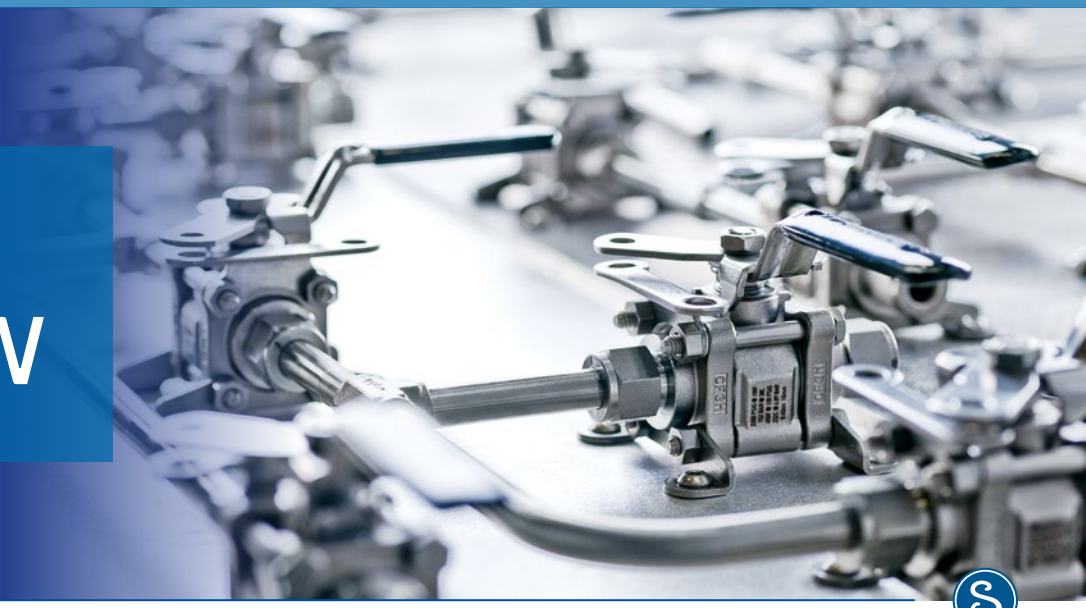
IDEAL ISOLATION



For ultimate safety, isolate your affected fluid lines prior to maintenance. Employing a Block Valve to prevent flow and pressure from reaching downstream components negates risk to technicians, facilities, and equipment

As an industry rule, it's typical to include two block valves in sequence when bleeding out an energized leg in a fluid system. Doing so achieves a zero pressure/ zero flow state.

Designers, though, sometimes add a third valve between the two block styles to ensure that any pressure that might leak from the first block valve is effectively vented or bled off. OR, it's not uncommon for that third valve to divert any flow to a bypass loop around the section of the line under repair.

Our expert suggestions for ideal isolation locations within a plant:

- Any device or component that likely will require frequent maintenance (filters…)
- Any system, skid, or line likely to be reconfigured, repaired, or replaced
- Any section of the main process pipe likely to be serviced
- Any instrumentation line coming off the process line (a grab sample station…)
- Calibration fluids in sampling systems and those systems likely to switch on/off

Critical Definitions for Isolation Configuration

Double-Block-and-Bleed (DBB) Valve:

Commonly used when transitioning from the process line to an instrumentation line when a process interface valve is employed. The simplest configuration for system isolation.

Bypass Loop:

Isolates the fluid line under maintenance AND reroutes the flow so that the process still functions during repair. Also helps avoid water hammer, the result of a sudden system flow shutoff. A bit more complicated methodology versus DBB.

Ball Valves:

Excellent for quick shutoff and high flow. Valve handles are also helpful to indicate direction.

Needle Valves:

Effective for positive shutoff… which also happens more gradually, providing superior protection against hydraulic shock.

Integral DBB Valves:

For ultimate reliability due to far fewer potential leak points, less space and weight; also installs easily.

For more proven and trusted information on System Isolation and all renowned Swagelok productivity-boosting, top-quality, leak-tight Componentry, contact:

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