

Double Check Valve Backflow Prevention Assembly (DCVA) (Standard ASSE 1015)

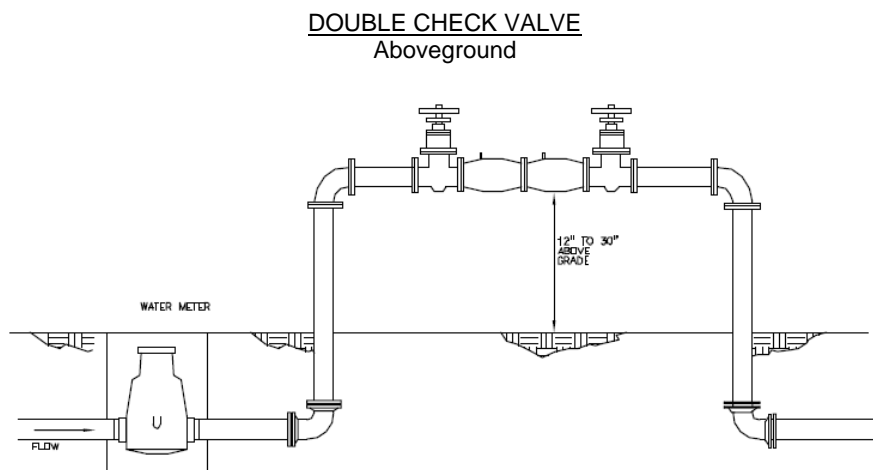
Application (DCVA). The DCVA is effective against backflow caused by backpressure and backsiphonage and is used to protect the water system from pollutants that would not constitute an actual health hazard, but that might be objectionable to the water supply system.

The DCVA is used to isolate non-health hazards (see Figure 2-15). Shutoff Valve 1, Check Valve 1 (Closed), Check Valve 2 (Closed), Shutoff Valve 2, Test Cock 1, Test Cock 2, Test Cock 3, Test Cock 4, Backpressure Flow 18

Installation (DCVA). The following are design installation specifications. For more information, refer to the manufacturer's recommendations and the latest approved Orange County Plumbing Code.

- The DCVA should be installed with adequate space to facilitate maintenance and testing and should have free access without the use of platforms, ladders, or lifts.
- The assembly should be sized hydraulically, taking into account both the flow rate requirements of the service and the head loss of the assembly. (Refer to the manufacturer's head loss pressure curves.)
- A DCVA shall be installed above ground level unless provided with adequate drainage to maintain a dry location.
- A strainer may be required ahead of the assembly. A strainer is not considered to be part of an approved backflow prevention assembly. Therefore, if one is required, due to local conditions, the additional head loss must be taken into account. No strainer is to be used in a fire line without the approval of the insurance underwriters. It is important to note that where strainers are required they require frequent cleaning and inspection to ensure against fouling and deterioration of the mesh. Where the test cocks are threaded, these test cocks shall be plugged and not used for any other purpose except for testing, as is the intent of the manufacturer.
- Thoroughly flush the lines before installing a DCVA.
- All DCVAs shall be installed in a horizontal position unless otherwise recommended by the manufacturer and approved by the Orange County Plumbing Code.

The DCVA shall be installed "in line" and should be the same size as the supply and discharge piping. For installations on properties using reclaimed or auxiliary water, a Double Check Valve Assembly may be installed below ground level in a separate box with test ports threaded plugged and 6 inches of gravel or rock in the base of the backflow device box.



Description (DCVA). This approved assembly consists of two internally loaded check valves, either spring-loaded or internally weighted, installed as a unit between two tightly closing resilient-seated shutoff valves as an assembly, and fittings with properly located resilient-seated test cocks as shown in Figure 2-11. **Approved Standards (DCVA):** shall conform to AWWA standards C510-92 or standards of USC FCCC & HR and ASSE standard 1015. **Approved Standards (DCDA):** Double Check Detector Assembly (DCDA): shall meet ASSE standards 1048 or standards of USC FCCC & HR. A DCDA shall be used on dedicated fire lines, supplying water exclusively for fire protection systems without metering.

