













## Job Aid for Backflow Device Uses

Device	Image	Use	Special Considerations
Air Gap	 <p data-bbox="370 787 532 856">Air Gap</p>	<p>For all types of backflow prevention protection. <b>Protects against backpressure and back-siphonage</b> backflow. When used at a drain, it protects against sewage backup backflow. Not a mechanical device, so it never fails. This is the BEST type of backflow prevention available.</p>	<p>The air gap rule is that the air gap must be twice the diameter of the pipe discharging the water, but never less than one inch. Examples: a 2-inch line needs a minimum 4-inch air gap. A 1/4-inch line would need a minimum 1-inch air gap.</p>
Air Break	 <p data-bbox="375 1138 440 1159">Air Break</p>	<p>May only be used for drainage of non-potable water to the sewer.</p> <p>Example is on an ice machine where the melting ice water is directed to the sewer. This does not protect against back-siphonage backflow if the line that enters the "break" is potable.</p>	<p>May never be used for draining potable water to the sewer.</p> <p>Ideally an air break should have an open ancillary space 2 times the pipe diameter of the pipe discharging the water.</p>
Hose Bibb Atmospheric Type Vacuum Breaker (HBATVB)	 <p data-bbox="289 1457 630 1591">It is not acceptable for this device to be under constant pressure.</p>	<p>This device is good only for use on a faucet (see image to the right) to which an open-ended hose is attached. It may never be used where the hose attached to it has a shut-off valve on it. <b>Protects against back-siphonage only</b> (not backpressure), and is not acceptable for constant pressure.</p>	 <p data-bbox="1024 1545 1425 1610">Open-ended hose HBATVB</p>
Atmospheric Type Vacuum Breaker		<p>This device may only be used in an application where the piping downstream from it <b>does not</b> contain a shut-off valve of any kind. <b>Protects against back-siphonage ONLY</b>, not backpressure. Also, it is not acceptable for this device to be under constant pressure.</p>	<p>Must be installed (as measured from the center of the device) 6 inches higher than the highest point you're trying to protect – an example is the flood rim of a vessel.</p>



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<p>Pressure Type Atmospheric Vacuum Breaker</p>		<p>This device <b>protects against back-siphonage ONLY</b>. It does not protect against backpressure backflow. It is acceptable for this device to be under constant pressure. It may have shut-off valves located after it.</p>	<p>Must be installed (as measured from the center of the device) 12 inches higher than the highest point you are trying to protect – an example is the flood rim of a vessel or the highest sprinkler head in a "pop-up" sprinkler irrigation system.</p>
<p>Dual Check Valve w/Intermediate Atmospheric Break</p>	 <p>May also be installed vertically</p>	<p>This device is a good one! It <b>protects against back-siphonage backflow and backpressure backflow, and is good for constant pressure</b>. It may have vent piped to drain, but the piping to drain must be air-gapped at the drain and the pipe may not reduce the vent size. It is acceptable for this device to be under constant pressure.</p>	<p>Cannot be installed below grade subject to flooding. May be installed vertically, but preferably horizontally. Produced in 3/4-inch and 1/2-inch sizes only. If vent is plugged, it is <b>not</b> acceptable. It may have shut-off valves located after it.</p>
<p>Dual Check Valve w/o Intermediate Atmospheric Vent</p>		<p>This device is not an acceptable backflow prevention device for our uses – it has no intermediate atmospheric vent.</p>	<p>This device was manufactured for residential water meters in those plumbing jurisdictions where people felt that "something is better than nothing." The problem with it is if it fails, you will not know it has failed.</p>
<p>Reduced Pressure Zone Device (RPZ): Backflow Prevention Assembly</p>	 <p>909 QT</p>	<p>This device is acceptable for anything backflow. <b>Protects against backpressure backflow and back-siphonage backflow and is acceptable for this device to be under constant pressure</b>. Do not install below grade subject to flooding.</p>	
		<p>Another image of a different type of RPZ device.</p>	

Images: Courtesy of Watts Regulator Co.