



QUICK RESPONSE

*Saving life and property through effective licensing, plan review,
and inspection of fire protection systems.*

May 2012

Butterfly Valve

One type of valve commonly used to control water flow to fire sprinkler systems is known as a **butterfly valve**. A **butterfly valve** is a quarter-turn valve from the family of valves known as “wafer-type” valves.

A **butterfly valve** (Exhibit 1) operates by opening and closing via a disc (the “butterfly”). When the valve is closed, the disc is turned perpendicular to the flow so that it completely blocks off the waterway. When the valve is fully open, the disc is rotated a quarter turn so it is parallel to the flow, allowing passage of water.

On a **butterfly valve**, the “butterfly” disc (**A**) is positioned in the center of the passageway. Passing through the disc is a rod (**B**) that connects to a handle (**C**). As the operator rotates the handle the disc rotates within the waterway. The rod also rotates an external indicator (**D**) which identifies the position of the butterfly.

The discs of some wafer-type valves extend beyond the end(s) of the valve body which may contact other system components in close proximity of the valve. This prevents the valve from opening fully and partially obstructs the waterway. Valves shall be installed to provide proper clearance before and after the valve.

Another type of **butterfly valve** is known as a “butterball” valve (Exhibit 2). This type of valve looks like a ball valve on the outside, but operates and has the same internal components as a **butterfly valve**.

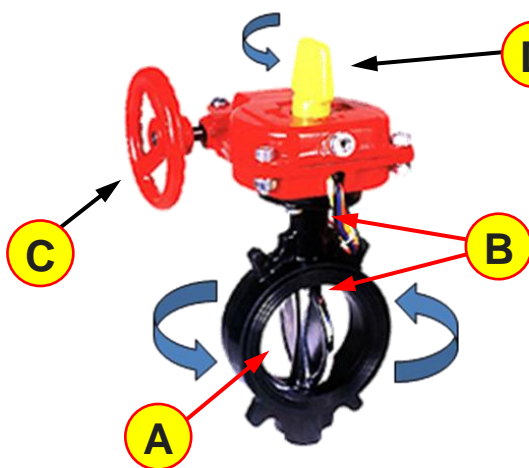


Exhibit 1
Butterfly Valve

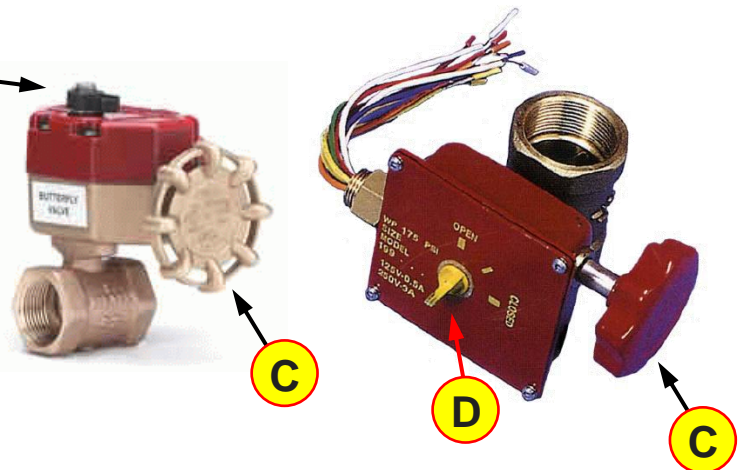


Exhibit 2
Butterball Valves