



QUICK RESPONSE

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

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OS&Y Gate Valve

One type of valve commonly used to control water flow to fire sprinkler systems is known as an **OS&Y gate valve**. **OS&Y** means “outside stem and yoke” or “outside screw and yoke”.

OS&Y gate valves operate by opening and closing via a gate, which lowers into or rises out of the valve. Raising the gate allows water to flow through the valve while lowering the gate cuts off the water flowing through the valve. When fully open, the typical **gate valve** has no obstruction in the flow path, resulting in very low friction loss.

On an **OS&Y gate valve**, the valve gate (**A**) is attached to a threaded stem (**B**) with a handle (**C**) that connects to the yoke element (**D**). As the operator rotates the handle counterclockwise, the stem lifts out of the handle, opening the gate. A clockwise rotation of the gate moves the stem back into the gate and closes the valve. When the stem is no longer protruding beyond the handle, the **gate valve** is closed. You can look at an **OS&Y gate valve** and tell if it is open or closed by the position of the stem.

