Backflow Prevention Assembly Types

Residential (less than 1”)
The majority of these assemblies are found in the drinking water meter box and are either a brass, vertical cylinder attached to copper pipe (a dual check) or a horizontal brass cylinder attached directly to the meter (a T-10 combo).

Commercial/Small Fireline (less than 2”)
These assemblies are installed either above ground or in a box. They are attached to the backside (towards the building) of the drinking water meter. These smaller Double Check Valve Assemblies (DCVA) or Reduced Pressure Zone Assemblies (RP) are painted blue (to indicate that they carry drinking water). The body has two cylindrical areas that face up, small test cocks (ports) and a valve at each end. They are around 16” to 24” long.

Commercial/Multi-Family (type DCVA/DCDA, greater than 4”)
These larger assemblies are installed above ground and are located behind the meter. The Double Check Valve Assembly (DCVA) is used for a typical large business, condominium or high-rise building. The Double Check Detector Assembly (DCDA) is installed on a line that supplies water to the fire suppression system (fire sprinklers or standpipes) of a building. They look like a larger version of the smaller assemblies with larger valves that have a stem and wheel type shut-off valve. They range from 10’ to 20’ in length; this includes the pipe on both ends. The DCVA is painted blue and the DCDA is usually painted red.

Commercial/Multi-Family (type RP, greater than 4”)
This Reduced Pressure Zone Assembly is used on buildings such as chemical manufacturing plants, large auto repair shops and schools with chemistry labs. It also is installed on the backside of the drinking water meter. It looks very similar to the DCVA except that it has an additional valve on the underside of the assembly. This valve is called a “relief valve.” It is also painted blue and is roughly the same length as the DCVA assembly.