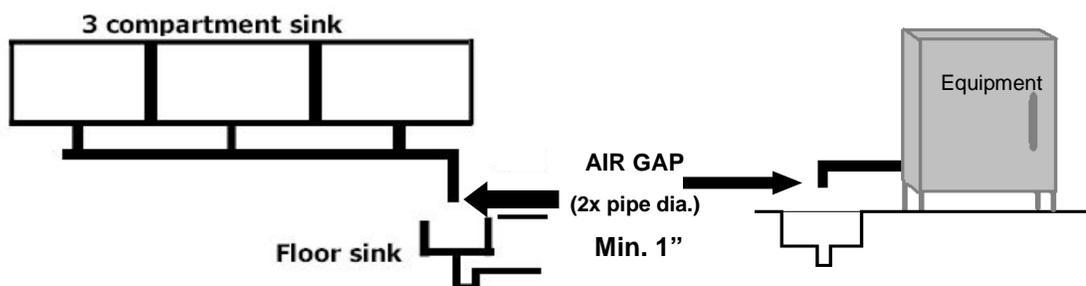
### *Some Examples:*



### AIR GAPS:

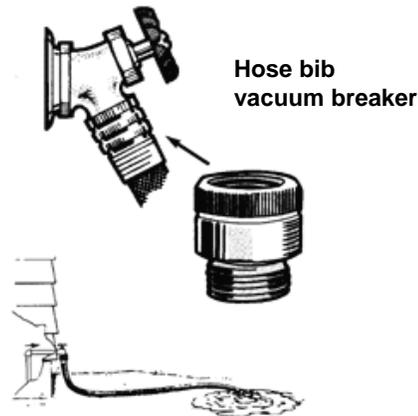
An air gap is the most reliable backflow prevention device. It is the physical separation of the potable and non-potable water supply systems by an air space. The vertical distance between the supply pipe and the top of the floor sink shall be twice the diameter of the water supply inlet and may not be less than 1”.

All **steam tables, ice machines and bins, food preparation sinks, display cases, soda fountains, espresso machines and other equipment that discharge liquid waste or condensate shall be drained through an air gap into an open floor sink.**



## **HOSE BIB VACUUM BREAKER**

A hose bib vacuum breaker is a mechanical device attached at the faucet/spigot that prevents liquid at the end of a hose from being drawn back into the potable water supply. A hose bib vacuum breaker is required for threaded faucets or other fixtures where a hose could be attached. If a spray nozzle is used at the end of the hose, then a pressure vacuum breaker must be installed to properly protect against backflow.



## **ATMOSPHERIC -TYPE VACUUM BREAKERS**

Atmospheric type vacuum breakers are commonly seen at the janitorial sink and on commercial dishwashers. Atmospheric -type vacuum breakers use a vent and a check valve. The vacuum breaker depends on the water pressure to open the check valve and seal off the vent, permitting the water to flow. If there is a loss of pressure in the supply line, the check valve drops and seals the inlet while opening the vent and admitting air into the system to break the vacuum and prevent back-siphonage.

An atmospheric vacuum breaker cannot be used if there are any shut-off valves (spray nozzles) installed downstream of its location.

