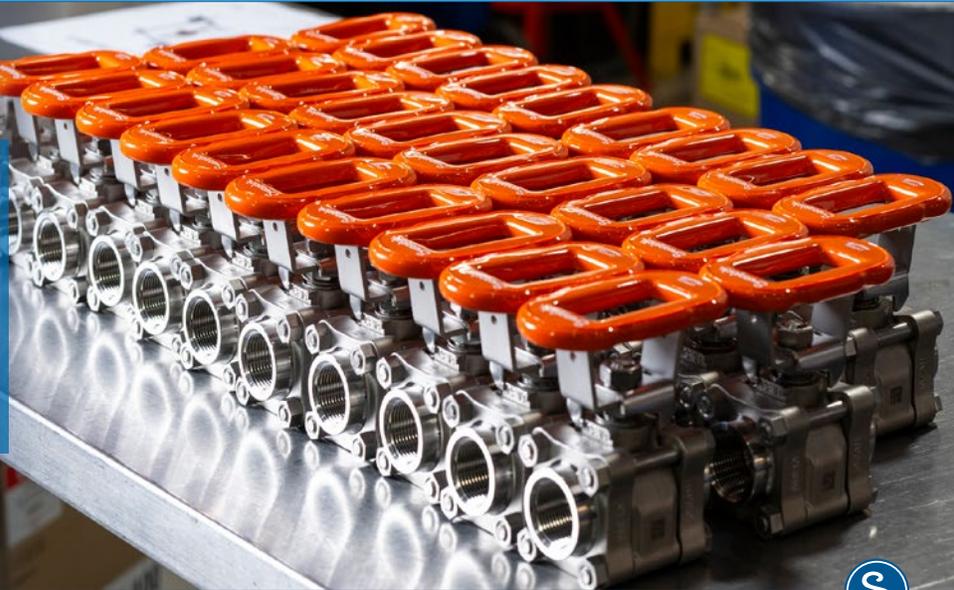


VALUABLE VALVE PRIMER



Choosing the ideal valve to achieve optimized fluid-system safety and performance first requires a basic understanding of available models and styles per application

All industrial valves do one of five main functions:



On/Off



Flow Control



Directional
Flow



Overpressure
Protection



Excess
Flow Control

On/Off

- Starts/stops the flow of liquid within a system

Common examples:

- Ball** – uses a ball inside the valve to block or enable fluid to flow through the valve
- Plug** – handle spins a cylindrical plug versus a ball
- Bellows** – employs a tall cylindrical stem and an expanding/contracting bellows to restrict flow to precise levels
- Diaphragm** – uses an actuator that presses on a flexible diaphragm to restrict/permit flow when handle is spun



Ball



Plug



Bellows



Diaphragm

Flow Control

- Adjusts fluid control through a system

Common examples:

- Needle** – provides on/off functionality, but also controls flow rates dependent on valve stem position, type, and orifice size



Needle

Directional Flow

- Keeps fluid flowing in the right/intended direction; can also alter flow direction

Common examples:

- **Check** – prevents backflow and keeps fluid moving in one direction
- **Multi-Port Ball** – provides on/off functionality, while enabling operator to redirect fluid flow according to which way the handle is turned



Overpressure Protection

- The last line of defense against blowouts due to pressure buildup

Common examples:

- **Relief** – can be calibrated to open gradually as pressure increases or to open automatically when an intended level is reached
- **Bleed** – vents or drain fluids for maintenance
- **Purge** – does same as Bleed valve



Excess Flow Control

- Contains uncontrolled fluid releases...a poppet is tripped which stops the media; when pressure equalizes, the valve resets itself
- Reduces the need for complex bypass mechanisms and lengthy maintenance time



Put our team alongside yours



For additional information regarding Swagelok Valves and other leak-tight, premium-quality Fluid-System Componentry, contact:



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