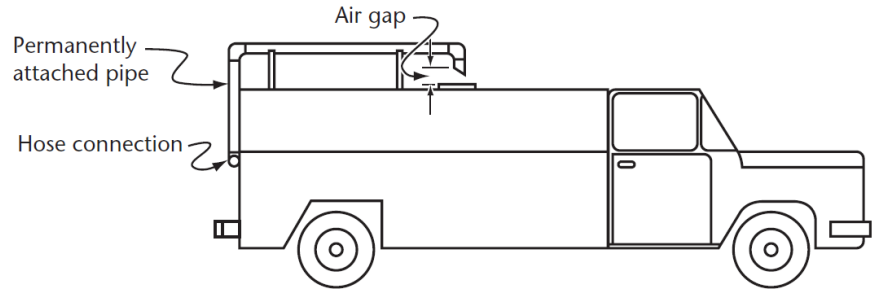
Backflow Prevention for Water Hauling Trucks

A reduced pressure principle (**RP**) backflow preventer or an **air gap** must be installed on all potable water-hauling equipment.



Source: CSA (2007) *B64.10-07,* p55.

Figure 1. Air gap - minimum 2 × diameter of fill pipe

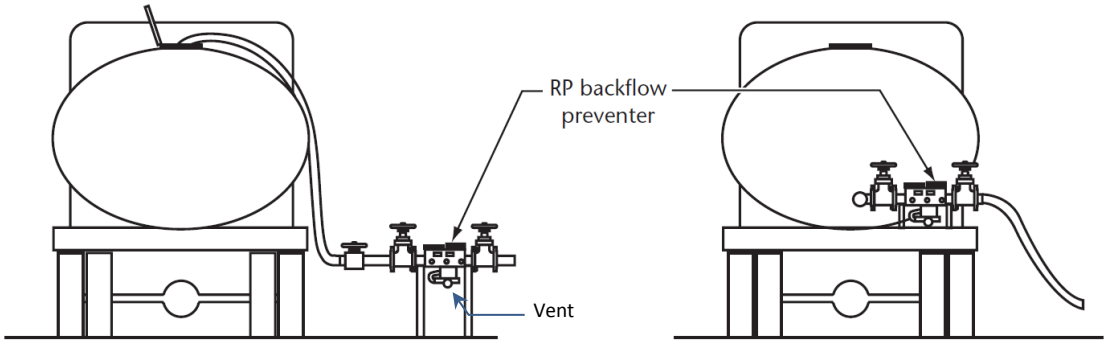


Figure 2. Reduced pressure (RP) mechanical backflow preventer

Source: CSA (2007) *B64.10-07,* p55.

Lower security backflow preventers, including single or double check valves (CV, DCV) or vacuum breakers (AVB, PVB) are not acceptable substitutes.

How to distinguish an RP from a DCV.

Both are testable backflow preventers with 2 spring-loaded check valves, 2 shutoff ball valves and 4 test ports, same size, same materials. The RP has a reduced pressure zone in the centre that vents water if either of the check valves fail. So there should be a drain under an RP, but not under a double check.

Images: www.wattscanada.ca

Figure 3. RP (note vent at bottom)

Figure 4. DCV (no vent at bottom)

Reference: Canadian Standards Association (CSA). 2007. *Selection and installation of backflow preventers*. Standard B64.10-07. (Current version is 2011)