



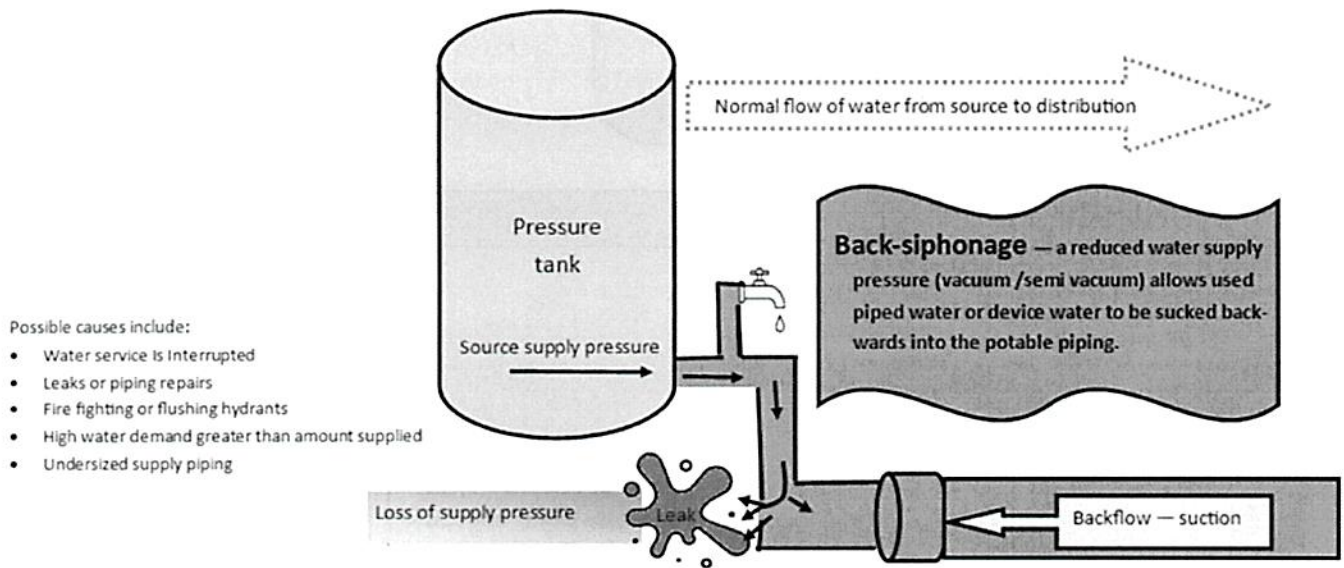
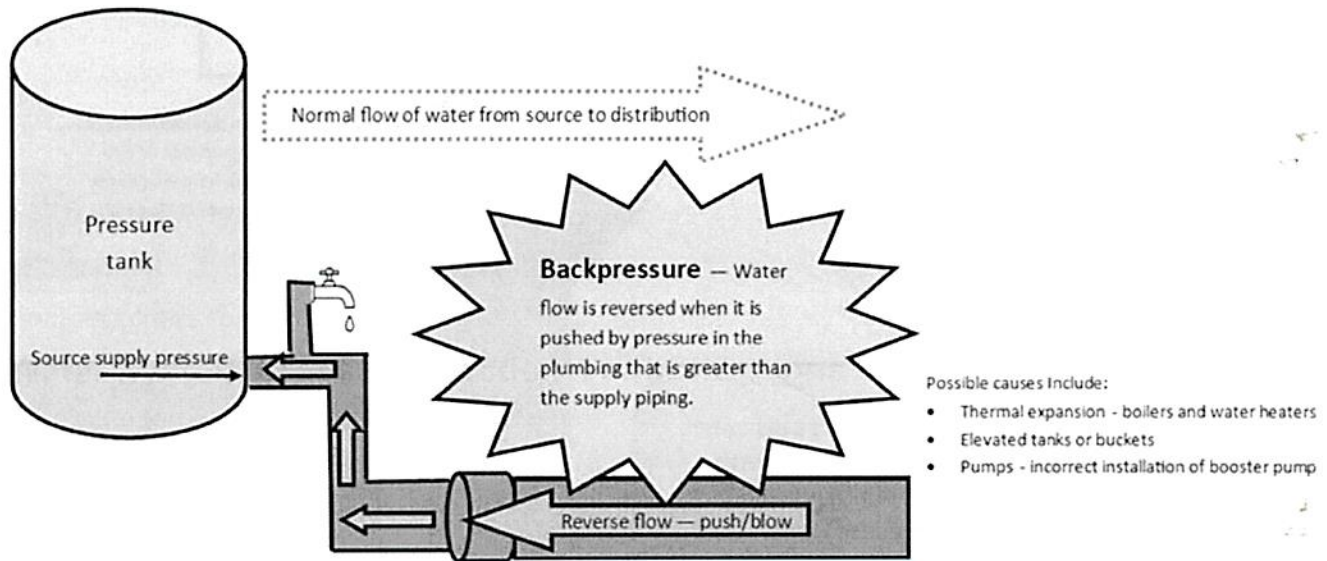
Common cross connections:

Water System Cross Connection Control Options

A cross connection is a physical connection between a possible source of contamination and the public drinking water system piping. This connection, if not properly protected, can allow contaminants into the drinking water system. Contamination can occur due to backflow.

WHAT IS BACKFLOW?

Backflow is the unwanted reverse flow (upstream) of water or substances into the distribution piping of a potable water supply. Backflow – is caused by back-pressure (blow/push forces) and back-siphonage (suction).



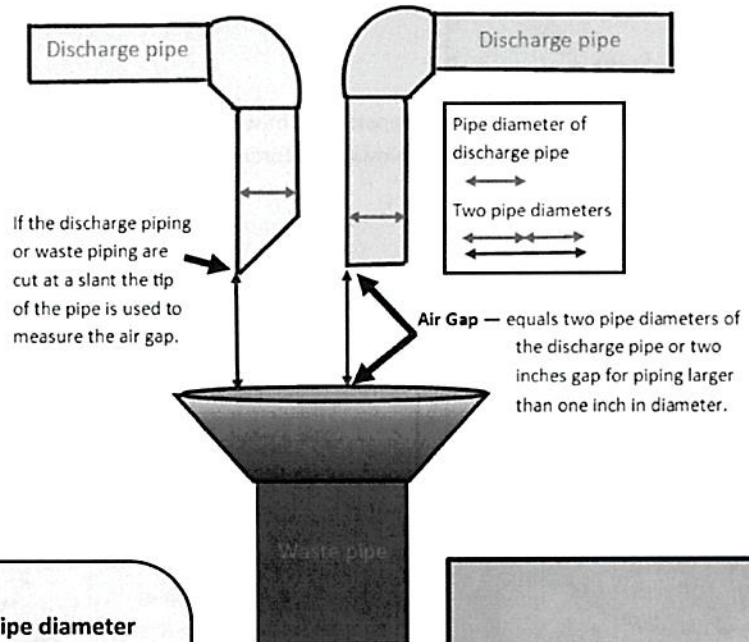
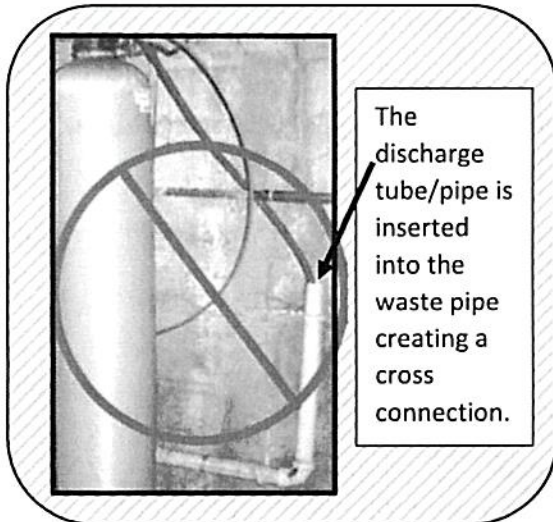
All backflow prevention devices protect against back-siphonage. However, air gaps and some mechanical devices are not acceptable for the protection against back-pressure.



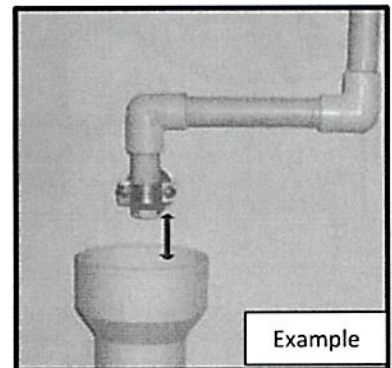
AIR GAPS

PHYSICAL AIR GAP - a physical separation of air space between the potable and non-potable piping.

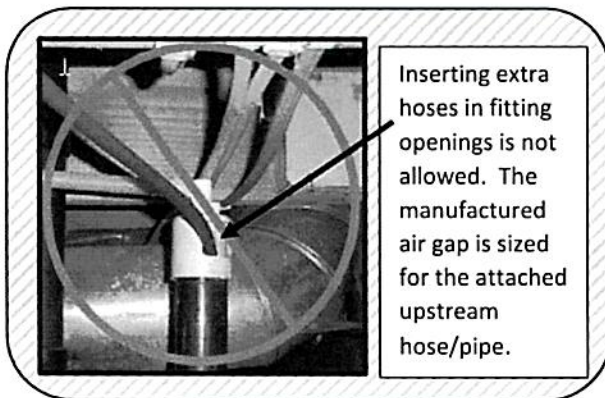
- SPS 382.33(7), ASME A112.1.2



1. Most air gaps must be twice the discharge pipe diameter
2. For discharge piping greater than one inch in diameter the code compliant separation (air gap) is two inches
3. Splashing may occur if the discharge piping is not anchored
4. Overspray may occur if the waste pipe receptor is not fitted with a funnel or large enough pipe to collect water
5. Best backflow protection option is the air gap has no mechanical parts that could fail



AIR GAP FITTING - ASME A112.1.3



An air gap fitting installs on waste piping and has glue in or threaded fittings for the discharge piping.

